

# MODULE 4

Knowledge-Based Concepts Guiding Our  
Understanding of Post-Disaster Reactions  
and Behavior to Assist Survivors.

# Module 4

## DESCRIPTION:

- Introduces “building-block” knowledge to guide post-disaster intervention.

## PURPOSE:

- To present the basic content for understanding:
  - Survivor reactions
  - Formulating guidelines for post-disaster intervention.

## CONTENT:

Basic concepts of :

- Stressor/stress reactions
- Crisis response & resolution
- Coping and adaptation
- Loss and mourning
- Social support
- Resiliency

# Module 4

## Content:

- Conceptual knowledge will be presented that gives support to the changes of processes across time:
  - Physiologic
  - Emotional
  - Cognitive
  - Social
  - Spiritual

# Understanding the Post-Disaster Survivor

## Learning Objectives:

### **To identify theories of:**

- ✓ Stressor/stress response
- ✓ Coping and adaptation
- ✓ Loss and mourning
- ✓ Social support systems
- ✓ Crisis response and resolution

# Understanding the Post-Disaster Survivor

## Learning Objectives:

- To identify basic building blocks of knowledge to guide post-disaster intervention.
- To acquire the knowledge needed to recognize survivors' reactions and formulate post-disaster interventions.

# Understanding the Post-Disaster Survivor

## QUESTION:

What Areas of Knowledge are Available  
to Conceptualize Reactions of Survivors  
During the  
Disaster Phases?

# Understanding the Post-Disaster Survivor

Reactions to stressful events depend  
on characteristics of:

- the social environment
- the events
- individual resources
- the task required

# Understanding the Post-Disaster Survivor

Depending on the pervasiveness and persistence of the stressor, the outcome may result in:

- growth
- temporary difficulty  
and/or
- psychopathology



# Understanding the Post-Disaster Survivor

*Stressor-Stress Response Concept*

# *Stressor-Stress Response Concept...*

The stress response is composed of changes in the:

- physiologic systems
- psychological mechanism
- and social behavior

...as indication that the individual has been impacted by a traumatic event.

# *Stressor-Stress Response Concept...*

This definition conveys an understanding that certain life events produce a loss of habitual modes of behavior due to the **personal turmoil, tension, and emotional pain** that accompany stress response.

# *Stressor-Stress Response Concept...*

- ✓ This concept is associated with the response to the effects of a traumatic event impacting the individual.

# *Stressor-Stress Response Concept...*

## **STRESSORS...**

*Events or situations that produce  
physical or psychological  
reactions.*

# *Stressor-Stress Response Concept...*

## **STRESSORS...**

Can Be:

- Real or imagined
- Internal or external
- Absolute or perceived

# Stress Response

# *Stressor-Stress Response Concept...*

## **The Stress Response...**

The acute responses of the autonomic nervous system, Hypothalamus-Pituitary-Adrenal Axis, and CRF systems to stress are protective and promote adaptation.



# *Stressor-Stress Response Concept...*

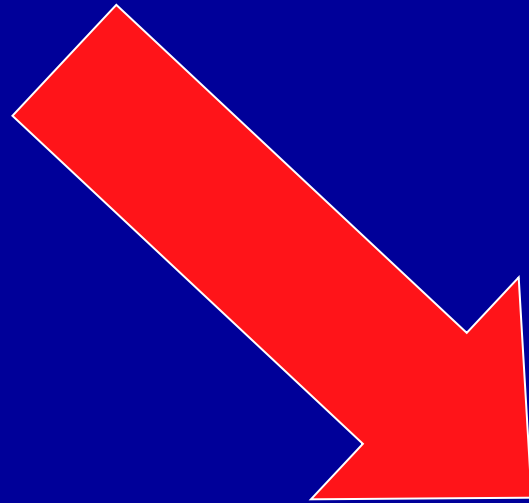
## **What is *STRESS*?**

- Normal
- Productive or destructive
- Acute or chronic
- Cumulative over time
- Preventable
- Manageable

## *Stressor-Stress Response Concept...*

*Stress* is related to the absolute magnitude of the stressor *and* the person's perception of the stressor.

