

Basic Course in Occupational and Environmental Medicine, Part III
Orlando, Florida, October 30, 2011

Psychiatric Issues in the Workplace

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Objectives

- Understand the Breadth of psychiatric disease in the work place
- Discuss implications of Laws, work practices, and cultural relationships
- Examine the spectrum of occupational psychiatric disease
- Identify areas of controversy in occupational psychiatric disorders
- Offer relevant management/treatment strategies

ACGIH statement

- Because of wide variation in individuals, a small percentage of workers may experience discomfort from some substances at concentrations at or below the threshold limit; a smaller percentage may be affected by *aggravation* of a pre-existing condition or by development of an occupational illness.

Stress Definition

- Stress develops when there is a perceived imbalance between environmental demands and an individual's response capabilities, under conditions where failure to meet the demand has important adverse consequences



Data

NIOSH Report

- 40% of workers reported their job was very or extremely stressful;
- 25% view their jobs as the number one stressor in their lives;
- 75% of employees believe that workers have more on-the-job stress than a generation ago
- 26% of workers said they were "often or very often burned out or stressed by their work"
- Job stress is more strongly associated with health complaints than financial or family problems.

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- 65% of workers said that workplace stress had caused difficulties
- 10% said they work in an atmosphere where physical violence has occurred because of job stress
- 29% had yelled at co-workers because of workplace stress
- 19% or almost one in five respondents had quit a previous position because of job stress
- 62% routinely find that they end the day with work-related neck pain
- 44% reported stressed-out eyes, 38% complained of hurting hands and 34% reported difficulty in sleeping because they were too stressed-out
- 12% had called in sick because of job stress

U.S. Ranks #1

- 20 Workers are murdered each week
- 18,000 non-fatal crimes against workers weekly
- Over 1 million violent acts yearly in our companies

We Work Longer Hours

- 1 month longer than the Japanese
- 3 months longer than the Germans
- ON average we work 47 hrs/week with
- 20% work 49 hrs/week.

Stress Days off

- 1 million world-wide absent every day
- 1/5 last minute "no shows" are due to stress
- Estimated cost is \$602/worker/year- this study was done in 1997
- Estimated cost to large employers: \$3.5 million annually

Occupational Pressures

- 30% of workers suffering from back pain
- 28% complaining of "stress"
- 20% feeling fatigued
- 13% with headaches

\$\$\$\$ COST \$\$\$\$

• **\$57 billion yearly**

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3 Types of Stress Claims

- Physical-mental where a physical illness or injury leads to a mental condition or disability
- Mental-physical where mental stress leads to a physical illness or condition, such as a heart attack
- Mental-mental where mental stress results in a mental condition or disability

States who limit Claims

- Louisiana does not consider mental injury
- North Dakota - only if acute reaction to traumatic event
- Washington and Virginia specifically exclude
- Most other states pay or lack precedent to pay

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Stress Compensation by State

- | | |
|-------------------|---------------------|
| • Not Compensable | • Unusual stressors |
| • Florida | • Arizona |
| • Georgia | • Arkansas |
| • Kansas | • Maine |
| • Louisiana | • Massachusetts |
| • Montana | • New Mexico |
| • Nebraska | • New York |
| • Ohio | • Pennsylvania |
| • Oklahoma | • Rhode Island |
| | • Washington |
| | • Wisconsin |
| | • Wyoming |

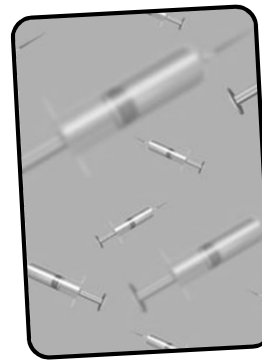
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Stress Compensation by State

- | | |
|---------------------------|-----------------------|
| • Stressor must be sudden | • Broadly Compensable |
| • Illinois | • California |
| • Maryland | • Hawaii |
| • Missouri | • Kentucky |
| • Mississippi | • Michigan |
| • South Carolina | • New Jersey |
| • Tennessee | • Oregon |
| • Texas | • West Virginia |
| • Virginia | |

