Depression and Diabetes

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Depression

Stress

Anxiety

What is Depression?

- Depression more than just ‘feeling blue’
- Clinical depression is a severe and potentially debilitating condition
- Impacts every facet of life
- Creates feelings of hopelessness, helplessness, and/or worthlessness

Is it an expectation?

- “Your children just left home- what do you expect?”
- “Look everything you’ve been through! You should be depressed.”
- “ Your break up has been so stressful. Why wouldn’t you be depressed?”
- “Your marriage has just ended after twenty-five years. Of course you’re depressed.
- “ You had a heart attack. My God I would be depressed too!”

Is it a normal reaction to everyday stressors?

- “Roll with this. This is all just part of the change.”
- “In a few weeks from now, you won’t even remember feeling like this.”
- “Just be positive- it will go away in time.”

Is it a personal deficit?

– “I think the whole family is nuts!”
– “I should be able to cope.”
– “ I just need to pull up my socks.”

Depression is an illness

- Highly treatable
- ~80% of people faced with depression experience rapid improvement in 6 months if treated

Depression

- Depression is a chronic disease with known tendencies to relapse.

1999 Canadian network for Mood and Anxiety Treatments (CANMET) pg. 51

Risk of Recurrence

- After 1st depressive episode = 50%
- After 2nd depressive episode = 70%
- After 3rd depressive episode = 90% chance of a 4th

CANMET 2006

Prevalence of Depression

- 1 in 20 adults in Canada at any given time are affected by Depression
- Male: Female= 1:2
- Age of onset: younger (mean 25-35 yrs)
- Incidence: increasing
- 3 times as likely in the unemployed

Life Time prevalence – 15%

Murphy JM et al. Atch gen Psych. 2000; 57:209-12
Bland RC, et al. Acta Psychitry Scand Suppl. 1988; 338:24-42
Parikh SV, et al. J Affect Disord. 1996; 38: 57-65
Garfinel P. Centre for Addiction and Mental Health, 2002

Depression Is…

- Imbalance of brain chemicals called neurotransmitters and a host of other factors that make people more or less susceptible

Neurophysiology of Depression

- Common conceptualization of depression as a disorder of serotonin and/or nor epinephrine

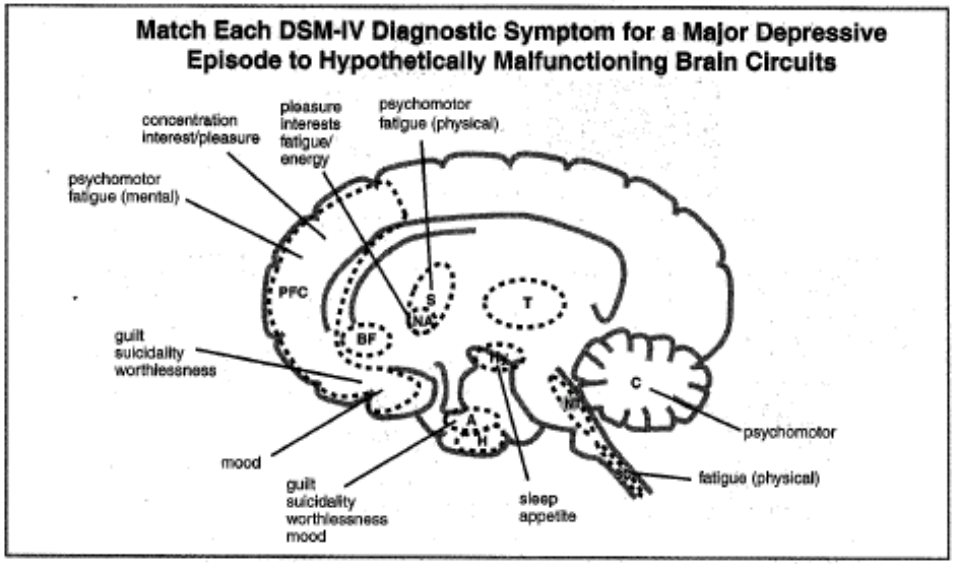
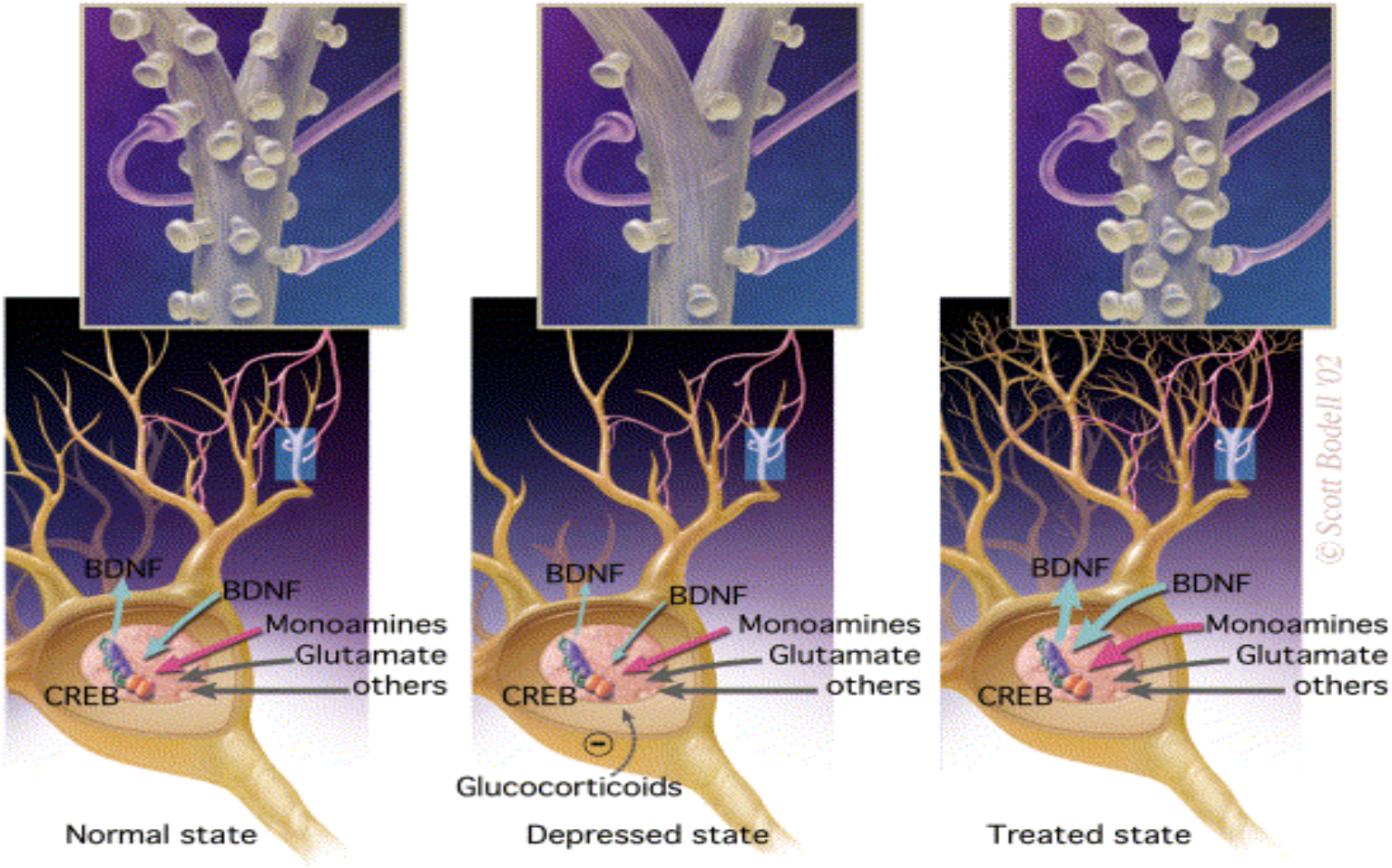


