

The Impact of Behavioral Health Disorders on Chronic Medical Conditions

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Disclosures

Tom Blocher, MD has no relevant financial relationships to disclose.

Emily Jensen, PharmD has no relevant financial relationships to disclose.

Gary Rosenberg, MD has no relevant financial relationships to disclose.

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Agenda

- Definition and review of chronic medical diseases
- Definition of behavior health disorders and the interaction with chronic medical disorders
- Risk factors for both chronic medical and behavior health disorders
- Review of cardiovascular disease and depression
- Review of the role of trauma and childhood adverse experiences
- Discussion of collaborative health care
- Discussion of treatment options including motivational interviewing, problem solving treatment and cognitive behavior therapy
- Case Management Opportunities

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Objectives

At the end of this activity, participants should be able to:

- State the importance of identifying and treating behavioral health disorders in individuals with chronic medical conditions.
- Explore the relationship between physical and behavioral health and its potential impact on chronic medical conditions.
- Discuss the importance of a multidisciplinary approach when treating individuals with behavioral health disorders and chronic medical conditions.
- Identify optimal clinical management strategies for behavioral health disorders in individuals.
- Explore risk factors of behavioral health disorders in individuals with chronic medical conditions, such as nonadherence.

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The Impact of Behavioral Health Disorders on Chronic Medical Conditions

The part can never be well unless the whole is well. ~Plato

The cure of the part should not be attempted without the cure of the whole. ~Plato

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Chronic Medical Diseases

Chronic medical diseases are also known as "non-communicable diseases" due to:

- Long duration
- Slow progression
- Do not resolve spontaneously
- Rarely cured completely

There are four main types of chronic medical disease:

- Cardiovascular
- Cancer
- Chronic Respiratory Diseases
- Diabetes

CDC: www.cdc.gov/workplacehealthpromotion/tools-resources/pdfs/issue-brief-no-2-mental-health-and-chronic-disease.pdf, issue brief, #2, Oct 2012, background

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Chronic Medical Disease

- Cardiovascular diseases account for the most deaths 17.7 million people annually worldwide (2015)1
 - Other diseases:
 - Cancer 8.8 M²
 - Respiratory Diseases > 3.0 M³
 - Diabetes 1.6 M⁴
- Leading causes of death in the US due to a medical condition (2016)
 - Heart Disease
 - Cancer
 - Respiratory
 - Strokes⁵
- Arthritis is the most common cause of disability in the US (2015)6
- 50% of Americans live with at least one chronic illness (2012)5
- 5% of the population accounts for 50% of health care spending (2013)⁷
- r-diseases-(cvds), key facts

- "WHO: www.who.uni/news-room/fact-sheets/detail/candrovascular-diseases-(cvds), key facts

 WHO: www.who.invt/respiratorylen/, chronic respiratory diseases

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Chronic Medical Disease

- · Chronic diseases are costly and preventable
- The increase in the incidence of chronic disease is driven by four primary risk factors:
 - Tobacco Use
 - Physical Inactivity
 - Alcohol Abuse
 - Poor Diet¹
- · The odds of noncompliance with a medical treatment are three times greater for depressed patients than for non-depressed patients.

Behavioral Health Disorders

- Behavioral health disorders are medical conditions that disrupt a person's:
 - Thinking
 - Feeling
 - Mood
 - Ability to relate to others
 - Daily functioning
- · Depression, stress and other mental health conditions may negatively affect a patient's chronic disease management capabilities more than the disease itself.
- · ALWAYS assume the potential for a behavior health co-morbidity.

CDC: www.cdc.gov/workplacehealthpromotion/tools-resources/pdts/ssue-une-nu-chienke.chronic disease, background & relationship between mental health, chronic disease & injury chronic disease.

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Behavioral Health & Chronic Medical Disorders

- · Mental health disorders are common:
 - o 44 million adults (2016)1
 - Just over 20% or 1 in 5 children (2015)²
- The majority of those with a mental health disorder who seek treatment see only their primary care physician3.
- · Fewer than half of adults with a mental health disorder receive treatment (2016)1.

