UNIT TERMINAL OBJECTIVE

1-2 At the completion of this unit, the paramedic student will understand and value the importance of personal wellness in EMS and serve as a healthy role model for peers.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-2.1 Discuss the concept of wellness and its benefits. (C-1)
1-2.2 Define the components of wellness. (C-1)
1-2.3 Describe the role of the paramedic in promoting wellness. (C-1)
1-2.4 Discuss the components of wellness associated with proper nutrition. (C-1)
1-2.5 List principles of weight control. (C-1)
1-2.6 Discuss how cardiovascular endurance, muscle strength, and flexibility contribute to physical fitness. (C-2)
1-2.7 Describe the impact of shift work on circadian rhythms. (C-1)
1-2.8 Discuss how periodic risk assessments and knowledge of warning signs contribute to cancer and cardiovascular disease prevention. (C-1)
1-2.9 Differentiate proper from improper body mechanics for lifting and moving patients in emergency and non-emergency situations. (C-3)
1-2.10 Describe the problems that a paramedic might encounter in a hostile situation and the techniques used to manage the situation. (C-1)
1-2.11 Given a scenario involving arrival at the scene of a motor vehicle collision, assess the safety of the scene and propose ways to make the scene safer. (C-3)
1-2.12 List factors that contribute to safe vehicle operations. (C-1)
1-2.13 Describe the considerations that should be given to: (C-1)
  a. Using escorts
  b. Adverse environmental conditions
  c. Using lights and siren
  d. Proceeding through intersections
  e. Parking at an emergency scene
1-2.14 Discuss the concept of "due regard for the safety of all others" while operating an emergency vehicle. (C-1)
1-2.15 Describe the equipment available for self-protection when confronted with a variety of adverse situations. (C-1)
1-2.16 Describe the benefits and methods of smoking cessation. (C-1)
1-2.17 Describe the three phases of the stress response. (C-1)
1-2.18 List factors that trigger the stress response. (C-1)
1-2.19 Differentiate between normal/ healthy and detrimental reactions to anxiety and stress. (C-3)
1-2.20 Describe the common physiological and psychological effects of stress. (C-1)
1-2.21 Identify causes of stress in EMS. (C-1)
1-2.22 Describe behavior that is a manifestation of stress in patients and those close to them and how these relate to paramedic stress. (C-1)
1-2.23 Identify and describe the defense mechanisms and management techniques commonly used to deal with stress. (C-1)
1-2.24 Describe the components of critical incident stress management (CISM). (C-1)
1-2.25 Provide examples of situations in which CISM would likely be beneficial to paramedics. (C-1)
1-2.26 Given a scenario involving a stressful situation, formulate a strategy to help cope with the stress. (C-3)
1-2.27 Describe the stages of the grieving process (Kubler-Ross). (C-1)
1-2.28 Describe the needs of the paramedic when dealing with death and dying. (C-1)
1-2.29 Describe the unique challenges for paramedics in dealing with the needs of children and other special populations related to their understanding or experience of death and dying. (C-1)

1-2.30 Discuss the importance of universal precautions and body substance isolation practices. (C-1)
1-2.31 Describe the steps to take for personal protection from airborne and bloodborne pathogens. (C-1)
1-2.32 Given a scenario in which equipment and supplies have been exposed to body substances, plan for the proper cleaning, disinfection, and disposal of the items. (C-3)
1-2.33 Explain what is meant by an exposure and describe principles for management. (C-1)

AFFECTIVE OBJECTIVES
At the completion of this unit, the paramedic student will be able to:

1-2.34 Advocate the benefits of working toward the goal of total personal wellness. (A-2)
1-2.35 Serve as a role model for other EMS providers in regard to a total wellness lifestyle. (A-3)
1-2.36 Value the need to assess his/ her own lifestyle. (A-2)
1-2.37 Challenge his/ herself to each wellness concept in his/ her role as a paramedic. (A-3)
1-2.38 Defend the need to treat each patient as an individual, with respect and dignity. (A-2)
1-2.39 Assess his/ her own prejudices related to the various aspects of cultural diversity. (A-3)
1-2.40 Improve personal physical well-being through achieving and maintaining proper body weight, regular exercise and proper nutrition. (A-3)
1-2.41 Promote and practice stress management techniques. (A-3)
1-2.42 Defend the need to respect the emotional needs of dying patients and their families. (A-3)
1-2.43 Advocate and practice the use of personal safety precautions in all scene situations. (A-3)
1-2.44 Advocate and serve as a role model for other EMS providers relative to body substance isolation practices. (A-3)

