

2024 DIABETES UPDATE



AGENDA — Friday, Oct. 11

7:15 a.m.	Registration / Breakfast / Exhibits
7:45 a.m.	Welcome Sydney L. Blount, MD
8:00 a.m.	KEYNOTE PRESENTATION Gestational Diabetes Arlin M. Egan, MD, BScL, PhD
9:00 a.m.	Healthy Coping Sheritta Strong, MD, DFAPA
10:00 a.m.	Break / Exhibits
10:15 a.m.	Diabetes Prevention Program Elizabeth Guenther, MD
11:15 a.m.	Sweet Tech: Navigating Diabetes with Nutrition and Innovation Geri Ross, BSN, RN, CCDE, CPT and Jacqueline D. Peterson, MPA, RD, LD, CDE
12:15 p.m.	Lunch / Exhibits
1:15 p.m.	Metabolic Dysfunction-Associated Steatotic Liver Disease Nathalie Kinoshita, MD
2:15 p.m.	Medication Update Carissa Truman, PharmD, BCACP, BCADM
3:15 p.m.	Break / Exhibits
3:30 p.m.	Obesity Management Brianna E. Johnson-Rubinc, MD
4:30 p.m.	Closing Comments Sydney L. Blount, MD
4:45 p.m.	Adjourn

KEYNOTE SPEAKER

Arlin M. Egan, MD, BScL, PhD
Assistant Professor of Medicine, Consultant
Endocrinology, Main Clinic, Nebraska MB

SYMPOSIUM FACULTY

Sydney L. Blount, MD
Assistant Professor, Division of Diabetes,
Endocrinology and Metabolism, Department of Internal
Medicine, UNMC

Geri Ross, BSN, RN, CCDE, CPT
Certified Diabetes Educator, Health Pump Specialist,
Diabetes and Endocrinology Center, Nebraska Medicine

Elizabeth Guenther, MD
Medical Oncologist, English Wellness, UNMC

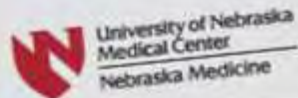
Brianna E. Johnson-Rubinc, MD
Assistant Professor, Division of Diabetes,
Endocrinology and Metabolism, Department of Internal
Medicine, UNMC

Nathalie Kinoshita, MD
Assistant Professor, Division of Gastroenterology and
Hepatology, Department of Internal Medicine, UNMC

Jacqueline D. Peterson, MPA, RD, LD, CDE
LD, CCDE
Nutrition Director, Nebraska Medicine

Sheritta A. Strong, MD, DFAPA
Associate Professor, Department of Psychiatry, UNMC

Carissa Truman, PharmD, BCACP, BCADM
Clinical Assistant Professor, Department of Pharmacy,
Practice and Science, College of Pharmacy,
UNMC, Ambulatory Care Pharmacy, Tobacco and
Addiction Center, Nebraska Medicine



Diabetes Symposium:

HEALTHY COPING

Sheritta A. Strong, MD, MBA, DFAPA
Associate Professor, UNMC Dept of
Psychiatry
Assistant Vice-Chancellor of Campus
Engagement



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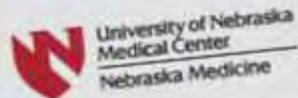
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Addictionology Clinic, Nebraska Medicine



University of Nebraska
Medical Center
Nebraska Medicine

Diabetes Symposium: Chronic Disease & the Effects on Emotional Health & Well-being

Sheritta A. Strong, MD, MBA, DFAPA
Associate Professor, UNMC Dept of
Psychiatry
Assistant Vice-Chancellor of Campus
Engagement



Session Objectives


1. Discuss the effects of diabetes and mental health.
2. Evaluate the role of the [PAID and Diabetes] Distress Scales in the management of the condition.
3. Examine various ways to help patients achieve psychosocial well-being while living with diabetes.



**I HAVE NO FINANCIAL
DISCLOSURES**

WARNING: I am a
board-certified
psychiatrist.



A photograph of a theater stage. The stage is lit with a warm, golden light, and the background is a vibrant red curtain. The foreground shows rows of empty, dark-colored seats. The text is centered on the stage.

**Raise your hand if you
are a diabetes
educator?**





Framing *some* the Concerns


- Chronic stress
- Quality of life
- Interpersonal problems
- Limited social support
- Problems coping especially those who have complications

These factors provide for psychological interventions as

F54 – ICD 10:
“Mental factors or behavioral influences in diseases classified elsewhere”

**Discuss the effects of
diabetes and mental health.**

Session Objective #1

A photograph of a male doctor in a white lab coat and stethoscope, smiling warmly at an elderly patient whose back is to the camera. The scene is brightly lit, suggesting a clinical setting.

YOU HAVE DIABETES

**I WON'T SUGAR COAT IT YOU
MIGHT EAT THAT TOO.**

A healthcare professional, a young Black woman with a stethoscope, is smiling and showing a tablet to an elderly white woman with glasses. They are in a clinical setting, possibly a hospital or clinic, with a sink and medical equipment visible in the background. The text "Think about how you reveal the news..." is overlaid on the image in a white box with red text.

**Think about how you
reveal the news...**

*The diagnosis of Diabetes
is a major life event,
but...*

*one typically does NOT receive
flowers.*

- *Death*
- *Dying*
- *Dismemberment*
- *Dialysis*
- *Disability*
- *Depression*



What does Diabetes mean to a person when diagnosed...

A healthcare professional, a young Black woman in a white lab coat with a stethoscope, is smiling and showing a tablet to an elderly white woman with glasses and a pink sweater. They are in a clinical setting with a sink and medical equipment in the background.

**Again, think about HOW
you reveal the news...**

**If the news is delivered
well...**

**...can it correlate to
how a person *receives*
the news and how they
cope with the
condition?**



A few tips on the delivery of bad news:

The SPIKES Model

- S: Setting up
- P: Perception
- I: Invitation
- K: Knowledge
- E: Emotions
- S: Strategy & Summary

Mueller, Paul S. "Breaking bad news to patients." *Postgraduate Medicine*. September 2002. Vol 112;3. Pg 15-18.

Vandekieft, Gregg. "Breaking bad news." *AAFP*. December 2001. Vol 64;12. Pg 1975-1978.



**Would you say that
you treat “Diabetics”**




Try person-first language:

- Mrs. Smith has diabetes. (~~Diabetic~~)
- Mr. Jones has an amputation. (~~Amputee~~)

***Using person first language puts the person before the condition. This is less stigmatizing and avoids dehumanization.*





Psychosocial Care for People With Diabetes: A Position Statement of the American Diabetes Association

Deborah Young-Hyman, Mary de Groot, Felicia Hill-Briggs, Jeffrey S.
Gonzalez, Korey Hood and Mark Peyrot

Diabetes Care. December 2016; 39 (12): 2126-2140.



