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# Decreasing Morbidity Through Behavioral Health Interventions: *Collaborating with Medical Providers*

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# Outline

1. Introduction
2. Behavioral Medicine
3. The Challenge of Integration
4. Profound Change

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2

# Health Care Crisis

- Between 44,000-98,000 Americans die from medical errors annually (Institute of Medicine, 2000; Thomas et al., 2000; Thomas et al., 1999)
- Only 55% of adult patients received recommended care (McGlynn et al., 2003)
- Medication-related errors for hospitalized patients cost roughly $2 billion annually (Institute of Medicine, 2000; Bates et al., 1997)
- 41 million uninsured Americans exhibit consistently worse clinical outcomes than the insured, and are at increased risk for dying prematurely (Institute of Medicine, 2002; Institute of Medicine, 2003a)
- 17 year lag between discovery of better treatment and incorporation (Balas, 2001; Institute of Medicine, 2003b)

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3

# Health Care Crisis

- 18,000 Americans die each year from heart attacks due to lack of preventive medications, although eligible for medication (Chassin, 1997; Institute of Medicine, 2003a)
- Medical errors kill more people per year than breast cancer, AIDS, or motor vehicle accidents (Institute of Medicine, 2000; Centers for Disease Control and Prevention; National Center for Health Statistics: Preliminary Data for 1998, 1999)
- More than 50% of patients with diabetes, hypertension, tobacco addiction, hyperlipidemia, congestive heart failure, asthma, depression and chronic atrial fibrillation are currently managed inadequately (Institute of Medicine, 2003c; Clark et al., 2000; Joint National Committee on Prevention, 1997; Legorreta et al., 2000; McBride et al., 1998; Ni et al., 1998; Perez-Stable and Fuentes-Afflick, 1998; Samsa et al., 2000; Young et al., 2001)

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4

# Rising Health Care Costs

- In next decade, health care spending will outpace the overall economy.
- By 2016, $1 out of every $5 spent, and we will spend nearly $4 trillion per year on health care.

(CMS report released on 2/21/07)

- Today, spend $1 out of every $6, or $2 trillion.

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5

# Crossing the Quality Chasm

***Institute of Medicine Definition of Quality:***

The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

6

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# Crossing the Quality Chasm

- The *Quality Chasm* report described quality issues and defines six aims--care should be:
  - Safe
  - Effective
  - Patient-centered
  - Timely
  - Efficient
  - Equitable
- Rule 10: Cooperation among clinicians is a priority.

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7

## Improving the Quality of Health Care for Mental Health and Substance Use

- Health care for illnesses must be delivered with an understanding of interactions between the mind/brain and body.
- The aims, rules and strategies for redesign set forth in *Crossing the Quality Chasm* should be applied throughout Mental Health and Substance-Use care on a day-to-day basis, but tailored to reflect unique characteristics that distinguish care for these illnesses from general health care.

**IOM Report on Improving the Quality of Health Care for Mental and Substance-Use Conditions 2005**

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# Trends in Alternative Medicine Use

- Use of Alternative Therapy (AT) in 1997 42% compared to 34% in 1990
- Patients seeing an AT practitioner increased to 46% in 1997 from 36% in 1990
- Out of pocket expense for all AT $27 billion (same as for all US physician services) in 1997

Trends in Alternative Medicine Use in the United States, 1990-1997, Eisenberg, et al, JAMA, Nov 11, 1998; 280 (18); 1569-1575

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9

# Trends in Alternative Medicine Use

- Number of visits to AT practitioners exceed primary care physician visits 629 million vs. 386 million
- Biggest increase in use of:
  - Herbs
  - Massage
  - Megavitamins
  - Self-help groups
  - Folk remedies
  - Energy healing
  - Homeopathy
- Chronic conditions including back pain, anxiety, depression and headaches--most frequent patient complaints

Trends in Alternative Medicine Use in the United States, 1990-1997, Eisenberg, et al, JAMA, Nov 11, 1998; 280 (18); 1569-1575



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# Who Uses Alternative Therapy?