PSYCHOMOTOR OBJECTIVES
At the completion of this unit, the paramedic student will be able to:

1-2.45 Demonstrate safe methods for lifting and moving patients in emergency and non-emergency situations. (P-2)
1-2.46 Demonstrate the proper procedures to take for personal protection from disease. (P-2)

DECLARATIVE

I. Introduction
- A. Wellness has three components
  - 1. Physical well-being
  - 2. Mental and emotional well-being
- B. Implementing lifestyle changes can enhance personal wellness
- C. Enhancing personal wellness can serve as a role model/ coach for others

II. Wellness components
- A. Physical well-being
  - 1. Nutrition
    - a. Nutrients
      - (1) Carbohydrates
      - (2) Fats
      - (3) Proteins
      - (4) Vitamins
      - (5) Minerals
      - (6) Water
    - b. Food groups
      - (1) Sugar
      - (2) Fats
      - (3) Proteins
      - (4) Dairy products
      - (5) Vegetables
      - (6) Fruits
      - (7) Grains
    - c. Principles of weight control
      - (1) Eat in moderation
      - (2) Limit fat consumption
      - (3) Exercise
    - d. Tips to change behavior
      - (1) Realistic goal
      - (2) Commitment to change
      - (3) Exercise
      - (4) Healthy eating
      - (5) Analyzing progress
  - 2. Physical fitness
    - a. Benefits
      - (1) Decrease in resting heart rate and blood pressure
      - (2) Increase oxygen carrying capacity
      - (3) Enhanced quality of life
      - (4) Increase muscle mass and metabolism
      - (5) Increased resistance to injury
      - (6) Improved personal appearance and self image
      - (7) Facilitate maintenance of motor skills throughout life
    - b. Cardiovascular endurance
      - (1) Fitness assessment

(2) Heart rate target zone
c. Muscular strength
(1) Strength & endurance assessment
(2) Principles of training
(a) Isometric versus isotonic
(b) Resistance
(c) Sets
(d) Frequency
d. Muscular flexibility
(1) Flexibility assessment
(2) Principles of muscular flexibility
(a) Intensity of exercise
(b) Repetitions
(c) Frequency
(3) Prevention and rehabilitation of low back pain

3. Sleep
a. Sleep deprivation
b. Disruption of circadian timing system

4. Disease prevention
a. Cardiovascular disease
(1) Cardiovascular endurance
(2) Blood pressure
(3) Body composition
(4) Total cholesterol/ HDL ratio
(5) Triglycerides
(6) Estrogen use
(7) Stress
(8) Periodic risk assessment
b. Cancer
(1) Dietary changes
(2) Sun exposure
(3) Regular examinations
(4) Warning signs
(5) Periodic risk assessment
c. Infectious disease
(1) Hygiene
(2) Utilize engineering and work practices
(3) Report exposure promptly
(4) Periodic risk assessment

5. Injury prevention
a. Body mechanics during lifting and moving
(1) Only move a patient you can safely handle
(2) Look where you're walking/ crawling
(3) Move forward rather than backward when possible
(4) Take short steps, if walking
(5) Bend at hips and knees
(6) Lift with legs, not back
(7) Keep load close to body

(8) Keep patient's body in-line when moving
b. Hostile environments
(1) Avoidance
(2) Management
c. Rescue situations
(1) Use protective gear
(2) Appropriate training
(3) Safe rescue practices
d. Safe vehicle operation
(1) Factors in safe driving
(2) Using escorts
(3) Adverse environmental conditions
(4) Using lights and sirens
(5) Proceeding through intersections
(6) Parking at an emergency scene
(7) "Due regard for the safety of all others"
e. Safety equipment and supplies
(1) Body substance isolation equipment
(2) Head protection
(3) Eye protection
(4) Hearing protection
(5) Respiratory protection
(6) Gloves
(7) Boots
(8) Coveralls
(9) Turnout coat/ pants
(10) Specialty equipment

B. Mental and emotional health
1. Substance misuse/ abuse control
a. Addiction
(1) Addictive behaviors
(2) Methods of management
b. Smoking cessation
(1) Health ramifications of smoking
(2) Why people smoke
(3) Techniques
2. Anxiety and stress
a. Stress results from the interaction of events (environmental stimuli) and the adjustive capabilities of the individual
(1) Usually seen as generating negative affect (fear, depression, guilt, etc.)
(2) Also experienced with positive events
b. Anxiety is uneasiness or dread about future uncertainties
c. Eustress is "good stress"--response to positive stimuli
d. Distress is "bad stress"--a negative response to an environmental stimulus
3. Personal time/ meditation/ contemplation
4. Family, peer, community connections
5. Freedom from prejudice
a. Acceptance of cultural differences

