



**INCD INSEMEX**  
**PETROȘANI**

NATIONAL INSTITUTE FOR RESEARCH AND DEVELOPMENT  
IN MINE SAFETY AND PROTECTION TO EXPLOSION



# Mine rescuer's psychological training model

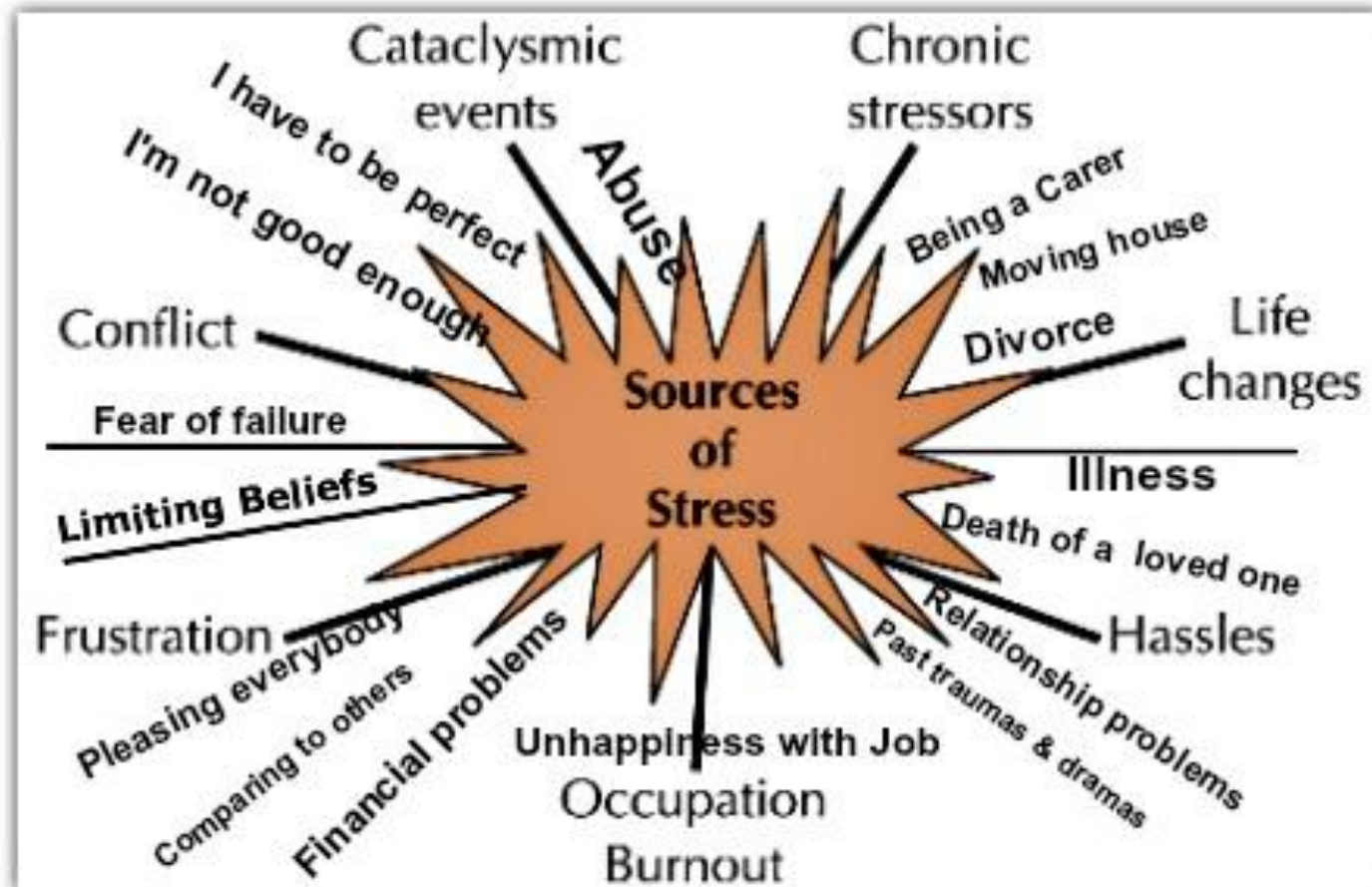
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# Daily stress



Constantly, individuals have to deal with potential sources of stress

# Stress in the context of intervention and rescue activities



Stress represents a major occupational risk in mine rescue activities





# Psychological trauma and post traumatic stress disorder

## Potentially traumatic events

- Powerful disturbing incidents
- Experiences that endanger life
- Significant threats to a person's physical / mental well-being