- Better educated
- Philosophically oriented to holistic medicine (importance of body, mind, and spirit)
- History of a personal transformational experience
- Generally report poorer health status
- Symptom relief is primary goal
- Less than 5% are dissatisfied with conventional care

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11

"The mind is its own place, and in itself can make a heaven of hell or a hell of heaven."

-John Milton, Paradise Lost, 1667

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12

# Complementary & Alternative Medicine

- CAM is a group of diverse medical and health care systems, practices, and products not presently considered part of conventional medicine.
- Conventional medicine is medicine as practiced by holders of M.D. or D.O. degrees and by allied health professionals, such as physical therapists, psychologists, and registered nurses.
- Some providers practice both CAM and conventional medicine.
- Some scientific evidence exists regarding some CAM therapies but key questions need to be answered through scientific studies
  - Questions whether these therapies are safe
  - Questions about whether they work for the medical conditions for which they are used.
- List of what is considered to be CAM changes continually, as therapies are proven to be safe and effective become adopted into conventional health care

National Institutes of Health: *National Center for Complementary and Alternative Medicine (NCCAM)*
*http://nccam.nih.gov/health/whatiscam/*

13

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# Complementary vs Alternative

- **Complementary medicine** is used **together with** conventional medicine. An example of a complementary therapy is using **aromatherapy** to help lessen a patient's discomfort following surgery.
- **Alternative medicine** is used **in place of** conventional medicine. An example of an alternative therapy is using a special diet to treat cancer instead of undergoing surgery, radiation, or chemotherapy that has been recommended by a conventional doctor.

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# NCCAM Classification

- Alternative Medical Systems
- Mind-body interventions
- Biologically based Therapies
- Manipulative and Body-Based Methods
- Energy Therapies

http://nccam.nih.gov/health/whatiscam/

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# Mind-Body Medicine

- Mind-body medicine uses a variety of techniques designed to enhance the mind's capacity to affect bodily function and symptoms.
- Some techniques considered CAM in the past have become mainstream, some examples:
  - Patient support groups
  - Cognitive-behavioral therapy
- Other mind-body techniques still considered CAM include:
  - Meditation and prayer
  - Mental healing and
  - Therapies that use creative outlets such as art, music, or dance.



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# Relationship between Physical and Mental Disorders

- Complex inter-dependence between mental and physical disorders.
- Untreated mental disorders result in poor outcomes for co-morbid physical illness.
- Persons with mental disorders have a heightened risk of suffering from physical illness due to:
  - diminished immune function
  - poor health behavior
  - non-compliance with prescribed medical regimens
  - barriers to obtaining treatment for physical disorders
- Persons with chronic physical illness significantly more likely than others to suffer from mental disorders.

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# Clinical Applications

- Wide array of mind-body therapies reported to be effective in:
  - Pain control
  - Migraine--84% of migraine sufferers control headaches by learning biofeedback technique
  - Rheumatoid arthritis
  - ADHD
  - Epilepsy
  - Hypertension
  - Peptic ulcer
  - Anxiety
  - Depression
  - Diabetes
- Evidence-based approaches