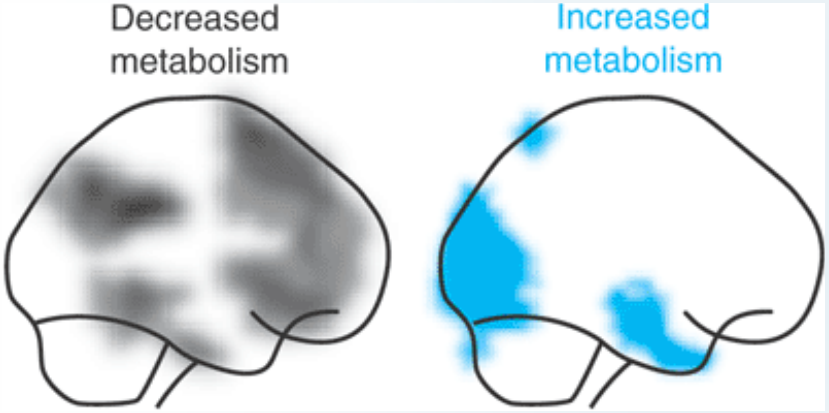
FIGURE 11-45 Matching depression symptoms to circuits. Alterations in neuronal activity and in the efficiency of information processing within each of the eleven brain regions shown here can lead to symptoms of a major depressive episode. Functionality in each brain region is hypothetically associated with a different constellation of symptoms. PFC, prefrontal cortex; BF, basal forebrain; S, striatum; NA, nucleus accumbens; T, thalamus; HY, hypothalamus; A, amygdala; H, hippocampus; NT, brainstem neurotransmitter centers; SC, spinal cord; C, cerebellum.