## Psychological trauma symptoms

- Physical
- Cognitive
- Behavioural
- Emotional

### Physical

- Excessive alertness, on the look-out for signs of danger
- Easily startled
- Fatigue/exhaustion
- Disturbed sleep
- General aches and pains

### Cognitive (thinking)

- Intrusive thoughts and memories of the event
- Visual images of the event
- Nightmares
- Poor concentration and memory
- Disorientation
- Confusion

### Behavioural

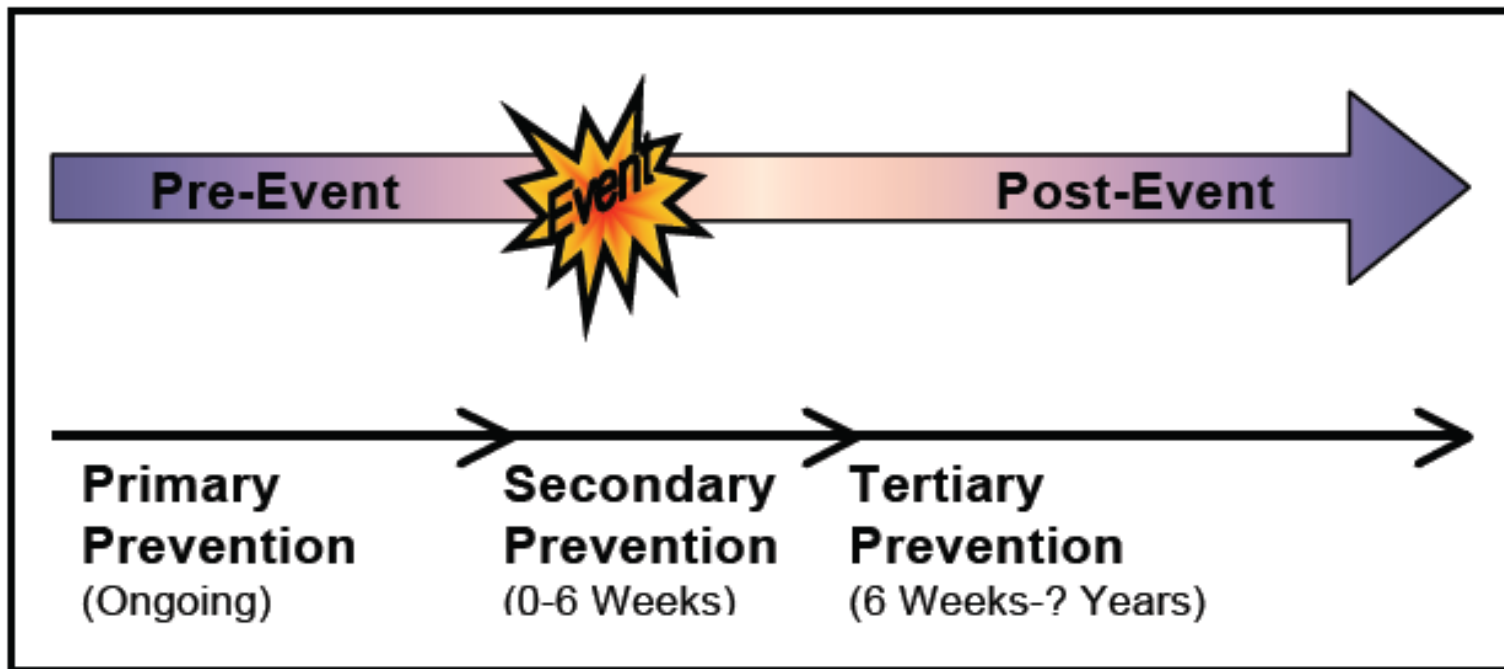
- Avoidance of places or activities that are reminders of the event
- Social withdrawal and isolation
- Loss of interest in normal activities

### Emotional

- Fear
- Numbness and detachment
- Depression
- Guilt
- Anger and irritability
- Anxiety and panic



# Phases of psychological intervention



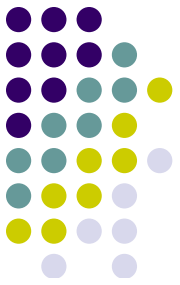
## Cognitive behavioral coping for intervention and rescue personnel trained within INCD INSEMEX