PSYCHOSOCIAL/ ENVIRONMENTAL ISSUES



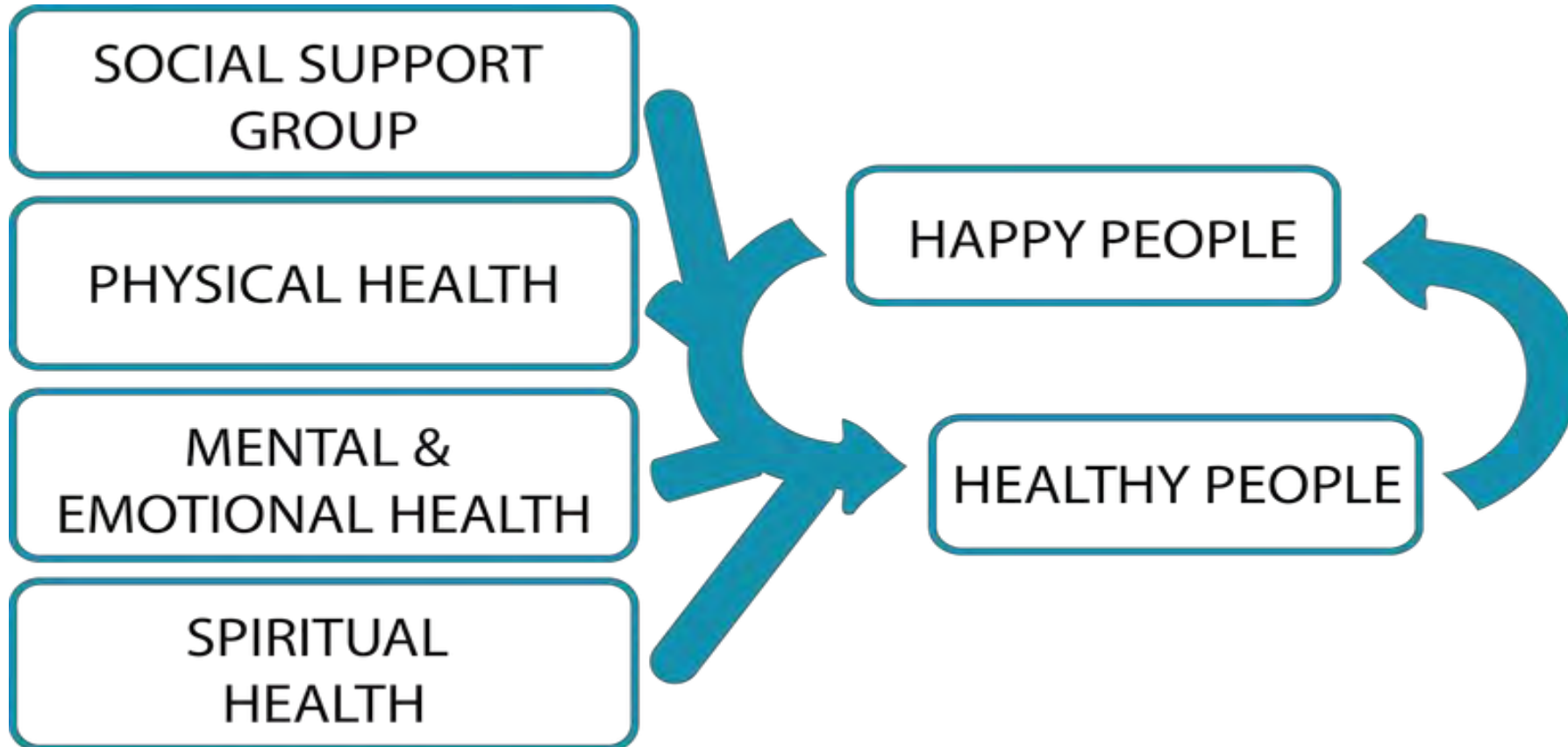
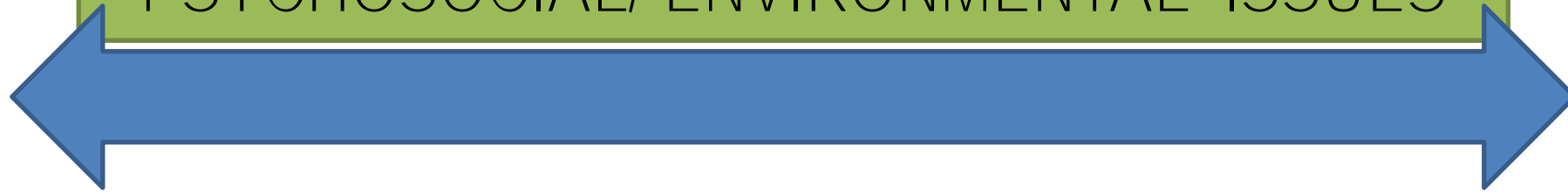
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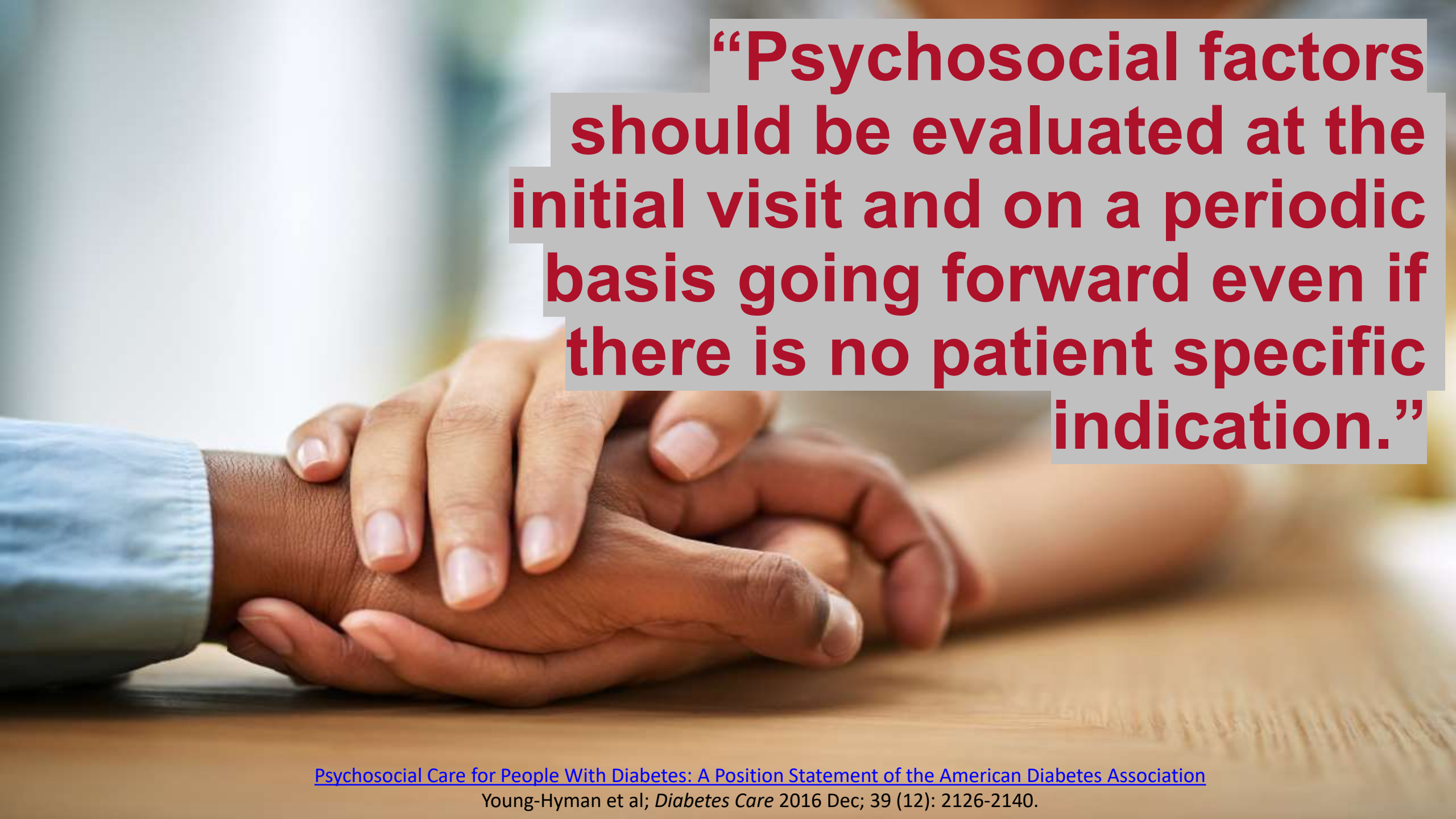
PERCENTAGE OF PEOPLE WHO GO TO THE DOCTOR WITH
A HEALTH ISSUE THAT STEMS FROM PSYCHOSOCIAL REASONS

<http://wellcommons.com/groups/nosurance/2011/nov/18/70-of-problems-seen-in-primary-care-resu/>



PSYCHOSOCIAL/ ENVIRONMENTAL ISSUES





“Psychosocial factors should be evaluated at the initial visit and on a periodic basis going forward even if there is no patient specific indication.”

A group of four people in an office setting are performing a high-five gesture. A woman on the left is smiling and looking towards the center. A man in the middle is laughing with his mouth open. A woman on the right is also smiling and looking towards the center. A fourth person's arm is visible from the right, joining the high-five. The background shows office desks with laptops and a wall with the word 'mashroom' written on it.

**People don't care how
much you know until
they know how much
you care.
John Maxwell**



Did you know people with diabetes may be less likely to discuss their self-care issues?

Berry et al. "Diabetes distress: understanding the hidden struggle of living with diabetes and exploring intervention strategies." *Postgraduate Medicine Journal*. 2015;91:278-283.

People with diabetes who are less likely to discuss their self-care issues...

- **Report:**
 - Higher **distress** from diabetes
 - Poorer **quality of life**
 - Less frequent **self-management** behaviors, and
 - Less self-motivated **coping** strategies
- **Therefore, ask:**
 - “Which aspects are the most difficult?”
 - “How can I help you manage your condition better?”