**Stressor**



**Fight-or-flight-  
or-freeze  
Response**

# *Stressor-Stress Response Concept...*

## **The Stress Response**

<b>Physical</b>	<b>Body Reactions</b>
<b>Emotional</b>	<b>Feelings</b>
<b>Cognitive</b>	<b>Thinking and decision-making</b>
<b>Behavioral</b>	<b>Actions</b>
<b>Spiritual</b>	<b>Beliefs and values</b>

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# We react to stress 5 ways

Physical

**Emotional**

**Cognitive**

Behavioral

**Spiritual**

# *Stressor-Stress Response Concept...*

- Currently, the quality, intensity, or further effects of trauma can only be measured by observing the behavior manifestations of the impacted individual.

*\*\*\* The definitions of trauma, stressor and stress response are overlapping \*\*\**

# Traumatic Stress

# *Traumatic Stress*

- Involves a threat (real or perceived) to physical integrity
- Elicits reactions of intense fear, horror and/or helplessness
- Represents a “watershed event”
  - life experience changes in a fundamental way



# *Traumatic Stress*

## **Traumatic events...**

✓ May affect:

– *only* one or two people (individual trauma)

**OR**

– entire populations (disasters)

✓ Overwhelm capacity to cope

*Traumatic stress*  
may result from  
individual trauma **or**  
from community-wide  
terrorism or disaster.

Psychobiological Changes

Post-Disaster

# *Stressor-Stress Response Concept...*

## **Stressors Associated with Disasters**

- Threat of harm
- Injury
- Noxious agents
- Grotesque scenes
- Encounter with death and destruction

# *Stressor-Stress Response Concept...*

## **Stressors Associated with Disasters**

### **Multiple losses:**

- Home and shelter
- Basic necessities
- Vehicles
- Personal items
- Community and social support
- Job or workplace
- Schools
- Health care

# *Stressor-Stress Response Concept...*

## **Stressors Associated with Disasters**

- Lack of information
- Dependency
- Immobility
- Inactivity

The mantra of disaster psychology can be summed up in one sentence:

**The event is abnormal,  
not the individual's response.**

# Effect of Continuous Stress

- The price the body pays for adaptation to adverse psychosocial or physical stressors
- The result of too much stress or an inefficient operation of the stress response system



# Intense/Protracted Stress

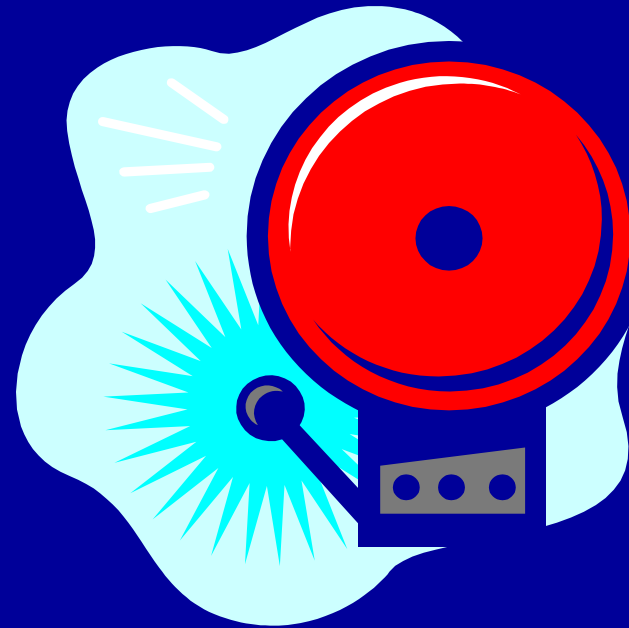
*(different from “chronic” stress)*

- The wear and tear that the body experiences due to repeated cycles of stress as well as the inefficient turning-on or shutting off of these responses.
- Includes many aspects of an individual's life that affect the regulation and level of the mediators of the nervous system.