**The Strategic Approach to Coping Scale,**  
*instrument that evaluates the behavioral  
dimension of coping*

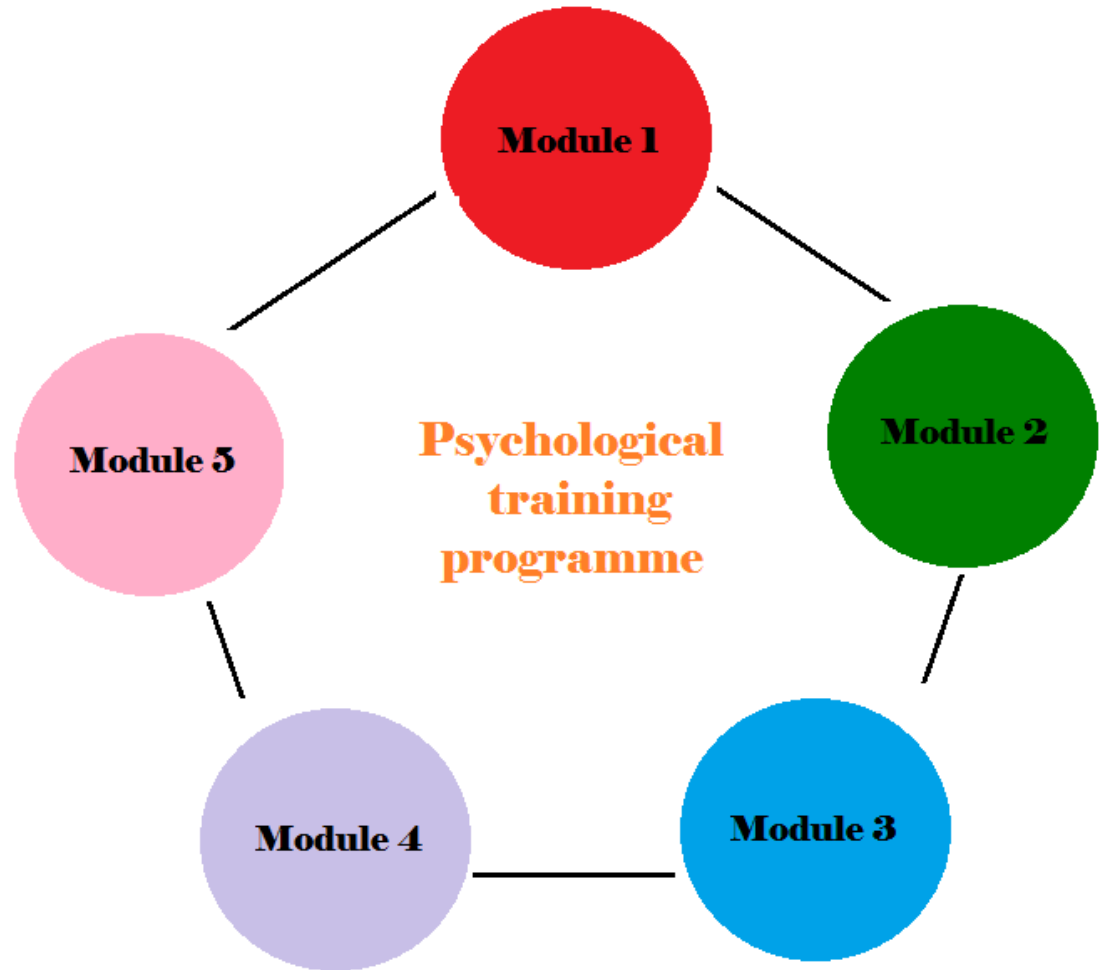
**Cognitive Emotional Regulation Questionnaire**  
*instrument that evaluates the cognitive  
dimension of coping*

# Psychological training model



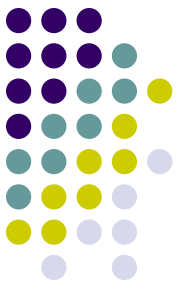
## Main objective

Assisting mine rescuers  
in preparing for  
situations requiring  
intervention, to help  
them alleviate the  
negative impact of  
**stress.**