(1) Learn about other cultures
(2) Recognize most variations among cultures as positive
(3) Affirm the value of differences

b. Acceptance of individual differences
(1) Recognize existence of differences
(2) Listen until you can tell the other person's story
(3) Work toward win-win solution

III. Stress

A. Three phases of the stress response

1. Alarm reaction
a. Fight or flight phenomenon
b. Considered to be positive; takes only seconds
c. Prepares individual for action/ self-defense
d. Mediated by the autonomic nervous system, coordinated by hypothalamus
e. Pituitary gland releases adrenocorticotropic (stress) hormones
f. Stimulates glucose production
g. Sympathetic response
(1) Adrenal gland releases epinephrine and norepinephrine
h. Physiological response
(1) Increased heart rate
(2) Increased blood pressure
(3) Dilated pupils
(4) Relaxation of bronchial tree
(5) Increased blood sugar
(6) Slowed digestion
i. The reaction ends when the body realizes the event is not dangerous

2. Resistance
a. Increased level of resistance to stressor
b. Reaction to stressor may change with time

3. Exhaustion
a. As stress continues, coping mechanisms are exhausted
b. Adaptive resources utilized
c. Resistance to all stressors declines
d. Increased susceptibility to physical and psychological ailments
e. Rest and recovery are needed

B. Factors that trigger the stress response

1. Loss of something that is of value to the individual
2. Injury or threat of injury to the body
3. Poor health, nutrition
4. Frustration of drives
5. Ineffective coping

C. Physiological and psychological effects of stress

1. Normal/ healthy responses to stress
2. Detrimental/ unhealthy responses to stress
3. Signs and symptoms of stress
a. Physical
(1) Chest tightness/ pain, heart palpitations, cardiac rhythm disturbances

(2) Difficult/ rapid breathing
(3) Nausea, vomiting
(4) Profuse sweating, flushed skin, diaphoresis
(5) Sleep disturbances
(6) Aching muscles and joints
(7) Headache

b. Emotional
(1) Panic reactions
(2) Fear
(3) Anger
(4) Denial
(5) Feeling overwhelmed

c. Cognitive
(1) Difficulty making decisions
(2) Disorientation, decreased level of awareness
(3) Memory problems, poor concentration
(4) Distressing dreams

d. Behavioral
(1) Crying spells
(2) Hyperactivity
(3) Withdrawal
(4) Changes in eating habits
(5) Increased smoking
(6) Increased alcohol consumption

D. Causes of stress in EMS
1. Environmental stress
a. Siren noise
b. Inclement weather
c. Confined work spaces
d. Rapid scene response
e. Life and death decision making
2. Psychosocial stress
a. Family relationships
b. Conflicts with supervisors, coworkers
c. Abusive patients
3. Personality stress
a. Need to be liked
b. Personal expectations
c. Feelings of guilt and anxiety

E. Reactions to stress
1. Reactions are individual and affected by
a. Previous exposure to the stressor
b. Perception of the event
c. Experience
d. Personal coping skills
2. Adaptation
a. Dynamic evolving process
b. Defense

(1) Adaptive function of personality
(2) Assists in adjusting to stressful situations that confront us
(3) Help to avoid dealing with problems, through denial or distortion

c. Coping
(1) Active, confronting process
(2) Information gathered/ used to change or adjust to a new situation

d. Problem solving
(1) Viewed as a healthy approach to everyday concerns
(2) Involves
(a) Problem analysis
(b) Generation of options for action
(c) Determination of course of action

e. Mastery
(1) Ability to see multiple options/ potential solutions for challenging situations
(2) Results from extensive experience with similar situations

F. Stress management techniques
1. Reframing
2. Controlled breathing
3. Progressive relaxation
4. Guided imagery

G. Critical incident stress management (CISM)
1. Organized, formal, peer and mental health support network and process
a. Enables emergency personnel to vent feelings
b. Facilitates understanding of stressful situations
2. Components of CISM
a. Pre-incident stress training
b. On-scene support to distressed personnel
c. Individual consults
d. Defusing services immediately after a large scale incident
e. Mobilization services after large scale incident
f. Critical incident stress debriefing 24 to 72 hours after an event
g. Follow-up services
h. Specialty debriefings to non-emergency groups in the community
i. Support during routine discussions of an incident
j. Advice to command staff during large scale incident
3. Situations in which CISM should be considered
a. Line of duty injury or death
b. Disaster
c. Emergency worker suicide
d. Infant/ child death
e. Extreme threat to emergency worker
f. Prolonged incident which ends in loss or success
g. Victims known to operations personnel
h. Death/ injury of civilian caused by operations
i. Other significant event
4. Techniques for reducing crisis-induced stress
a. Rest
b. Replace food and fluids

c. Limiting exposure to incident
d. Change assignments
e. Provide post event defusing/ debriefing

