

# Diabetes distress: practical considerations

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#DiabetesPsychologyMatters

# Overview

The clinical challenge

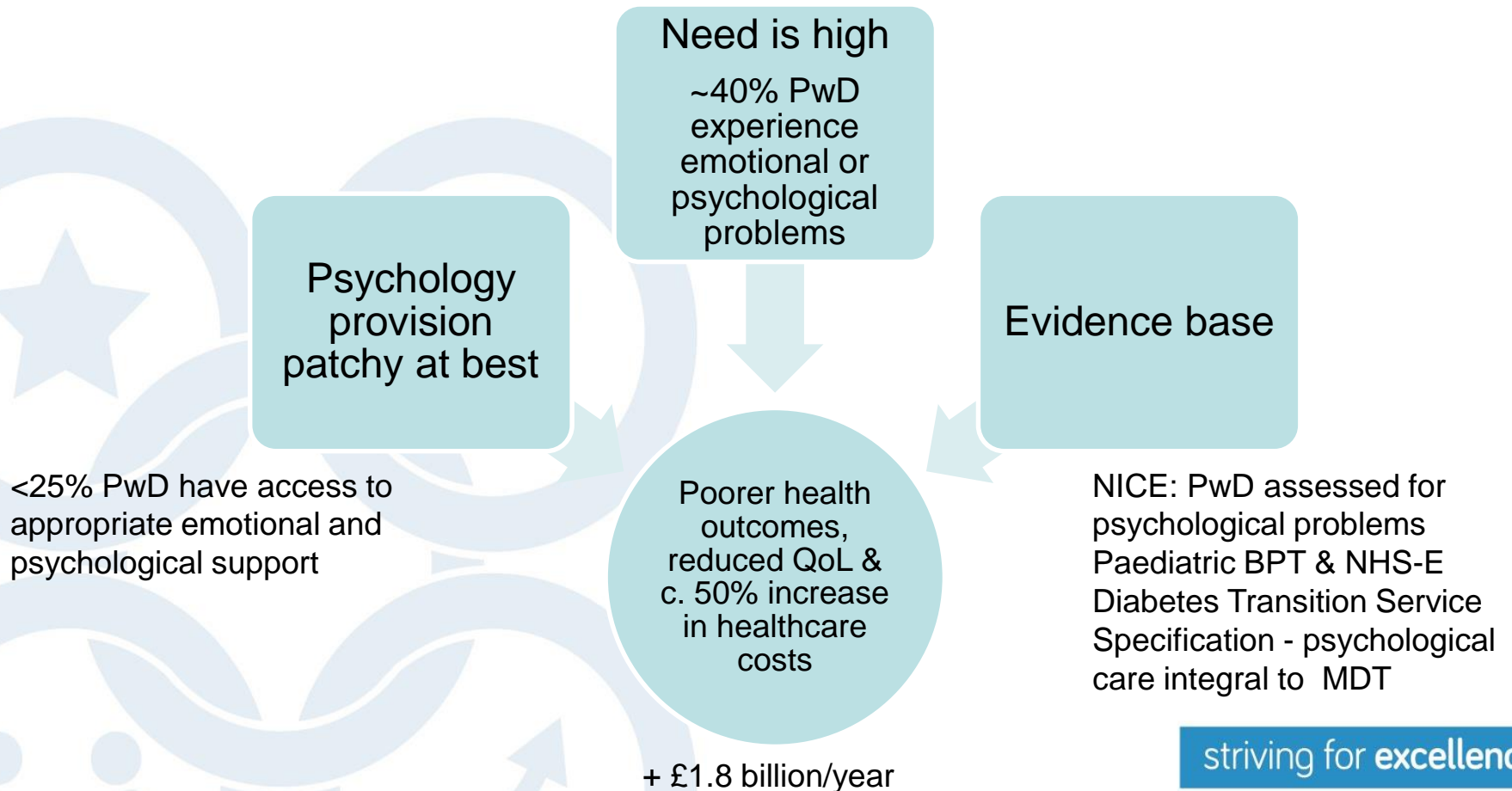
How to identify

What to do

- Greater understanding of clinical interface between diabetes distress (DD), depression & diabetes outcomes
- Increased confidence in clinical competencies for managing depression/DD:
  - 'have the conversation'
  - address psychological problems within skillset & remit
  - make referrals to specialist care providers, as needed

# We know...

Self-mgxx (behaviour) ↔ Diabetes Distress ↔ Mental Health (Depression)



striving for excellence

# Physical/Psychological Interface



## Self-management

Behaviours (inc. adherence), coping, skills in problem-solving & risk reduction; self-efficacy; resilience; perceived control; empowerment etc.



## Diabetes Distress

Burnout; Fear of hypoglycaemia; psychological resistance to insulin; depressive symptoms; anxiety etc.




## Mental Health (Depression)

Pre-existing conditions; incl. prevalence dementia for PwD+depression; posv. correlation between alcohol intake & progression to T2DM; assn. of antipsychotics w/weight gain & T2DM, eating disorders associated with insulin restriction etc.