## Module 1

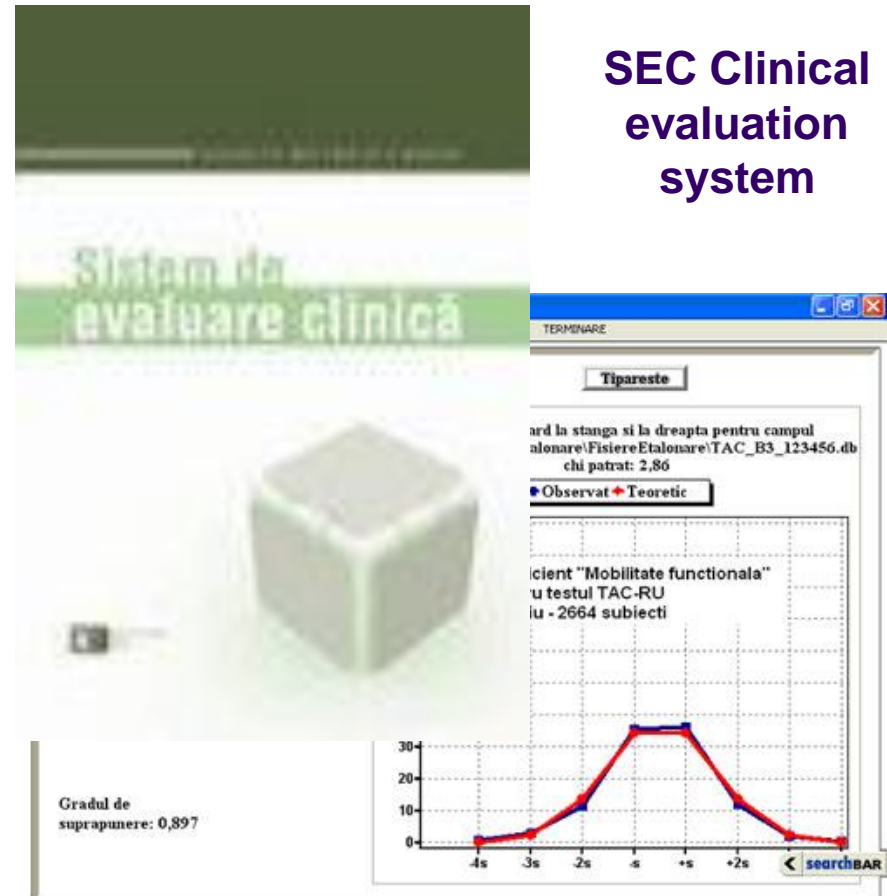
# Understanding the goals and role of psychological training



## ABCD-M Personality questionnaire



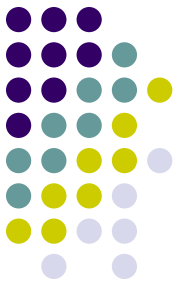
## SEC Clinical evaluation system



## PSISELTEVA Psychological testing and evaluation system



# Understanding and recognizing stress symptoms related to intervention in dangerous situations



## COGNITIVE SYMPTOMS

- Inability to concentrate
- Seeing only the negative
- Anxious or racing thoughts
- Difficulty in decision-making
- Trouble learning new information
- Constant worrying
- Nightmares
- Guilt
- Poor judgment
- Forgetfulness, disorganization

## EMOTIONAL SYMPTOMS

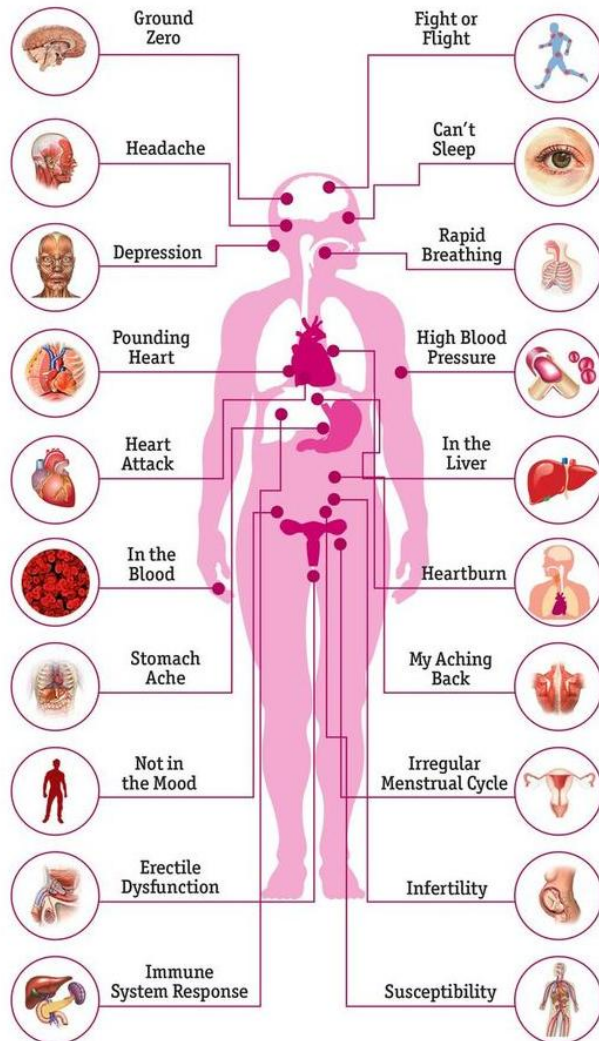
- Depression, general unhappiness
- Low self-esteem - lonely, worthless
- Overwhelmed, like losing control
- Frequent crying spells, suicidal thoughts
- Moodiness
- Apathy
- Irritability, short temper
- Agitation, inability to relax