18

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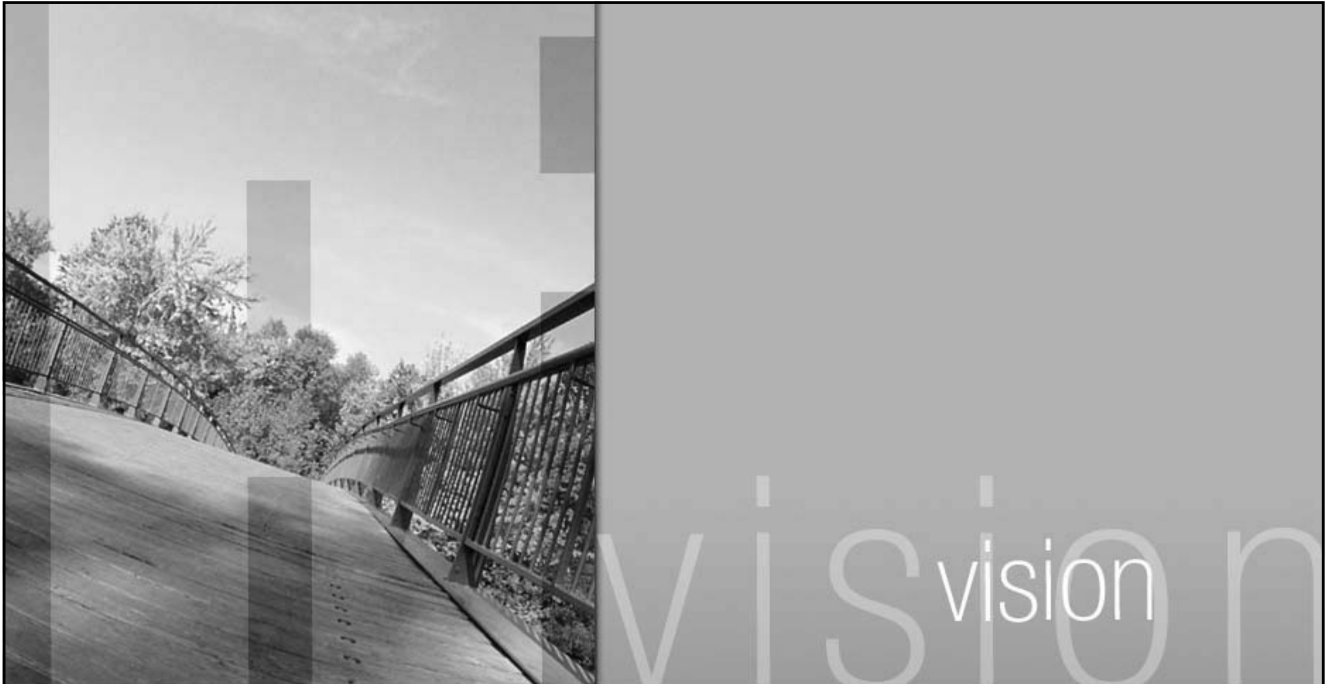
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Behavioral Medicine
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# Behavioral Medicine

An emerging interdisciplinary field concerned with the development and integration of sociocultural, psychosocial, behavioral and biomedical knowledge relevant to health and illness and the application of this knowledge to disease prevention, health promotion, etiology, diagnosis, treatment and rehabilitation.

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20

# History

- The "separation" of mind and body is often said to have originated with Rene Descartes.
- In the late 18th century, Anton Mesmer began trend to re-examine connection of body and mind.  Mesmer's work spawned the concept of hypnosis
- Dr. John Elliotson demonstrated in the 1840's that surgery could be performed on *mesmerized* patients.
- Hypnosis controversial for 100+ years but led to the beginning of modern psychiatry.  Sigmund Freud is said to have been such a poor hypnotist that he retreated to psychoanalysis.
- In early 20th century, the French pharmacist, Emil Coue, was reported to have cured thousands with his famous statement, "Every day in every way I am getting better and better."

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# History continued

- Jan Smuts wrote in 1920s an integration of science, philosophy, and psychology in his book, *Holism and Evolution*. This was essentially the foundation of what is now called Holistic.
- William James discussed 'Mind Cures' in his landmark book, *The Varieties of Religious Experience,* study of religion and spirituality.
- In 1929, Dr. Edmund Jacobsen published *Progressive Relaxation*, in which he demonstrated physiological homeostasis with a practical technique of focused systematic muscle contraction and relaxation.
  - Demonstrated 80% of patients with "psychosomatic illness" cured
  - Never embraced by the medical profession.
- Dr. J.H. Schultz of Germany began form of self-hypnosis called autogenic training and published book in 1932.
  - By 1969, 6 volumes on autogenic therapy published by Schultz & Luthe.
  - Over 2800 scientific references, reported that 80% of "psychosomatic" illnesses were adequately treated with autogenic training.
- Dr. Hans Selye demonstrated major effect of stress on health and maladaptation to stress is basis of most disease. He emphasized the physiologic similarities of physical, chemical, and emotional stress.