¹ NIH: www.nimh.nih.gov/health/statistics/mental-illness.shtml, mental illness ² CDC: www.cdc.gov/mentalhealth/learn/index.htm, learn about mental health, fast fact ³ UpToDate: www.uptodate.com/contents/overview-of-psychotrapies/search_Problem%20Solving%20Therapy&source=search_result&sele

overview of psychotherapies, primary care

Behavioral Health & Chronic Medical Disorders

- Depression is found in:
 - . 42% of cancer patients
 - o 27% of diabetes patients
 - o 23% of cerebrovascular patients
 - 17% of cardiovascular patients
- The role of mental health problems is high in patients with cancer, diabetes, and heart conditions (2012).

mental health, chronic disease, and injury

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Behavioral Health & Chronic Medical Disorders

- It is difficult to diagnose depression in patients with chronic medical conditions. The following symptoms of depression may be related to the medical disorder.
 - Disturbed sleep
 - Fatigue
 - Poor appetite¹
- In primary care, anxiety and depression often present as:
 - Headache
 - Fatigue
 - o Pain
 - Gastrointestinal problems
- Even if the mental health issue is diagnosed, the demands of a busy primary care practice can often result in the issue not being addressed2.

auuis r searcri = rmmary%20Care%20and%20Depression&source=search_result&selectedTitle=3-150&usage_type=default&display_rank=3.

screening for depression in adults, introduction and presentation natural history and course of illness

¹ NIH: www.ncbi.nlm.nih.gov/pmc/articles/PMC1070773/, chronic medical illness ² UpToDate: www.uptodate.com/contents/screening-for-depression-in-

Risk Factors

- The mortality rate is increased in patients with a cardiovascular disease when depression is present.
- Individuals with serious mental illness die on the average 28.5 years earlier than those without a mental illness largely because of preventable chronic physical illnesses (2015)².
- Patients who are high utilizers of hospital care and those with avoidable hospital use are disproportionately affected by behavioral health issues.

NIH: www.nimh.nih.gov/news/science-news/2015/combating-early-death-in-people-with-serious-mental-illness.shtml, combating early death in people with serious mental illness

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Risk Factors

Risk factors for both chronic medical disorders and mental health disorders:

- Childhood Adversity:
 - Losses
 - Abuse and neglect
 - Household dysfunction
- Stress:
 - Adverse life events
 - Chronic stressors
- Socioeconomic Stressors:
 - Poverty
 - Lack of self care skills
 - Neighborhood issues
 - Social support issues
 - Isolation

CDC: www.cdc.gov/workplacehealthpromotion/tools-resources/pdfs/issue-brief-no-2-mental-health-and-chronic-disease.pdf, mental health and chronic disease, what causes mental health disorders and chronic disease?

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Cardiovascular Disease and Depression

- · Coronary artery disease is the leading cause of mortality in the developed world1.
- The prognosis is worse when coronary artery disease is co-morbid with depression².
- Depression often exists for years prior to the cardiac event, continues for years after the event and is considered to be an independent risk factor3.
- 20% to 40% of cardiac patients meet criteria for major depressive disorder
- 50 to 70% had depressive symptoms before the cardiac event (2013)4.
- In Carney study, 74% of patients who had recently suffered a myocardial infarction were diagnosed with depression (2004)5.

