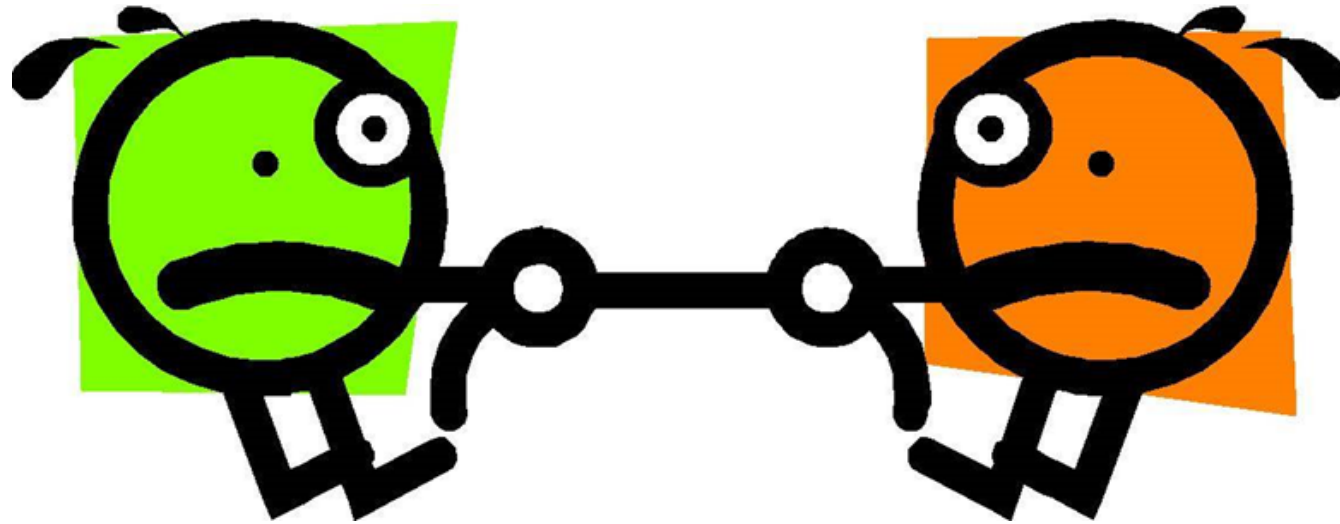# Strategies for Improving Adherence in Patients with Diabetes
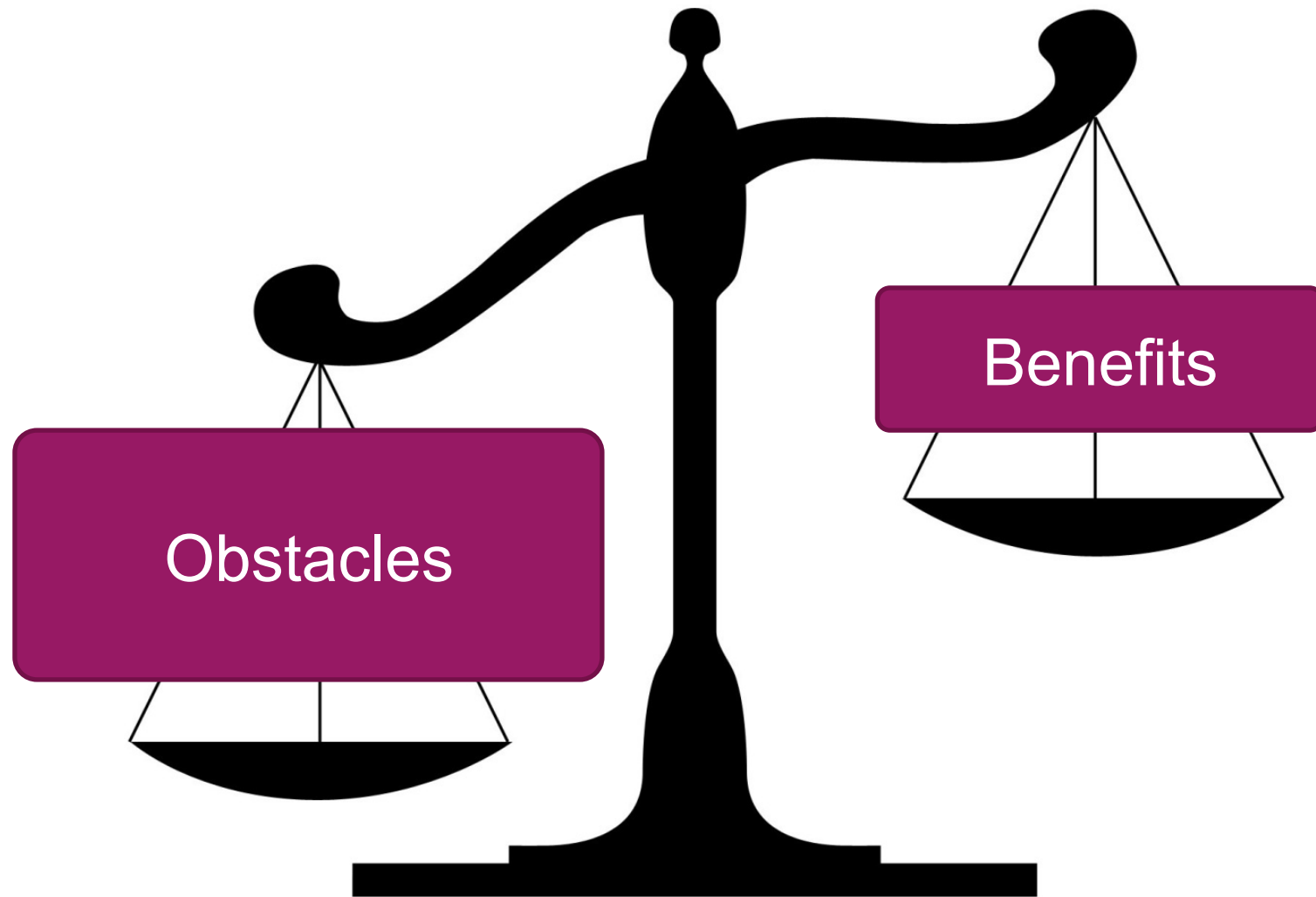
Susan Jung Guzman, PhD
Behavioral Diabetes Institute