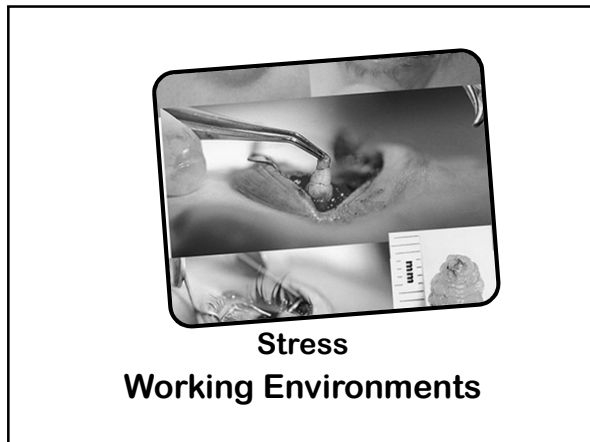
Federal Laws

- | | |
|---|---|
| • Equal Pay act of 1963 | • 1980 EEO- sex discrimination and harassment |
| • Title VII - 1964 prohibiting discrimination | • 1990 ADA |
| • 1967 Age discrimination of those >40 | • 1993- FMLA giving up to 12 weeks unpaid, job guaranteed leave |
| • Section 501 Rehab Act 1973- Disabilities | |



Family Medical Leave Act

- Law was intended to help people recover from illness and keep jobs
- Continued Tx for mental health is easily available
- Mental Health provider is going to justify their time for payment
- Many feel this is a tool for abusing the system



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- ### Cultural Relationships
- Union presence
 - Benefits
 - Security
 - Roles, Norms, Status
 - Supervision
 - Promotion
 - Turnover
 - Accidents
 - Overtime
 - Training
 - Standardization
 - Autonomy
 - Competition
 - Absenteeism
 - Theft
 - Managerial Defenses

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- ### Hostile Work Environments
- Less Severe
- | | | |
|-------------------|----------------|--------------------|
| Verbal harassment | <u>Severe</u> | |
| Sexual harassment | Stalking | <u>Most Severe</u> |
| Shunning | Physical abuse | Terrorism |
| Bullying | Rape | Homicide |
| Intimidation | | |

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- ### Hostile Work Environments
- Phases of traumatic stress experience
 - Impact stage: shock, fear, anger, helplessness
 - Recoil: preoccupation with looking for answers and dealing with strong emotions
 - Reorganization: coping with emotions and redirecting energy
 - May be effective
 - May be maladaptive

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- ### Risk Factors for Perpetrators
- Male Sex
 - History of violence
 - History of suicidal act
 - Violent fantasies
 - Identified victim
 - Involvement with victim
 - Access to weapon
 - Drug, etoh, Rx use
 - Organic brain disorder
 - Altered mental status
 - Social isolation
 - Treatment compliance
 - Domestic problems
 - History of loss



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Anxiety Disorders

- Generalized anxiety disorder
 - Somatic manifestations
 - Diarrhea, perspiration, tachycardia
- Acute anxiety disorder (panic attacks)
 - Decompensation from normalcy
 - Tachycardia, tachypnea, nervousness
- Both can lead to depression

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Depression

- Mood disturbance
 - Withdrawal, decreased motivation, fatigue, sleep and eating disturbances, difficulty concentrating, somatic complaints, suicidal tendencies
 - Tendency for recurrence
 - Mania characterized by episodes of loud speech, demanding behavior, poor judgment, expansive mood

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Post Traumatic Stress Disorder = PTSD

- Proximity to event
- Preexisting psychiatric illness
- Lack of post event social support
- Poor socioeconomic status
- Hx of child abuse
- Neural sensitization

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PTSD continued

- Symptoms
 - Fear
 - Anxiety
 - Motor tension
 - Autonomic hyperactivity
- **Disabling condition**
- **Persistent re-experiencing**
- **Persistent avoidance behavior**
- **Numbing of responsiveness**
- **Persistent psychological arousal**

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Toxic Exposure

- Inorganic mercury poisoning - erythism
- Lead exposure
- Manganese intoxication – manganese madness
- Others: inorganic tin, aluminum, gold, zinc

