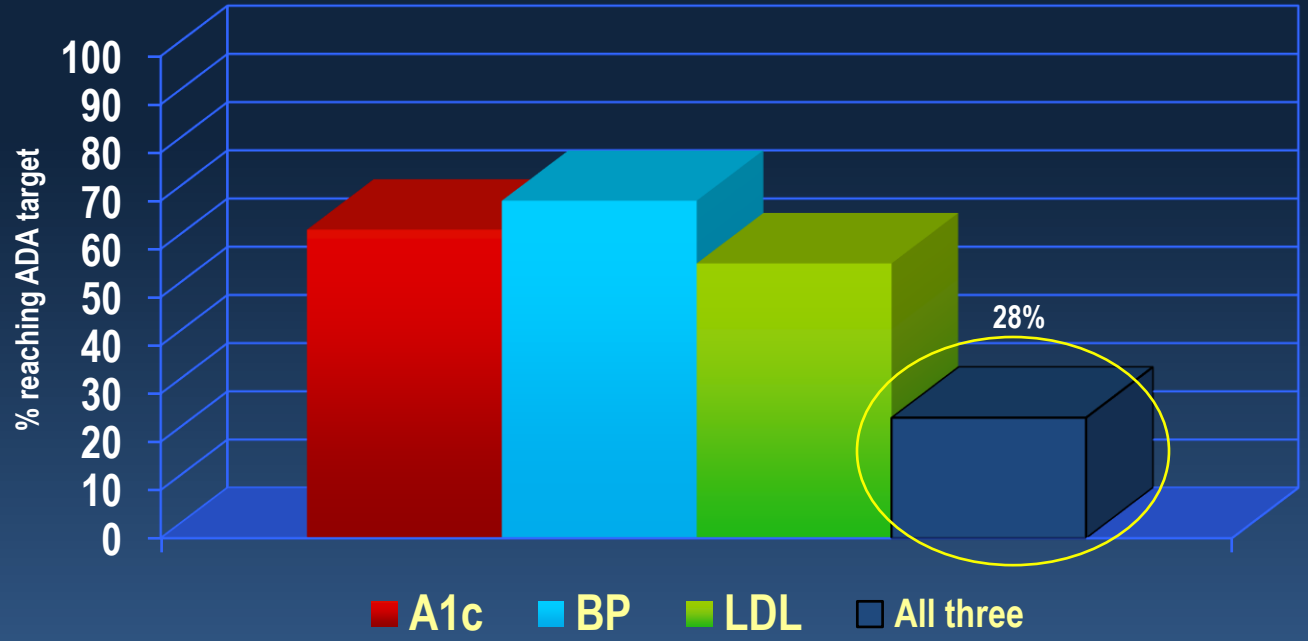
Diabetes Distress and Depression

William H. Polonsky, PhD, CDCES
November 15, 2022

Why Worry about Emotional Issues in Diabetes?

- Because we care about our patient's quality of life
- Because mental health issues complicate self-management and outcomes

Percentage of Patients Achieving ADA Treatment Targets



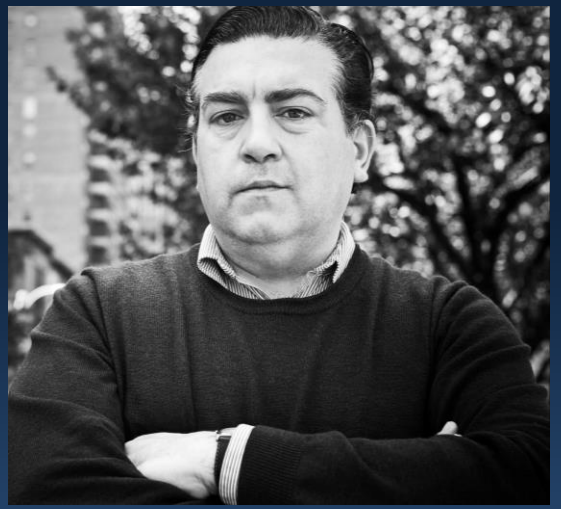
Wang et al, 2021

Why Such Poor Cardiometabolic Outcomes?

- Macroeconomic factors (e.g., poverty)
- Limitations of currently available tools
- HCP behavior (e.g., clinical inertia)
- Patient behavior (e.g., self-management)

Sam's Story

- Age 42, married, school teacher
- T2D 6 yrs, BMI 33, last A1C 8.4%
- Steady weight gain since dx
- No longer checks BGs due to "consistently high readings".
- On MDI, admits to frequently missing basal and prandial shots.
- Tells HCP he is "so sick and tired of all this", but he will "try harder".
- Since then, has begun to skip scheduled appointments.