## BEHAVIORAL SYMPTOMS

- Changes in appetite
- Sleeping too much, too little
- Social withdrawal, isolation
- Aggression, hostility
- Overreactions
- Defensiveness, suspiciousness
- Problems in communication
- Obsessive or compulsive behavior
- Nervous habits (nail biting, fidgeting, pacing)
- Low interest in appearance, punctuality
- Stuttering, rapid or mumbled speech
- Procrastinating, neglecting responsibilities
- Using alcohol, cigarettes, or drugs to relax
- Lies/excuses to cover up poor work
- Increased number of minor accidents
- Excessive gambling, impulse buying

## Module 2

# Understanding and recognizing stress symptoms related to intervention in dangerous situations



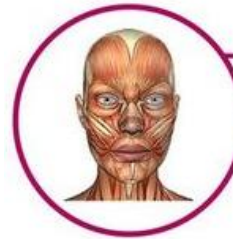
## Fight or Flight

Stress triggers the "fight or flight" response that can save you from danger.



## Depression

A potential side effect of Adderall is trouble falling asleep and staying asleep.



## Rapid Breathing

Stress causes you to breathe faster so you can take in more oxygen. If you already have respiratory problems, you might have trouble breathing.



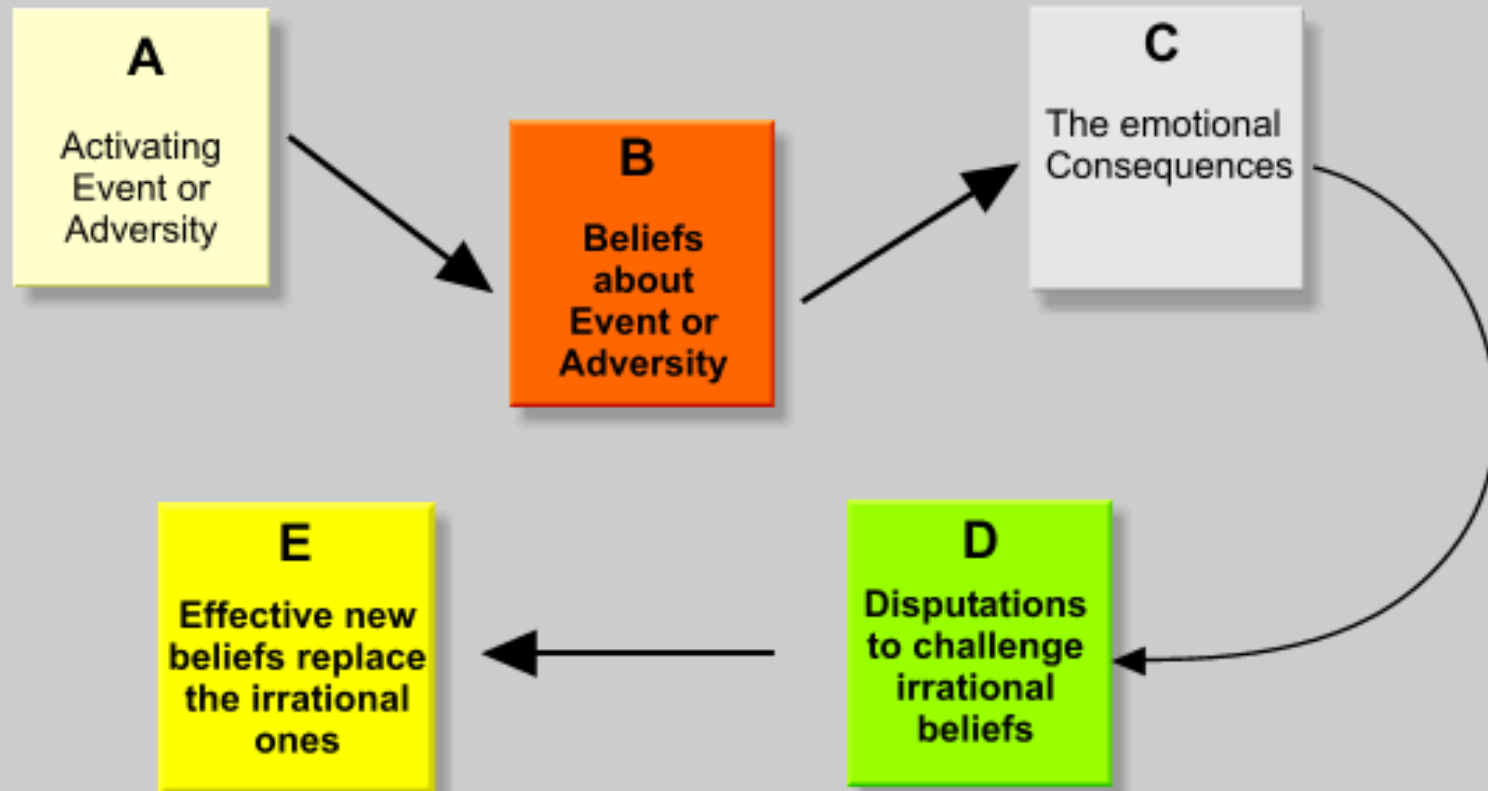
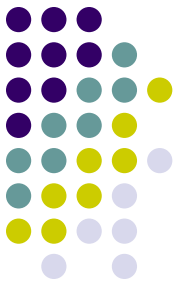
## Pounding Heart