Diabetes Issues Arising From the Lived Experience of Mental Health Disorders

Disease Acceptance

Treatment Acceptance

Self-Management Activities

Psychological Aspects

Social Aspects

Biological Aspects

**Evaluate the role of the
[PAID and Diabetes] Distress
Scales in the management of
the condition.**

Session Objective #2

Diabetes distress

Patient

Provider

Inc glucose

Frustrated

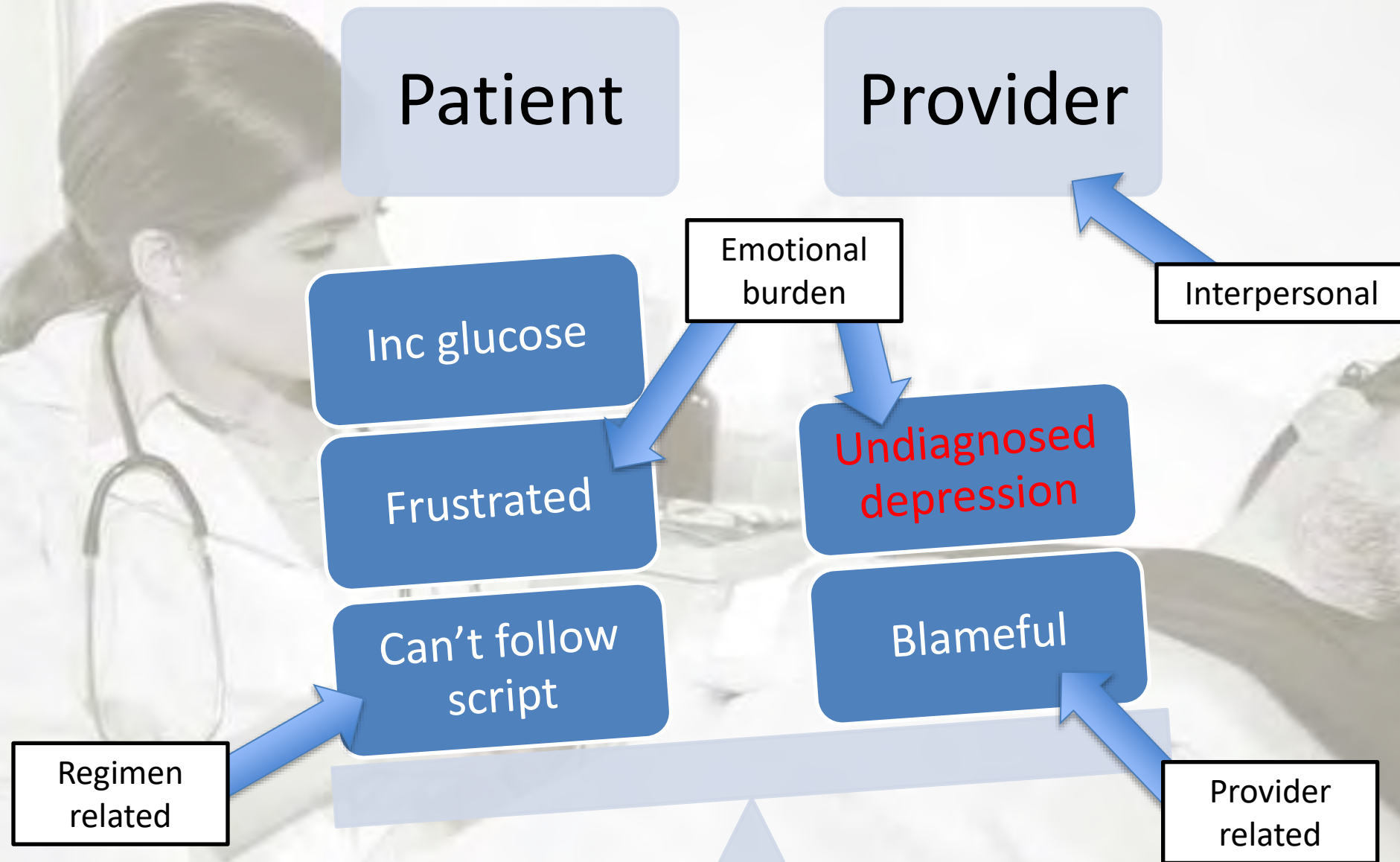
Can't follow script

*Did not evaluate
for MDD

Blameful

Fiore et al. "The association between diabetes and depression: a very disabling condition."
Endocrine. 2015; 48:14-24.

Diabetes distress



Fiore et al. "The association between diabetes and depression: a very disabling condition."
Endocrine. 2015; 48:14-24.

Diabetes Distress Scale

17 item questionnaire measuring diabetes-specific distress in four domains:

- Emotional burden
- Diabetes interpersonal distress
- Physician related distress
- Regimen related distress



Diabetes Distress Scale

Not a Problem	Slight Problem	Moderate Problem	Somewhat Serious Problem	Serious Problem	Very Serious Problem
1	2	3	4	5	6

Any score more than 1 for any question represents a positive test.
The higher the value indicates a greater amount of distress.

<https://www.consultant360.com/articles/diabetes-distress-common-occurrence-patients-unable-control-their-diabetes>



Table 2. 17-Question Diabetes Distress Scale

Listed below are potential problem areas that people with diabetes may experience. Consider the degree to which each of the items may have distressed or bothered you during the past month and circle the appropriate number.

	Not a Problem	Slight Problem	Moderate Problem	Somewhat Serious Problem	Serious Problem	Very Serious Problem
1. Feeling that diabetes is taking up too much of my mind and physical energy every day.	1	2	3	4	5	6
2. Feeling that my doctor doesn't know enough about diabetes and diabetes care.	1	2	3	4	5	6
3. Feeling angry, sad, and/or depressed when I think about living with diabetes.	1	2	3	4	5	6
4. Feeling that my doctor doesn't give me clear enough directions on how to manage my diabetes.	1	2	3	4	5	6
5. Feeling that I am not testing my blood sugars frequently enough.	1	2	3	4	5	6
6. Feeling that I am often failing with my diabetes routine.	1	2	3	4	5	6
7. Feeling that friends or family are not supportive enough of my self-care efforts (eg, planning activities that conflict with my schedule, encouraging me to eat the "wrong" foods).	1	2	3	4	5	6
8. Feeling that diabetes controls my life.	1	2	3	4	5	6
9. Feeling that my doctor doesn't take my concerns seriously enough.	1	2	3	4	5	6
10. Not feeling confident in my day-to-day ability to manage diabetes.	1	2	3	4	5	6
11. Feeling that I will end up with serious long-term complications, no matter what I do.	1	2	3	4	5	6
12. Feeling that I am not sticking closely enough to a good meal plan.	1	2	3	4	5	6
13. Feeling that friends or family don't appreciate how difficult living with diabetes can be.	1	2	3	4	5	6
14. Feeling overwhelmed by the demands of living with diabetes.	1	2	3	4	5	6
15. Feeling that I don't have a doctor who I can see regularly enough about my diabetes.	1	2	3	4	5	6
16. Not feeling motivated to keep up my diabetes self-management.	1	2	3	4	5	6
17. Feeling that friends or family don't give me the emotional support that I would like.	1	2	3	4	5	6

Problem Areas In Diabetes (PAID) scale

Instructions: Which of the following diabetes issues are **currently** a problem for you? Tick the box that gives the best answer for you. Please provide an answer for each question.

	Not a problem	Minor problem	Moderate problem	Somewhat serious problem	Serious problem
1 Not having clear and concrete goals for your diabetes care?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

Background

The Problem Areas In Diabetes (PAID) scale¹ is a well-validated, psychometrically robust questionnaire with 20 items. It is sometimes referred to as the PAID-20, to distinguish it from the five-item (PAID-5) and one-item (PAID-1) short forms.²



Diabetes Distress

“Approximately 33% of patients with Type II Diabetes reportedly suffer from Diabetes Distress, which is distinctly different from clinical depression.”

Gonzales, JS et al. “Depression in diabetes: have we been missing something important?”
Diabetes Care. 2011; 34 (1): 236-239.

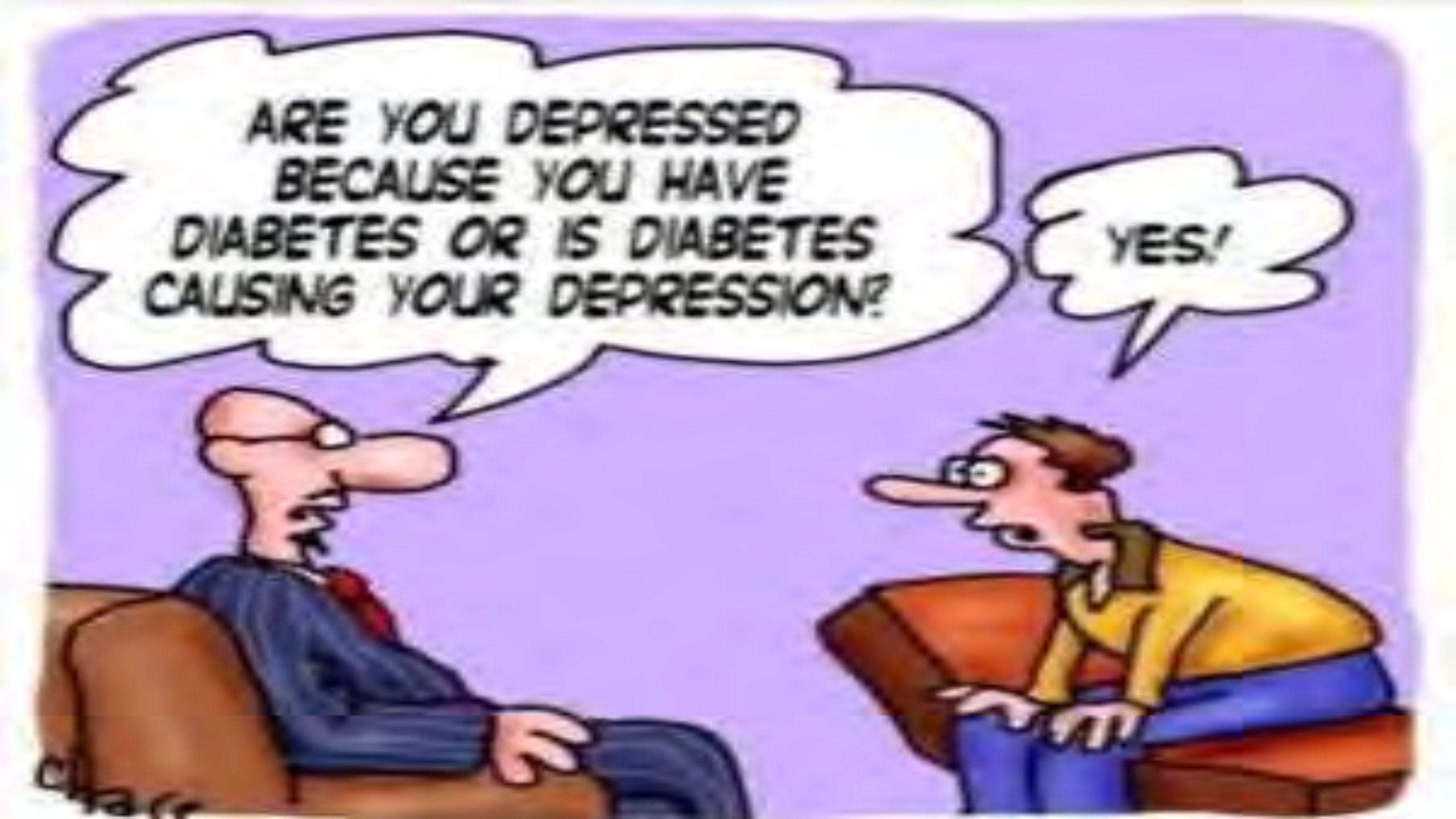
Diabetes Canada Clinical Practice Guidelines Expert Working Group

“Diabetes and Mental Health.”