- WHO: www.who.int/news-room/fact-sheets/detail/cardiovascular-dises
 NCBI: www.ncbi.nlm.nih.gov/pubmed/21464641, abstract
 JAMA: jamanetwork.com/journals/jama/fullarticle/182968, conclusion
 PMD: https://www.ncbi.nlm.nih.gov/pmc/articles/PMQ3638710/. depre os://www.ncbi.nlm.nih.gov/pmc/articles/PMC3638710/. depression and cardiac disease: epidemiology, mechanisms, and diagnosis,
- course of illness

 Garney RM, et.al. Depression and late mortality after myocardial infarction in the Enhancing Recovery in Coronary Heart Disease (ENRICHD) study. Psychosomatic Medicine (2004) 66:466-74

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Cardiovascular Disease and Depression

- Depression is a risk factor for cardiac mortality and morbidity.
- As a result of the significant role of depression the recommendation to screen for depression is reasonable and important.
 - o PHQ 2 or PHQ 4, and then if positive a PHQ 9 at the first session and during follow up meetings
 - A positive PHQ 2 screen of a hospitalized heart failure patient is associated with an elevated 12 month mortality

³ PMD: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3638710/. depression and cardiac disease: epidemiology, depression & 8. Identification of Depression in Cardiac Patients

Cardiovascular Disease and Depression

- Psychological stress experienced by those with major depressive disorder has an impact on the Central Nervous System.
- The impact of stress on the hypothalamic-pituitary-adrenal axis can result in the development of:
 - Hypertension
 - Left ventricular hypertrophy
 - Coronary vasoconstriction
 - Platelet activation
 - Production of pro-inflammatory cytokines
 - o Increased risk of ventricular arrhythmia
 - Myocardial infarction

PMD: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3638710/, depression and cardiac diseas

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Cardiovascular Disease and Depression

- Patients with Major Depressive Disorder often make lifestyle and behavior choices that predispose to cardiac disease.
 - Smoking
 - Alcohol use
 - Decreased physical activity
 - Obesity
 - Noncompliance with treatment recommendations
 - o Poor self care role models
- Unstable coronary artery disease with associated depression results in:
 - Increased mortality
 - Increased disability
 - Hospital readmissions
 - Doubling of the mortality risk

 $PMD: \underline{https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3638710/.} \ depression \ and \ cardiac \ disease: epidemiology \ depression \ and \ cardiac \ disease: epidemiology \ depression \ and \ cardiac \ disease: epidemiology \ depression \ and \ cardiac \ disease: epidemiology \ depression \ and \ cardiac \ disease: \ epidemiology \ depression \ and \ cardiac \ disease: \ epidemiology \ depression \ and \ cardiac \ disease: \ epidemiology \ depression \ and \ cardiac \ disease: \ epidemiology \ depression \$

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Cardiovascular Disease and Depression

Treatment

- · Cochrane Review showed that antidepressant treatment was superior to placebo in the treatment of major depressive disorder in those with a physical problem1.
- The Sertraline Antidepressant Heart Attack Randomized Trial (SADHART) demonstrated improved depression in those with acute coronary syndrome².
- ENRICHD trial revealed antidepressant treatment improved coronary heart disease prognosis3.

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Adverse Childhood Experiences (ACE)

ACE Study:

- · Collaboration between the Center for Disease Control and Prevention (CDC) and Kaiser Health Plan's Department of Preventative Medicine in San Diego, California
- 1995 to 1997 original ACE Study was conducted at Kaiser Permanente
- The CDC continues ongoing surveillance of ACEs by assessing the medical status of the study participants via periodic updates of morbidity and mortality data¹
- Score ranges from 0 to 10; the higher the score, the greater cumulative exposure to traumatic stress and the higher the prevalence of mental, social and physical health problems in adulthood including coronary heart disease²

Key Concepts:

- Stressful or traumatic childhood experiences, (ACEs), are a common pathway to social, emotional and cognitive impairments1.
- ACEs disrupt neurodevelopment and can have lasting effects on brain structure

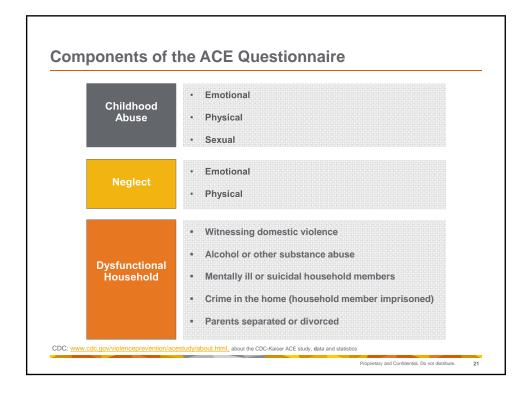
¹ CDC: www.cdc.gov/violenceprevention/acestudy/, about the CDC-Kaiser ACE Study ² Am J Prev Med: www.aipmonline.org/article/S0749-3797(98)00017-8/fulltext, the adverse childhood experiences (ACE) study, table 1 and