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



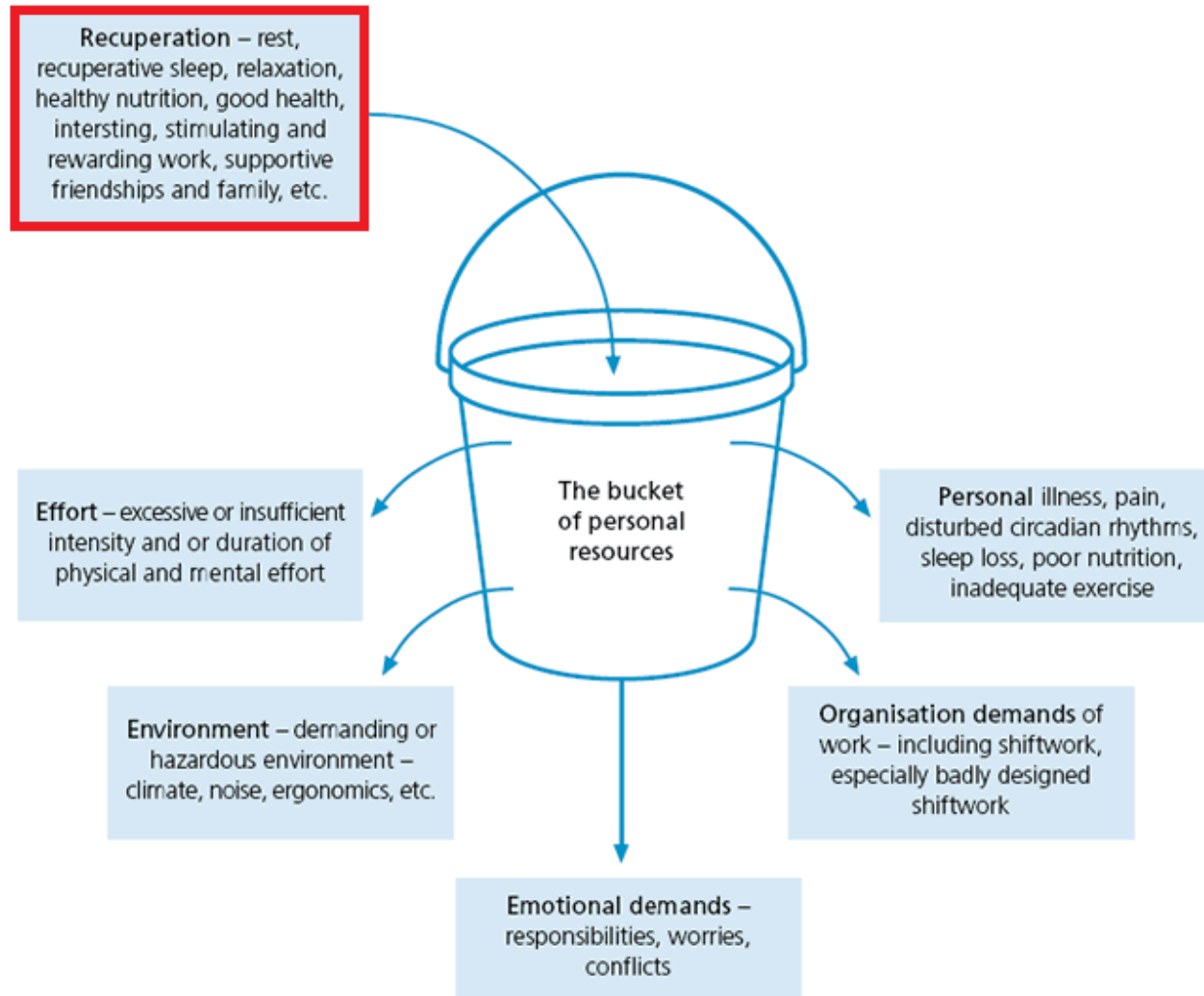
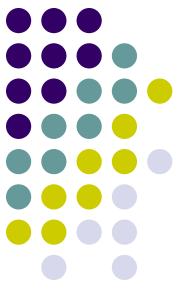
## Module 3