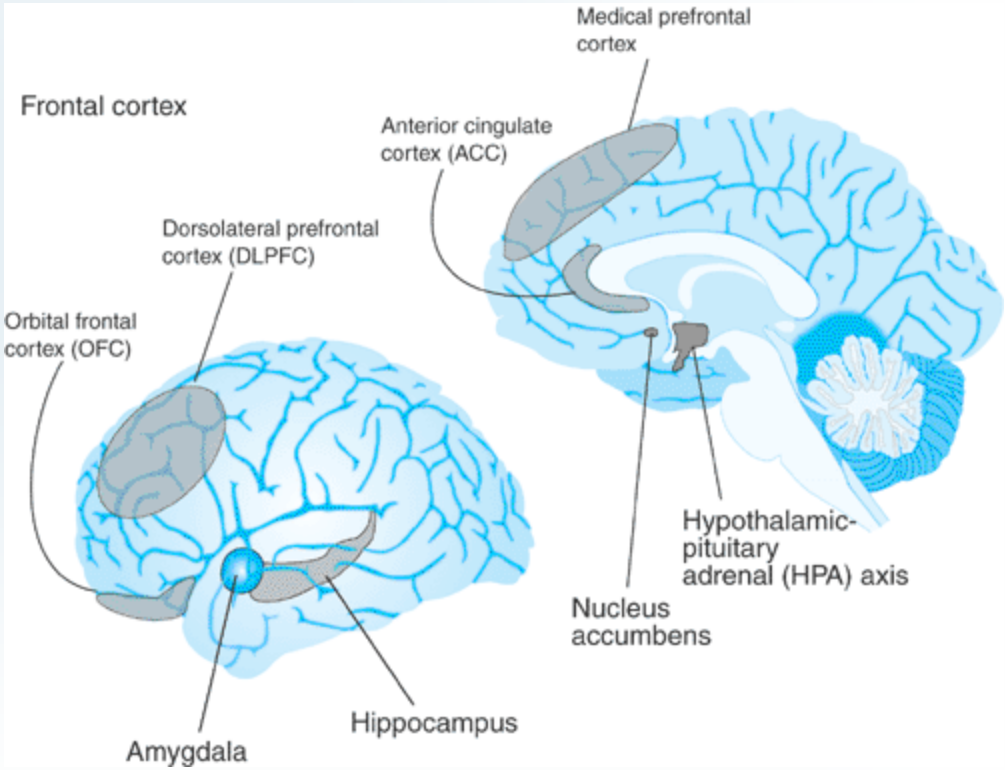
Pathophysiology of Depression



Nestler, E.J., Neuron 2002

It is possible to envision depression as the result of over activity in some regions of the brain and under activity in other regions





Causes of Low Mood and Depression

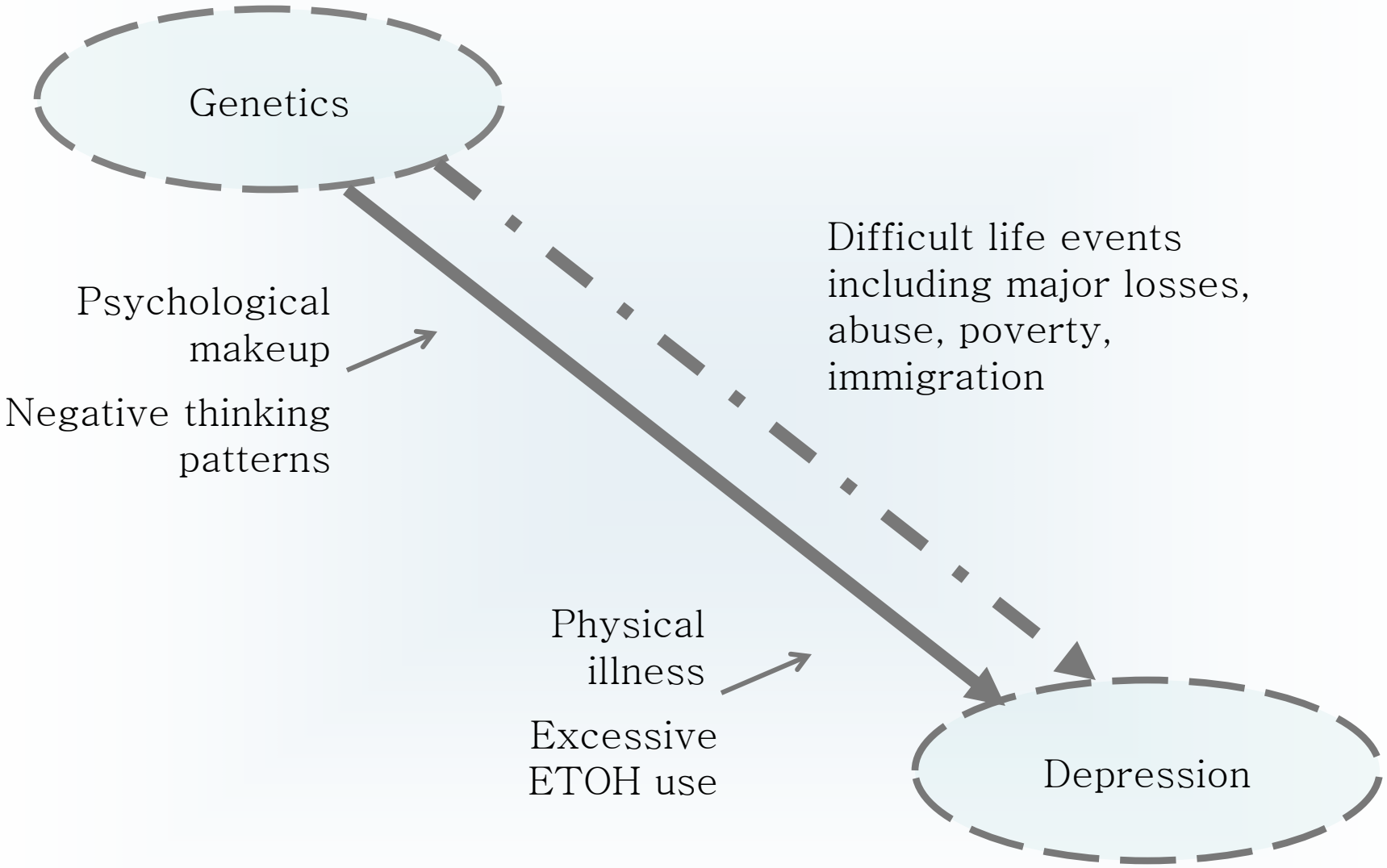
Situations
- Loss
- Isolation
- Conflict
- Stress