Diabetes & psychological disorders share a bidirectional association, influencing each other in multiple ways

# Depression

There is a **bi-directional association** between depression & DM  
People w/depression more likely to develop T2DM & PwD 2-3x more likely  
than general population to have depression



## Mild Depression Dysthymia

- Persistent low mood
- Other symptoms present but full diagnostic criteria for major depression not met

## Major Depressive Disorder

- Persistent intense low mood
- Syndrome of symptoms
- Negative impact on functioning

Source: Mezuk B, Eaton WW, et al. Depression and type 2 diabetes over the lifespan: a meta-analysis. *Diabetes Care*. 2008;31(12):2383-90. Roy T, Lloyd CE. Epidemiology of depression and diabetes: a systematic review. *Journal of Affective Disorders*. 2012;142:S8-21.

# Association between depression/depressive symptoms & adverse medical & psychological outcomes

Sub-optimal self-management (e.g. reduced physical activity)

Elevated HbA1c, hypoglycaemia & hyperglycaemia

Increased prevalence & earlier onset of complications and disability

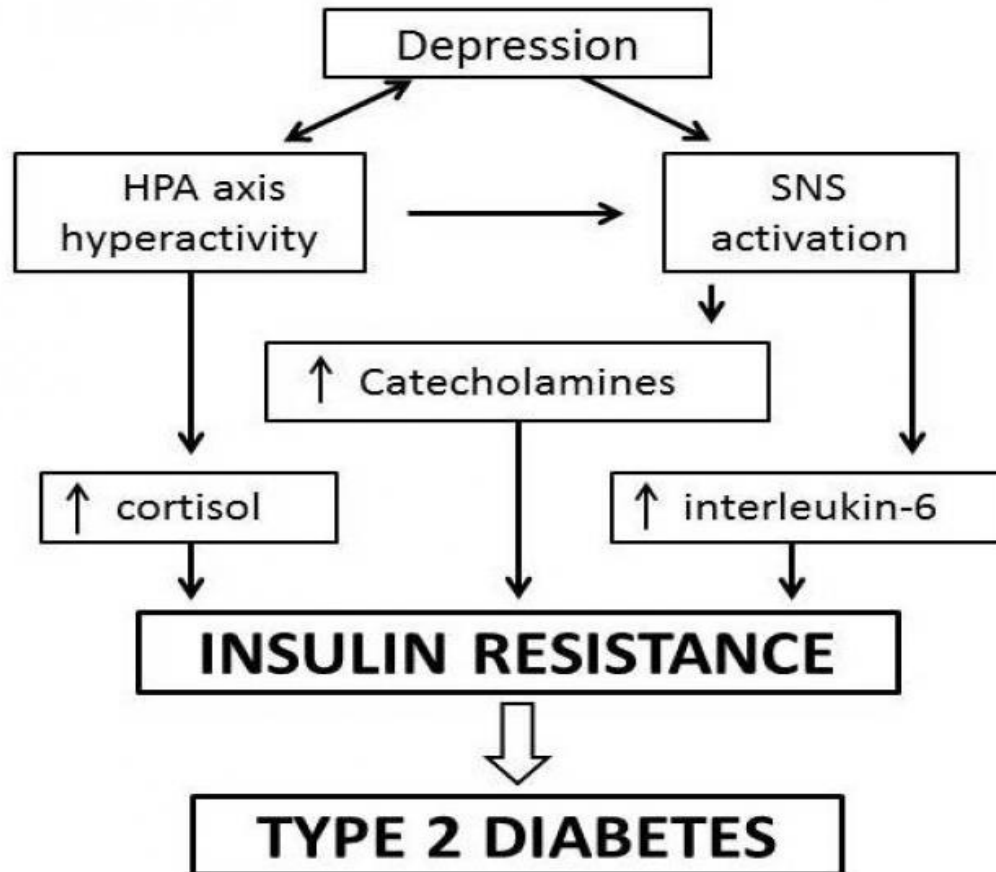
Increased risk of diabetes distress & clinical anxiety