IV. Dealing with death, dying, grief and loss
A. Patient and family needs
1. Stages of the grieving process (Kubler-Ross)
a. Denial
(1) Inability/ refusal to believe the reality of the event
(2) Defense mechanism
b. Anger
(1) Frustration related to inability to control situation
(2) May focus on anyone or anything
c. Bargaining
(1) Attempt to "buy additional time"
(2) Make deals to put off or change expected outcome
d. Depression
(1) Sadness and despair
(2) Withdraw/ retreat
e. Acceptance
(1) Realization of fate
(2) Reasonable level of comfort with anticipated outcome
B. Common needs of the paramedic when dealing with death and dying
1. Support from friends and family following the incident
2. Opportunity to process specific incident
3. Opportunities to process cumulative stress
C. Developmental considerations when dealing with death and dying
1. Newborn to age three
a. Children will sense that something has happened in the family
b. Children will realize that people are crying and are sad all the time
c. Children will realize that there is much activity in their household
d. Watch for changes in
(1) Eating or sleeping patterns
(2) Irritability
e. Suggestions
(1) Be sensitive to the child's needs
(2) Try to maintain consistency in routines
(3) Maintain consistency with significant people in the child's life
2. Three to six years of age
a. Child does not have concept of the finality of death
b. Believes that the person will return and will continually ask when the person will return
c. Believes in magical thinking (child may feel he was responsible for the death)
d. Child may believe that everyone else he loves will die also
e. Watch for changes in
(1) Behavior patterns with friends and at school
(2) Difficulty sleeping
(3) Changes in eating habits

f. Suggestions
(1) Emphasize to the child that he was not responsible for the death
(2) Reinforce that when people are sad they cry; crying is normal and natural
(3) Encourage the child to draw pictures of his feelings, or talk about his feelings

3. Six to nine years of age
a. Beginning to understand the finality of death
b. Will seek out detailed explanations for the death; differentiate fatal illness from "just being sick"
c. Will be afraid other significant people in their lives will die as well
d. Be uncomfortable in expressing feelings; may act silly or embarrassed when talking about death
e. Suggest
(1) Talk about the normal feelings of anger, sadness and guilt
(2) Share your own feelings about death; do not be afraid to cry in front of the child - this gives the child permission to express their feelings

4. Nine to twelve years of age
a. Aware of the finality of death
b. Concerned with practical matters concerning the child's lifestyle
c. May want to know all the details surrounding the death
d. May try to "act like an adult", but then show regression to an earlier stage of emotional response
e. Suggestions
(1) Set aside time to talk about feelings
(2) Encourage sharing of memories to facilitate grief response

5. Elderly
a. Concern about other family members
b. Concern about further loss of independence
c. Concern about cost

V. Preventing disease transmission
A. Terminology
1. Air/ blood borne pathogens
2. Exposure
a. Contact with a potentially infectious body fluid substance
b. Contact with other infectious agent
3. Cleaning, disinfection, sterilization
4. Body substance isolation, universal precautions
a. Practices designed to prevent contact with body substances
b. Practices designed to reduce contact with other agents

B. Common sources of exposure
1. Needle stick
2. Broken or scraped skin
3. Mucous membranes of the eyes, nose or mouth

C. Protection from air/ blood borne pathogens
1. Follow engineering and work practices
a. Puncture resistant containers
b. Laundry

c. Labeling
2. Maintain good personal health and hygiene habits
   a. Hand washing
   b. General cleanliness
3. Maintain immunizations
   a. Tetanus
   b. Polio
   c. Hepatitis B
   d. MMR (measles, mumps and rubella)
   e. Influenza
4. Periodic tuberculosis screening
5. Body substance isolation/ universal precautions
   a. Gloves
   b. Mask, gown, eye wear
   c. Other equipment
6. Cleaning, disinfecting, and disposing of used materials/ equipment

D. Periodic risk assessment
E. Documenting and managing an exposure
1. Wash the area of contact thoroughly and immediately
2. Document the situation in which the exposure occurred
3. Describe actions taken to reduce chances of infection
4. Comply with all required reporting responsibilities and time frames
5. Cooperate with incident investigation
6. Check tuberculosis/ other screening for exposure
7. Proper immunization boosters
8. Complete medical follow-up