22

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# History continued

- In 1954, the American Society of Psychosomatic Medicine was founded and remains primarily a psychiatrically oriented concept.
  - Psychosomatic is considered by most patients and physicians to mean "all in the head."
  - Placebo has been used and poorly understood by both physicians and the public.
  - Majority of drugs only a few percent better than placebo and averages 35% efficacy. Almost no drugs are 70% efficacious.
- In 1960s, Dr. Abraham Maslow and Dr. Carl Rogers began the reintegration of spirit and mind, founding Humanistic Psychology.
- Dr. Roberto Assagioli had integrated his concepts, as well as Jung's concepts of symbology, into his technique of psychosynthesis.
- In 1970s, Dr. Elmer Green and his wife, Alyce, introduced the concept of autogenic feedback training, which became biofeedback.
  - Their work proved that 84% of migraine and 80% of patients with hypertension were remarkably improved and adequately controlled with biofeedback training.
  - Every physiological response, which can be measured and fed back to the patient, is capable of being brought under voluntary control.
- In the 1970s, Dr. Herbert Benson first reported on the physiologic benefits of meditation
  - Recognized that the basic benefit was deep relaxation & known as the Relaxation Response
  - Benson's work proved what Jacobson had shown 50 years earlier
  - Benson's demonstration that individuals who did 20 minutes of deep relaxation 2X daily had 50% decrease of both catecholamine production & insulin requirement for a 24-hour period



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# History continued

- In 1980s, George Solomon introduced psychoneuroimmunology, which has provided the greatest evidence of the inter-connectedness of body, mind and attitude.
  - Remarkable finding that virtually every neurochemical produced in brain is also produced in white blood cells and usually in the intestines
  - The field of psychoneuroimmunology has suggested that the “mind” is part of every cell.
- Dr. Candyce Pert’s discovery of beta endorphin, the natural opiod, was the major step in demonstrating what Buryl Payne introduced in *Getting There Without Drugs* in 1970s.
- Now appears that the mind can produce a wide variety of mind-altering chemicals
  - Ranging from anandamide to neurotensin with analgesic, neuroleptic, and hallucinogenic effects.
  - Ultimately, mind-body medicine is the foundation for virtually all CAM modalities.



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# Significant studies

- Pavlov IP. ***Conditioned Reflexes***. Translated by GV Anrap. Oxford University Press, 1927.

  The classic Pavlovian conditioning work--important in understanding totally unconscious reflex physiological and psychological experiences, which can be initially imprinted by a single strong physical, chemical or emotional stress

- Jacobson, Edmund. ***Progressive Relaxation: A Physiological and Clinical Investigation of Muscular States and Their Significance in Psychology and Medical Practice***. University of Chicago Press, 1974. Original Copyright 1929.

  Study done in 1929; considered by experts to be of Nobel prize quality. Established physiological foundation of muscle and mental tension as major determinants of illnesses. Chapters on emotions, psychological factors, tone and nervous regulation and the concept of neuromuscular hypertension make this an essential foundation for understanding effects of muscle tension on mind and body

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# Significant studies continued

- Selye, Hans. ***The Physiology and Pathology of Exposure to Stress: A Treatise Based on the Concepts of the General Adaptation Syndrome and the Diseases of Adaptation.*** Montreal, Canada: ACTA Inc. Medical Publishers,1950.

  One of the best scientific studies reported in a book and considered by experts to be of Nobel prize quality. The book covers the physiology and pathology of stress on every known physiological, hormonal, and metabolic system, as well as effects on various organs. Selye's demonstrated that emotional and nervous stress produce the same biochemical physiological responses as do chemical and physical stress.

- Luthe W, Schultz JH. ***Autogenic Therapies Volumes 1-6***. New York: Grune and Stratton, 1969.

  Volumes 1 and 4 are the most critical in collection. There are 2800 scientific articles with only 200 in English. The authors demonstrated that 80% of what today is called stress illnesses could be well controlled with this approach.

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# Significant studies continued

- Reich, Wilhelm. ***The Discovery of the Orgone***. Translated by Theodore P. Wolfe. New York: The Noonday Press: A Division of Farrar, Straus, and Giroux, 1971.

