CULTIVATING RESILIENCY Carl C. Bell, M.D., F.A.P.A., F.A.C.Psych. President/C.E.O. COMMUNITY MENTAL HEALTH COUNCIL Director of Public and Community Psychiatry Professor of Psychiatry and Public Health UNIVERSITY OF ILLINOIS

Objectives

- Participants will be able to list the characteristics of resiliency.
- Participants will be able understand the importance of strengthening resiliency.
- Participants will know how to strengthen resiliency.
- Participants will know how to build heart.

CHARACTERISTICS OF RESILIENCY

- Resourcefulness
- Ability to attract and use support
- Curiosity and intellectual mastery
- Compassion with detachment
- Conviction of one's right to survive
- Ability to remember and invoke images of good and sustaining figures
- Ability to be in touch with affects, not denying or suppressing major affects as they arise
- Goal to live for
- Vision of the possibility and desirability of restoration civilized moral order
- The need and ability to help others
- Ability to conceptualize
- An affective repertory
- Altruism toward others
- Traumatic Helplessness Learned helpfulness
- "Heart" is an essential component in having resiliency
 - "Heart" is also known as "Indomitable Fighting Spirit"
- Developing a sense of Atman

IMPORTANCE OF STRENGTHENING RESILIENCY

- Development of muscular strength
 - Use it or loose it.
- The same applies to another type of strength is emotional strength and is known as resiliency.
 - Unfortunately, we see the same lack of proactive development of muscular strength in the development of emotional strength.

BUILDING RESILIENCY Develop and expand community partnerships

- •Community organization efforts are producing promising results regarding various health indicators, although it is difficult to conduct experiments that permit traditional scientific criteria to be applied
 - +Ability to attract and use support+
- •Communities with social infrastructure have less trauma generated incidents (e.g. violence) as the social infrastructure prevents promulgation of such behaviors.
 - -Sampson RJ, Raudenbush SW, & Earls F. Neighborhoods and violent crime: A multilevel study of collective efficacy. Science 277: 918-924, August 15, 1997

BUILDING RESILIENCY Provide access to health

Not having access to lead screening leads children to have brain damage
 +This compromises the ability to conceptualize+
 +This compromises the ability for curiosity and intellectual mastery+

BUILDING RESILIENCY Improving bonding, attachment, & connectedness dynamics

- Low levels of parental warmth, acceptance, and affection and low levels of cohesion and high levels of conflict and hostility have been associated with a lack of support
 - +Ability to remember and invoke images of good and sustaining figures+
- Improving intra family relations can increase the supportive environment
 - closeness
 - positive statements
 - communication clarity
 - emotional cohesion
 - +Ability to remember and invoke images of good and sustaining figures+

BUILDING RESILIENCY Improve self-esteem

- A sense of connectedness
 - Feeling satisfaction from being connected to valued people, places or things
- A sense of models
 - Models that they can use make sense of the world.
- A sense of uniqueness
 - Acknowledging and respecting the qualities and characteristics about themselves that are special and different

- A sense of power
 - A feeling of competence to do what they must.
 +Ability to conceptualize+
 +Curiosity and intellectual mastery+

+Resourcefulness+

BUILDING RESILIENCY Re-establishing the adult protective shield

- Family-oriented intervention to change parenting style and practices can increase a sense of social support
 - Increase predictability
 - Parental monitoring of children
 - Decrease negative parenting methods
 - +Vision of the possibility and desirability of restoration civilized moral order+

 +Ability to be in touch with affects,

 not denying or suppressing major affects as they arise+

BUILDING RESILIENCY Increase social skills

- Communication
- Leadership Skills
- Problem Solving
- Resource Management
- Ability to Remove Barriers to Success
- Planning Ability
- Parenting practices referring to the methods and styles of parenting or the goal directed behaviors through which parents perform their parental duties, designed to control and socialize the child have influence on resiliency in children.
- Discipline
 - Use of positive parenting
 - Effectiveness of discipline
 - Avoidance of discipline
- Supervision and monitoring of the child
 - Extent of involvement
 - Knowledge of child's activities and whereabouts
- Family interventions that promote resiliency combine behavioral parent training techniques with other intervention components based in family systems theory that are designed to improve family relations.