Impaired QoL & social role/functioning

Increased burden/costs to the individual & healthcare system

Greater risk of premature mortality

# Pathophysiological mechanisms underlying depression & diabetes

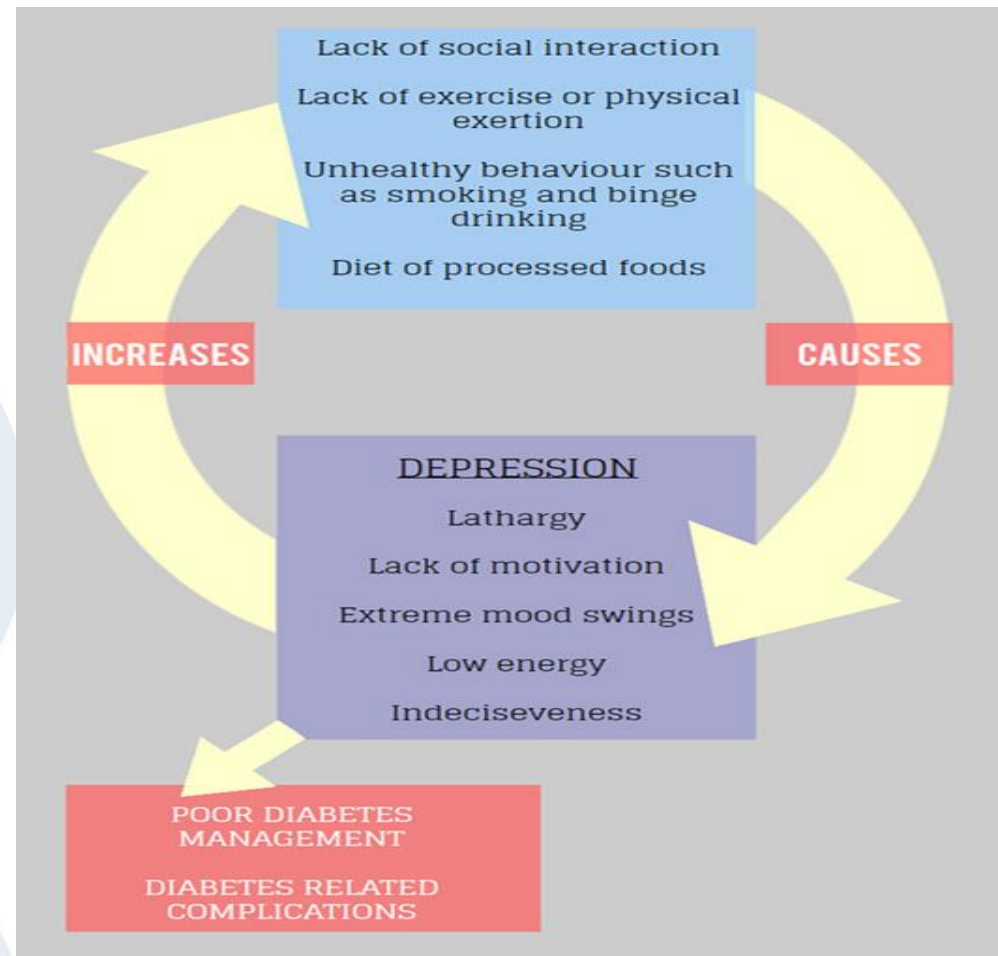




# Vicious cycle of depression & diabetes

Factors affecting emotional and psychological wellbeing of a person with diabetes:

- Extent of acceptance of and adjustment to diagnosis
- Coping with constant demands of self-mgx
- Integrating diabetes with other role(s) e.g. parent
- Trait and state resilience, coping style and strategies
- Misconceptions, fears & anxieties
- Progressive disease; complications





# But there are inconsistencies in the depression-diabetes relationship....

In the reported prevalence of depression

Meta-analyses show strong depression – diabetes correlation BUT depression is elevated only among **diagnosed patients** & *not* among those with undiagnosed diabetes

In the association between depression and self-management

The effect of depressive symptoms on poor self-mgx. are observed even if cases of depressive disorder excluded from analysis