David J. Robinson, MD, FRCPC, MCFP, FCPA, DLFAPA · Kimberley Hanson, MBA · Akshay B. Jain, MD, FRCPC, FACE, CCD, ECNU, DABIM, DABOM · Jessica C. Kichler, CDCES, PhD, CPsych · Gaurav Mehta, MBBS, MSc, FRCPC · Osnat C. Melamed, MD, MSc, MCFP · Michael Vallis, PhD, RPsych · On behalf of the Diabetes Canada Clinical Practice Guidelines Steering Committee · Harpreet S. Bajaj, MD, MPH, ECNU, FACE · Tracy Barnes, MA, MJ tracy.barnes@diabetes.ca · Jeremy Gilbert, MD, FRCPC · Kristin Honshorst, MSc · Robyn Houlden, MD, FRCPC · James Kim, MBBCh PgDip · Joanne Lewis, RD · Barbara MacDonald, RN, MS-DEDM, CDE · Dylan MacKay, PhD · Kerry Mansell, BSP, PharmD · Doreen Rabi, MD, MSc, FRCPC · Diana Sherifali, RN, PhD, CDE · Peter Senior, MBBS, PhD, FRCP, FRCP(E)



	Diabetes distress	Major depressive disorder
Assessment instrument	Diabetes Distress Scale (DDS) T1D (28 items) DDS-T2D (17 items) DDS-T2D Revised: Core scale (8 items); Sources (21 items)	Patient Health Questionnaire for Depression: PHQ-9 (9 items) [55, 56]
Format	Self-report using ratings from 1 to 6 based on feelings and experiences over the past week	Self-report using ratings from 0 to 3 based on feelings and experiences over the past 2 weeks
Features	DDS-T1D: Powerlessness, management distress, eating distress, negative social perceptions, physician distress, and family/friends distress DDS-T2D: Emotional burden, physician-related distress, regimen-related distress, interpersonal distress DDS-T2D Revised: Management demands, long-term health concerns, hypoglycemia concerns, health-care access concerns, shame/stigma concerns, health-care provider concerns, and interpersonal demands concerns	Vegetative symptoms, such as sleep, appetite, and energy level changes Emotional symptoms, such as low mood and reduced enjoyment of usual activities Behavioural symptoms, such as agitation or slowing of movements Cognitive symptoms, such as poor memory or reduced concentration or feelings of guilt; thoughts of self-harm



**ARE YOU DEPRESSED
BECAUSE YOU HAVE
DIABETES OR IS DIABETES
CAUSING YOUR DEPRESSION?**

YES!

Mental Health Issues Arising From the Lived Experience of Diabetes

Disease Acceptance

Treatment Acceptance

Self-Management Activities

Psychological Domain

Emotional Domain

Coping Mechanisms

Coping & defense mechanisms

- **We all cope with life in a variety of different ways**
- **“Passive versus active”**
- **Utilizing a toolbox of mechanisms in times of stress**
- **Some are mature and others not-so-mature**
- **Children’s defenses are developing**

Martino et al. Going Beyond the Visible in Type 2 Diabetes Mellitus: Defense Mechanisms and Their Associations

With Depression and Health-Related Quality of Life Front. Psychol., 25 February 2020 Volume 11 - 2020

| <https://doi.org/10.3389/fpsyg.2020.00267>

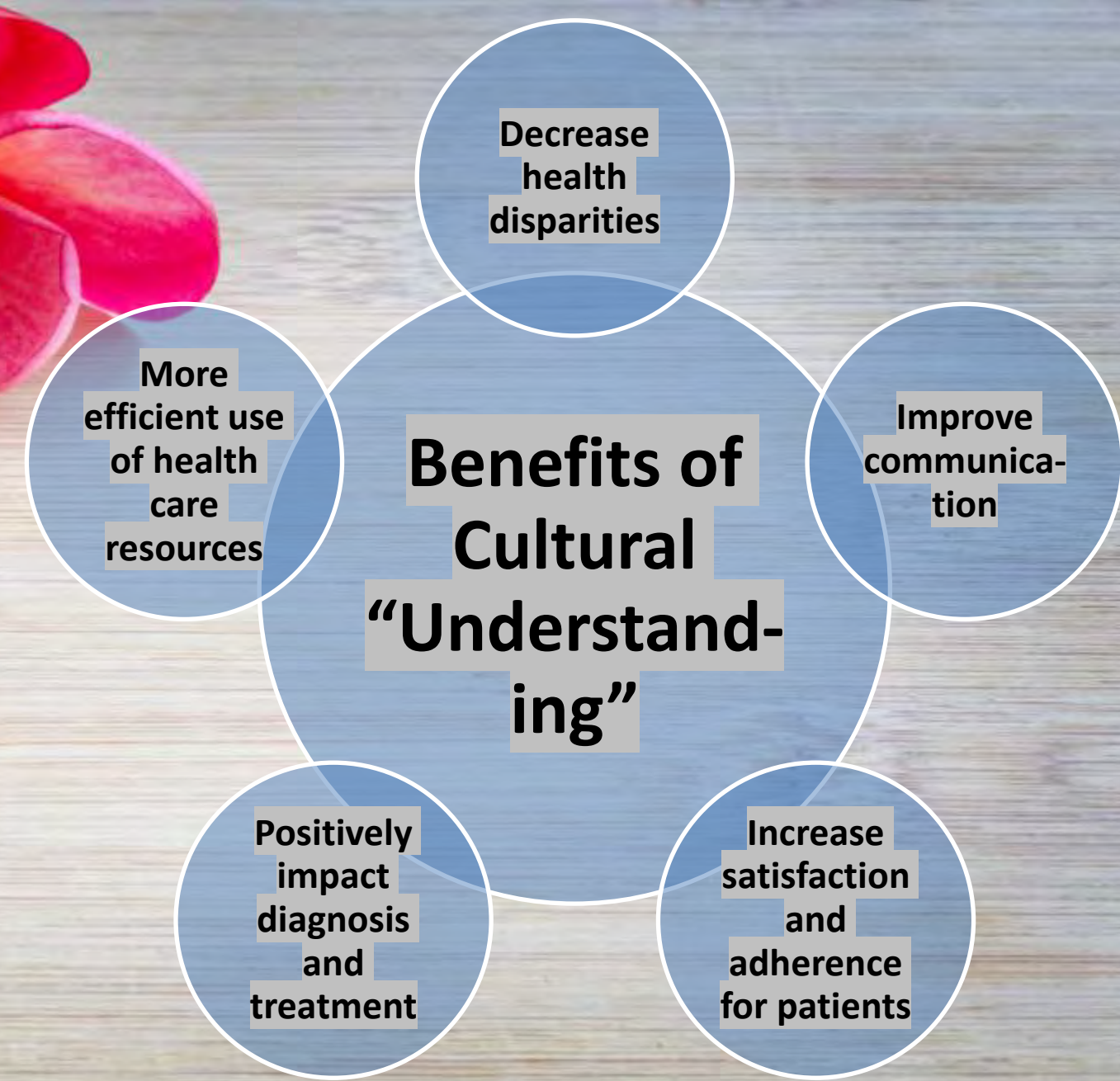


<u>Defense Mechanism</u>	<u>Description</u>	<u>Example</u>
Repression	Unknowingly placing an unpleasant memory or thought in the unconscious	Forgetting how the uncle suffered horribly with multiple amputations etc
Regression	Reverting to immature behavior from an earlier stage of development	Getting upset when spouse advises against the cheesecake for dessert
Displacement	Redirecting unacceptable feeling from the original source to a safer, substitute target	Becoming angry with the dietician after the provider explained the BSs are too high
Avoidance	Avoiding taking care of blood sugars or other recommendations to lower anxiety	Avoiding taking the BSs because it may be higher than it needs to be
Sublimation	Replacing socially unacceptable impulses with socially acceptable behavior	Channeling anger and aggression into exercise
Anticipation	Dealing with stressors by anticipating the consequence and the feelings associated with possible future events and considering realistic solutions	Eating better in anticipation of a scheduled lab draw to try to improve numbers
Projection	Attributing one's own unacceptable feelings and thoughts to others and not yourself	Telling the spouse NOT to eat the cheesecake when the impulse to eat the cheesecake is strong (see regression)
Rationalization	Creating false excuses for one's unacceptable feelings, thoughts, or behaviors	Justifying drinking pop by adding water to it and saying that it is less sugar

Cultural Competence / Humility & Coping

Individual values, beliefs, and behaviors about health and well-being are shaped by various factors such as race, ethnicity, nationality, language, gender, socioeconomic status, physical and mental ability, sexual orientation, and occupation.

The ability of providers and organizations to understand and integrate these factors into the delivery and structure of the health care system.



Examine various ways to help patients achieve psychosocial well-being while living with diabetes.

Session Objective #3

		Continuum of psychosocial issues and behavioral health disorders in people with diabetes	
		Nonclinical (normative) symptoms/behaviors	Clinical symptoms/diagnosis
Phase of living with diabetes	Behavioral health disorder prior to diabetes diagnosis	None	<ul style="list-style-type: none"> Mood and anxiety disorders Psychotic disorders Intellectual disabilities
	Diabetes diagnosis	Normal course of adjustment reactions, including distress, fear, grief, anger, initial changes in activities, conduct, or personality	<ul style="list-style-type: none"> Adjustment disorders*
	Learning diabetes self-management	Issues of autonomy, independence, and empowerment. Initial challenges with self-management demonstrate improvement with further training and support	<ul style="list-style-type: none"> Adjustment disorders* Psychological factors affecting medical condition**
	Maintenance of self-management and coping skills	Periods of waning self-management behaviors, responsive to booster educational or supportive interventions	<ul style="list-style-type: none"> Maladaptive eating behaviors Psychological factors** affecting medical condition
	Life transitions impacting disease self-management	Distress and/or changes in self-management during times of life transition***	<ul style="list-style-type: none"> Adjustment disorders* Psychological factors** affecting medical condition
	Disease progression and onset of complications	Distress, coping difficulties with progression of diabetes/onset of diabetes complications impacting function, quality of life, sense of self, roles, interpersonal relationships	<ul style="list-style-type: none"> Adjustment disorders* Psychological factors** affecting medical condition
	Aging and its impact on disease and self-management	Normal, age-related forgetfulness, slowed information processing and physical skills potentially impacting diabetes self-management and coping	<ul style="list-style-type: none"> Mild cognitive impairment Alzheimer or vascular dementia
		<p>All health care team members (e.g., physicians, nurses, diabetes educators, dietitians) as well as behavioral providers</p> <p>Behavioral or mental health providers (e.g., psychologists, psychiatrists, clinical social workers, certified counselors or therapists)</p> <p>Providers for psychosocial and behavioral health intervention</p>	

Figure 1—Psychosocial care for PWD: life and disease course perspectives. *With depressed mood, anxiety, or emotion and conduct disturbance. **Personality traits, coping style, maladaptive health behaviors, or stress-related physiological response. ***Examples include changing schools, moving, job/occupational changes, marriage or divorce, or experiencing loss.