# Identifying irrational thinking and changing possible negative patterns of thinking



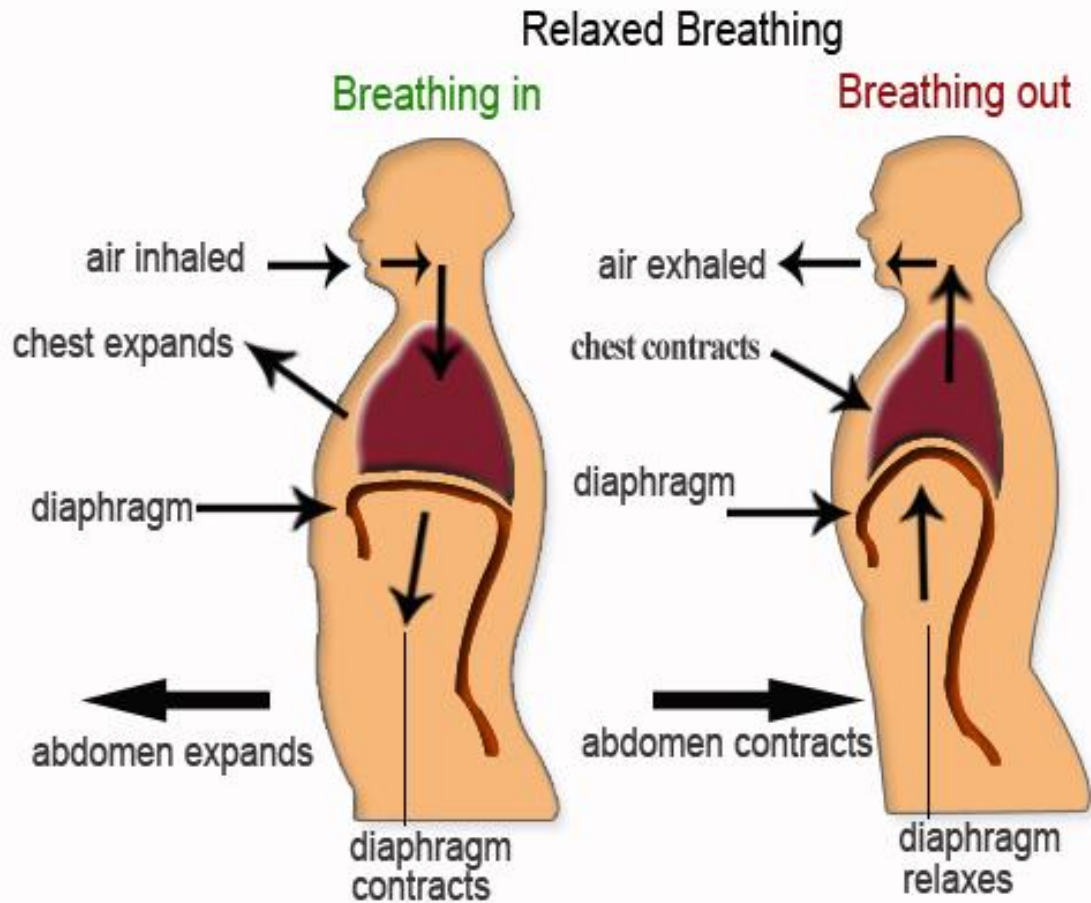
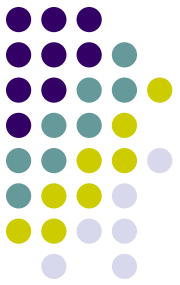
## Module 4