In the association between depression and glycaemic control

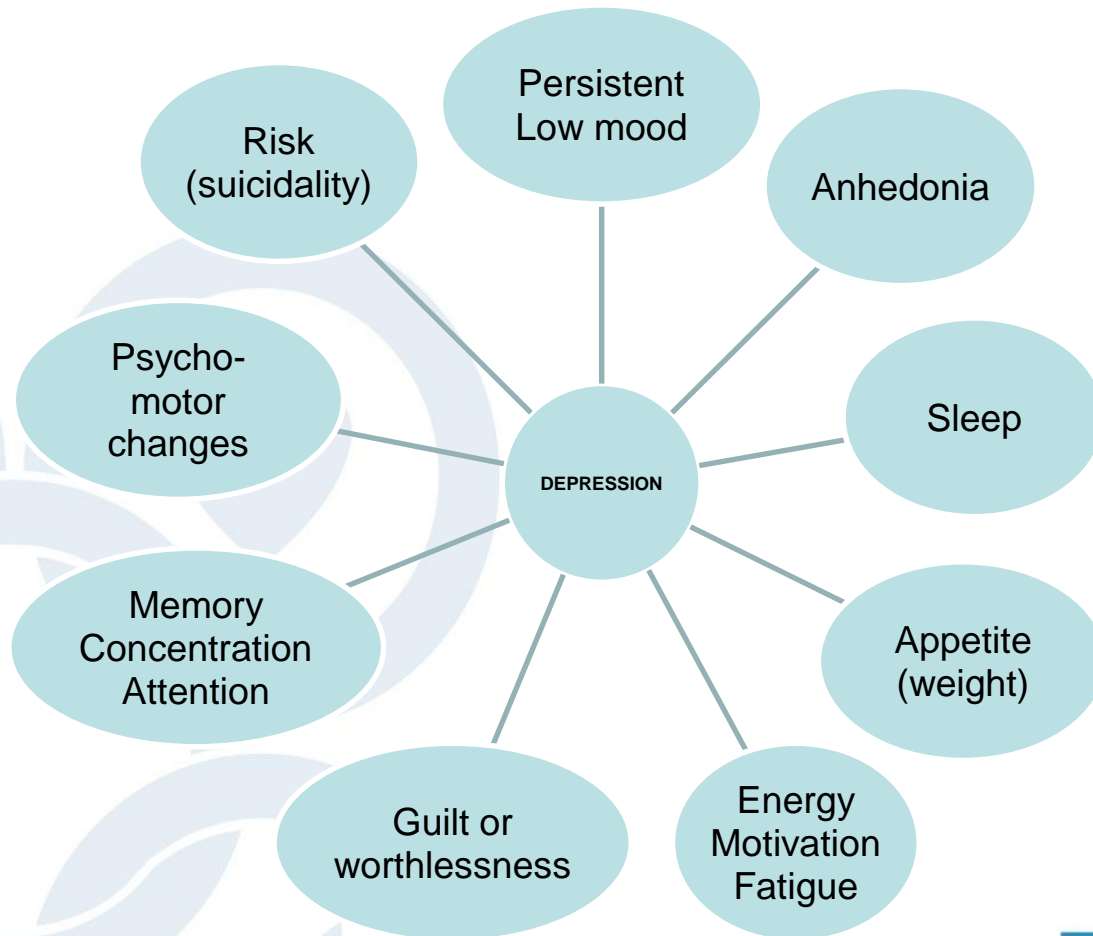
Interventions that successfully reduce depression in PwD show no consistent corresponding improvement in glycaemic control





# Depression (Major Depressive Disorder)

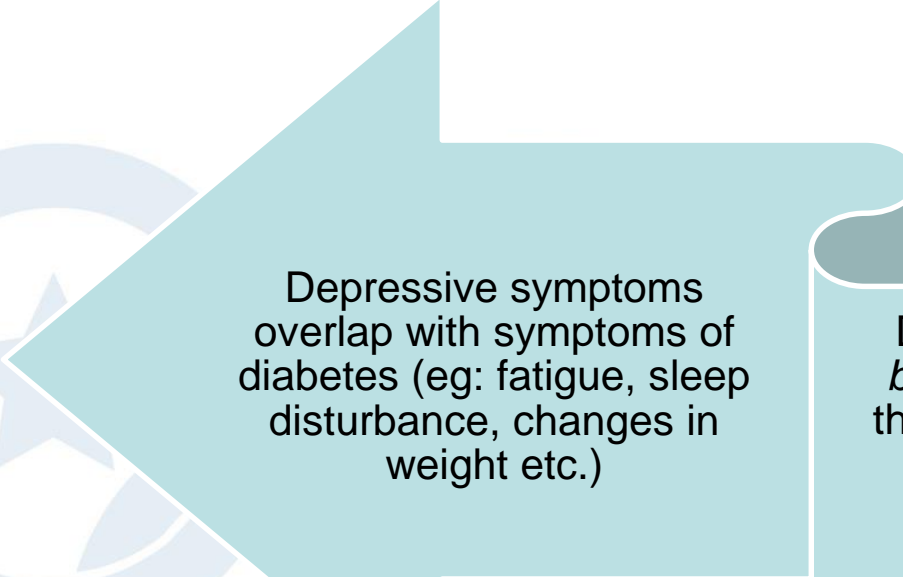
(Diagnostic & Statistical Manual Mental Disorders, 5, APA 2013)



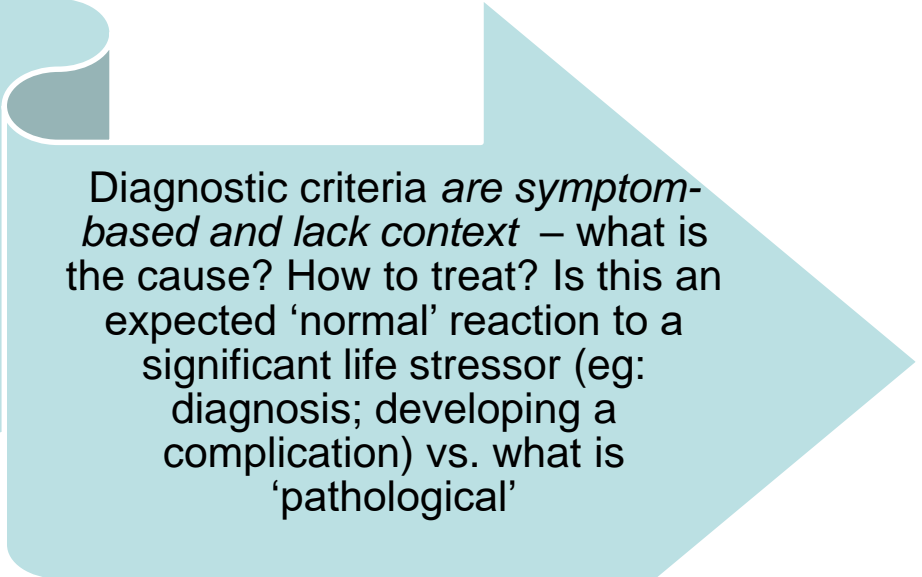
Interaction between weight gain assd. w/improved diet & glycaemic control & low mood/body image concerns