Motivation in Diabetes

- Almost no one is unmotivated to live a long and healthy life

- The problem:
  - Patients see benefits and obstacles, therefore ambivalence is common

Motivation in Diabetes

Strategies That Don't Work

Taking sides in the patient's ambivalence

Strategies That Don't Work

Taking sides in the patient's ambivalence

- Urging more willpower
  - "if you would just try harder…"

- Threatening bad outcomes
  - "you'll go blind if you don't do better…"

- The gift of advice
  - "maybe you should leave your tablets next to your toothbrush…"

Common Patient Responses

- Listing reasons for not making changes
  - "Yes, but…"

- Expressing ambivalence
  - "Hmmm, I'm not sure…"

- Apparent face-to-face agreement, with little follow through with clinician's plan

Motivation in Diabetes

- Obstacles to self-care often outweigh possible benefits

- The underlying theme of most obstacles:

  – lack of perceived value

  – **"It's not worth it"**

Lack of Perceived Value

1.Perceived benefits are nil

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

- "I've been taking these meds like I'm supposed to, but I don't feel any better."

- "Why bother bringing my BG logbook to my doc? I'm just going to get chewed out."

Diabetes: NOT Viewed As An Important and Immediate Concern

- *"I often forget to take my diabetes tablets/inject my insulin but I see no reason to worry about it"*

- *"I rarely check my blood glucose levels because what's the point? I feel absolutely fine."*

- *"I know diabetes can cause problems down the road, but I've got other more important things to worry about at the moment (family life/work/finances etc)"*

Diabetes: An Important and Immediate Concern

Out-of-control DM can harm you, even if you feel OK

Keys: Making the invisible visible
Promoting a sense of urgency
Avoid scare tactics or threatening bad outcomes

Back on Track Feedback

Tests	Usual Goals	Your Results
	Your score should be	
A1c	7.0% or less	8.7%
Blood Pressure	130/80	125/75
LDL	100 or less	116

Name: Molly B.	
SAFE: At or better than goal	NOT SAFE: Not yet at goal
	x
x	
	x

Lack of Perceived Value

1.Perceived benefits are nil

- Fatalism about diabetes

- Metabolic goals seem unachievable

- Treatment doesn't "feel" any different

- Discouraging results such as weight gain or hypoglycaemia erase any perception of benefit.

Lack of Perceived Value

1. Perceived benefits are nil

2. **Perceived costs are too high**

   - Seen as "not worth it"

   - "24 hours a day, 7 days a week. I can't go 10 minutes without thinking about this damned disease. There is never a break. I am sick of it!"

   - "Taking all of these pills can't be good for me."

   - "I can't afford all of these medications."

Lack of Perceived Value

1. Perceived benefits are nil

2. Perceived costs are too high

3. **Unrealistic (or too vague) expectations**

   - "I know I'm not supposed to eat any bad foods, but that's impossible!"
   - "I have to lose 10 lbs before my next medical appointment, which is – uh oh – next week."