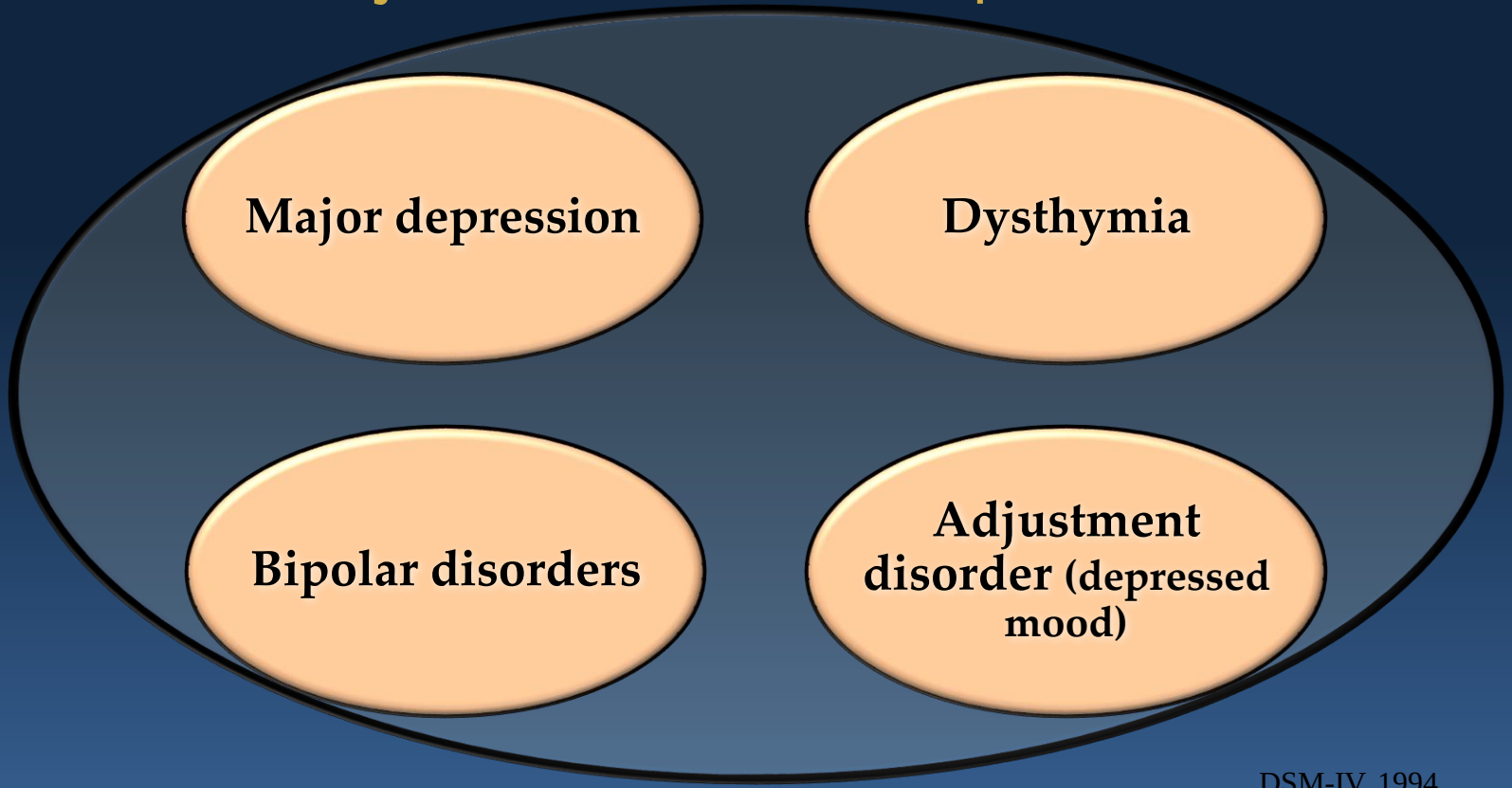
Kasie's Story

- 34 years old, T1D since age 9, lives alone, works as a pediatric nurse
- A1C= 9.1%, on CSII and CGM
- Mother recently died from ESRD
- Tired of being chewed out by her HCP
  - "There's just so much to do and to worry about when it comes to diabetes. And no matter what I do, I can't get the results I want. So why am I even bothering?"

Why Worry about Emotional Issues in Diabetes?

- Because we care about our patient's quality of life
- Because mental health issues complicate self-management
- But time during visits is limited, so which mental health issues to worry about?

Major Forms of Depression



DSM-IV, 1994

Depression Prevalence in DM

- OLD data:
  - 32% (Gavard et al, 1993)
  - 41% (Peyrot and Rubin, 1997)
  - 45% (Gary et al, 2000)
  - 37% (Polonsky et al, 2000)
  - 23% (Anderson et al, 2000)
  - Double the risk in people with diabetes

Depression Prevalence in DM

- Depression (33 studies,worldwide)
  - Type 2 diabetes: 18% (no diabetes: 11%)
  - Diagnostic interviews: 11%

Farooqi et al, in press

Depression Prevalence in DM

- Recent data:
  - Type 1 diabetes (n = 6172): 4.6%
  - Type 1 diabetes (n = 305): 3.5%
  - Type 2 diabetes (n = 503): 3.6%
  - NO increased risk in people with diabetes

Fisher et al, 2010; Trief et al, 2014, Fisher et al, 2015

A Measurement Issue

- False positives when compared to a SCID diagnosis:
- PHQ8 >10 = 71.4%,
- PHQ8 >12 = 65.4%,
- PHQ8 >15 = 57.1%,
- DSM algorithm = 52.9 %.

Fisher et al, submitted for publication

Depression: Still a Big Deal?

- The data is mixed regarding whether:
  - Depression is linked to glycemic control
  - Treating depression improves glycemic control
  - Depression contributes to mortality…

Table 4—*Proportional hazard models of depression predicting ACCORD outcomes*

Predictor	Model adjusted for demographic, trial, and clinical variables: HR (95% CI)	*P*
Primary composite outcome (cardiovascular mortality, nonfatal MI, or nonfatal stroke)		
Major depression	1.53 (0.85–2.73)	0.1527
Minor depression	1.03 (0.56–1.92)	0.9168
PHQ continuous	1.01 (0.98–1.05)	0.4179
PHQ score ≥10	1.13 (0.73–1.75)	0.5842
All-cause mortality		
Major depression	2.24 (1.24–4.06)	0.0078
Minor depression	1.14 (0.59–2.21)	0.6907
PHQ continuous	1.05 (1.01–1.09)	0.0096
PHQ score ≥10	1.84 (1.17–2.89)	0.0078

Sullivan et al, 2012

Bottom Line

- Clinical depression is less common in diabetes than we used to believe
- The negative impact of clinical depression on diabetes outcomes is uncertain
- BUT people with diabetes are likely to be a lot more emotionally distressed
- About what….?

COMMENTARY

Depression in Diabetes: Have We Been Missing Something Important?

JEFFREY S. GONZALEZ, PHD[1,2]
LAWRENCE FISHER, PHD[3]
WILLIAM H. POLONSKY, PHD, CDE[4,5]

An extensive literature has developed to suggest that depression is more common in patients with diabetes than in the general population (1) and is associated with chronic hyperglycemia (2), risk for diabetes complications (3), and mortality (4). Although the causal linkages among these relationships have not been demonstrated, their consistency has led to calls for intensive efforts to

pressive symptoms) are also quite common among patients with diabetes and are associated with poor self-care (8). Furthermore, increased risk of complications and early mortality is not limited to those with MDD but also extends to those with elevated depressive symptoms, even when these elevations are quite modest (4). This suggests an incremental relationship between the severity of depressive

MDD treatment may be unlikely to improve diabetes outcomes unless they also incorporate strategies to address important relationships between MDD and chronic illness (rev. in 10). Finally, we suggest an alternative approach to understanding the common experience of emotional distress in diabetes that emphasizes the demanding experience of diabetes and requires diabetes-specific measurement and treatment approaches.

Have we been using the wrong assessment approach?

There is a recurrent disconnect in the di-

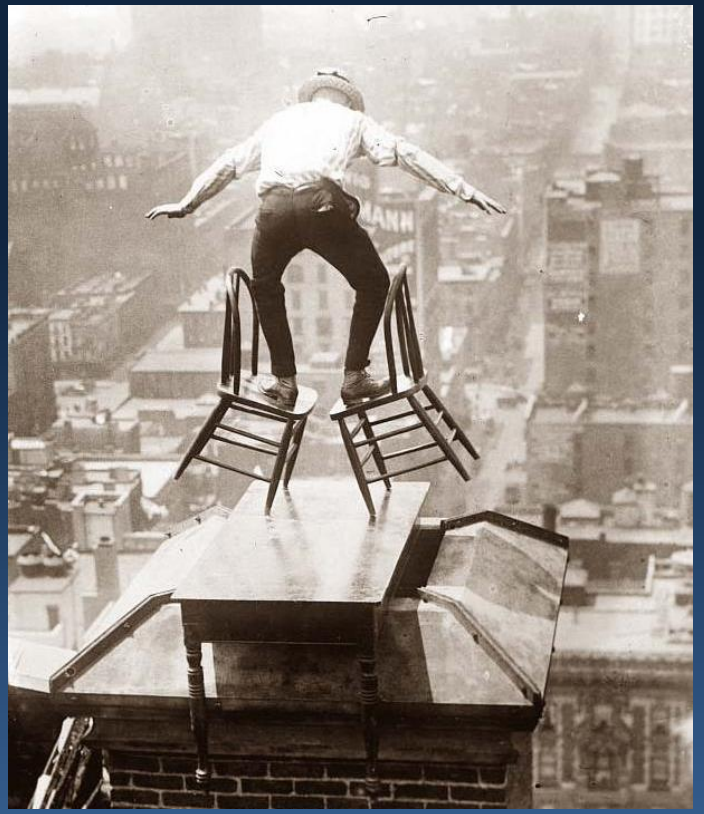
Gonzalez et al, 2011

Real Life with Diabetes

- Living with diabetes is tough
- A time-consuming, frustrating job:
  - you didn't volunteer for it
  - there's no pay, no vacations
  - do it for the rest of your life
- And the reward?