# Two major problems with 'depression' in diabetes



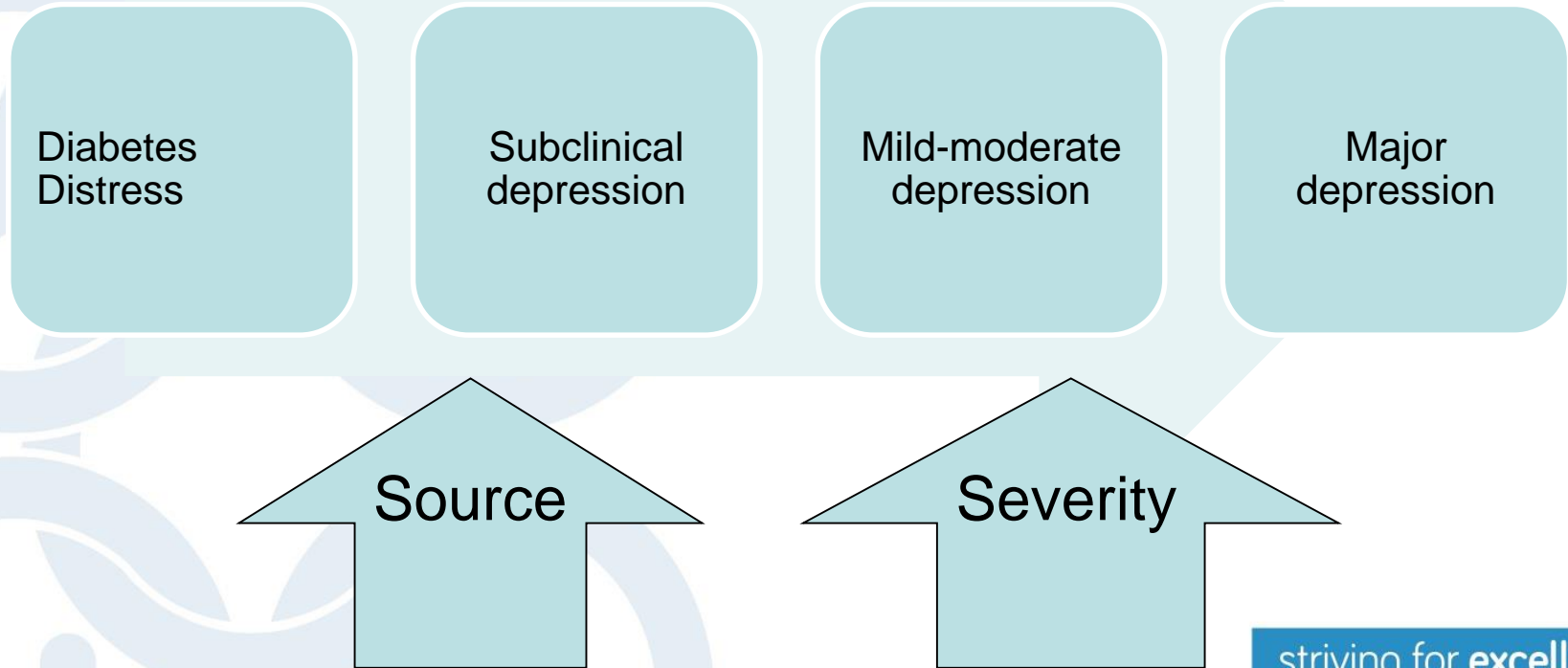
Depressive symptoms overlap with symptoms of diabetes (eg: fatigue, sleep disturbance, changes in weight etc.)