Buwmeister H, et.al. Psychological and pharmacological interventions for depression in patients with coronary artery disease. Cochrane Database System Review (2011)

System Review (2011)

2 Serebruary VI, et. Al. Platelet/endothelial biomarkers in depressed patients treated with selective serotonin reuptake inhibitor sertraline after acute coronary events: SADHART Platelet sub-study. Circulation 2003 108:939-44.

3 Enrichd Investigators. Enhancing Recovery in Coronary Heart Disease (ENRICHD) Study Intervention: rationale and design. Psychosomatic Medicine (2001) 63:747-55



ACE Impact on Development

Birth to Death

- Adverse childhood experiences
- · Social, emotional and cognitive impairment
- Inability to value self / care for self
- · Dysfunctional coping skills
- Adoption of health risk behaviors
- · Disease, disabilities and social problems
- Early death

 $\textbf{CDC:} \ \underline{\textbf{www.cdc.gov/violenceprevention/acestudy/about.html}}, \ \textbf{about the CDC-Kaiser ACE study}, \ \textbf{ace pyramid}$

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ACE Findings

- The more types of childhood adversity a person experiences, the higher the risk of chronic disease, mental illness and being a victim of violence.
- Most people have at least one ACE (66%)1.
- 12% of the population have an ACE score of 4 or more².
- · Score of 4 or greater
 - o Doubles the risk for heart disease and cancer
 - o Increases the likelihood of alcohol abuse by 700%
 - o Increases the risk of a suicide attempt by 1200%²

¹ CDC: www.cdc.gov/violenceprevention/acestudy/about.html, about the CDC-Kaiser ACE study, major finding & ACE prevalence ² Am J Prev Med: www.aipmonline.org/article/S0749-3797(98)00017-8/fulltext, abstract

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Collaborative Health Care

- Only 25% of people with depression receive effective mental health care (2013).
- Only 20% of adult patients with mental health disorders are treated by mental health specialists as many prefer treatment by their primary care physician.

Brief 2013 Health Home: www.chcs.org/media/HH_IRC_Collaborative_Care_Model__052113_2.pdf, executive summary

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Collaborative Health Care

- Collaborative health care is an evidence based approach to integrate physical and behavioral health within primary care.
 - Care coordination and care management
 - Regular proactive monitoring using clinical rating scales
 - Regular structured psychiatric caseload reviews and consultation for those not improving
- There are more than 70 randomized controlled trials that have shown collaborative care for depression and other common mental health disorders to be more effective and cost efficient than usual care.
- Five core principles of effective collaborative care:
 - Patient centered team care
 - Population based care
 - Measurement based care
 - Evidence based care
 - Accountable care

Brief 2013 Health Home: www.chcs.org/media/HH IRC Collaborative Care Model 052113 2.pdf, executive summary

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Collaborative Health Care Processes

Purpose: To support a collaborative approach between the Behavioral Health staff and Medical Managers

- Referral process in place for consultation requests
- Medical behavioral integrated rounds
- · Availability of behavioral health psychiatrists during office hours

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Collaborative Health Care Referral Stratification

Referrals categorized into six risk identification levels:

- 1. Transitioning between behavioral health care facilities
- 2. Persistent super user (PSU)
- 3. Complex case
- 4. Emerging risk case
- 5. At risk case
- 6. Low Risk not in any of the above groups. No outreach required

JA: BH Program-Management-Guidelines, http://optumcrt.uhc.com/sites/PLPPR/Published EMS JobAid/BH-Program-Management-Guidelines.docx, section 1