Diabetes Distress

The felt burden of living with this tough, demanding disease.



Depression vs. Diabetes Distress

What is Diabetes Distress?

The felt burden of living with a tough, demanding disease

- Hopelessness
- Discouragement
- Exhaustion

"What's the difference? This disease is going to get me no matter what I do.

"I hate that no matter how hard I try, I can never get the results that I want."

"24 hours/day, 7 days/week. I can't go 10 minutes without thinking about this damned disease. I am sick of it!"

What is Diabetes Distress?

The felt burden of living with a tough, demanding disease

- Hopelessness
- Discouragement
- Exhaustion
- Unrealistic expectations

"My BG's should always be 80 -120 mg/dl."

"I must eat perfectly and never, ever cheat."


I have no idea what I'm doing
gifbin.com


I will Be Good
I will Be Good
I will Be Good
I will Be Good
I will Be Good
I will Be Good
I will Be Good
I will Be Good
I will Be Good
I will Be Good
DUNCE

Diabetes Distress Prevalence

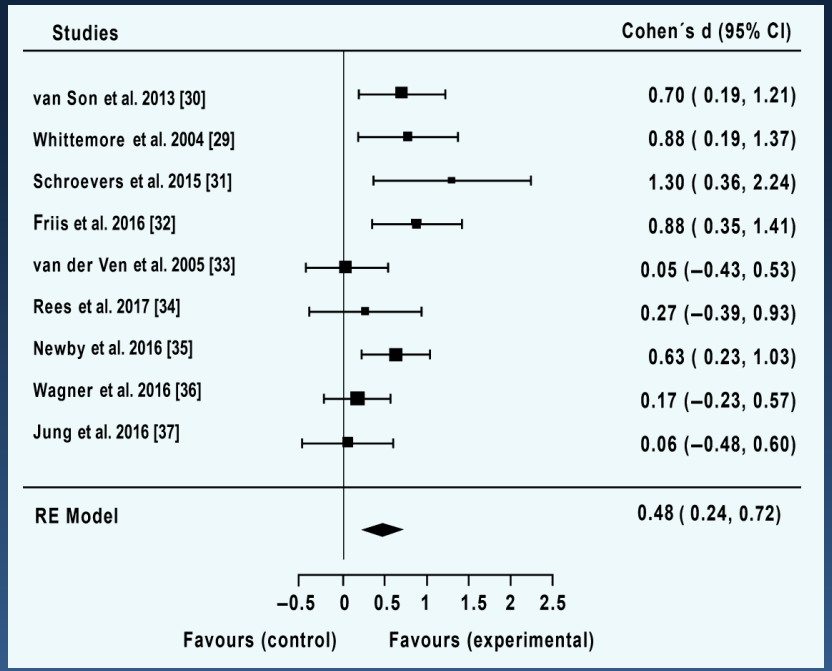
- Diabetes distress
  - Type 1 diabetes (n = 224): 42%
  - Type 2 diabetes (n = 36,998): 36%

Fisher et al, 2016; Perrin et al, 2017

So What To Do?

Research Findings

- Meta-analysis of 9 diabetes distress interventions…



Cohen's $d = 0.48$

Schmidt et al, 2018

The Fundamental Premise

- No one:
  - is unmotivated to live a long and healthy life
  - prefers to feel miserable in the face of diabetes
- The real problem:
  - Diabetes can be tough

Step 1. Assess

- The informal approach: knowledge and normalize
  - "What's one thing about diabetes that's driving you crazy?"
- The formal approach: use self-report instruments

Measuring Diabetes Distress

- **PAID (Problem Areas in Diabetes Scale)**
  - 20 items, 5-point Likert scale, no subscales
- **DDS (Diabetes Distress Scale)**
  - 17 items, 5-point Likert scale, four subscales
- **T1-DDS (T1-Diabetes Distress Scale)**
  - 28 items, 5-point Likert scale, seven subscales
- **T2-DDAS (T2-Diabetes Distress Assessment System)**
  - 8-item Core scale, seven 3-item Sources scales

Polonsky et al, 2022; Polonsky et al, 1995; Polonsky et al, 2005; Fisher et al, 2008

Diabetesdistress.org

- T1-DDS & DDS in English & Spanish
- Automatically scored, with printable reports

Kasie's Story

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- A1C= 9.1%, on CSII and CGM
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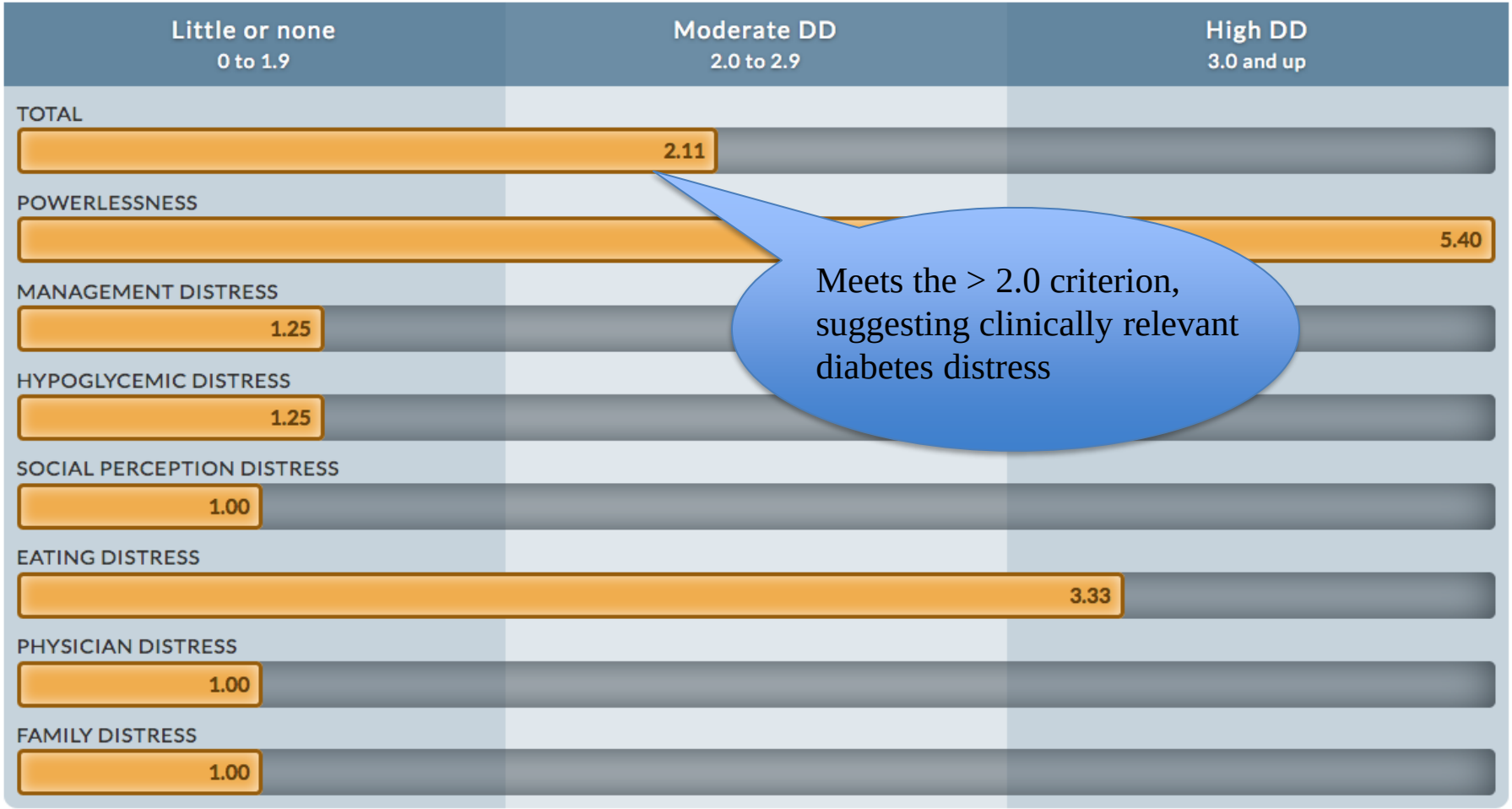
  - "There's just so much to do and to worry about when it comes to diabetes. And no matter what I do, I can't get the results I want. So why am I even bothering?"