Diagnostic criteria *are symptom-based and lack context* – what is the cause? How to treat? Is this an expected 'normal' reaction to a significant life stressor (eg: diagnosis; developing a complication) vs. what is 'pathological'

# Consider emotional distress as a core, continuous & scalable dimension

Divorcing symptoms of depressive disorder from the context that explains them leads to mistaking DD for a psychiatric condition that can lead to inappropriate treatment



# Diabetes Distress (DD)

(Does **not** assume psychopathology & is best managed within the context of diabetes care)

The emotional distress resulting from living with DM & the burden of relentless daily self-mgx. (can lead to **Diabetes Burnout\*** &/or depression)

Affects – 1:4 people w/T1DM; 1:5 people w/insulin-treated T2DM; 1:6 people w/non-insulin Rx T2DM

Greater DD assd. w/sub-optimal self-mgx. (eg: less active, poorer diet, medication non-adherence, less frequent self-monitoring blood glucose), **elevated HbA1c, more frequent severe hypoglycaemia**, impaired QoL

The Problem Areas In Diabetes (PAID) scale - used to identify DD & to guide conversations about it

Although greater DD tends to be associated with higher HbA1c, **optimal HbA1c is not necessarily an indicator of low DD**

\* A state of physical or emotional exhaustion caused by the continuous distress of diabetes & efforts required to self-manage it



# Take-home message

Emotional distress is best considered a *continuous, scalable psychological characteristic* rather than a discrete co-morbid clinical condition

Often mistaken for depression

More common than depression



Diabetes Distress

Depressive symptoms

Mild depression

Moderate depression

Major depressive disorder

# Explanatory model that acknowledges interconnectedness of stressors in ways that enhance clinical decision making regarding intervention

	Little or none	Mild	Moderate or high	Severe: major depressive disorder, anxiety disorder
Diabetes distress	→			
Life stressors	→			
Other contributors	→			

**Figure 1.**  
 Two dimensions of emotional distress in diabetes: content and severity.

## Questionnaire: 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
2	Feeling discouraged with your diabetes treatment plan?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
3	Feeling scared when you think about living with diabetes?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
4	Uncomfortable social situations related to your diabetes care (e.g. people telling you what to eat)?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
5	Feelings of deprivation regarding food and meals?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
6	Feeling depressed when you think about living with diabetes?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
7	Not knowing if your mood or feelings are related to your diabetes?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
8	Feeling overwhelmed by your diabetes?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
9	Worrying about low blood glucose reactions?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
10	Feeling angry when you think about living with diabetes?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
11	Feeling constantly concerned about food and eating?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
12	Worrying about the future and the possibility of serious complications?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
13	Feelings of guilt or anxiety when you get off track with your diabetes management?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
14	Not 'accepting' your diabetes?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
15	Feeling unsatisfied with your diabetes physician?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
16	Feeling that diabetes is taking up too much of your mental and physical energy every day?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
17	Feeling alone with your diabetes?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
18	Feeling that your friends and family are not supportive of your diabetes management efforts?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
19	Coping with complications of diabetes?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
20	Feeling 'burned out' by the constant effort needed to manage diabetes?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

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***Which of the following diabetes issues are currently a problem for you?***