# Chronic stress reactions

**Analogy...**

*Fire alarm that keeps ringing even after the fire has been put out*



# Effect of Stress Response

**A sustained stress response may:**

- ✓ damage the organism
- ✓ accelerate disease

# *Stressor-Stress Response Concept...*

## **Factors Leading to *Chronic Stress*...**

- Failure to habituate to stressors
- Failure to turn off the stress response
- Inadequate hormonal stress response

# *Stressor-Stress Response Concept...*

## **Chronic Stress: Types of Consequences...**

Disease and psychological distress results in these individuals because **full-alert status**:

- Comes on too often
- Fails to adapt to the same stressor over time
- Remains on after the stress has passed
- Wears out the ability of some organs to respond
- Causes other organs to overreact

# *Stressor-Stress Response Concept...*

## **Adaptation Processes...**

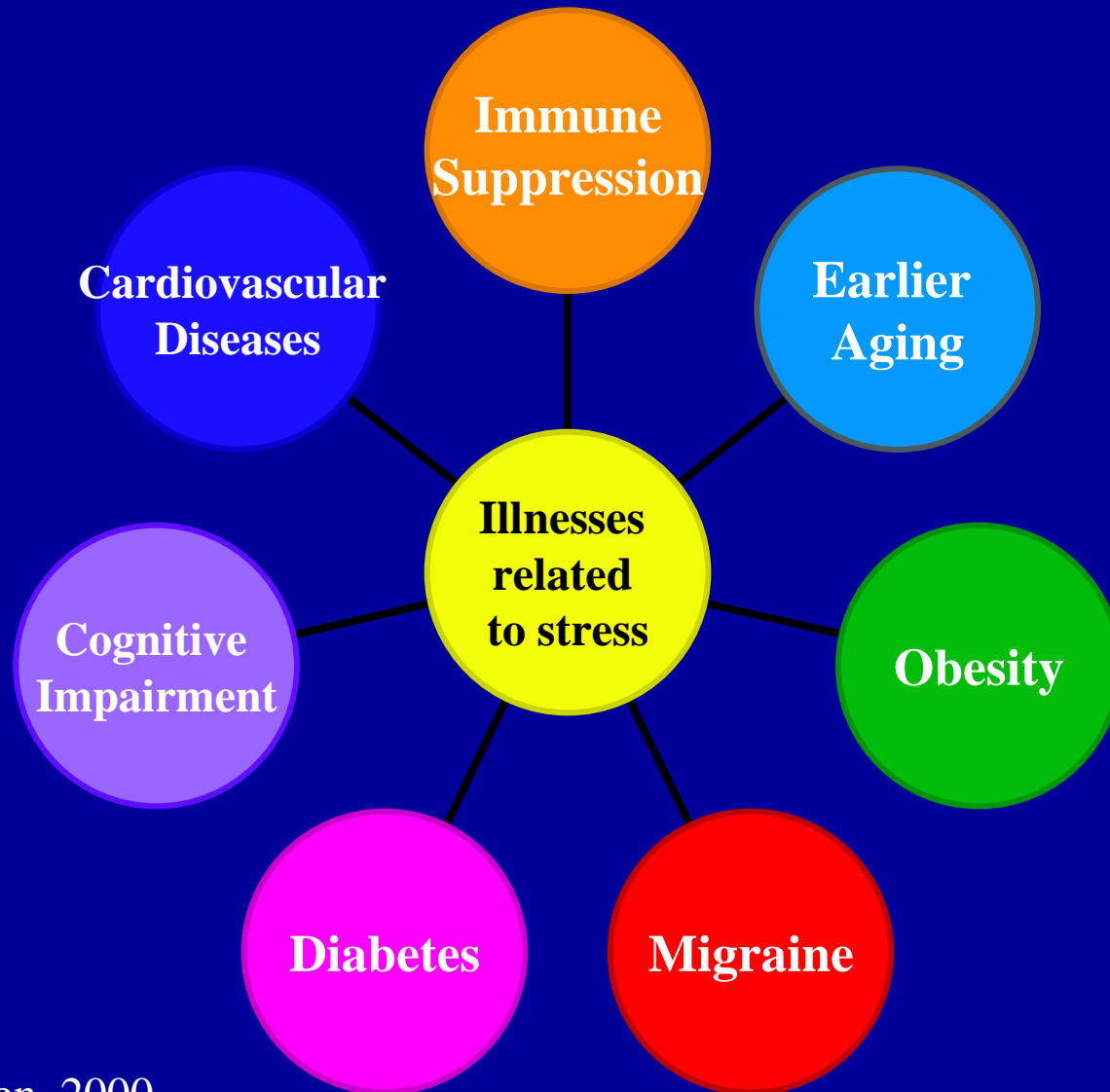
**For each system of the body there are:**