Your T1-DDS Summary Report (page 1)



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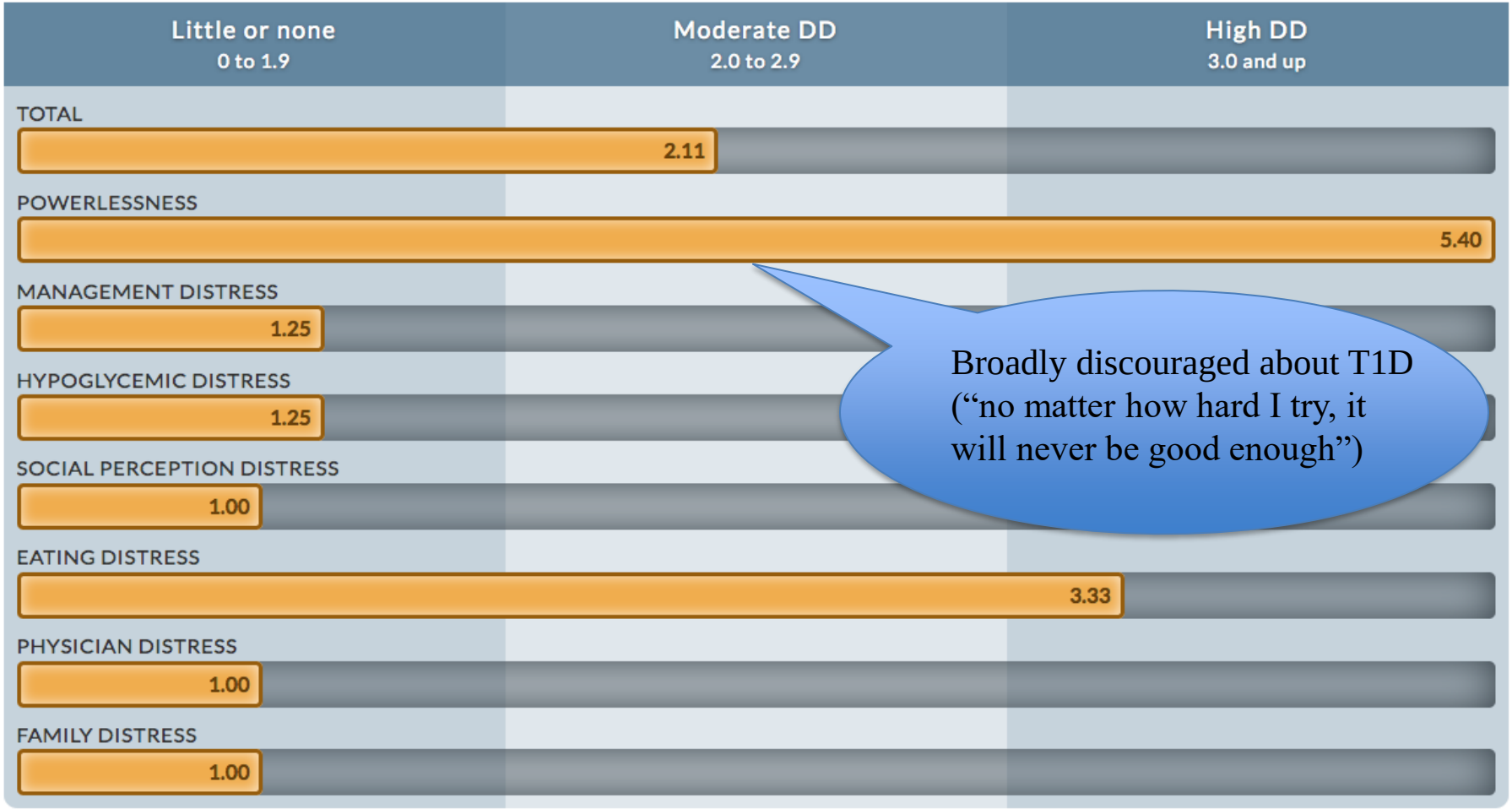