  Reich's concepts of body armoring as well as physiological and pathological effects of muscle tension induced by mental distress. Essential to understanding the possibilities in mind-body medicine.

- Benson H, Beary J, Carol M. ***The Relaxation Response***. *Psychiatry* 1974, 37: 37-46.

  Classic paper describes physiological changes elicited by mind-body practices such as meditation, yoga, autogenic training, and hypnosis. Evidence demonstrates that these techniques decrease oxygen consumption, respiratory and cardiac rate, while increasing alpha rhythm brain activity and skin resistance. Opposite of 'flight-or-fight' response of sympathetic nervous system, the relaxation response, properly elicited, has been shown to reduce post-op anxiety and pain, decrease muscle tension in TMJ and positively effect many disease states and health outcomes.

27

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# Placebo Effect

- White, Leonard; Tursky, Bernard; Schwartz, Gary E. ***Theory, Research and Mechanisms***. New York: Gilford Press, 1985.

  Classic and best overall book on placebo and introduces the concept of nocebo. Essentially, every symptom and illness that can be triggered by disease, injury, or dysfunction can become a negative conditioned response. These nocebo responses can elicit the same aversive reaction as the disease itself and the conditioned or learned response becomes a "nocebo."

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28

## Psychiatric disorders are common in patients with chronic medical illness

- In a study of 2500+ people in a community, Wells and colleagues (1988) found that people with any 1 of 8 chronic medical illnesses were 41% more likely to have a psychiatric disorder: anxiety, depression and substance abuse are especially common

- Likelihood of having a co-morbid psychiatric illness appears to increase as severity of medical illness increases (Katon & Sullivan, 1990; Katon, 1996)

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29

# Center for the Advancement of Health Status Report

- Extensive summary of behavioral outcome studies for several significant health problems: cardiovascular disease, depression, diabetes, asthma and low back pain.
- **Psycho-behavioral interventions do produce positive clinical change in psycho-behavioral, physiological and health service utilization.**
- Sustained changes are generally less robust and/or variable.

Center for the Advancement of Health. Health behavior change in managed care: a status report. Washington, DC. 2000.



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# Economic Implications

- Chiles and co-workers reported that on average psychological intervention reduced length of hospital stay by **over 2.5 days** and resulted in per person **savings of $2205**
- Behavioral medicine interventions found to produce benefits significantly greater than other forms of psychotherapy

Chiles, J.A., Lambert, J.J., Hatch, A.L. The impact of psychological interventions on medical cost offset: a meta-analytic review. 1999. *Clin Psychol Sci Prac*. 6:204-220

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# Economic Implications

- Preliminary economic models assessing costs of care for patients that address co-morbid psychiatric issues postulate savings in the neighborhood of $1.4 billion in a population of 100,000 primary care patients.

Kathol, R.G. and Sargent, S. Uniting treatment of the mind and body: Guest Editor's Note. *Primary Psychiatry* 1999;6:7, 44-46.