So What To Do?

Key Solutions

Solution	Strategy
1. "Coming alongside"	Can you tell me one thing about diabetes that's been driving you crazy?"
2. Helping patients to see benefits	Discuss/challenge unrealistic beliefs ("with good care, odds are good…") "Pre-post event" testing home experiment
3. Addressing medication fears	Discuss medication "secrets"

Key Solutions

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1. "Coming alongside"	Can you tell me one thing about diabetes that's been driving you crazy?"
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Life Expectancy in a Large Cohort of Type 2 Diabetes Patients Treated in Primary Care (ZODIAC-10)

Helen L. Lutgers[1], Esther G. Gerrits[2]*, Wim J. Sluiter[3], Lielith J. Ubink-Veltmaat[4], Gijs W. D. Landman[2], Thera P. Links[3,5], Reinold O. B. Gans[1,5], Andries J. Smit[1,5], Henk J. G. Bilo[1,2,5]

1 Department of Internal Medicine, University Medical Center Groningen, Groningen, the Netherlands, 2 Diabetes Center, Isala Clinics, Zwolle, the Netherlands, 3 Department of Endocrinology, University Medical Center Groningen, Groningen, the Netherlands, 4 Family practice 't Veen, Hattem, the Netherlands, 5 Department of Medicine, University of Groningen, Groningen, the Netherlands
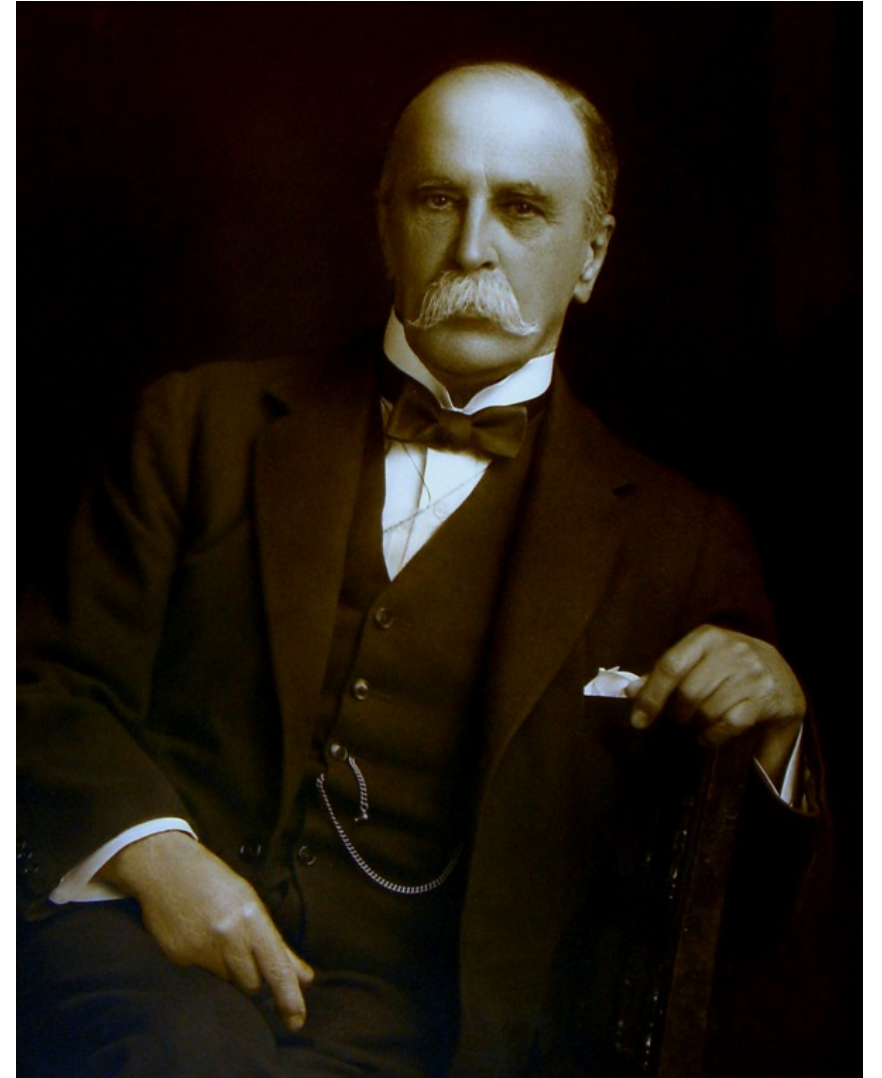
Conclusions: "This study shows a normal life expectancy in a cohort of subjects with well-managed type 2 diabetes patients in primary care when compared to the general population."