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Collaborative Health Care Integrated Rounds Guidelines

Clinical Criteria

- Frequent inpatient and ER admissions (>1 in the past six months)
- · Non-compliant patient
- Ineffective treatment plan
- Substance abuse case
- Multiple co-morbidities
- · Multiple psychosocial issues

JA: Medical/Behavioral Integration (MBI) Case Rounds, http://optumcrt.uhc.com/sites/PLPPR/Published JobAid/MBI-Case-Rounds.docx, section 3

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Collaborative Health Care Integrated Rounds Guidelines

Medical / Behavioral Issues

- Patient with a mood disorder or psychosis on medical medications that exacerbate the behavioral health (BH) condition (Example - steroids for COPD or auto-immune conditions exacerbating mania or depression)
- Pregnancy with serious persistent mental illness (SPMI) or substance use disorder
- History of inability to care for children
- Detoxification and/or chronic alcohol use with significant liver disease
- Bipolar disorder managed with lithium carbonate in presence of chronic kidney disease stages 3 to 4, members with major psychiatric diagnosis and comorbid medical problems and non-compliance with treatment plan
- Chronic pain with associated social isolation and failure to move or walk
- Obesity complicated by osteoarthritis leading to social isolation and failure to move or walk

JA: Medical/Behavioral Integration (MBI) Case Rounds, http://optumcrt.uhc.com/sites/PLPPR/Published_EMS_JobAid/MBI-Case-Rounds.docx, section 3

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Collaborative Health Care Integrated Rounds Guidelines

Medical / Behavioral Issues

- Uncontrolled hypertension complicated by obesity
- Differential diagnosis of anxiety and the various tachycardia diagnoses
- Inadequate self-care including diabetic ulcer management
- Serious persistent mental illness (SPMI) complicated by uncontrolled specific medical conditions, e.g. CHF, DM, CAD, COPD, Asthma
- Medication adherence issues associated with SPMI

- Medical complications of eating disorders
- Neurological disorders with associated neuropsychiatric issues (e.g. cyclic vomiting syndrome {CVS}), multiple sclerosis, traumatic brain injury, seizure disorder, tic disorder)
- Members undergoing complex medical treatment including transplant and cardiac surgery (ventricular assist device {VAD}) who are experiencing mental health/substance use issues that may impede their recovery.

JA: Medical/Behavioral Integration (MBI) Case Rounds, http://optumcrt.uhc.com/sites/PLPPR/Published_EMS_JobAid/MBI-Case-Rounds.docx, section 3

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Collaborative Health Care Integrated Rounds Guidelines

Medicare issues that are appropriate for rounds

- Cognition / memory
- Functional impairments
- · Behavioral health issues
- · Interplay of multiple chronic conditions that lead to clinical complexity
- · Relevant pharmaceutical issues
- Caregiver support
- · Unique factors related to aging
- Sensory issues
- Falls
- Incontinence
- · Community and social resources

JA: Medical/Behavioral Integration (MBI) Case Rounds, http://optumcrt.uhc.com/sites/PLPPR/Published_EMS_JobAid/MBI-Case-Rounds.docx, section 3

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Transtheoretical Model (TTM) of Change

- James Prochaska and Carlo Di Clemente developed their Transtheoretical Model (TTM) of Change in 1977.
 - Stages of change include:
 - Pre-contemplation
 - Contemplation
 - Preparation
 - Action
 - Maintenance
 - Termination
- TTM is a natural fit with Motivational Interviewing.

NCBI: www.ncbi.nlm.nih.gov/pubmed/10170434, abstract

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Motivational Interviewing

- Motivational interviewing is collaborative
- Goal-oriented style of communication
- With particular attention to the language of change
- It is designed to strengthen personal motivation for and commitment to a specific goal
- By eliciting and exploring the person's own reasons for change
- Within an atmosphere of acceptance and compassion

NCBI: www.ncbi.nlm.nih.gov/pmc/articles/PMC4018376/

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Motivational Interviewing

Instead of viewing resistance as a problem (or failure), motivational interviewing approaches resistance as ambivalence that should be "explored and resolved" and in so doing elicits and encourages patient's own motives to change.