+Ability to attract and use support+
+The need and ability to help others+
+Altruism toward others+
+Compassion - with detachment+
+An affective repertory+

BUILDING RESILIENCY Minimizing the effects of trauma

- Transform Traumatic Helplessness into Learned Helpfulness
- +The need and ability to help others+

+Altruism toward others+

+Compassion - with detachment+

- If children can be identified immediately after suffering a traumatic stressor and helped to cope with that stressor they will be less prone to engage in self destructive behaviors such as drug abuse, school failure, unsafe sex, and violence.
- If a child is traumatized and are not treated for years, then even after they successfully obtain insight oriented psychotherapy and they "see the light", they will still have years of negative behavioral habits that will be relatively ingrained and hard to extinguish without the above.

BUILDING RESILIENCY Building Heart

Building and Improving "Heart"

+Goal to live for+

+Conviction of one's right to survive+

- The concept is a simple one.
- By encouraging individuals to "go the extra mile", a person can practice calling up emotional reserves until they trust they have a stockpile of conviction.
- Building "heart" in individuals is a preventive public health strategy designed to inoculate against the potentially negative effects of stress and trauma.
- Heart can be built in sports or other spiritual endeavors.

BUILDING RESILIENCY Atman

- Everyone has a sense of "self" or "be-ing".
- An "internal observer" which is unchanging and eternal.
- Awareness of this "be-ing" begins after the development of abstract thinking.
- Some know it as "spirit", "place", "ego", "soul", etc.

Neuropsychiatry of Traumatic Stress

 Patients exposed to violence and trauma experience acute and chronic physiologic responses to their experiences.

Traumatic Stress Impacts

Catecholamine system

- Hypothalamic pituitary adrenal axis
- Hypothalamic-pituitary-gonadal axis
- Neuropsychiatric status

Catecholamines System's Response to Trauma

- Increased responsivity of the sympathetic nervous system that is detectable under conditions of stress.
- Behavioral impulsivity and cognitive distortions
- Persistent physiological hyper arousal and hyperactivity
- Increased muscle tone
- A low-grade increase in temperature
- An increased startle response
- Profound sleep disturbances
- Affect regulations problems
- Generalized (or specific) anxiety
- Abnormalities in cardiovascular regulation

Hypothalamic pituitary adrenal axis' Response to Trauma

- Chronic stress is adapted to activating a negative feedback loop that causes:
- A decreased resting glucocorticoid levels
- Decreased glucocorticoid secretion in response to subsequent stress
- Increased concentration of glucocorticoid receptors in the hippocampus
- Blunted fluctuations in their daily salivary cortisol levels
- Lower baseline cortisol levels
- Greater afternoon suppression of salivary cortisol by dexamethasone
- Higher morning cortisol levels
- Major neuroendocrine disturbances (especially in the corticosteroid and thyroid functions)

Hypothalamic pituitary gonadal axis' Response to Trauma

- The hypothalamic-pituitary-gonadal (HPG) system is the nervous system/sex glandular system
- There is some evidence that the impact on the HPG system may have an impact on hormones (e.g. cortisol, testosterone, dihydroepiandrosterone, and androstenedione) that have behavioral effects in males and females.

Neuropsychiatry of Traumatic Stress

- High levels of circulating glucocorticoids have a significant effect on memory
 which is thought to be a function of the fact that sustained activation of the
 glucocorticoid system under conditions of prolonged stress eventually leads to
 cell death in the hippocampus.
- Shalev (1997) PTSD "biopsychosocial trap" permanent alteration of

neurobiological processes

- hyperarousal and excessive stimulus discrimination
- acquisition of conditioned fear responses to trauma-related stimuli
- altered cognitive schemata
- social apprehension.
- If physiologic responses can be conditioned to be able to tolerate a wider range of distress, traumatized individuals might not fall in to the biopsychosocial trap

BUILDING PHYSIOLOGIC RESILIENCY

- Negative biopsychosocial experiences stress changes neuroendocrine responses in the body
- Positive biopsychosocial experiences changes neuroendocrine responses in the body.