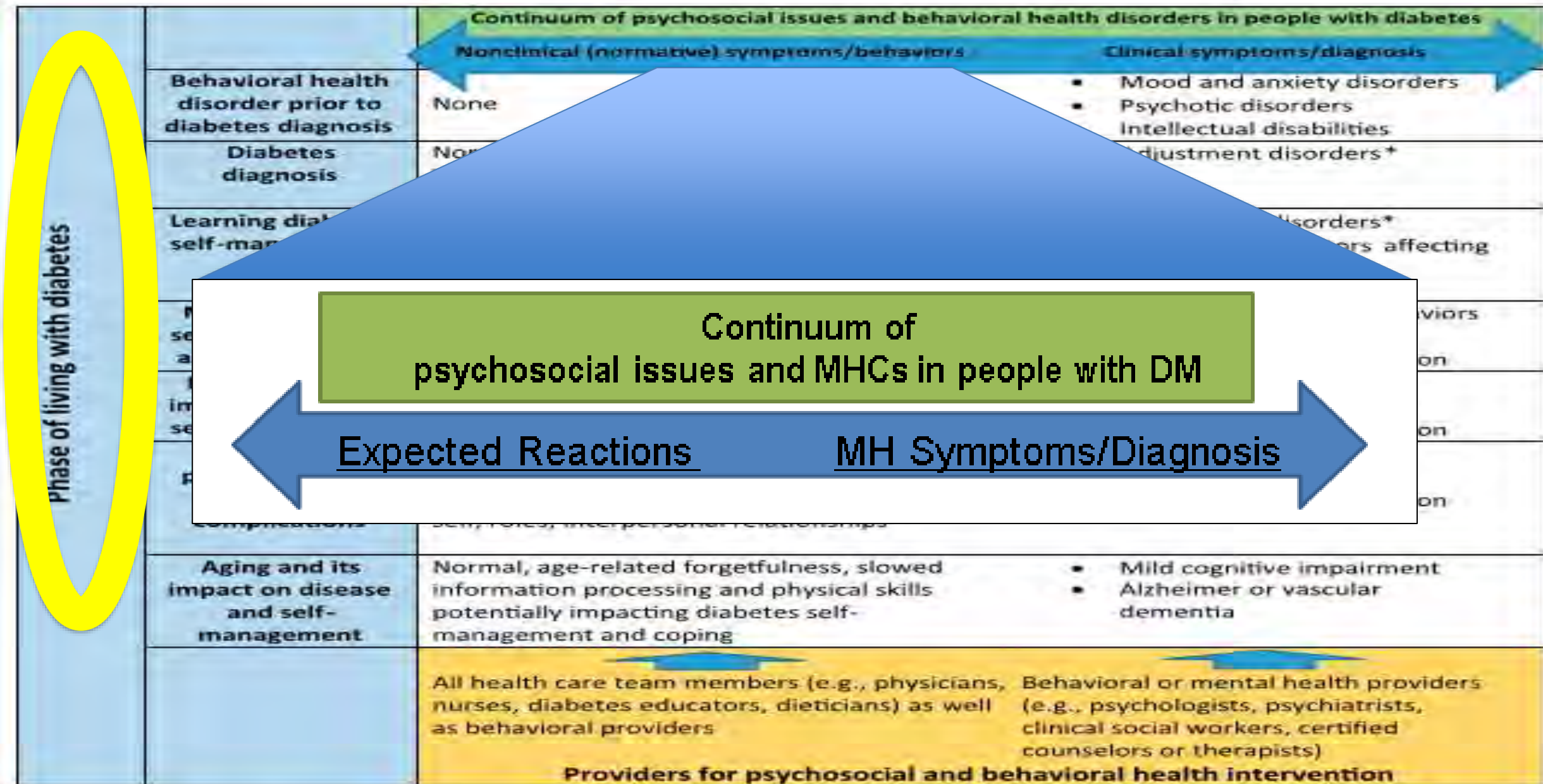


Figure 1—Psychosocial care for PWD: life and disease course perspectives. *With depressed mood, anxiety, or emotion and conduct disturbance. **Personality traits, coping style, maladaptive health behaviors, or stress-related physiological response. ***Examples include changing schools, moving, job/occupational changes, marriage or divorce, or experiencing loss.

Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

MH Symptoms/Diagnosis

- ✓ Fear
- ✓ Anger
- ✓ Grief
- ✓ Distress
- ✓ Anxiety

- ✓ Anxiety
- ✓ Panic
- ✓ **Adjustment Disorder**

- ✓ Acceptance
- ✓ Change in habits

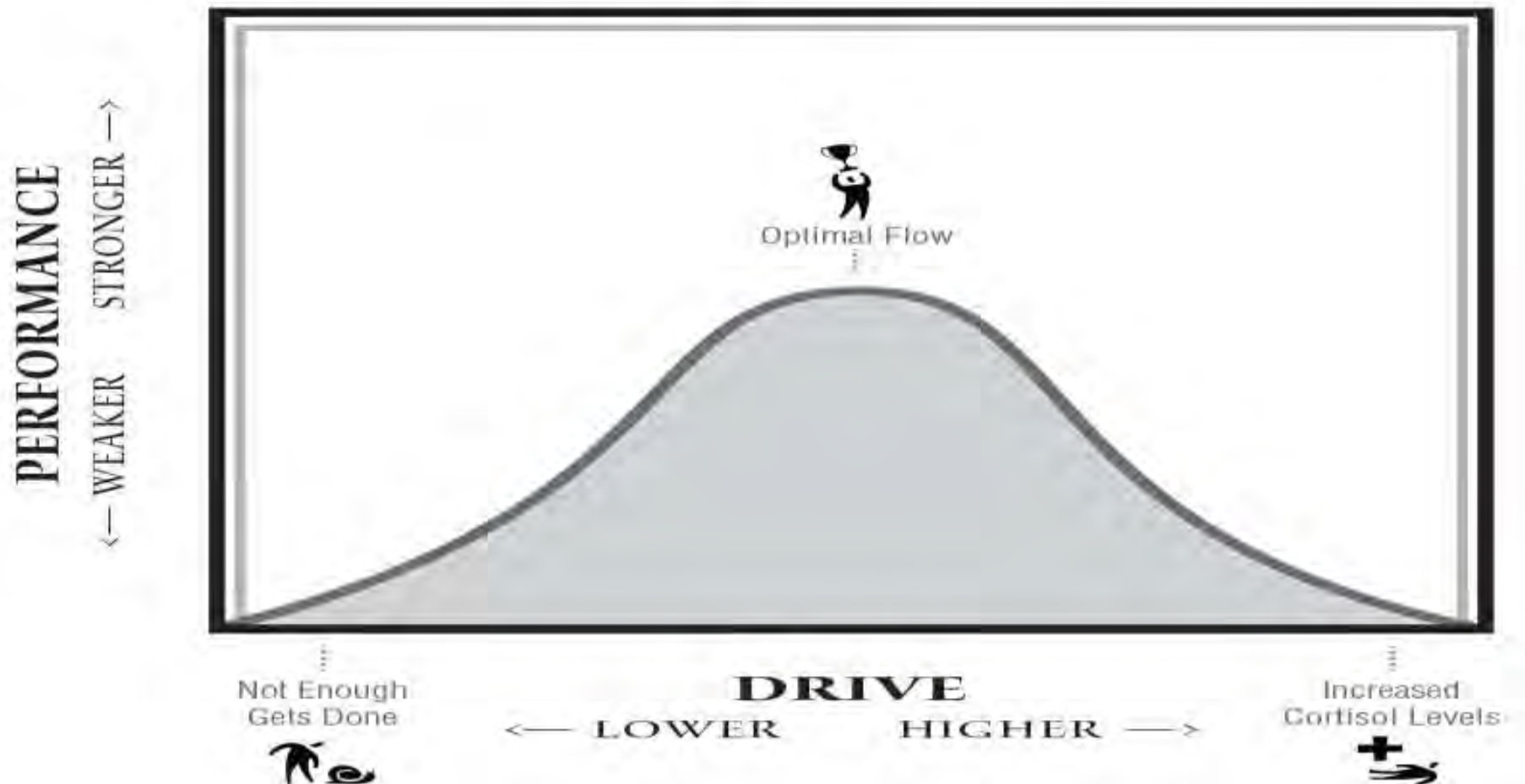
Receiving the diagnosis of Diabetes





People diagnosed with diabetes are approximately **20% more likely** to suffer from anxiety than those without diabetes

YERKES-DODDSON LAW



Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

MH Symptoms/Diagnosis

- ✓ Fear
- ✓ Anger
- ✓ Grief
- ✓ Distress
- ✓ Anxiety
- ✓ Acceptance
- ✓ Change habits

COPING TIP:
Take care in giving the diagnosis. Help them through the expected emotions and refer to a MHP if it interferes with their ability to begin managing their condition.