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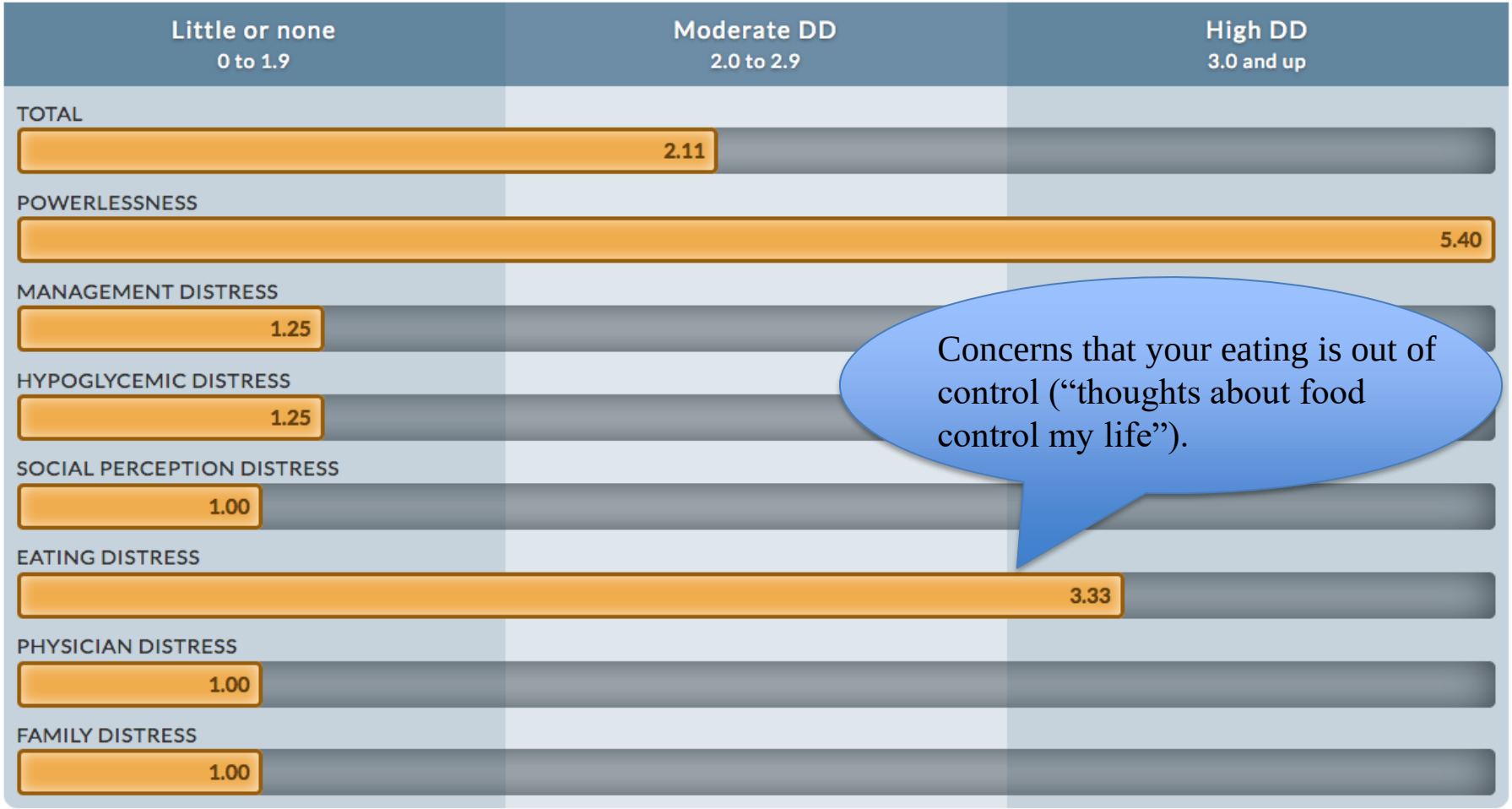


Kasie's Highest T1-DDS Items

- Feeling worried that I will develop serious long-term complications, no matter how hard I try.
- Feeling that I've got to be perfect with T1D management.
- Feeling that no matter how hard I try with T1D, it will never be good enough.
- Feeling discouraged when I see high BG numbers that I can't explain.

Step 2. Acknowledge and Normalize

- Don't try to fix your patient's difficult feelings
- Instead, acknowledge, normalize and empathize
  - "I can get a sense of how tough this has been for you, and it makes sense. And by the way, you should know that, given the challenges of diabetes, lots of other people feel just the same."

Association Between Primary Care Practitioner Empathy and Risk of Cardiovascular Events and All-Cause Mortality Among Patients With Type 2 Diabetes: A Population-Based Prospective Cohort Study

Hajira Dambha-Miller, MRCGP, PhD[1,3]

Adina L. Feldman, PhD[2]

Ann Louise Kinmonth, FRCGP,

ABSTRACT

PURPOSE To examine the association between primary care practitioner (physician and nurse) empathy and incidence of cardiovascular disease (CVD) events and all-cause mortality among patients with type 2 diabetes.

Dambha-Miller et al, 2019

Consultation and Relational Empathy

How good was your HCP at:

1. making you feel at ease
2. letting you tell your story
3. really listening
4. being interested in you as a whole person
5. fully understanding your concerns
6. showing care and compassion
7. being positive
8. explaining things clearly
9. helping you to take control
10. making a plan of action with you

Dambha-Miller et al, 2019

HCP Empathy and Mortality Outcomes

"In this 10-year follow up of patients with newly diagnosed type 2 diabetes, those reporting better experiences of empathy in the first 12 months after diagnosis had a significantly lower risk (40% to 50%) of all-cause mortality over the subsequent 10 years compared with those who experienced low practitioner empathy."

Dambha-Miller et al, 2019

Step 3. Address Despair

Q. Diabetes is the leading cause of adult blindness, amputation, and kidney failure. True or false?

A. False. To a large extent, it is *poorly controlled* diabetes that is the leading cause of adult blindness, amputation and kidney failure.

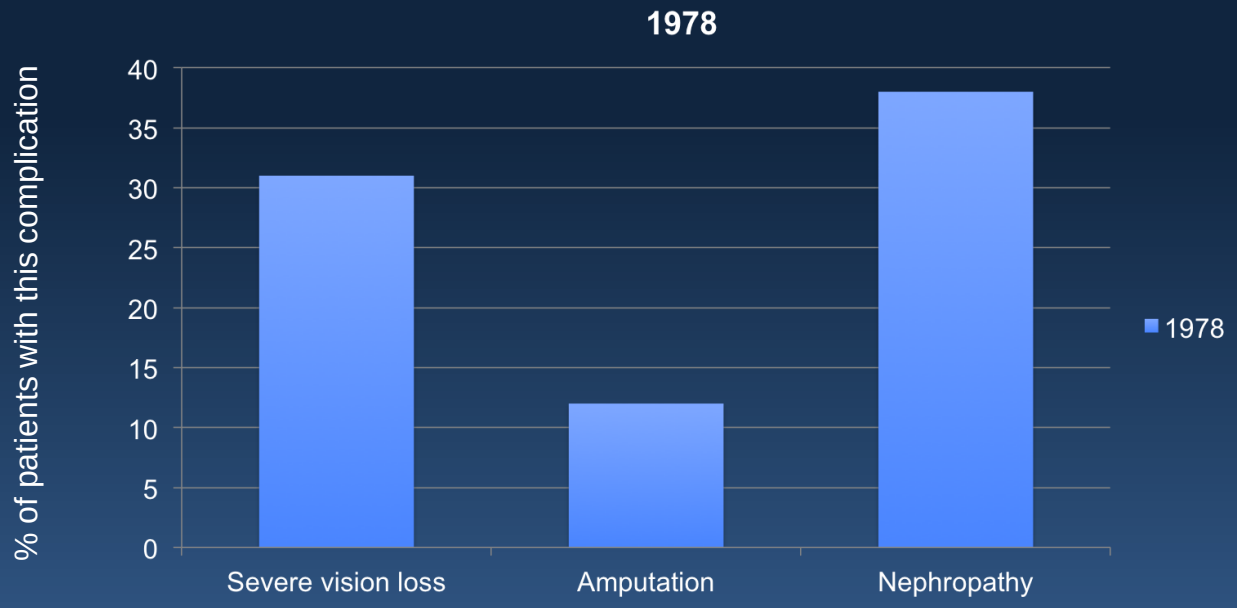
Well-controlled diabetes is the leading cause of… NOTHING!