Actions
- Social withdrawal
- Reduced activity level
- Poor self-care

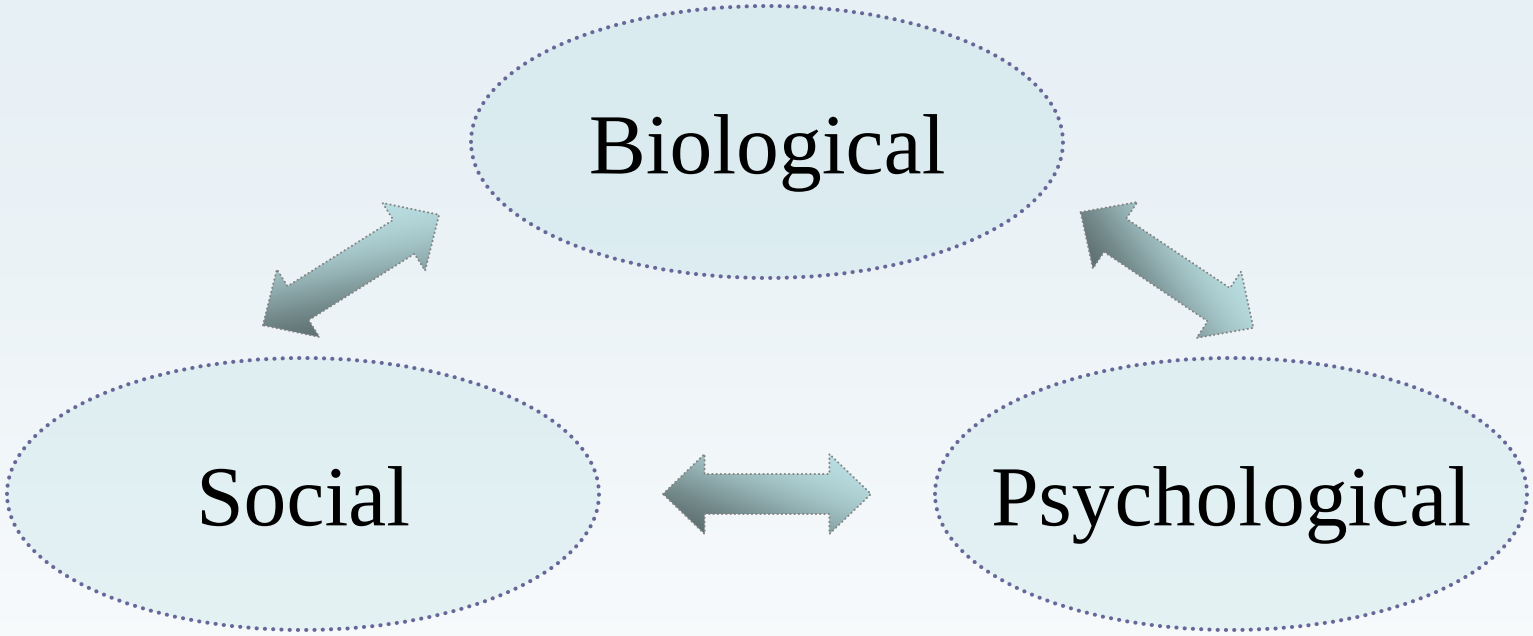
Thoughts
- Negative thinking habits
- Harsh self-criticism
- Unfair & unrealistic thoughts

Physical State
- Altered sleep
- Low energy/fatigue
- Agitation
- Changes in brain chemistry

Emotions
- Discouragement
- Sadness
- Irritability/anger
- Numbness
- Anxiety


Genetics
Difficult life events including major losses, abuse, poverty, immigration
Psychological makeup
Negative thinking patterns
Physical illness
Excessive ETOH use
Depression