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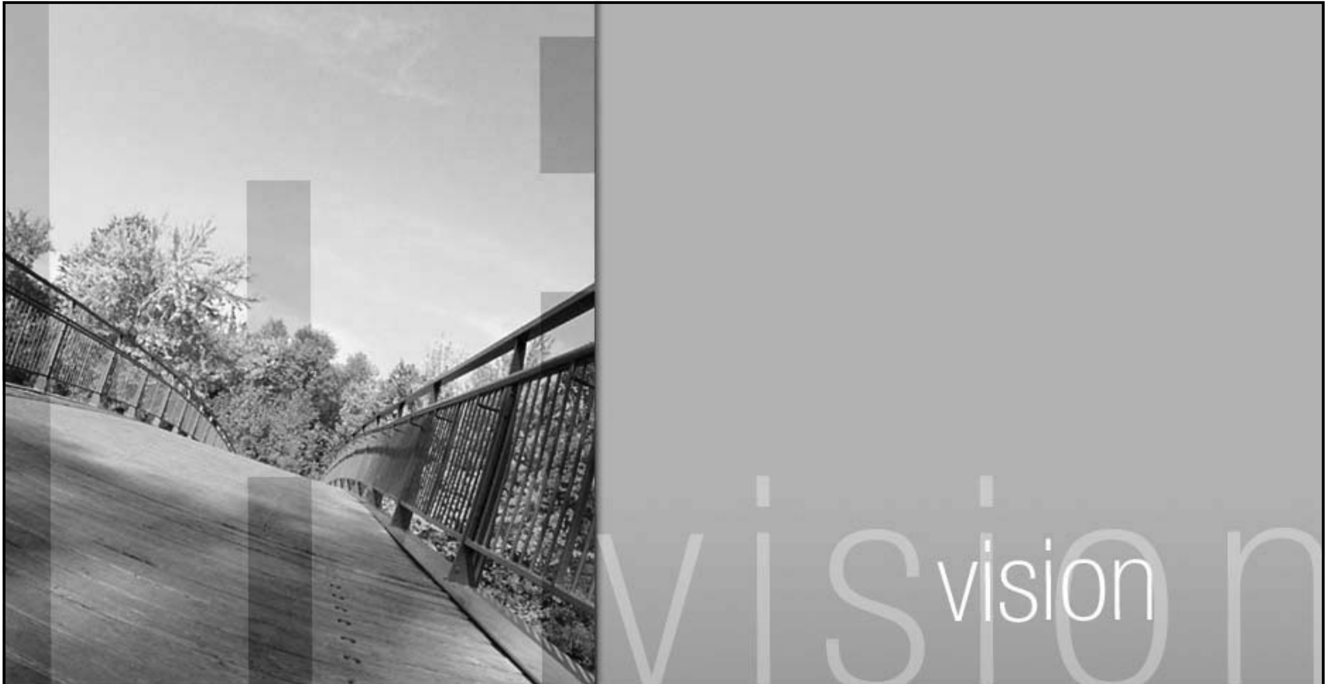
32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The Challenge of Integrating Psychological and Behavioral Approaches
in Primary Care
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# Primary Care

- Integrated and accessible health care services
- Services provided by primary care clinicians—physicians, nurse practitioners, and physician assistants—but involving an array of individuals in a primary care team
- Accountability of clinicians and systems for quality of care, patient satisfaction, efficient use of resources, and ethical behavior

IOM Report 1996: Primary Care America's Health in a New Era, Donaldson MS, Yordy KD, Lohr LN, and Vanselow NA, *Editors*

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34

# Primary Care

- Provides majority of personal health care needs, which include physical, mental, emotional, and social concerns
- A sustained partnership between patients and clinicians and
- Primary care in the context of family and community

**IOM Report 2003: Primary Care America's Health in a New Era,** Donaldson MS, Yordy KD, Lohr LN, and Vanselow NA, *Editors*

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35

# Case Study

- Recently widowed woman presents with son to primary care physician (PCP) with complaint of itchiness all over body
- Convinced apartment is infested with mites which are biting her and causing her to itch
- Patient reluctant to invite people over to apartment
- Experiencing difficulties sleeping due to fears regarding mite infestation
- Denies depressed mood, notes she is sad but coping well with loss of husband
- Requests something to get rid of rash and a note that her apartment be fumigated
- Otherwise physically well with hypertension and hypercholesterolemia and is on medication for both
- Blood pressure is elevated, patient reports compliance with medication

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36

## Case Study continued

- On exam, has dry skin with excoriations but no clear evidence for insect bites or rash
- Slightly agitated but otherwise cognitively intact with no thought disorder
- Given topical steroid and oral antihistamine treatment with short-term symptom relief
- Subsequent Dermatology consult recommended trial of anti-scabies treatment which provided short-term but no lasting relief
- Her blood pressure on follow-up remained significantly elevated so her dosage of anti-hypertensive medication was increased.

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## Case Study continued

- She subsequently admitted to hospital for near-syncopal episode with extensive cardiac and neurologic evaluation which was negative.
- Geriatrics consult suspected underlying depressive disorder with somatic symptoms (context of unresolved grief). Her near-syncope was thought to be due to over-medication. Her prior increase in hypertension was attributed to anti-hypertensive medication non-compliance and dosage was adjusted back to her usual baseline.
- She is discharged on trial of selective serotonin uptake inhibitor and grief counseling with total recovery in roughly 8 weeks.
- Patient able to acknowledge her depression and benefit of both medication and counseling in terms of helping resolve her grief.
- However, she was unable to accept the disappearance of her itching and concerns regarding infestation were somehow connected to her emotional state.