- Lutgers et al, 2009

Lutgers HL, et al. *PLoS One* 2009;4:e6817

Diabetes and Your Health

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

- *Sir William Osler*

Key Solutions

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Case: Mr Hernandez

- T2D 6 yrs, BMI 33, last A1c 7.9%

- Was heavily involved in sports, but quit 5 years ago due to injury

- No longer checks BGs due to "consistently high readings"

- Has been encouraged to begin walking, but refuses ("it won't help")

Mr Hernandez Exercise Experiment

Daily walk (30 minutes)	Day	Pre-Exercise	Post-Exercise	BG Change
For 7 consecutive days, measure BG right before and after 30 min walk	1	129 mg/dL	101 mg/dL	-28 mg/dL
	2	194 mg/dL	153 mg/dL	-41 mg/dL
	3	157 mg/dL	94 mg/dL	-63 mg/dL
	4	141 mg/dL	108 mg/dL	-33 mg/dL
	5	152 mg/dL	127 mg/dL	-25 mg/dL
	6	130 mg/dL	98 mg/dL	-32 mg/dL
	7	124 mg/dL	102 mg/dL	-22 mg/dL

Average BG change: -35 mg mg/dL

Key Solutions

Solution	Strategy
1. "Coming alongside"	Can you tell me one thing about diabetes that's been driving you crazy?"
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3. Addressing medication fears	Discuss medication "secrets"

Four Medication "Secrets"

1. Taking your medications is one of the most powerful things you can do to positively affect your health

2. Your medications are working even if you can't feel it

3. Needing more medication is not your fault

4. More medication doesn't mean you are sicker, less medication doesn't mean you are healthier

Action Planning – Key Components

1. Educate about *priority* actions
2. Focus on concrete actions to start
3. Must be achievable and meaningful to patient
4. Consider obstacles
5. Talk through steps
   "So what exactly are you going to do tomorrow?"

Action Planning – Example

1. Educate about *priority* actions

    - agree that weight loss could help improve a1c

2. Focus on concrete actions to start

    - lose 5 lb (goal). He is planning to replace 2 fast food meals per week with home-cooked meals which he will batch cook on Sunday evening

3. Must be achievable and meaningful to patient

    - former belt size and wear his preferred clothes again

4. Consider obstacles

    - if too tired to cook on Sunday, buy a selection of low-calorie prepared meals to keep in the freezer

5. Talk through steps

    "So what exactly are you going to do tomorrow?"

Physician-Patient Relationship

Table 3. Relationship Between Consultation Attributes and Compliance With Medications (the Dependent Variable) in Logistic Regression Analysis (N = 172)

Consultation Variable	Unadjusted OR (95% CI)	Adjusted* OR (95% CI)
Trust in Physician Scale score	1.07 (1.02-1.12)	1.04 (0.99-1.10)
Continuity of care		
UPC Index	0.90 (0.97-1.01)	0.99 (0.97-1.02)
Usual source of care	2.87 (0.86-9.60)	5.98 (1.88-19.03)
Length of care with same doctor	0.94 (0.74-1.19)	0.86 (0.68-1.09)
Importance of seeing same doctor each visit	0.86 (0.56-1.30)	0.80 (0.51-1.25)
Enablement Index	1.03 (0.99-1.08)	1.05 (0.98-1.12)
Physician-patient concordance score	1.21 (1.05-1.39)	1.34 (1.04-1.72)[†]

Kerse N, et al. *Ann Fam Med* 2004;2:455-461

What Does "Concordance" Mean?

- To what extent do you think the doctor understands why you came in today?

- How well do you think the doctor understood you today?

- To what extent did you and the doctor agree about the main problem or need today?

- To what extent did you and the doctor agree about what to do about the problem or need?

Take-Home Messages

- Our patients are not unmotivated

- The problem is that diabetes self-care is tough

- Patients often come to the conclusion that diabetes self-management is not worth the effort

- **Core intervention strategies to consider include:**

Key Solutions

Solution	Strategy
1. "Coming alongside"	Can you tell me one thing about diabetes that's been driving you crazy?"
2. Helping patients to see benefits	Discuss/challenge unrealistic beliefs ("with good care, odds are good…") "Pre-post event" testing home experiment
3. Addressing medication fears	Discuss 4 medication "secrets"
4. Collaborative action planning	Concrete, meaningful, achievable actions, plan for obstacles, follow up