Etiology of Depression



*Complex nature draws on skills of inter professional team

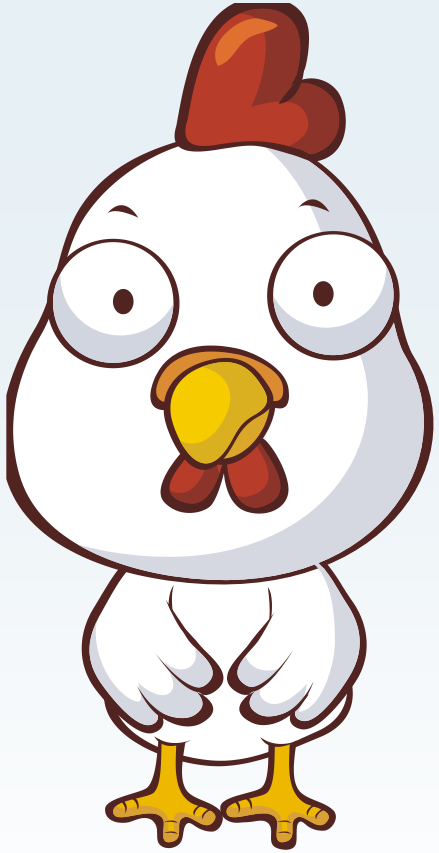
Diabetes and Depression

- Studies suggest that depression is ***twice*** as prevalent in adults with diabetes than in those without diabetes (Eaton, 2002; Daly, Trivedi, Raskin, & Grannemann, 2007).
- However, Harris (2003) notes that depression may actually be ***three times*** more prevalent in the diabetic population when compared with nondiabetic individuals.
- While Barnard, Skinner & Pevelar (2006) identify that the prevalence of depression in people with diabetes is ***four times*** more than those without diabetes.

Depression and Diabetes

- The co-morbidity of depression in the lives of people with diabetes can lead to compromised diabetes self-care (Lloyd & Brown, 2002; Lustamn and Clouse, 2005).
- Those with diabetes and depression at a greater risk of developing diabetes complications (Lustman & Clouse, 2002; Rubin, ustamn, & 2004).

Which Came First?



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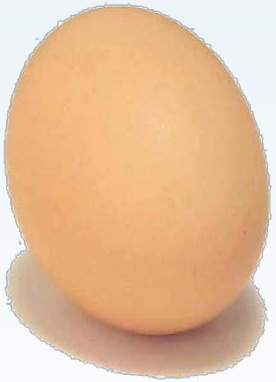


- Evidence strongly suggests that depression and type 2 diabetes are associated, but direction remains unclear (Knol, Twisk, Beekman, Heine, Snoek, & Pouwer, 2006; Donie, 2004; Eaton, 2002).
- Depression may occur as a consequence of having diabetes, but may also be a risk factor for the onset of diabetes.
- Adults with depression have a 37% increased risk of developing type 2 diabetes (Knol, Twisk, Beekman, Heine, Snoek, & Pouwer, 2006).

The connection?

- Loss of control
- Life changing condition
- Affects many life facets
- Has potentially serious complications and health consequences
- Lack of supports to cope
- Increase in stress
- Altered body image
- Decreased self-esteem

Diabetes and Depression

- Despite high prevalence and impact on diabetes management, depression is recognized and treated in fewer than 25% of depressed diabetic patients
- Screen, Screen, Screen for depression

What is Our Role?

- Early diagnosis
- Health teaching
- Motivational Interviewing
- Mental health support
- Connection to community resources
- Assess for depressive symptoms (such as lack of energy, down affect, suicidal thoughts etc.)
- Providing an opportunity for the person to discuss how they feel this is impacting their life

Psychological Impact of a Diabetes Diagnosis

- Guilt/Blame/Shame
- Loss of Control
- Denial/Avoidance
- Loss of hope
- Feelings of powerlessness
- Altered Body Image/Role Function/Personal Identity
- Increase in Stress
- Fear of unknown/Perceptions of being a diabetic

Dawn, 2001

Depression and Chronic Illness

- The greater the disease severity, increases the greater the prevalence of depression

  (Swenson, Rose, Vittinghoff, Schillinger, 2008; Phillips, 2000).

Reaction to Diagnosis

- Diabetes-related distress is high at diagnosis (85.2% reported feeling shocked, guilty, angry, anxious, depressed, or helpless

Soren E. Skovlund, Mark Peyrot on behalf of the DAWN International Advisory Panel,
The Diabetes Attitudes, Wishes, and Needs (DAWN) Program: A New Approach to Improving Outcomes of Diabetes Care, Diabetes Spectrum 2005, Volume 18: 136-142.

Red Flags Identifying an "At-Risk" Pattern

- Don't come to appointments
- Don't bring their meter with them
- Don't appear engaged
- Don't follow through on actions
- Chronically poor metabolic control