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# Collaborative Care

- Depression common in primary care but often undiagnosed or sub-optimally managed by many primary care clinicians
- Collaborative care is structured care involving a greater role of specialists to augment primary care and has emerged as an effective intervention to improve quality of primary care and outcomes.

Gilgody S, Bower P, Fletcher J, et al. Arch Intern Med. 166(21):2314-21, 2006.

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39

# The Connection between Mental and Physical Health

- Pathway 1: chronic stress including anxious or depressed moods trigger unfavorable changes in neuroendocrine function and create an increased vulnerability to a range of physical illnesses e.g.:
  - Flares of arthritis and asthma
  - Increased predispositon to colds and coughs
  - Increased urinary track and/or other infections

Spurlock, J. 1995. *How stress affects the body.* AMWA Women's Complete Healthbook

40

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# Mental and Physical Health

- Pathway 2: Chronic stress triggers adverse changes in mood and physiology that influences health behaviors and choices around diet, exercise, sexual practices, smoking and adherence to medical therapies.

Spurlock, J. 1995. *How stress affects the body.* AMWA Women's Complete Healthbook

41

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An Exploration of Profound Change
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# Clinician-Patient Relationship

- **Level 1: Transactional**

  "If I'm a patient that has a problem, the clinician's role is to fix the problem."

- **Level 2: Behavior Change**

  "Clinician provides patient with a list of 'do's and 'don'ts.'  Focus is not just on the broken part but also on how that brokeness is related to behavior."

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43

## Clinician-Patient Relationship

- **Level 3: Health Coaching**

  Clinician helps patients reflect on why they are behaving as they are. Clinician functions as a coach who creates an environment that helps patients to reflect on the assumptions that might lie behind their behavior.

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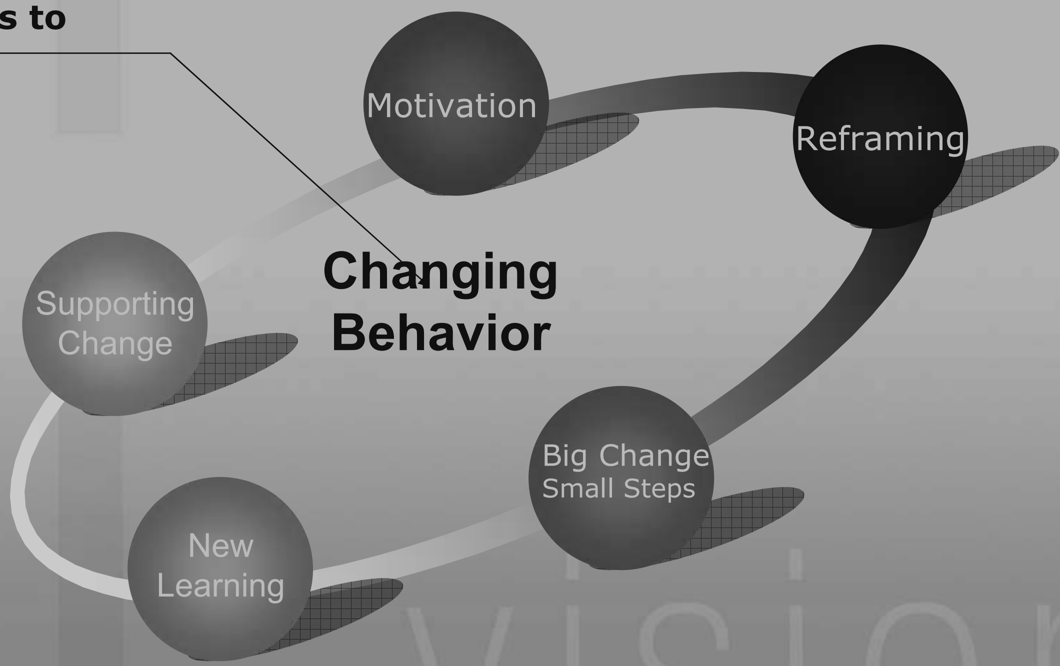
44