Basics of Motivational Interviewing

- Collaboration
 - Exploration, not exhortation
 - Support, not persuasion or argument
- Evocation
 - Not an installation but an elicitation
 - Drawing out the motivation from the person
- Autonomy
 - Responsibility for change is with the client
 - . Client is free to take the counselling or not

Motivational Interviewing Partnership

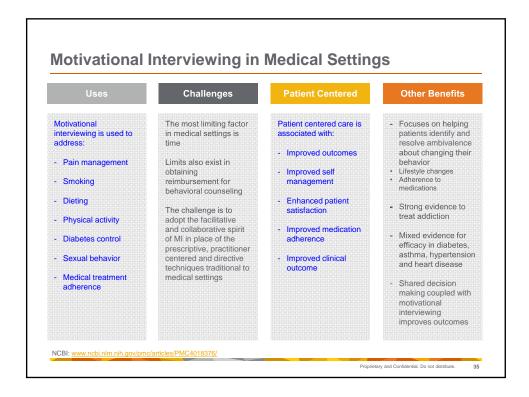
Dancing as opposed to wrestling

The focus is on mutual understanding versus the provider being right.

The willingness to suspend the reflex to dispense expert advise is a key element in establishing collaboration necessary to build partnership.

NCBI: www.ncbi.nlm.nih.gov/pmc/articles/PMC4018376/

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Problem Solving Therapy

Provides training in adaptive problem solving skills

- Make effective decisions
- Generate ways to deal with problems
- Identify barriers to achieving goals
- It is suitable for use in general medical practice for patients experiencing common mental health conditions and has been shown to be as effective in treating depression as antidepressant medications
- It is well suited for primary care practice as the sessions can be provided in 15 to 30 minute consultations

Gask L. "Problem-solving treatment for anxiety and depression: a practical guide. Br J Psychiatry 2006: 189:287-288

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Problem Solving Therapy

- · Effectively addresses:
 - Major depressive disorder
 - Generalized anxiety disorder
 - Emotional distress
 - Suicidal ideation
 - Relationship issues
 - Certain personality disorders
 - Emotional distress due to medical problems like cancer or diabetes
- Patients with thinking that is characterized by unhelpful negative thought patterns about themselves and/or the world may benefit from therapy that challenges negative thought patterns like cognitive behavior therapy.

Gask L. "Problem-solving treatment for anxiety and depression: a practical guide. Br J Psychiatry 2006: 189:287-288

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Cognitive Behavior Therapy (CBT) Benefits Psychological - Places the emphasis CBT has been CBT provided in demonstrated to be effective for the specialty medical care problems are based on helping individuals may: in part on faulty or learn to be their own unhelpful ways of treatment of: therapist - Target psychological thinking - Chronic Back Pain symptoms directly - The focus is on the - Psychological problems are based current life issues not on issues of the past - Depression - Aim to improve overall functioning in part on learned - Anxiety and quality of life patterns of unhealthy - The focus is on behavior moving forward Alcohol and drug use - Address the specific problems cognitive and People suffering from psychological problems can learn behavioral - Marital problems components needed to manage a medical better ways of coping Eating disorders condition which relieves their symptoms and allows them to more Severe mental illness effective lives

The Impact of Behavioral Health Disorders on Chronic Medical Conditions

People's minds and bodies are inseparable – except when it comes to health care. In our present system of care, physical and mental health conditions are usually treated apart from one another.

A growing body of research and experience has demonstrated that integrating physical and behavioral health care to treat the whole person can improve both mental and physical health.

Tis in ourselves that we are thus or thus. Our bodies are our gardens to the which our wills are gardeners.

~ William Shakespeare, Othello (1602-04) act 1, sc. 3,1.

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Thank You.

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