***13. Feelings of guilt or anxiety when you get off track with your diabetes management?***

***14. Not 'accepting' your diabetes?***

***15. Feeling unsatisfied with your diabetes physician?***

***16. Feeling that diabetes is taking up too much of your mental and physical energy every day?***

# Monitoring Tools

## PHQ-9 (PHQ-2)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

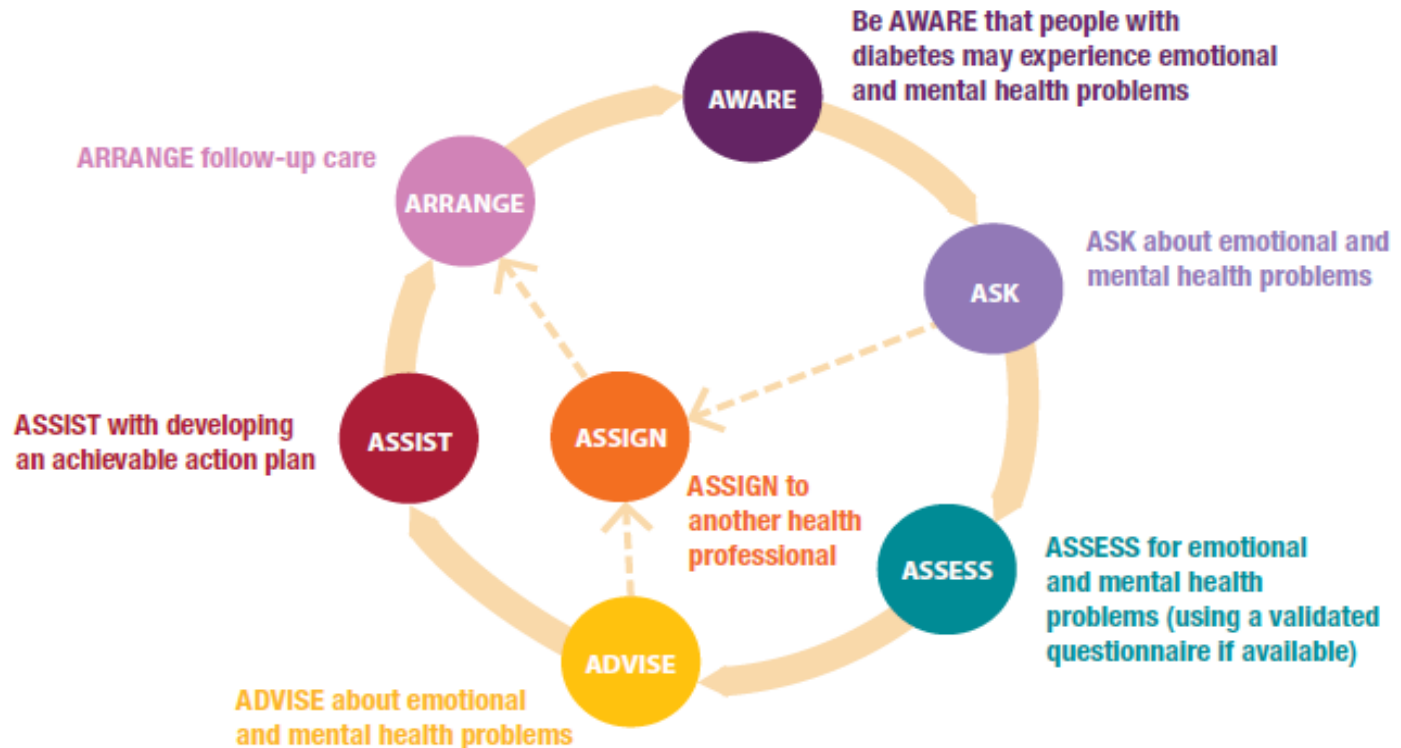
Use a  to indicate your answer

Not at all	Several days	More than half the days	Nearly every day
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1. Little interest or pleasure in doing things				
2. Feeling down, depressed or hopeless				

# How HCP's can support a person with diabetes distress/depression

## 7A's model



Diabetes and emotional health A handbook for health professionals supporting adults with type 1 or type 2 diabetes

# Two cases

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## Elizabeth

62-year-old woman, living with her husband

Type 2 diabetes for 10 years; overweight.  
Oral medications for diabetes, high blood pressure, and high cholesterol

Health professional: Dr Andrew Costanzo (GP)

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## Luke

24-year-old man living with his older brother

Type 1 diabetes (diagnosed 23 years ago)

Health professionals: Dr Glenn Jin  
(endocrinologist) and Thomas Mitchell  
(diabetes nurse)

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- Low energy
- Poor concentration & attention
- Disrupted sleep
- Elizabeth - weight gain
- Luke – weight loss



# Elizabeth

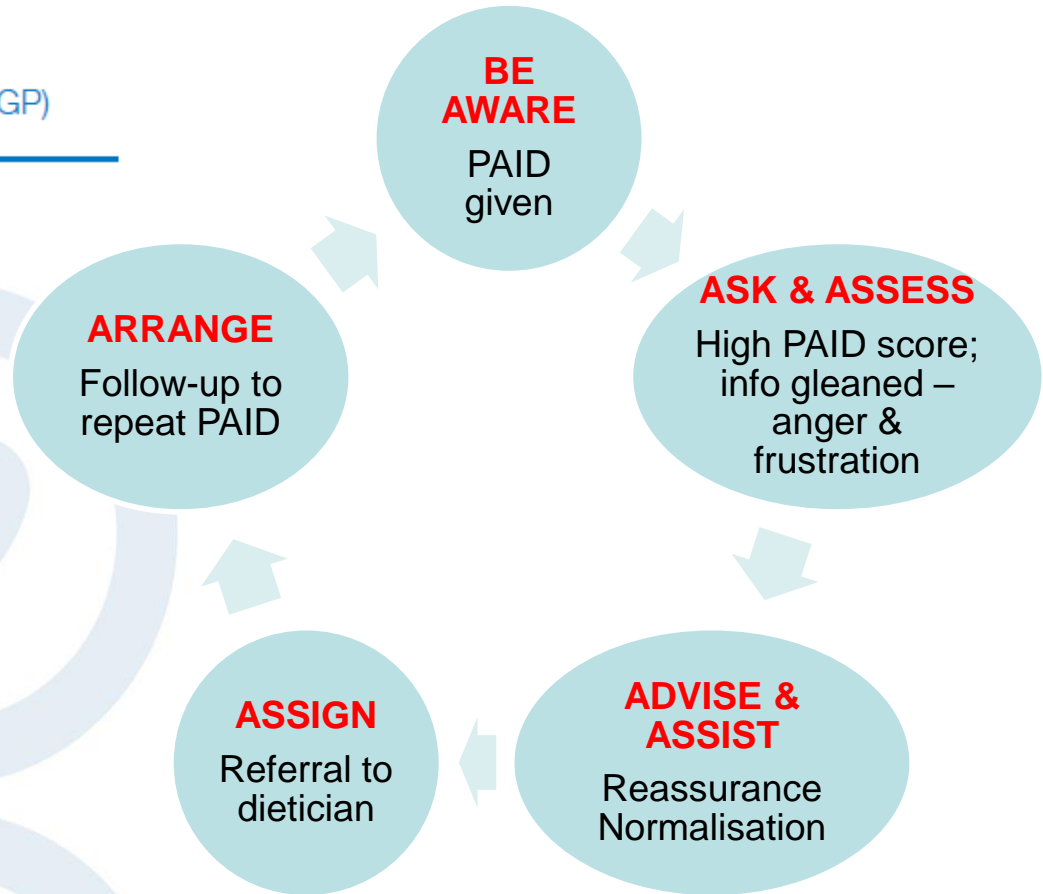
62-year-old woman, living with her husband