Focused Assessment of a “Red Flag” Pattern

Self Care Capacity

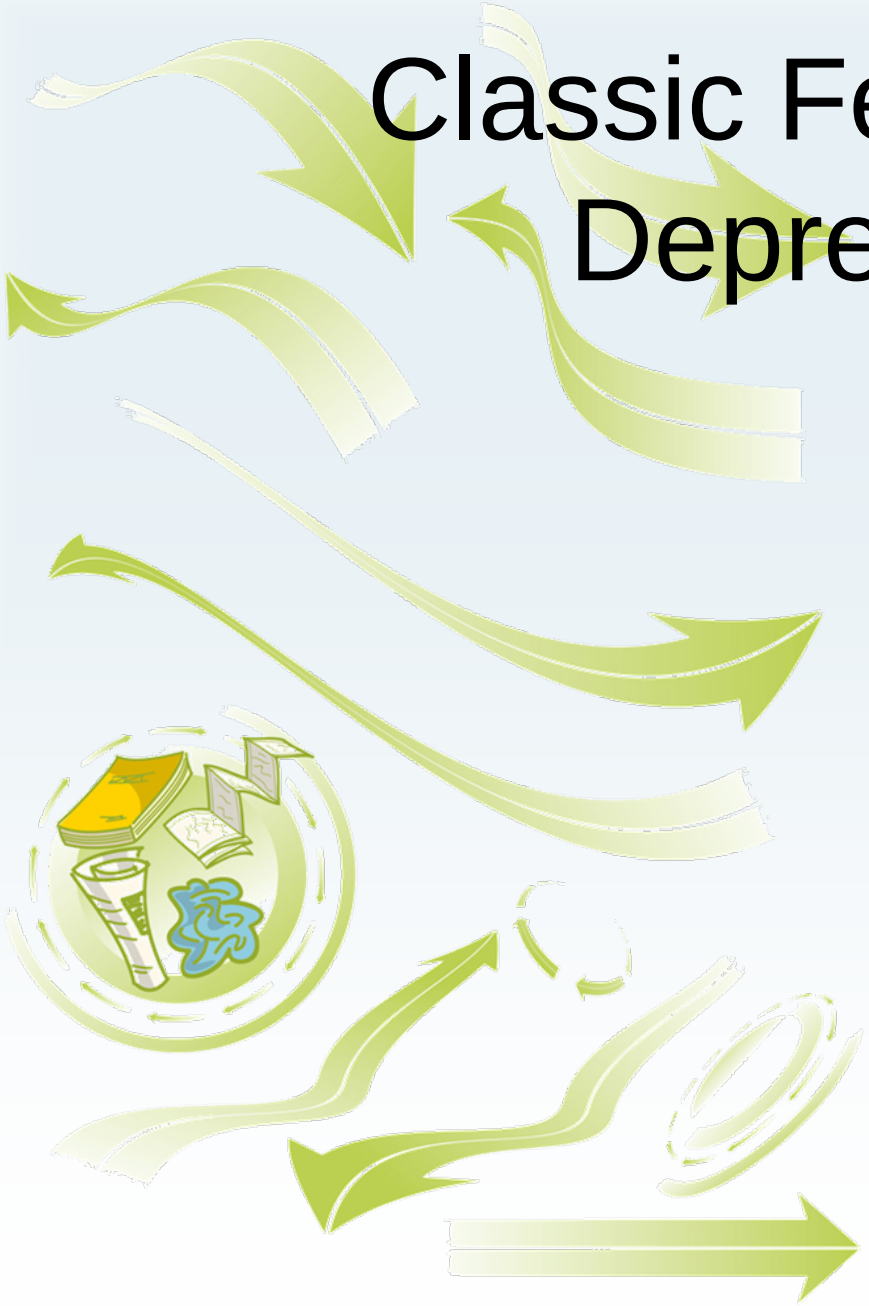
- Energy level
- Cognitive capacity
- Competing stressors (score out of 10)
- Sleep
- Vision
- Motor

Self Care Resources

- Food security
- Housing security
- Social supports
- Drug Plan

Depression is a common factor limiting Self Care

Classic Features in Depression



- Low energy
- Flat affect
- Disturbed sleeping
- Disturbed appetite
- Low mood
- Hopelessness

Screening for Depression

London InterCommunity Health Centre

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

NAME: _____ **DATE:** _____

Over the *last 2 weeks*, how often have you been bothered by any of the following problems? *(use "✓" to indicate your answer)*	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3
		add columns:	+	+
(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card.)			**TOTAL:**	

10. If you checked off *any* problems, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?	
	Not difficult at all _____
	Somewhat difficult _____
	Very difficult _____
	Extremely difficult _____

ZT274388

USING THE PHQ-9 TO ASSESS PATIENT RESPONSE TO TREATMENT

- The goal of acute phase treatment is remission of symptoms as indicated by a PHQ-9 Score of < 5 points.
- Patients who achieve this goal enter into the continuation phase of treatment.
- Patients who do not achieve this goal remain in acute phase treatment and require some alteration in treatment (dose increase, augmentation, combination treatment).
- Patients who do not achieve remission after two adequate trials of antidepressant and/or psychological counseling or by 20 to 30 weeks would benefit from a formal or informal psychiatric consultation for diagnostic and management suggestions.

Initial Response after Four - Six weeks of an Adequate Dose of an Antidepressant		
PHQ-9 Score	**Treatment Response**	**Treatment Plan**
Drop of ≥ 5 points from baseline	Adequate	No treatment change needed. Follow-up in four weeks.
Drop of 2-4 points from baseline.	Probably Inadequate	Often warrants an increase in antidepressant dose
Drop of 1-point or no change or increase.	Inadequate	Increase dose; Augmentation; Switch; Informal or formal psychiatric consultation; Add psychological counseling
Initial Response to Psychological Counseling after Three Sessions over Four - Six weeks		
PHQ-9 Score	**Treatment Response**	**Treatment Plan**
Drop of ≥ 5 points from baseline	Adequate	No treatment change needed. Follow-up in four weeks.
Drop of 2-4 points from baseline.	Probably Inadequate	Possibly no treatment change needed. Share PHQ-9 with psychological counselor.
Drop of 1-point or no change or increase.	Inadequate	If depression-specific psychological counseling (CBT, PST, IPT*) discuss with therapist, consider adding antidepressant. For patients satisfied in other type of psychological counseling, consider starting antidepressant For patients dissatisfied in other psychological counseling, review treatment options and preferences

** CBT – Cognitive-Behavioral Therapy; PST – Problem Solving Treatment; IPT – Interpersonal Therapy*

THE DIABETES DISTRESS SCREENING SCALE

DIRECTIONS: Living with diabetes can sometimes be tough. There may be many problems and hassles concerning diabetes and they can vary greatly in severity. Problems may range from minor hassles to major life difficulties. Listed below are 2 potential problem areas that people with diabetes may experience. Consider the degree to which each of the 2 items may have distressed or bothered you DURING THE PAST MONTH and circle the appropriate number.