Receiving the diagnosis of Diabetes



Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

MH Symptoms/Diagnosis

Concerns regarding:

- ✓ autonomy,
- ✓ independence, and
- ✓ empowerment

- ✓ Anxiety
- ✓ Panic
- ✓ Depression

Learning diabetes self management



Continuum of

psychosocial issues and MHP in people with DM



Expect

Concern

✓ auto

✓ inde

✓ emp

COPING TIP:

Increase the support and training to ameliorate the initial challenges with self-management. Help with modifiable risk factors and with independence.

Refer to MHP if symptoms interfere with their ability to manage the DM

gnosis



Learning diabetes self management



Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

- ✓ Waxing and waning of the ability to manage

MH Symptoms/Diagnosis

- ✓ Maladaptive eating behaviors
- ✓ Anxiety
- ✓ Panic
- ✓ Depression

**Maintenance of
self-management and coping skills**



Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

MH Symptoms/Diagnosis

✓ Way
of th
man


COPING TIP FOR THE ADULT:

Increase the support and training. Talk about their concerns.

Refer to MHP if symptoms interfere with their ability to manage the DM.

**Maintenance of
self-management and coping skills**



A photograph of three teenagers walking on a bridge over a street. On the left, a young man in a pink hoodie and red backpack is laughing. In the center, a young man in a red t-shirt and black backpack is looking down at a book. On the right, a young woman in a pink top and grey jacket is smiling. The background shows a street with buildings, utility poles, and a cloudy sky.

“About 1/3 of adolescents with diabetes develop diabetes distress... as well as their parents.”

[Psychosocial Care for People With Diabetes: A Position Statement of the American Diabetes Association](#)

Young-Hyman et al; *Diabetes Care* 2016 Dec; 39 (12): 2126-2140.

Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

MH Symptoms/Diagnosis

COPING TIP FOR THE ADOLESCENT:
Increase the support and education
about coping. Strengthen their
coping.

**Refer to MHP if symptoms interfere
with their ability to manage the DM.**

**Maintenance of
self-management and coping skills**



Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

MH Symptoms/Diagnosis

**COPING TIP FOR THE PARENT OF THE
ADOLESCENT:**

**Consider group therapy as it was shown to
lessen the impact of treatment
management, improving coping and QOL.**

*****Refer to MHP if symptoms interfere with their ability to manage the DM.**

Grey, Margaret et al. "Coping Skills Training for Parents of Children With T1DM. Nursing Research. May/June 2011, Vol 60; No 3.

**Maintenance of
self-management and coping skills**



Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

MH Symptoms/Diagnosis

- Troubles managing
when life happens:
- ✓ Change in school
 - ✓ Relationship break-up
 - ✓ Divorce
 - ✓ Loss of job
 - ✓ Personal loss/grief

- ✓ Anxiety
- ✓ Panic
- ✓ Depression

**Life transitions
impacting disease self-management**



Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

MH Symptoms/Diagnosis

- ✓ Trou
- ✓ whe
- ✓ Cha
- ✓ Rela
- ✓ up
- ✓ Divo
- ✓ Loss
- ✓ Pers

COPING TIP:

**Increase the support,
empower, and not blame.
Talk about their concerns.**

**Refer to MHP if symptoms
interfere with their ability to
manage the DM.**

impacting disease self-management



Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

- ✓ Coping difficulties
- ✓ Distress
- ✓ QOL
- ✓ Effect on relationships
- ✓ Changes in self and roles

MH Symptoms/Diagnosis

- ✓ Anxiety
- ✓ Panic
- ✓ Depression

**Disease progression
and onset of complications**



Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

MH Symptoms/Diagnosis

- ✓
- ✓
- ✓
- ✓
- ✓

COPING TIP:

Take special care when discussing rates, causes, and probability of complications.

Monitor for changes in QOL and pain management.

Refer to MHP if symptoms interfere with their ability to manage the DM.

**Disease progression
and onset of complications**



Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

Normalize some of the effects:

- ✓ Slowed processing
- ✓ Forgetfulness
- ✓ Physical decline

MH Symptoms/Diagnosis

- ✓ Anxiety
- ✓ Panic
- ✓ Depression
- ✓ Mild Cognitive Impairment
- ✓ Vascular Dementia
- ✓ Alzheimer's Dementia

**Aging and its impact
on disease and self management**



Continuum of
psychosocial issues and MHCs in people with DM

Expected Reactions

MH Symptoms/Diagnosis

No
eff

- ✓
- ✓
- ✓

COPING TIP:

**Distinguish between normal effects
of aging and DM related effects.
Evaluate changes in cognition.**

**Refer to MHP if symptoms interfere
with their ability to manage the DM.**

**Aging and its impact
on disease and self management**



What we *know* about the relationship?

- **Many patients with depression have diabetes.**
- **And, many patients with diabetes have depression.**

The ADA recommends: Regular screening of depression for people with diabetes



Holt, Richard and Christina M. van der Felz-Cornelis. "Key Concepts in Screening for Depression in People with Diabetes." *Journal of Affective Disorders*. 2012:S72-S79;





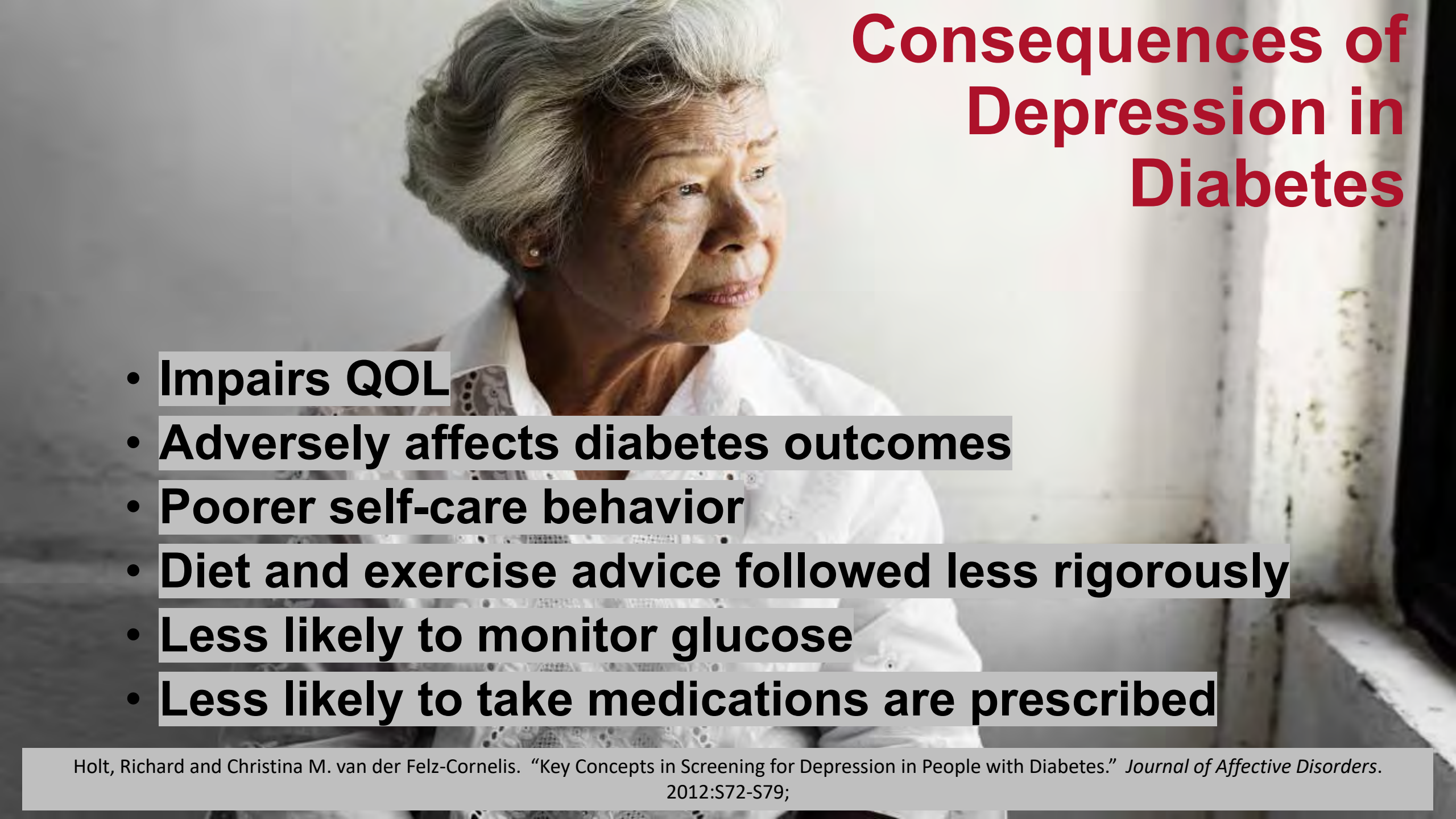
Hmmm...
**Do you regulate
the glucose or
treat the
depression
first?**
Both????



The scope of the problem

Nearly a **1/3** of persons with diabetes are diagnosed with a clinically relevant depressive disorder.