# Health Coaching

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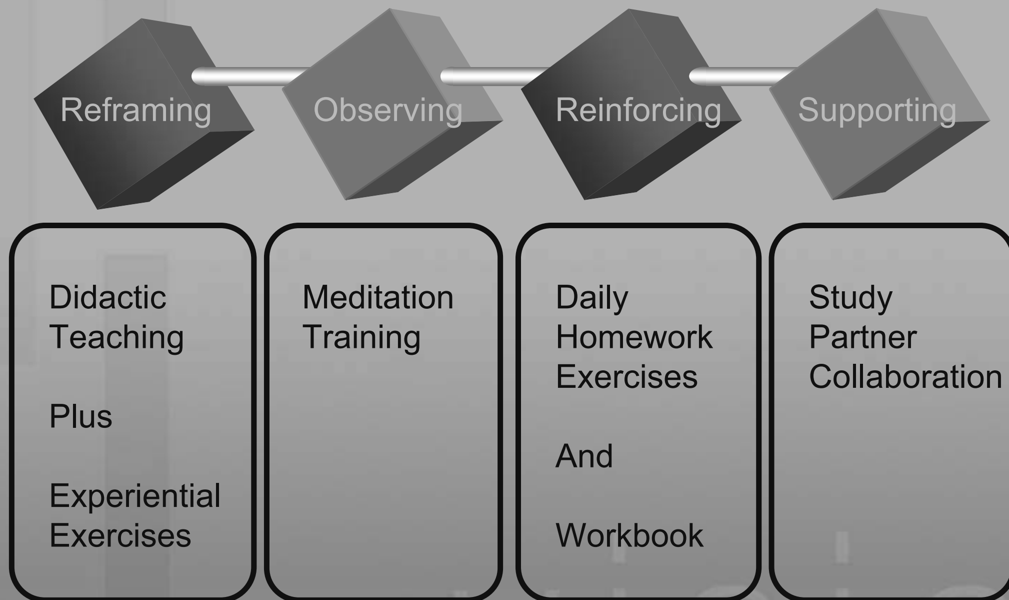
# The Personal Health Improvement Program

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46

# Program Features

- Facilitated using a coaching model – focus on building awareness of triggers, moods, and behaviors
- Invites participants to explore benefits & costs of automatic reactions
- Helps participants focus on what they can control
- Provides opportunities to practice new actions that produce better results
- Helps participants look at the world in a less rigid fashion
- Builds skills to manage negative moods
- Helps participants get needs met in relationships

47

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# Clinician-Patient Relationship

- **Level 4: Transformational**

  Clinician and patient enters a relationship of mutual influence and vulnerability, each open to discovering themselves....

  "There are times when I really feel like I'm making a difference. These aren't the times when I prescribe something or repair something, but when there's a quality of conversation in which both the patient and I see something truly new, something that really proves to have a healing quality."

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48

# Policy Recommendations

- Financing of collaborative care services
- Performance standards for recognition and care of common medical disorders with co-morbid mental illness including appropriate process and outcome measures
- Technical assistance for implementation and dissemination of evidence-based models to create and improve systems of collaborative care
- Provider training of both medical and mental health clinicians and staff in the primary care of the patient as a whole person

Unutzer, J. et al 2006. Transforming Mental Health Care at the Interface with General Medicine: Report for the President's Commission.

49

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# A New Path

"Mind and world are not separate. Mind and world are aspects of the same underlying field… Since the subjective and objective aspects of experience arise together as different poles of the same act of cognition, they're already joined at their inception…. If the senses don't actually perceive the world, if they are instead participating parts of the mind-world whole, a radical reunderstanding of perception is necessary."

- Eleanor Rosch, Dept of Psychology, U. of California, Berkeley: interview with C.O. Scharmer, October 15, 1999. www.dialogonleadership.org

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50

# Questions & Comments

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