Please note that we are asking you to indicate the degree to which each item may be bothering you in your life, NOT whether the item is merely true for you. If you feel that a particular item is not a bother or a problem for you, you would circle "1". If it is very bothersome to you, you might circle "6".

	Not a Problem	A Slight Problem	A Moderate Problem	Somewhat Serious Problem	A Serious Problem	A Very Serious Problem
1. Feeling overwhelmed by the demands of living with diabetes.	1	2	3	4	5	6
2. Feeling that I am often failing with my diabetes routine.	1	2	3	4	5	6

DDS

DIRECTIONS: Living with diabetes can sometimes be tough. There may be many problems and hassles concerning diabetes and they can vary greatly in severity. Problems may range from minor hassles to major life difficulties. Listed below are 17 potential problem areas that people with diabetes may experience. Consider the degree to which each of the 17 items may have distressed or bothered you DURING THE PAST MONTH and circle the appropriate number.

Please note that we are asking you to indicate the degree to which each item may be bothering you in your life, NOT whether the item is merely true for you. If you feel that a particular item is not a bother or a problem for you, you would circle "1". If it is very bothersome to you, you might circle "6".

	Not a Problem	A Slight Problem	A Moderate Problem	Somewhat Serious Problem	A Serious Problem	A Very Serious Problem
1. Feeling that diabetes is taking up too much of my mental 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, scared, 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 self-care efforts (e.g. 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

	Not a Problem	A Slight Problem	A Moderate Problem	Somewhat Serious Problem	A Serious Problem	A Very Serious Problem
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

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17. Feeling that friends or family don't give me the emotional support that I would like.	1	2	3	4	5	6

DDS17 SCORING SHEET

INSTRUCTIONS FOR SCORING:

The DDS17 yields a total diabetes distress scale score plus 4 sub scale scores, each addressing a different kind of distress. To score, simply sum the patient's responses to the appropriate items and divide by the number of items in that scale. The letter in the far right margin corresponds to that item's subscale as listed below. **We consider a mean item score of 3 or higher (moderate distress) as a level of distress worthy of clinical attention.** Place a check on the line to the far right if the mean item score is ≥ 3 to highlight an above-range value.

We also suggest reviewing the patient's responses across all items, regardless of mean item scores. It may be helpful to inquire further or to begin a conversation about any single item scored 3 or higher.

Total DDS Score:

a. Sum of 17 item scores. _____
b. Divide by: 17
c. Mean item score: _____ ≥ 3 ____

A. Emotional Burden:

a. Sum of 5 items (1, 3, 8, 11, 14) _____
b. Divide by: 5
c. Mean item score: _____ ≥ 3 ____

B. Physician-related Distress:

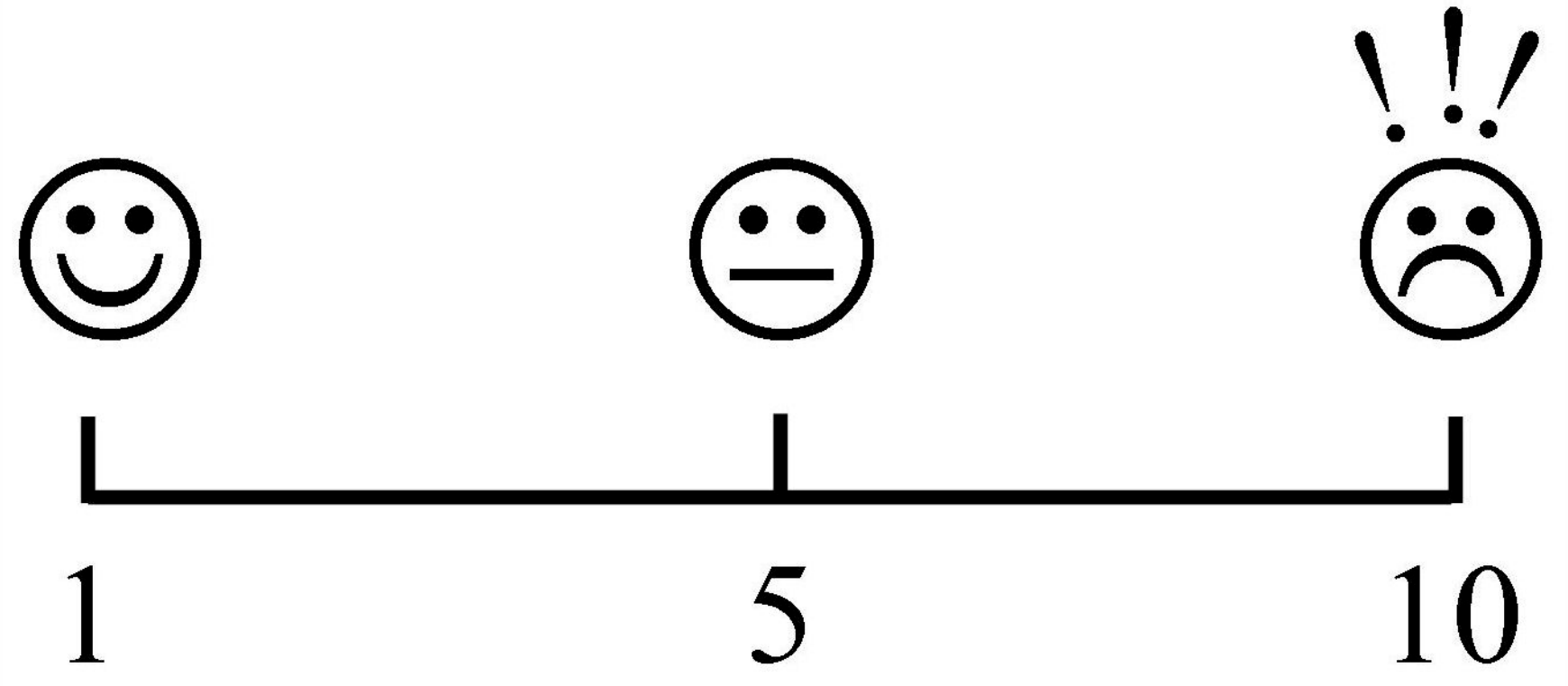
a. Sum of 4 items (2, 4, 9, 15) _____
b. Divide by: 4
c. Mean item score: _____ ≥ 3 ____

