Introduction to Behavioral Health

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University of Massachusetts Medical School

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Introduction to Behavioral Health

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Assistant Professor, Department of Family Medicine and Community Health, University of Massachusetts Medical School
Agenda

• 45-60 minutes recorded lecture
  • What is Behavioral Health?
  • The Biopsychosocial model and relationship between stress and physical health
  • Importance of communication and relationship

• 45-60 minutes for discussion
  • Questions
  • Case examples and consultation
Who am I?

• Clinical Psychologist

• Specializing in...
  • Health Psychology
  • Medical Education
  • Cultural factors in medicine and mental health treatment

• Director of Behavioral Science for Worcester Family Medicine Residency, Residency Faculty
What is Health Psychology?

The American Board of Clinical Health Psychology:

• Clinical Health Psychology applies scientific knowledge of the interrelationships among behavioral, emotional, cognitive, social and biological components in health and disease to:
  • the promotion and maintenance of health;
  • the prevention, treatment and rehabilitation of illness and disability; and
  • the improvement of the health care system.

• The distinct focus of Clinical Health Psychology is at the juncture of physical and emotional illness, understanding and treating the overlapping challenges.
What is Health Psychology?

American Psychological Association:

• Clinical health psychology is a professionally recognized specialty that investigates and implements clinical services across diverse populations and settings to promote health and well-being and to prevent, treat and manage illness and disability.

• Clinical health psychology sees health as the confluence of psychological, social, cultural, and biological factors and applies this understanding to professional activities including:
  • Research
  • Clinical services
  • Consulting with, educating and supervising other health care providers and psychologists
  • Advising organizations, institutions, the public and policymakers
What is Behavioral Health?

Mental Health:
- Psychiatric
  - Severe and persistent mental illness
  - Substance use
  - Evaluation & diagnosis
- Coping skills for stress & common psychosocial issues

Stress:
- Suicidality & passive morbid ideation
- Being overwhelmed
- Major life changes or events

Health Behaviors:
- Weight loss
- Substance use
- Sleep hygiene
- Managing new diagnosis
- Chronic illness management
What is Behavioral Health?

• Clinical
  • Stress: new onset panic or anxiety, insomnia, adjusting to a new diagnosis
  • Grief: death, loss, change
  • Chronic Illness Management: obesity, diabetes, hypertension, chronic pain
  • Behavior Change: substance use, chronic disease

• Any issue requiring support for motivation and behavioral change to improve overall health and wellness

• Focus on communication and relationship between patient and provider
The Biopsychosocial Model
Is stress an emotional and mental condition or is it physical?
Stress response

• Sympathetic and parasympathetic nervous system
  • “Fight or flight” response

• “The stress response begins in the brain. When someone confronts a danger, the eyes or ears (or both) send the information to the amygdala, an area of the brain that contributes to emotional processing. The amygdala interprets the images and sounds. When it perceives danger, it instantly sends a distress signal to the hypothalamus.”

https://www.health.harvard.edu/staying-healthy/understanding-the-stress-response
Stress response

- **Amygdala**
  - Contributes to emotional processing

- **Hypothalamus**:
  - Breathing
  - Blood pressure
  - Heartbeat
  - Dilation or constriction of key blood vessels and small airways in the lungs called bronchioles

https://www.health.harvard.edu/staying-healthy/understanding-the-stress-response
Stress response

- Adrenal glands and Epinephrine
  - Heart rate increases
  - Blood pressure increases
  - Breathing becomes more rapid
    - Extra oxygen is sent to the brain
  - Release of glucose and fats from storage

https://www.health.harvard.edu/staying-healthy/understanding-the-stress-response
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Common effects of stress

<table>
<thead>
<tr>
<th>On your body</th>
<th>On your mood</th>
<th>On your behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>Anxiety</td>
<td>Overeating or undereating</td>
</tr>
<tr>
<td>Muscle tension or pain</td>
<td>Restlessness</td>
<td>Angry outbursts</td>
</tr>
<tr>
<td>Chest pain</td>
<td>Lack of motivation or focus</td>
<td>Drug or alcohol misuse</td>
</tr>
<tr>
<td>Fatigue</td>
<td>Feeling overwhelmed</td>
<td>Tobacco use</td>
</tr>
<tr>
<td>Change in sex drive</td>
<td>Irritability or anger</td>
<td>Social withdrawal</td>
</tr>
<tr>
<td>Stomach upset</td>
<td>Sadness or depression</td>
<td>Exercising less often</td>
</tr>
</tbody>
</table>

Sleep problems

https://www.healthline.com/health/stress/effects-on-body#1
headaches
Stress can trigger and intensify tension headaches.

increased depression
Chronic stress can wear you down emotionally and lead to depression.

heartburn
Stress increases the production of stomach acid, which could lead to heartburn or make it worse.

insomnia
Stress makes it harder to fall asleep and stay asleep, which can lead to insomnia.

rapid breathing
When you’re stressed, the muscles that help you breathe tense up, which can leave you short of breath.

weakened immune system
Long-term stress weakens your immune system’s defenses, leaving you more vulnerable to infections.
**Risk of Heart Attack**
Over time, an increased heart rate and high blood pressure damage your arteries, which could lead to a heart attack.

**Pounding Heart**
Stress hormones make your heart pump faster so that blood can quickly reach your vital organs and limbs.

**High Blood Sugar**
Stress causes your liver to release extra sugar (glucose) into your bloodstream, which over time puts you at risk for type 2 diabetes.