Fact Check

This doesn't mean: good care will **guarantee** that you will not develop complications

This does mean: with good care, **odds are good** you can live a long, healthy life with diabetes

T1D Complications After 30+ Years



Deckert et al, 1978

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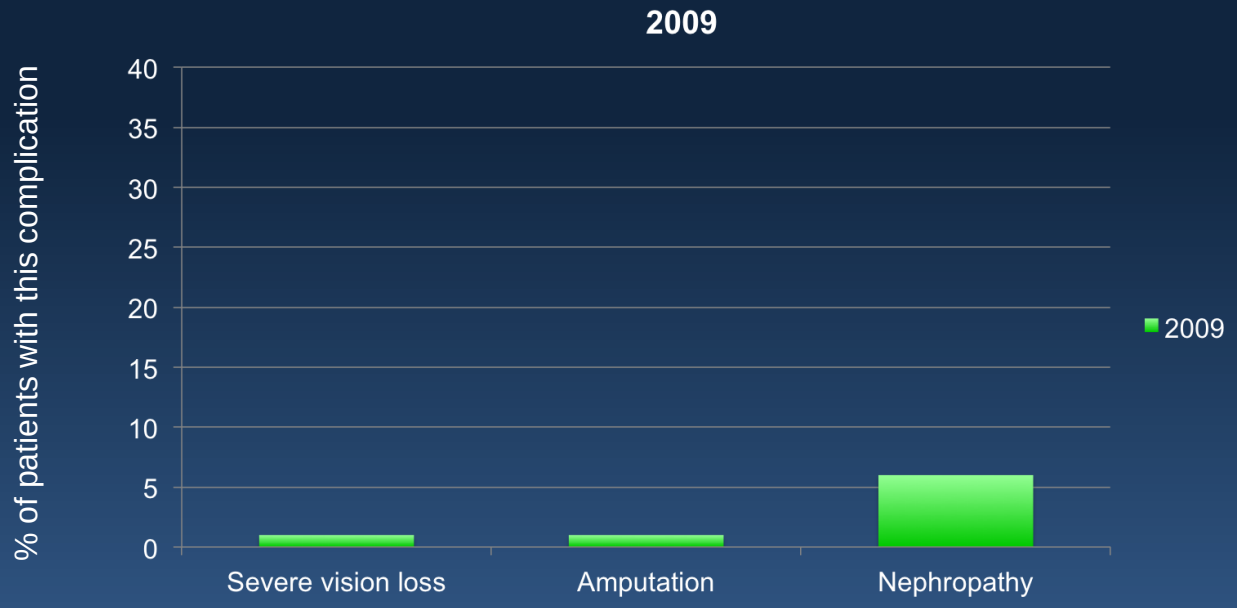
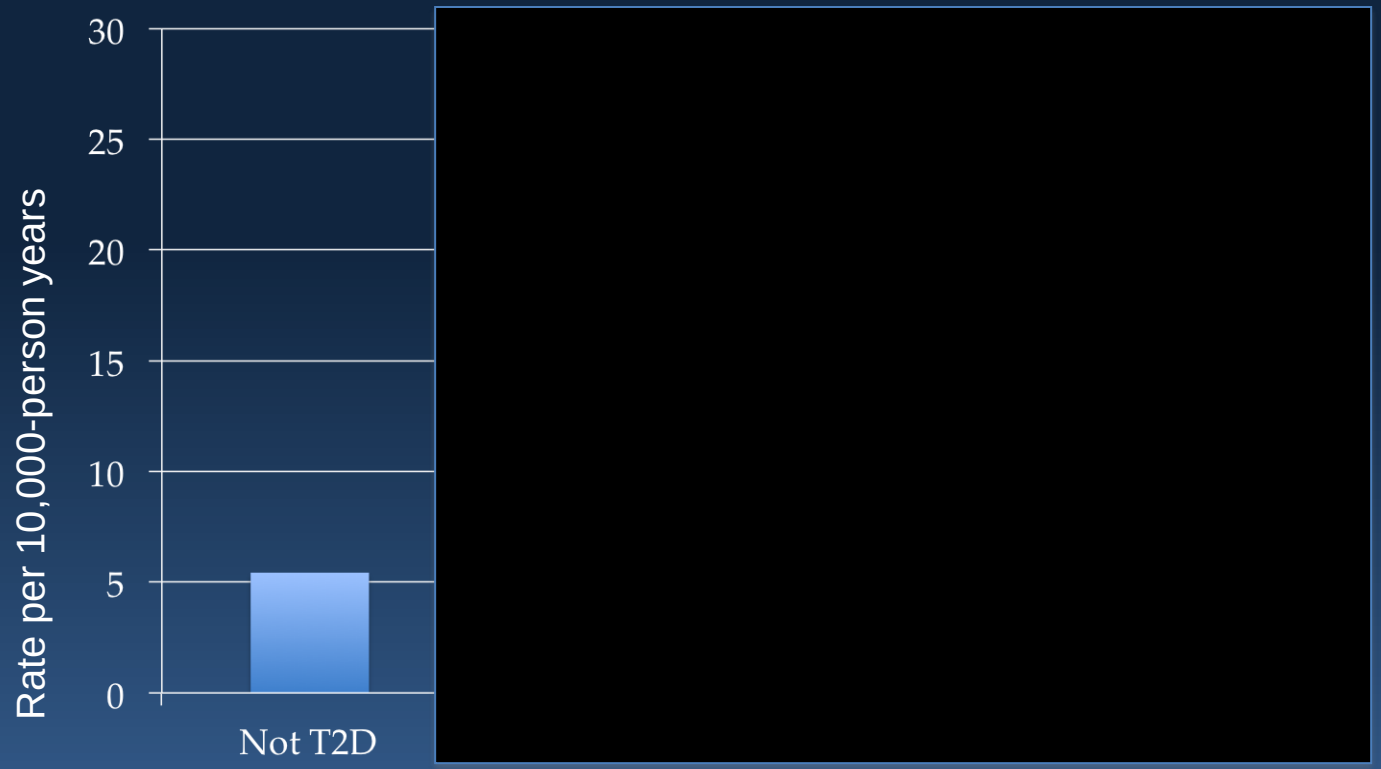


DCCT/EDIC Research Group, 2009

What About Type 2 Diabetes?