# Learning methods to prevent general stress and manage traumatic stress



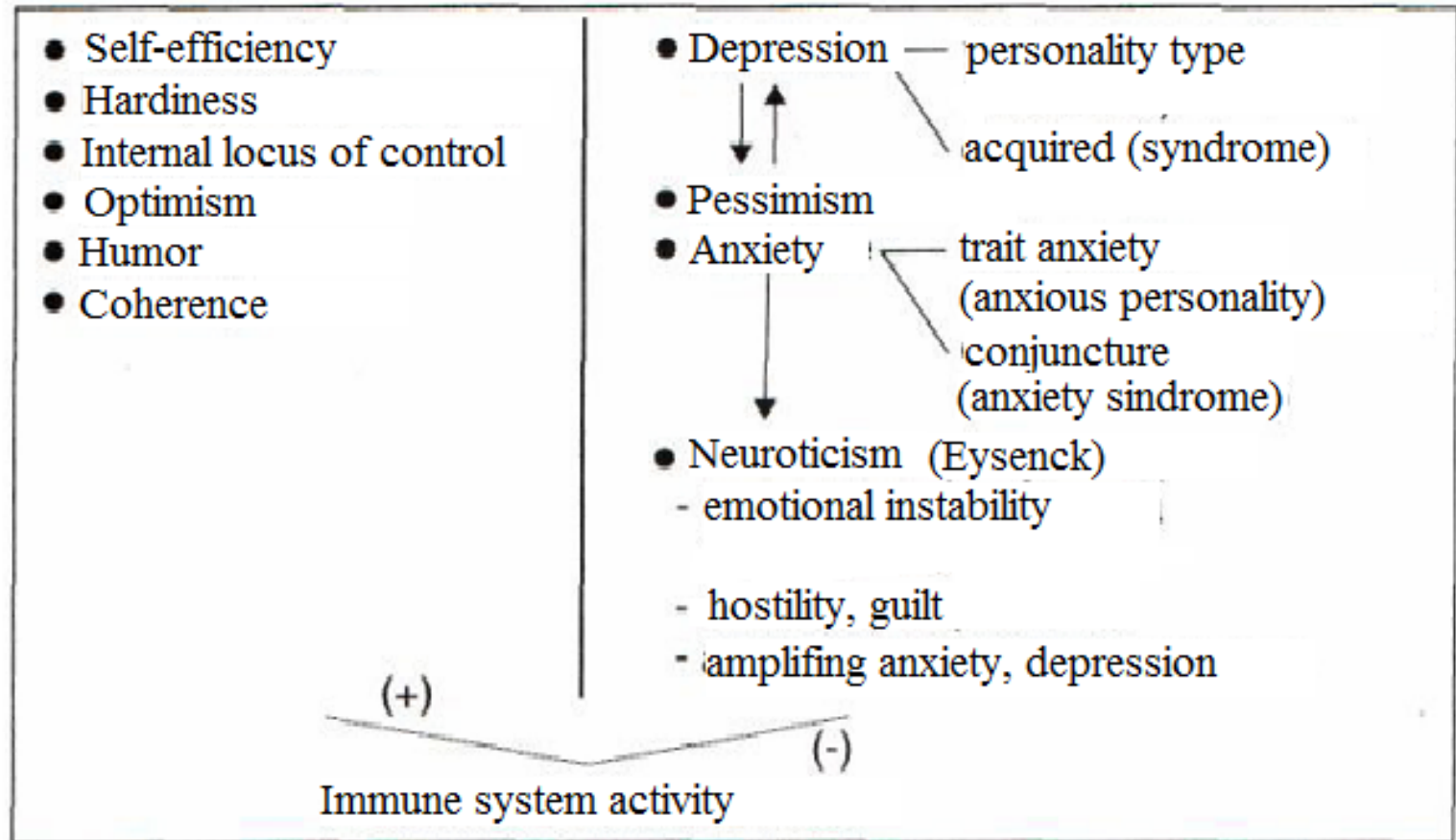
## Module 4

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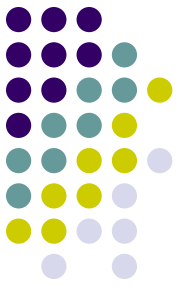




## Identifying personality traits that play a part in sanogenesis



# Evaluation of the psychological training program

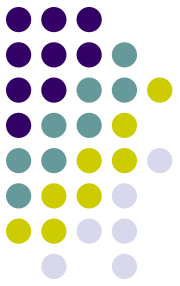


Questioning participants about perceived utility and benefits of the training program.



# Conclusions

- The main objective in coping with stress is to prevent distress from degenerating into dysfunctional behaviors.
- The coping with stress is enhanced by a series of personality traits.
- Psychological training contributes to prevention of distress and can be improved by acquiring specific psychological knowledge and strategies and by indirect experiences with emergency situations and scenarios.



**THANK YOU FOR  
YOUR ATTENTION!**