**High Blood Pressure**
Stress hormones tighten blood vessels, which can raise your blood pressure.

**Stomachache**
Stress affects your body’s digestive system, which can lead to stomachaches, nausea, and other tummy troubles.
fertility problems
Stress interferes with the reproductive system in both men and women, and may make it harder to conceive.

erectile dysfunction
Your brain plays an important part in the process of getting an erection. Stress can interfere with this process.

missed periods
Fluctuating hormones can throw your menstrual cycle off, or in severe cases stop it altogether.

low sex drive
Stress — and the fatigue that often comes with it — can take a toll on your libido.

tense muscles
Stress makes muscles tense up, and chronic stress can lead to tension-related headaches and backaches.
The Biopsychosocial Model

**BIO**
- Gender
- Disability
- Physical health
- Neurochemistry
  - Stress reactivity
  - Genetic vulnerability

**PSYCH**
- Behaviour
- Personality
- Attitudes/Beliefs
- Learning and memory
  - Coping and social skills
  - Self-esteem and emotions

**SOCIAL**
- Education
- Social support
- Peer relationships
- Family background
- Socioeconomic status

**WELL-BEING**
- IQ
- Temperament
- Substance abuse
- Family relationships
  - Life events
Adverse Childhood Experiences Study

• Largest investigation ever conducted to assess associations between childhood maltreatment and later-life health and well-being.

• Decade-long collaboration between Kaiser and CDC
  • 17,000 subjects
  • 80% white including Hispanic
  • 10% Black
  • 10% Asian
  • 74% attended college
  • Average age 57
  • 50/50 gender

• Aversive childhood experiences defined as
  • Emotional, physical or sexual abuse
  • Emotional or physical neglect
  • Growing up in a household where someone had an alcohol or other substance use disorder, a mental disorder, was suicidal, experiencing domestic violence or household member had been imprisoned
WHAT ARE ACES?
AND HOW DO THEY RELATE TO TOXIC STRESS?

“ACEs” stands for “Adverse Childhood Experiences.” These experiences can include things like physical and emotional abuse, neglect, caregiver mental illness, and household violence.

The more ACEs a child experiences, the more likely he or she is to suffer from things like heart disease and diabetes, poor academic achievement, and substance abuse later in life.

https://developingchild.harvard.edu/resources/aces-and-toxic-stress-frequently-asked-questions/
TOXIC STRESS EXPLAINS HOW ACES “GET UNDER THE SKIN.”

Experiencing many ACEs, as well as things like racism and community violence, without supportive adults, can cause what’s known as toxic stress. This excessive activation of the stress-response system can lead to long-lasting wear-and-tear on the body and brain.

The effect would be similar to revving a car engine for days or weeks at a time.

https://developingchild.harvard.edu/resources/aces-and-toxic-stress-frequently-asked-questions/
Three Types of ACEs

ABUSE
- Physical
- Emotional
- Sexual

NEGLECT
- Physical
- Emotional
- Mother treated violently

HOUSEHOLD DYSFUNCTION
- Mental Illness
- Incarcerated Relative
- Substance Abuse
- Divorce

https://www.npr.org/sections/health-shots/2015/03/02/387007941/take-the-ace-quiz-and-learn-what-it-does-and-doesnt-mean
ACEs increase health risks:

<table>
<thead>
<tr>
<th>BEHAVIOR</th>
<th>PHYSICAL &amp; MENTAL HEALTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of physical activity</td>
<td>Severe obesity</td>
</tr>
<tr>
<td>Smoking</td>
<td>Diabetes</td>
</tr>
<tr>
<td>Alcoholism</td>
<td>Depression</td>
</tr>
<tr>
<td>Drug use</td>
<td>Suicide attempts</td>
</tr>
<tr>
<td>Missed work</td>
<td>STDs</td>
</tr>
</tbody>
</table>

Heart disease | Cancer | Stroke | COPD | Broken bones

https://www.npr.org/sections/health-shots/2015/03/02/387007941/take-the-ace-quiz-and-learn-what-it-does-and-doesnt-mean
Stress management

• Education

• Relaxation training (triggering the parasympathetic nervous system to calm the sympathetic nervous system)

• Problem solving

• (We will have an entire session on this in a few weeks.)
Physician-patient relationship

• Communication
• Continuity?
• Empathy
Physician-patient relationship

<table>
<thead>
<tr>
<th>Trust</th>
<th>Bennett et al. found that, among patients with systemic lupus erythematosus, those who trust and “like” their physician had higher levels of satisfaction. In another study, patients’ perceptions of their physician’s trustworthiness were the drivers of patient satisfaction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>When doctors discovered patient concerns and addressed patient expectations, patient satisfaction increased as it did when doctors allowed a patient to give information.</td>
</tr>
<tr>
<td>Regard</td>
<td>Ratings of a physician’s friendliness, warmth, emotional support, and caring have been associated with patient satisfaction.</td>
</tr>
<tr>
<td>Loyalty</td>
<td>Patients feel more satisfied when doctors offer continued support; continuity of care improves patient satisfaction.</td>
</tr>
</tbody>
</table>

Physician-patient relationship

• Small to moderate correlation between trust and health outcomes ($r = 0.24$, 95% CI: 0.19–0.29)
• Moderate correlation between trust and self-rated subjective health outcomes ($r = 0.30$, 0.24–0.35)
• Large correlation between trust and patient satisfaction
• Correlations between trust and...
  • Health behaviors
  • Quality of life
  • Symptom severity

Ongoing lectures

1. Introduction to Behavioral Health
2. Motivational interviewing part 1 (addressing non-adherence)
3. Management of stress (including your own stress)
4. Motivational interviewing part 2 (substance use disorders)
5. Working with families, children, child-bearing women
6. Motivational interviewing part 3 (chronic disease management)