Heart Attacks in Type 2 Diabetes



Rawshani et al, 2018

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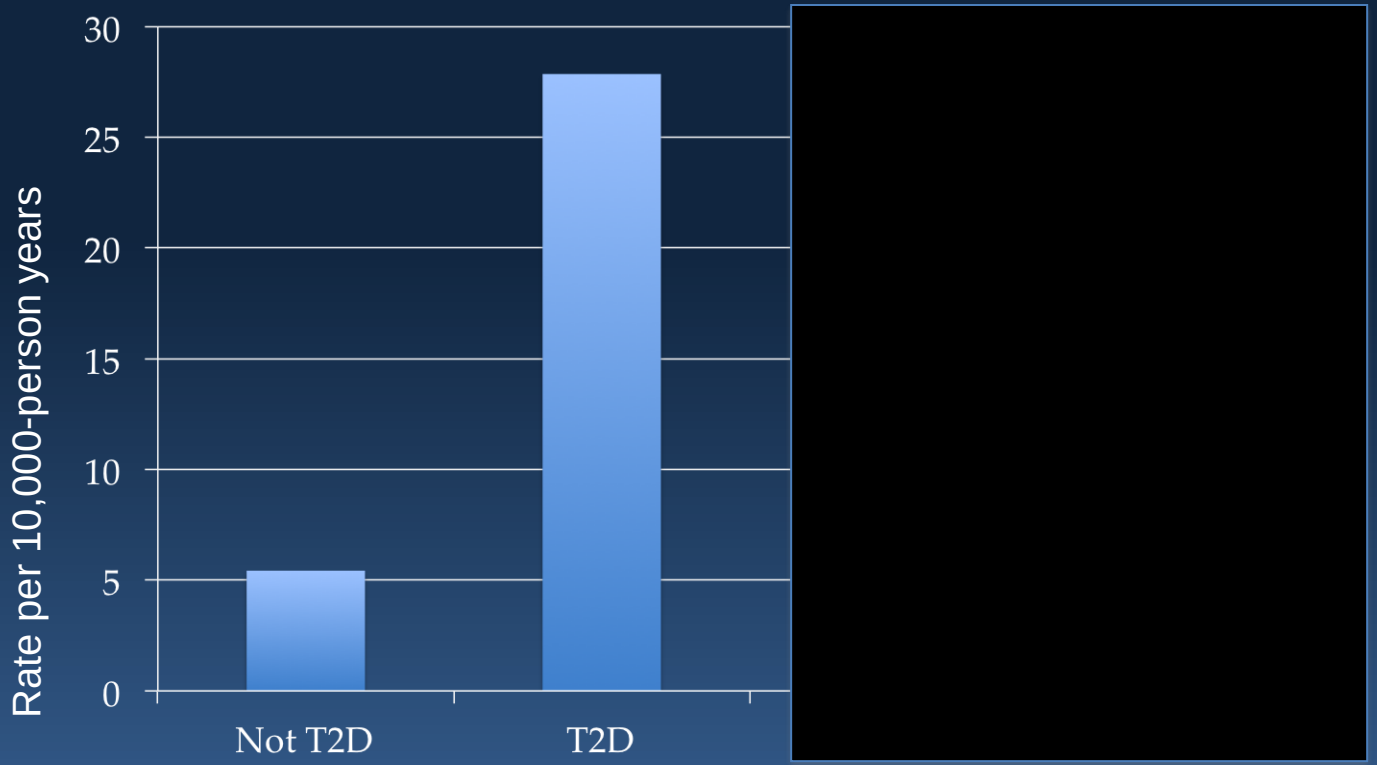

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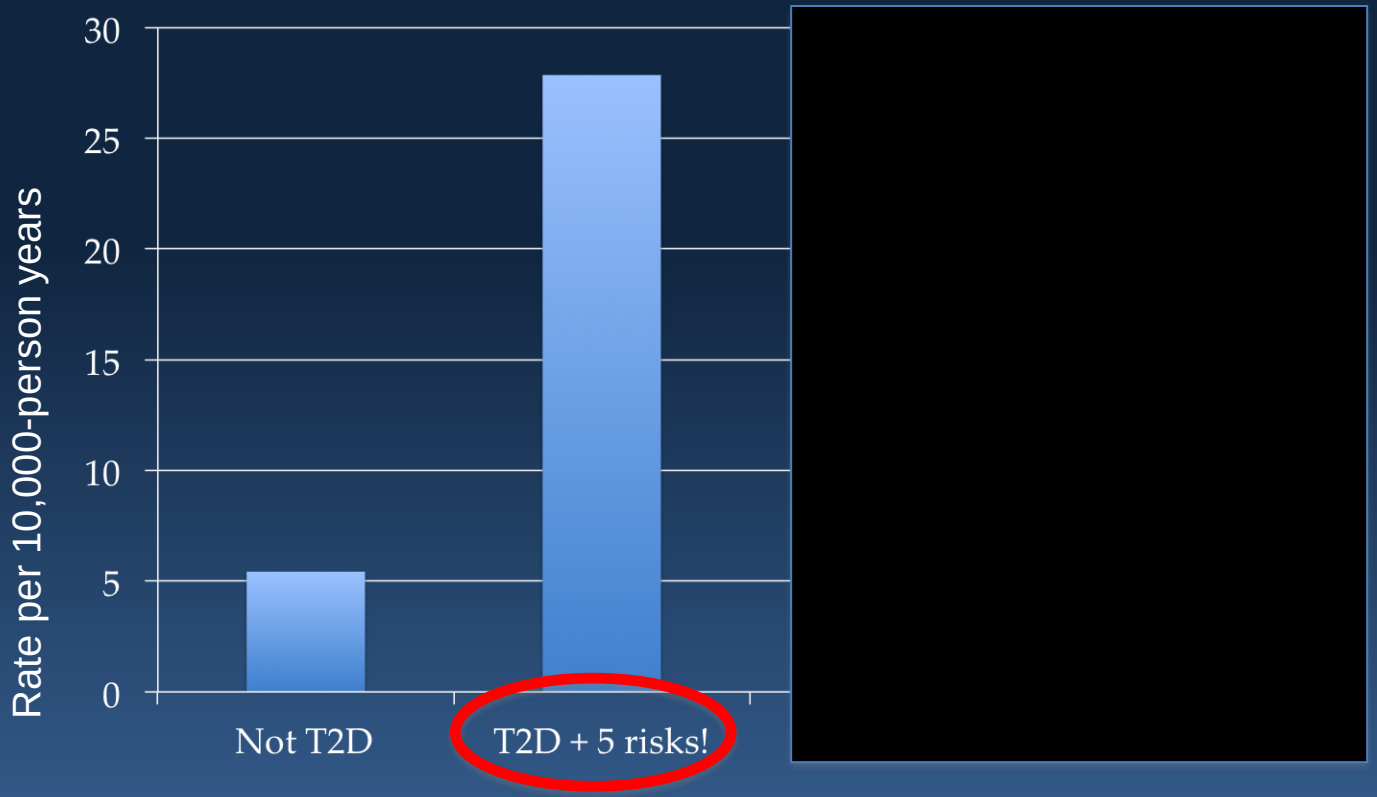