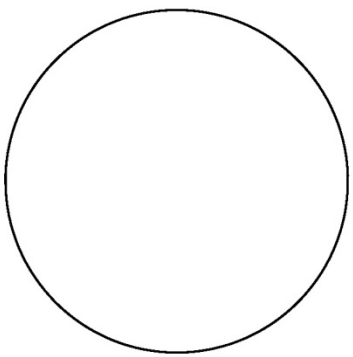
C. Regimen-related Distress:

a. Sum of 5 items (5, 6, 10, 12, 16) _____
b. Divide by: 5
c. Mean item score: _____ ≥ 3 ____

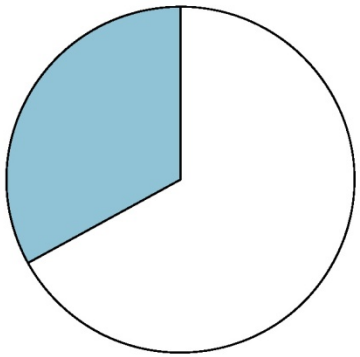
D. Interpersonal Distress:

a. Sum of 3 items (7, 13, 17) _____
b. Divide by: 3
c. Mean item score: _____ ≥ 3 ____

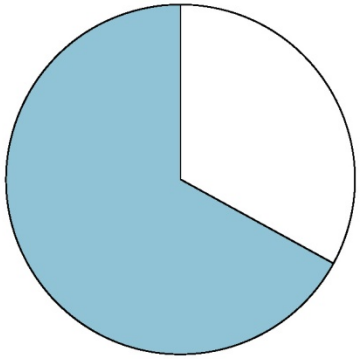

1
5
10



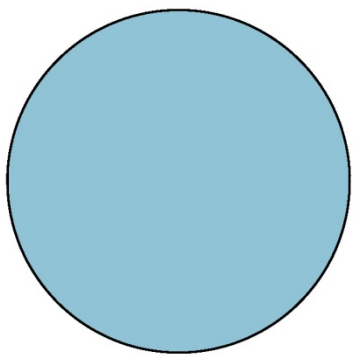
Not at all



Several Days



More than half the days



Nearly every day

Key message

Depression is a highly treatable and the depression will improve significantly

- The CBT therapist works together with the client on both negative thought patterns and behaviours that maintain the depression

Interpersonal therapy (IPT)

- Focuses on different kinds of interpersonal problems that may cause problems for people with depression

- Interpersonal conflicts may have caused the depression or might be the result of the depression

- Four specific areas that are addressed with IPT
  - Prolonged grief
  - Role transition
  - Interpersonal disputes
  - Interpersonal deficits

- Goal of therapy is to build communication, dispute resolution skills, and help individual solve interpersonal problems in a structured way

Medications

- For persons with a major depressive episode (MDD) medication is considered to be “first line” treatment

- Many people with MDD say both medication and psychotherapy are of benefit

- 20 different antidepressant medications currently available and they fall into “families” of medications

- SSRI (selective serotonin reuptake inhibitor)
  - Example
    - prozac or paxil
    - Most commonly prescribed medication for depression

- Became available in the late 1980’s
- Act by increasing the amount of serotonin that remains available in the synaptic cleft

- Other categories of antidepressants include Tricyclics, the MAO (monamine oxidase) inhibitors, Novel Action including SNRI’s

- Augmentation Therapy
  - Becoming more available if no improvement in 8 weeks

Pearls

- A little depression for a long time devastates diabetic outcome
- Use scaling based questions to break through depression based all or nothing thinking
- Be careful to use measured optimism with the depressed person
- Treat depression aggressively – it is the LDL of mental health for the person living with diabetes


The End