- short-term adaptive actions (protective)

**AND**

- long-term effects (potentially damaging)

# Illnesses Related To Stress



Source: McEwen, 2000

# *Chronic stress* may lead to:

- ✓ behavioral problems
- ✓ “burnout”
- ✓ medical conditions
- ✓ disease



# Helpful Characteristics

**Factors that contribute to healthy reactions:**

**Genetic predisposition:**

- Early development
- Learned healthy behaviors:
  - Diet
  - Exercise
  - Smoking and drinking

# Support Systems

# **Social Supports Concepts**

# Support Systems (Mediators – Regulators)

- Assistance (at every level) to the individual in the aftermath of disaster
  - person-to-person exchange.
- Provide support for identification
- Exchange of helpful information
- Opportunity to share coping techniques

# Support Systems (Mediators – Regulators)

- Support increased sense of worth
- Reinforcement for change and maintenance of effort (feedback on performance)
- Provide concrete aid and serve as counselors

# Support Systems (Mediators – Regulators)

- Problem-solving options and prioritization of solutions
- Supporting activity
- Supporting empowerment in the face of adverse conditions

# Social Supports Concepts

It is hypothesized that individuals with a strong array of **social resources** are less likely to have a given noxious circumstance override his/her defenses.

✉ Extending support to assist in problem solving is a continuous activity of the worker to help survivors.

# Social Supports Concepts

*In the chaotic setting following a disaster...*

Although it is very difficult to effectively match victims and helpful groups during this time, finding the right “**fit**” is crucial and may be one of the most important components of successful:

- Coping
- Problem Solving
- Adaptation of the Survivor





# Social Supports Concepts

Intervention Goals:

Finding the right “fit” for successful:

a) Coping b) Problem Solving c) Adaptation of the Survivor

**...as he/she:**

- a) Proceeds from the **first traumatic moments**
- b) Goes through the **process of mourning**
- c) Finally **accepts the difficult new situation**

# Coping & Adaptation

Coping behavior that protects the individual from internal and external stresses.

It implies efforts adaptation, defense and mastery

# **Coping & Adaptation**

**Appraisal Shapes The Coping Process**

**Q. What stimulates the antecedent of the appraisal?**

# Coping & Adaptation

*What stimulates the antecedent of the appraisal?*

**Q What is it about the person and the situational context that produces:**

- Appraisals of harm/threat

**OR**

- Appraisals that some benefit is possible or probable?

# Coping & Adaptation

*What stimulates the antecedent of the appraisal?*

**We have a built-in neurological mechanism that responds to dangerous situations.**

# Coping & Adaptation


**Memory** is a key component of this mechanism, which serves the purpose of identifying and measuring danger signals to:

- ✉ Past Experiences
- ✉ Belief
- ✉ Learning
- ✉ Knowledge

# Coping & Adaptation

Differences between  
**ACUTE** and **CHRONIC** stress...

## Acute Stress

- *Always* associated with strong emotions
- Increases memory of the event that threatens the organism
- Helps remember  avoid in the future

# Coping & Adaptation

## Differences between **ACUTE** and **CHRONIC** stress...

### Chronic Stress

- Causes changes in the brain
  - ▲ Forms new structures affecting **cognitive functions**



# Coping & Adaptation

Differences between  
**ACUTE** and **CHRONIC** stress...

## Chronic Stress

*New research is indicating that the  
**hippocampus is distorted and may be  
associated with PTSD or depression.***