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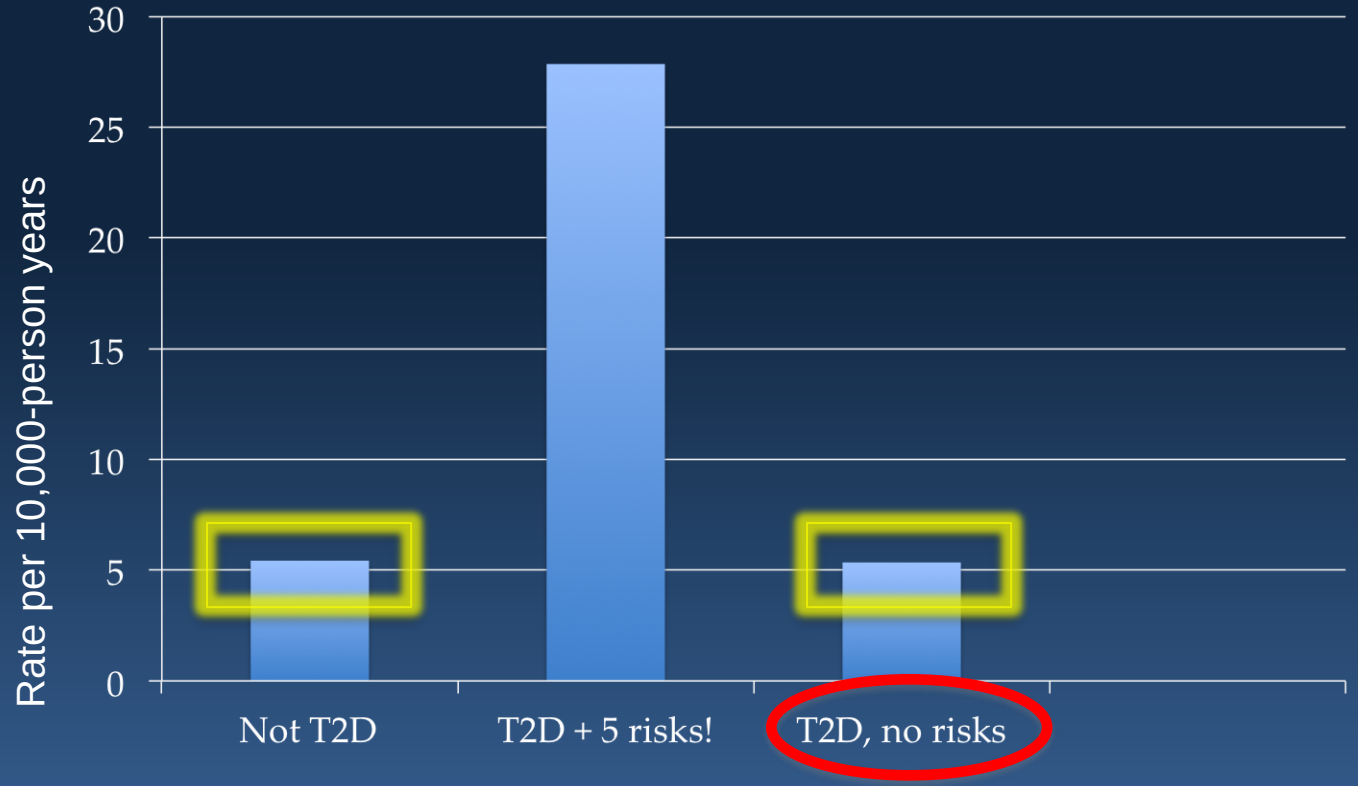
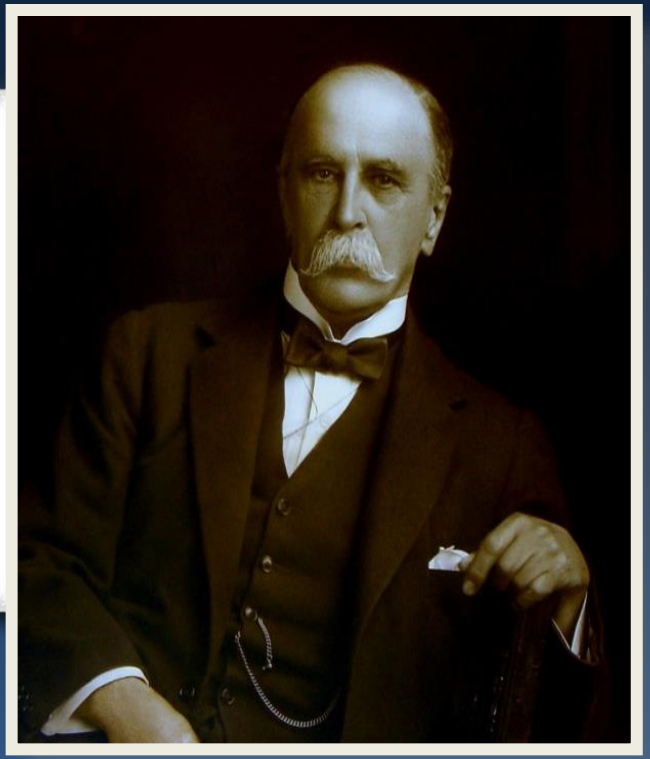


Rawshani et al, 2018

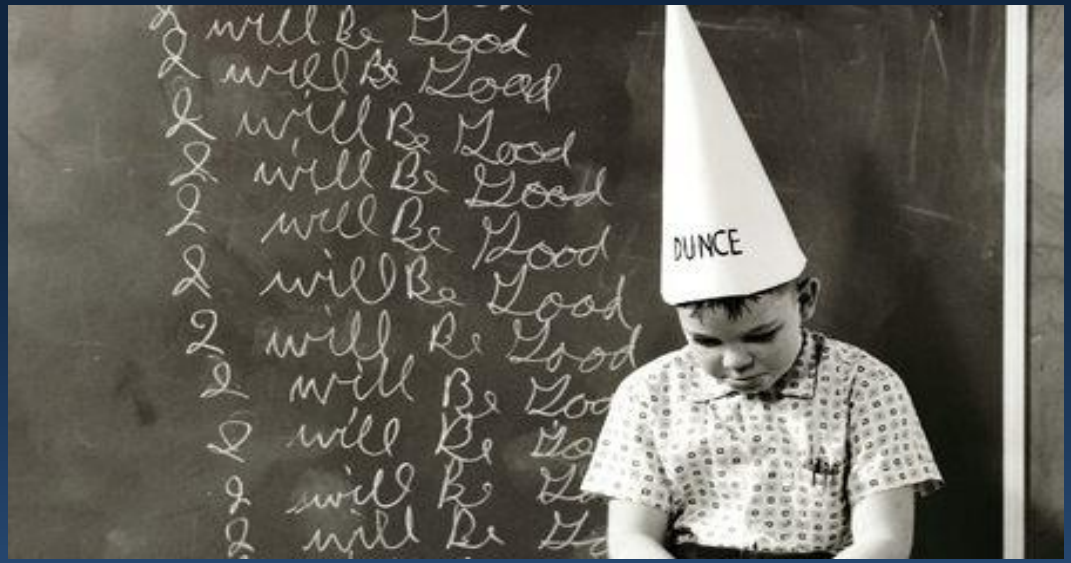
Bottom Line

“To live a long and healthy life, develop a chronic disease and take care of it.”

- Sir William Osler



Step 4. Address Discouragement



- Arrange for success experiences

Polonsky et al, 1995; Polonsky et al, 2005

Arrange for Success Experiences

- Promote reasonable expectations
  - "you can't do diabetes perfectly, and you don't have to"
- Look for ways to congratulate
  - "this is great that you brought in BG records"
- Jointly develop concrete, doable plans for action
  - "I need to learn about GLP-1s," "Get my spouse involved."

One Small Step at a Time

Arrange for Success Experiences

- Promote reasonable expectations ("you can't do diabetes perfectly, and you don't have to")
- Look for ways to congratulate
- Provide the tools your patients need to be successful
- Jointly develop concrete, doable plans for action
  - Make behavioral success easier to achieve
  - "I need to learn about GLP-1s," "Get my spouse involved."

In Sum

- Depression should remain an object of concern
- Diabetes distress may be a more critical and common emotional issue

Four Steps for Addressing Diabetes Distress

1. Assess
2. Acknowledge and normalize
3. Address despair
4. Address discouragement

Overcoming Diabetes Distress is about Gaining a New Perspective

Our patients need to know:

- You are not alone about feeling this way
- You are not a bad person (no more shaming!)
- You are not doomed
- You *can* feel better and achieve greater success (and we can build a doable plan together)

Thanks for Listening

Behavioral Diabetes Institute
www.behavioraldiabetes.org