Type 2 diabetes for 10 years; overweight.  
Oral medications for diabetes, high blood pressure, and high cholesterol

Health professional: Dr Andrew Costanzo (GP)

Dr. Costanzo is aware that guidelines recommend assessment for emotional distress in people with T2DM.

He invites Elizabeth to complete the PAID while she is waiting for her consultation.



Diabetes and emotional health A handbook for health professionals supporting adults with type 1 or type 2 diabetes

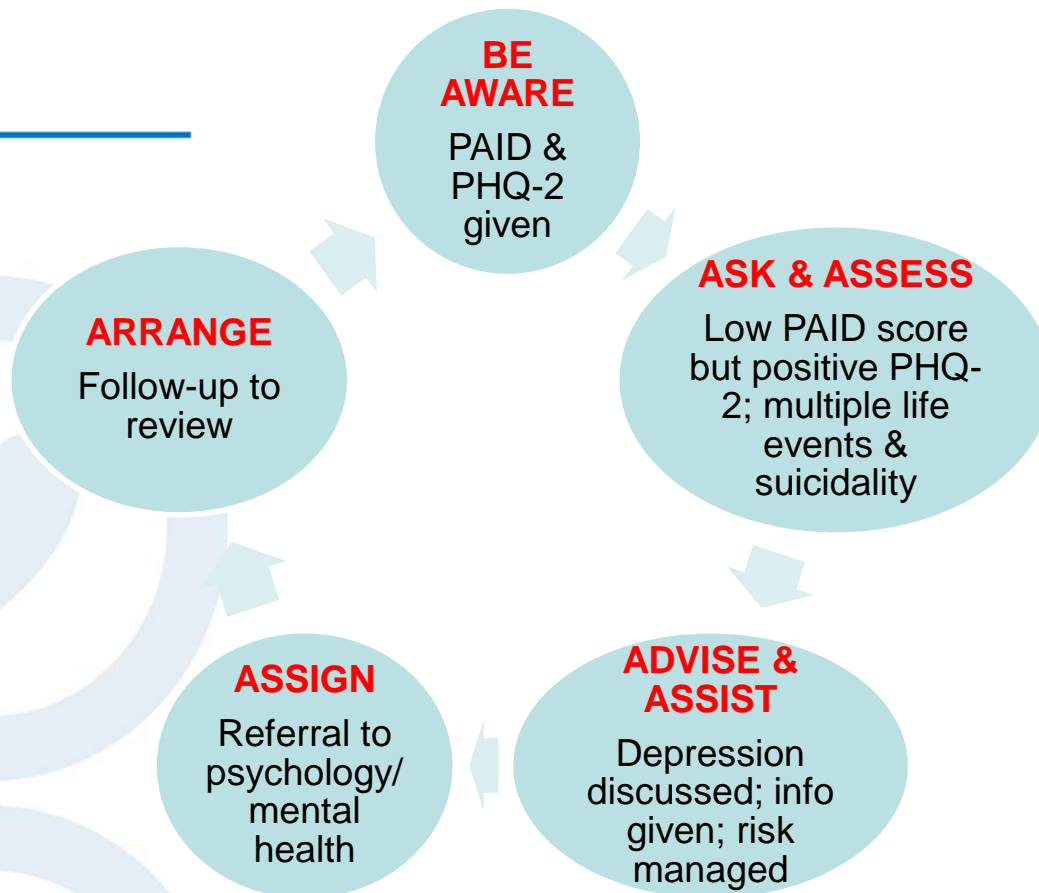
# Luke

24-year-old man living with his older brother

Type 1 diabetes (diagnosed 23 years ago)

Health professionals: Dr Glenn Jin  
(endocrinologist) and Thomas Mitchell  
(diabetes nurse)

Dr. Jin is aware that PwD are at higher risk of emotional distress; he decides to add a mental health questionnaire to the annual review process at his clinic. The questionnaire includes the PAID scale (to assess diabetes distress) and PHQ-2.



Diabetes and emotional health A handbook for health professionals supporting adults with type 1 or type 2 diabetes

# Summary

Emotional distress has high prevalence & incidence

Negatively impacts ALL significant outcomes

## **CLINICAL CHALLENGE**

Frontline HCP's confident & skilled at managing the psychological/physical interface

Improved understanding of the differences between DD & depression but also the inter-connectedness

7A's Model (screening tools)

Most appropriate intervention –  
**ASSIST & ADVISE & ASSIGN**

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**THANK YOU**