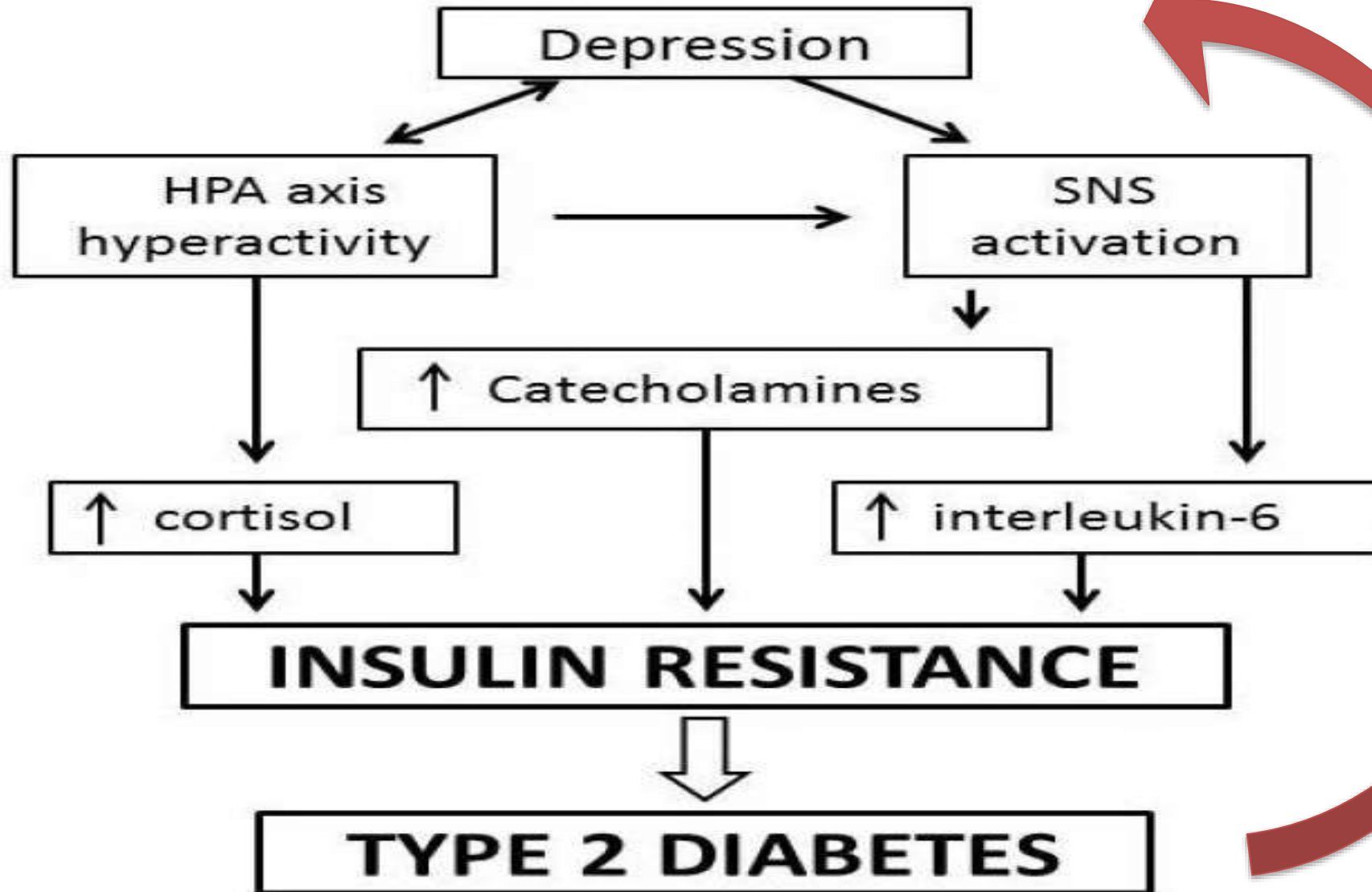
Persons with depressive disorders are **2X** as likely as the rest of the population to also have diabetes

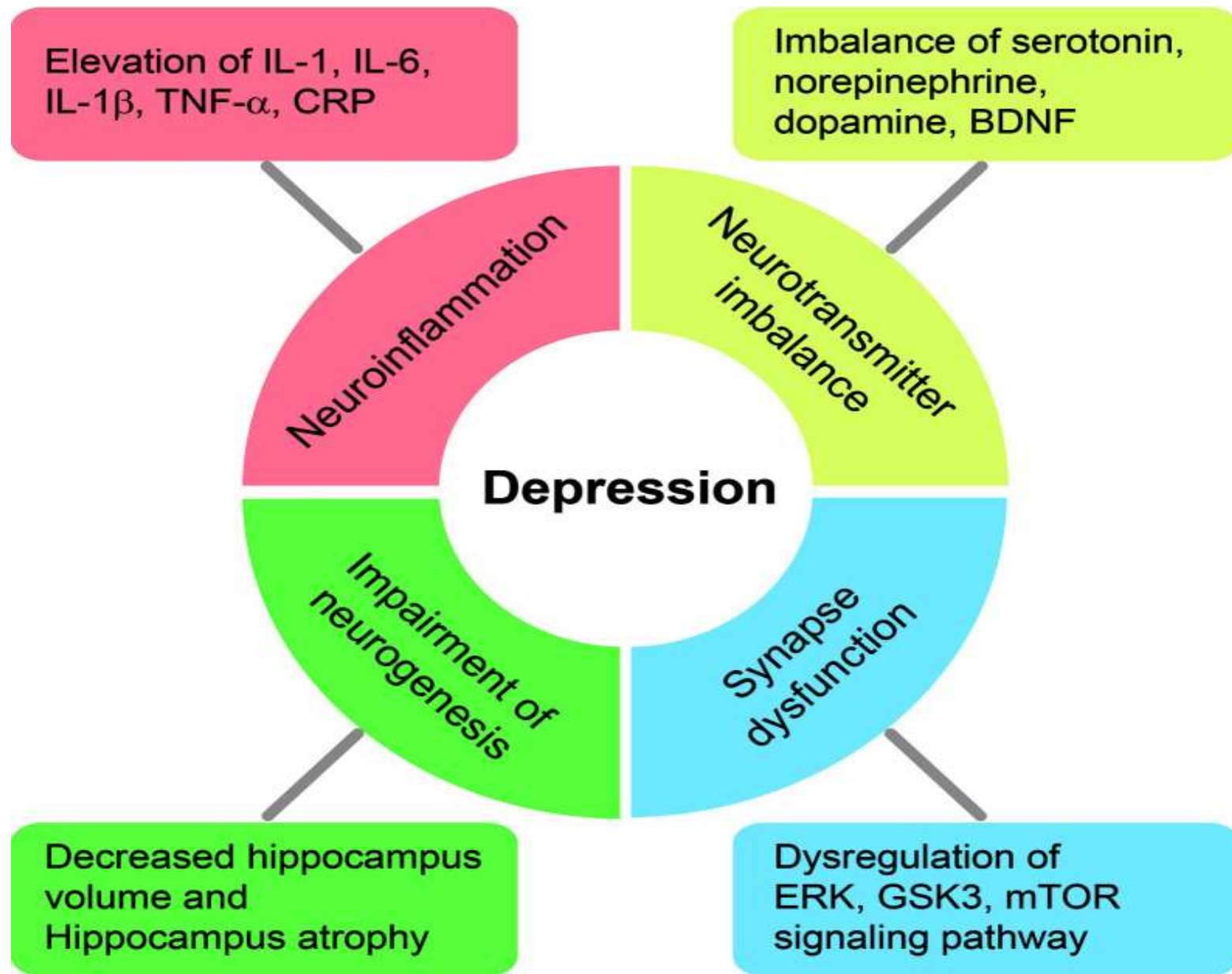


Consequences of Depression in Diabetes

- **Impairs QOL**
- **Adversely affects diabetes outcomes**
- **Poorer self-care behavior**
- **Diet and exercise advice followed less rigorously**
- **Less likely to monitor glucose**
- **Less likely to take medications are prescribed**

The "Stress" of Depression





Kim et al. "Alleviation of Depression by Glucagon-Like Peptide 1 Through the Regulation of Neuroinflammation, Neurotransmitters, Neurogenesis, and Synaptic Function." *Frontiers in Pharmacology*. 2020; 11: 1270.

Published online 2020 Aug 14. doi: 10.3389/fphar.2020.01270



GLP-1 and Possible Neuromodulation in Depression

- Secreted from gut cells and hindbrain
- Controls glucose metabolism and insulin resistance
- Impaired gut-brain axis metabolism, appetite disturbances, and gut hormone abnormality

Kim et al. "Alleviation of Depression by Glucagon-Like Peptide 1 Through the Regulation of Neuroinflammation, Neurotransmitters, Neurogenesis, and Synaptic Function." *Frontiers in Pharmacology*. 2020; 11: 1270.
Published online 2020 Aug 14. doi: 10.3389/fphar.2020.01270