BUILDING PHYSIOLOGIC RESILIENCY PHYSIOLOGIC ADVANTAGES OF CHI KUNG

- Psychoneuroendocrinology
- Fat burning exercises
- Increase endurance without undue cardiovascular stress
- Improved immunologic competence
- Improved relaxation capacity

BUILDING PHYSIOLOGIC RESILIENCY CHI KUNG - CIRCADIAN RHYTHMS PSYCHONEUROENDOCRINOLOGY

- Depending of the time of day, the body has different sources of energy.
- At 6:00AM the body's short-term source of energy glycogen which is stored in the liver is depleted from the lack of food intake while the person is sleeping.
- As a result, the body releases corticotrophin (ACTH) a hormone from the pituitary which converts protein and fat into sugar that can be used for energy until the first meal.
- This process is called gluconeogenesis and is carried out when ACTH goes to the adrenal gland causing it to produce cortisol.
- Accordingly, 6:00AM is the best time to do exercises to burn fat and redistribute proteins in the body.
- In addition, it is useful to have cortisol, a youthful, energizing hormone, to be actively circulating throughout the body in the morning.
- ACTH is produced from "big ACTH" which is composed of ACTH and the body's own form of morphine (beta lipotrophin which contains beta-endorphin and enkephalin).
- When ACTH is formed the beta-endorphin also is released in the bodycausing an increased tolerance to pain, temperature changes, etc.

BUILDING PHYSIOLOGIC RESILIENCY CHI KUNG STRENGTH & ENDURANCE

 Although the exercises are very slow and do not cause extreme respiratory or cardiovascular stress, they result in strength and endurance by virtue of them training the body to move in "one piece" and to use fat as a source of energy.

BUILDING PHYSIOLOGIC RESILIENCY CHI KUNG – IMMUNOLOGY

- With aging the immune function undergoes adverse changes.
- T cells, which have a central role in cellular immunity, show the largest agerelated differences
- Thymus involution is the apparent underlying cause resulting in increased incidence of malignancy, infectious disease, and autoimmune disorders with age.
- Habitual physical activity may enhance activity of macrophages, natural killer cells, lympokine activated killer cells, neutrophils and regulating cytokines increasing resistance to viral infection and preventing the formation of malignant cells.
- Habitual physical activity may check certain aspects of age-related decline in T cell function - e.g. reduced mitogenesis and decreases in the production of certain types of cytokine.
- Data suggests the incidence and mortality rates for certain types of cancer are lower among active subjects.
- Athletes are not clinically immunodeficient, yet endurance athletes are at increased risk for illness especially upper respiratory tract infection.
- In athletes, neutrophils appear to be down regulated, and this may alter resistance to illness.
- Down regulation of neutrophils function by limiting chronic inflammation from
- In theory, moderate exercise should help to reverse the adverse effects of stress upon the immune system by increasing the production of endocrine hormones and causing less accumulation of autoreactive immune cells by enhancing the programmed cell death.

BUILDING PHYSIOLOGIC RESILIENCY CHI KUNG

- In theory, Chi Kung is particularly suited to reversing the adverse effects of stress
 - The exercises are timed with the circadian rhythms of key endocrine hormones
 - The exercises are physically stimulating the areas in which the thymus

gland, the adrenal glands, and gonads are located.

BUILDING PSYCHOLOGICAL RESILIENCY - CHI KUNG

- Franz Alexander made observations about "expressive innervations"
- When the mind is in one emotional state or another, the expression of this emotional state can be observed in the breathing

BUILDING PSYCHOLOGICAL RESILIENCY - CHI KUNG THE MIND AND EMOTIONS CONTROL BREATHING

- E.g. deep sighing respiration as seen in depressed individuals
- E.g. panting respiration as seen in panicked individuals
- E.g. holding the breath as seen in concentrating individuals
- E.g. irregular breathing as seen in upset individuals
- E.g. deep inspiration as seen in surprised individuals, etc.

BUILDING PSYCHOLOGICAL RESILIENCY - CHI KUNG THE MIND AND EMOTIONS CONTROL BREATHING

 Just as the mental state of an individual influences the person's breathing patterns, similarly the breathing patterns can have an influence on the person's mental state.

Carl C. Bell, M.D.
Community Mental Health Council, Inc.
8704 S. Constance
Chicago, IL 60617
(Fax) (773) 734 - 6447

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