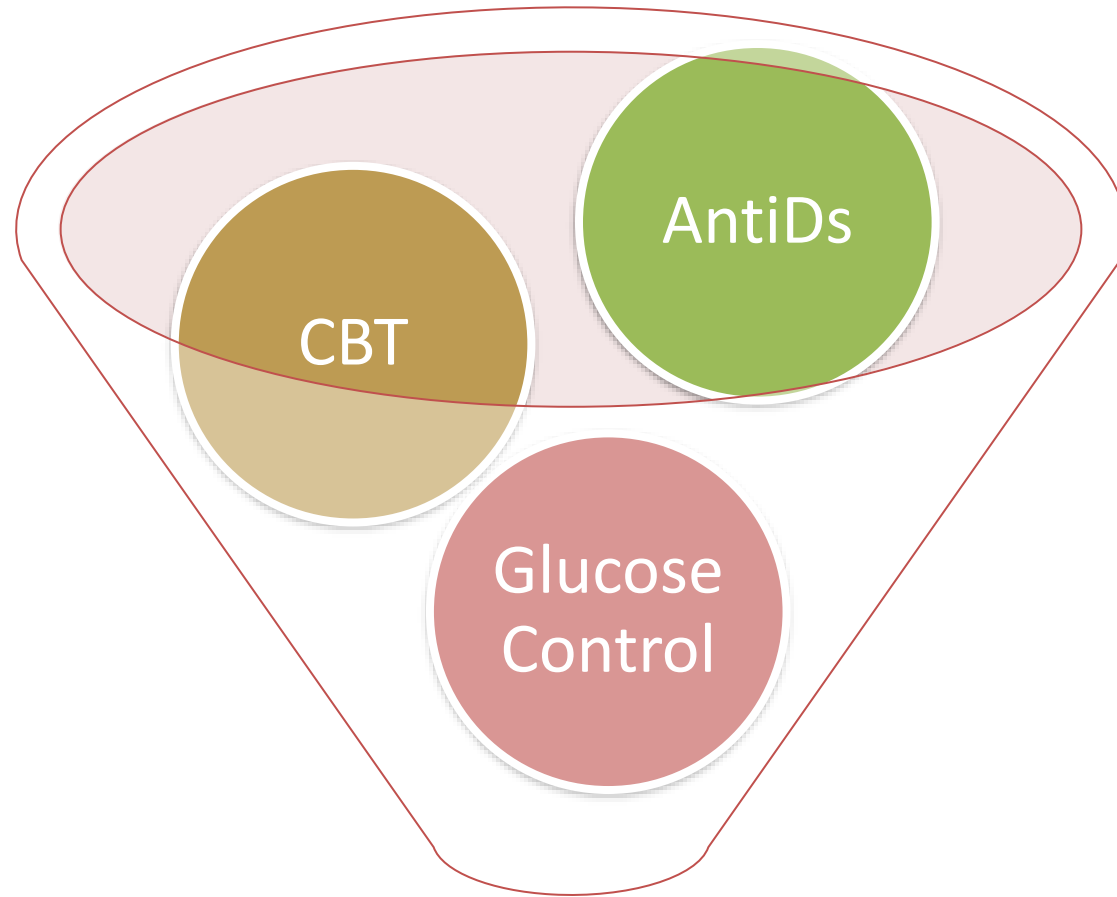


Table 1

Possible association between glucagon-like peptide 1 (GLP-1) and depression based on previous studies.

Experiment target	Result	Reference
Liraglutide	Promoted neurite outgrowth through Wnt signaling	(He et al., 2018)
Liraglutide	Enhanced synaptic plasticity and attenuated depressive behavior	(Weina et al., 2018)
Liraglutide	★ Improved cognitive function and depressive symptoms in patients	(Cuomo et al., 2018)
Sitagliptin	Enhanced cognitive function and protected neurons against oxidative stress	(Gault et al., 2015)
Liraglutide	★ Activated LTP and improved cognitive dysfunction	(McClellan et al., 2011)
GLP-1R knockout mouse	Impaired synaptic plasticity and memory formation	(Abbas et al., 2009)
GLP-1R overexpression mouse	Enhanced learning and neuroprotection	(During et al., 2003)
GLP-1 or exendin-4	★ Chronic administration reduced depression-like behavior	(Anderberg et al., 2016)





**Best management of
Depression in Diabetes**



Self-Care Behaviors & Treatment Strategies of Depression – Diabetes Support



Lustman, Patrick and Ray Clouse. "Depression in diabetic patients: The relationship between mood and glycemic control." *Journal of Diabetes and Its Complications*. 19 (2005) 113-122.



Self-Care Behaviors & Treatment Strategies of Depression - Pharmacotherapy

- SSRIs and SNRIs are first-line treatments
 - Sertraline is a good choice for weight level
 - Weight gain is a common side effect
- DNRI (Desvenlafaxine) is a good option is helpful
 - Thought to have less weight gain
- Older adults as TCAs can cause weight gain
- Remission and prevention of relapse is the goal

Referral to MHP

Med trial #2

Med trial #1



Self-Care Behaviors & Treatment Strategies of Depression - Therapies

- Cognitive Behavioral Therapy (CBT)
 - Interpersonal Therapy (IPT)
 - Acceptance and Commitment Therapy (ACT)
 - Motivational Interviewing (MI)
-
- *In multiple trials, glycemic control improved with psychological interventions esp. CBT*



Table 1—Situations that warrant referral of a person with diabetes to a mental health provider for evaluation and treatment

- If self-care remains impaired in a person with diabetes distress after tailored diabetes education
- If a person has a positive screen on a validated screening tool for depressive symptoms
- In the presence of symptoms or suspicions of disordered eating behavior, an eating disorder, or disrupted patterns of eating
- If intentional omission of insulin or oral medication to cause weight loss is identified
- If a person has a positive screen for anxiety or FoH
- If a serious mental illness is suspected
- In youth and families with behavioral self-care difficulties, repeated hospitalizations for diabetic ketoacidosis, or significant distress
- If a person screens positive for cognitive impairment
- Declining or impaired ability to perform diabetes self-care behaviors
- Before undergoing bariatric surgery and after if assessment reveals an ongoing need for adjustment support

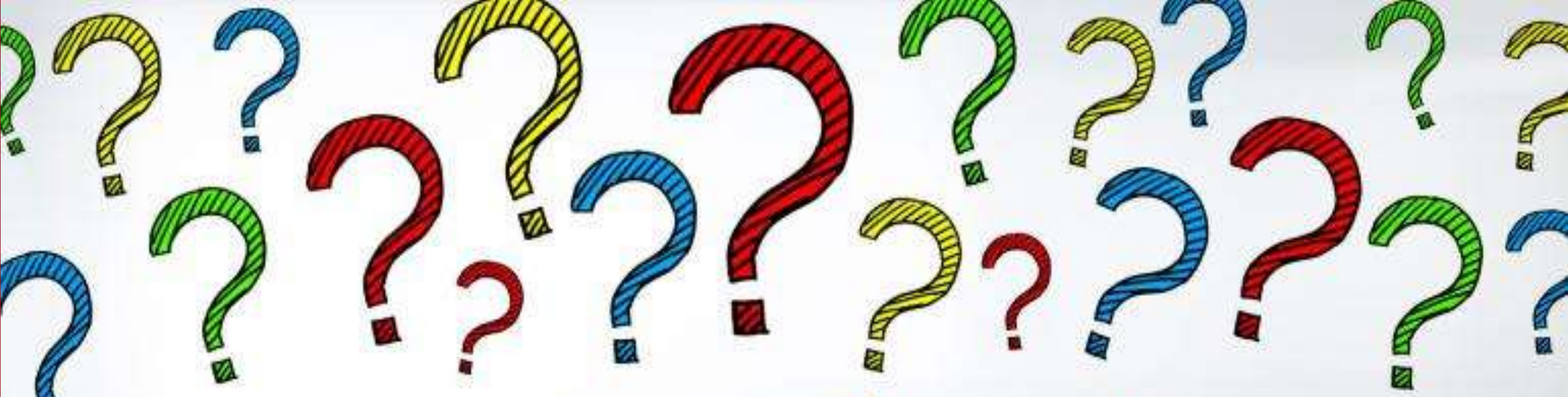
In summary

- There are many ways to help individuals cope through the phases of diabetes.
- Attention to screening for depression and coping strategies are essential to management of people with diabetes and can improve outcomes.
- If someone has emotional concerns that interfere with the management of their diabetes, please refer to MHP as soon as possible as it may take some time to get in.



1. Berry et al. "Diabetes distress: understanding the hidden struggle of living with diabetes and exploring intervention strategies." Postgraduate Medicine Journal. 2015. Vol. 91; pg. 278-283.
2. Campayo et al. "Diabetes and Depression." Curr Psychiatry Rep. 2011; Vol 12. Pg 26-30.
3. Fiore et al. "The association between diabetes and depression: a very disabling condition." Endocrine. 2015; 48:14-24.
4. Dickinson et al. "The Use of Language in Diabetes Care and Education." Diabetes Care. 2017;40(12): 1790-1799.
5. Gonzales, JS et al. "Depression in diabetes: have we been missing something important?" Diabetes Care. 2011; 34 (1): 236-239.
6. Grey, Margaret et al. "Coping Skills Training for Parents of Children With T1DM. Nursing Research. May/June 2011, Vol 60; No 3.
7. Holt, Richard and Christina M. van der Felz-Cornelis. "Key Concepts in Screening for Depression in People with Diabetes." Journal of Affective Disorders. 2012:S72-S79.
8. <http://diabetesanddepression.org/index.html>
9. <http://wellcommons.com/groups/nosurance/2011/nov/18/70-of-problems-seen-in-primary-care-resu/>
10. <https://www.consultant360.com/articles/diabetes-distress-common-occurrence-patients-unable-control-their-diabetes>
11. Kulzer et al. "Psychosocial Factors and Diabetes." Exp Clin Endocrinol Diabetes. 2021; 129: S91-S105.
12. Lustman, Patrick and Ray Clouse. "Depression in diabetic patients: The relationship between mood and glycemic control." Journal of Diabetes and Its Complications. 19 (2005) 113-122. "
13. Martino et al. Going Beyond the Visible in Type 2 Diabetes Mellitus: Defense Mechanisms and Their Associations With Depression and Health-Related Quality of Life Front. Psychol., 25 February 2020 Volume 11 - 2020
14. Mueller, Paul S. "Breaking bad news to patients." Postgraduate Medicine. September 2002. Vol 112;3. Pgs 15-18.
15. Shahady, Edward and Eileen O'Grady. Diabetes Distress: A Common Occurrence in Patient Unable to Control Their Diabetes. Consultant. Vol. 55; 6. June 2015.
16. Rice, Z. and Liamputtong, P. "Cultural Determinants of Health and Well-Being." Culture and Global Health. 12 May 2021. pp 1249-1273.
17. Robinson et al. "Diabetes and Mental Health." Diabetes Canada Clinical Practice Guidelines Expert Working Group. June 2023 Volume 47, Issue 4, P308-344.
18. Vandekieft, Gregg. "Breaking bad news." AAFP. December 2001. Vol 64;12. Pgs 1975-1978.
19. Young-Hyman et al; "Psychosocial Care for People With Diabetes: A Position Statement of the American Diabetes Association." Diabetes Care 2016 Dec; 39 (12): 2126-2140.





Thank you!