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Chronobiology Issues

- Body temperature
- Hormone secretion
- Sleep-wake cycle
- Responses to medication
- Mood and cognition
- Increasing age
- Female gender
- Extreme "morningness"
- Family members with a daytime routine
- History of intolerance to circadian rhythm changes

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Acute Time Shift Syndrome

- Easier to adjust to schedule delays than advances
 - Switching from day shift to night
 - Traveling from east to west
- Symptoms: GI distress, insomnia, fatigue
- Prevention:
 - Hydration
 - Avoid alcohol, tobacco, caffeine
 - Eat light while traveling

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Chronic Time Shift Syndrome

- Sleep disturbance
- Chronic fatigue
- Medical complaints
- Alcohol and drug abuse
- Accidents and near misses
- Mood disturbances
- Personality changes
- Relationship problems

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Chronic Time Shift Syndrome

<ul style="list-style-type: none"> • Endocrine <ul style="list-style-type: none"> • Melatonin, Insulin, ACTH • Neuropsychiatric <ul style="list-style-type: none"> • Neurotransmitter responsiveness • Acute mania in susceptible individuals • Depression from accelerating REM sleep • Pulmonary <ul style="list-style-type: none"> • Nocturnal decrease of ACTH • GI <ul style="list-style-type: none"> • Altered enzyme and acid secretion 	<ul style="list-style-type: none"> • Neoplastic <ul style="list-style-type: none"> • antileukemic properties of melatonin • Reproductive <ul style="list-style-type: none"> • low birth weight infants • spontaneous abortion • CV <ul style="list-style-type: none"> • HTN • Elevated triglycerides
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Prevention

- Rotating shifts on weekly or monthly basis
- Rotate in direction of time delay
- Educate regarding sleep discipline
- Educate regarding mealtime discipline
- Maintain light exposure during waking hours
- Avoid caffeine, alcohol, sedatives, sleep aids, NSAIDS which suppress melatonin

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Somatoform Illness

- Often and element of unconscious motivation for illness behavior – a defense mechanism
- Clinically identifying elements of voluntary control
 - Meticulous cataloging of medical history
 - Inconsistencies in describing physical symptoms
 - Legal involvement
 - Anger and defensiveness
 - Resistance toward treatments
 - Development of new problems when confronted with nonorganic nature of complaints

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Somatoform Illness

<ol style="list-style-type: none"> 1. Psychophysiological Disorders 2. Somatoform Disorders 3. Factitious Disorders 4. Malingering 		<p>Unconscious and involuntary</p> <p>Conscious and voluntary</p>
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Somatoform Illness- Malingering

- Symptoms do not fit diagnostic category
- Symptoms and pain have no organic basis
- Claimant hostile, intimidating and confusing
- Past history of arrests, lying
- Claimants memory is "hazy"
- History of failure to comply with medical advice
- Avoidance of psychological and psychiatric evaluations
- Withholding information about prior history



Controversies

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Neuropsychiatric Disease Relate to Perception of Toxic Exposure

- Dependent upon worker's own appraisal of danger: Non-dose related ("NDR")
- May have symptoms of toxic exposure
- Other variables
 - Previous exposure experience
 - Knowledge and *beliefs* of consequences
 - Reliability of authority
 - Social support of the organization

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Multiple Chemical Sensitivities

Non-Dose Related: NDR

- Recurrent somatic and psychological symptoms; lack of cognitive impairment
- Severity inconsistent with toxicological properties
- Unclear whether psychiatric findings are a contributory cause or a sequelae

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Spectrum of NDR Occurrences

- True toxic exposure: DR and NDR (fear, etc.)
- Benign toxic exposure, fear: NDR
- Ambient odors and irritants: NDR
- Fear of imaginary dangerous exposures: NDR
- Retrospective attribution of chronic, vague somatic complaints: NDR

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Sick Building Syndrome

- | | |
|-------------------------|-------------------------------|
| • Medical | • Building |
| • Atopy | • Low outdoor air delivery |
| • Seborrheic dermatitis | • UV lights |
| • Job | • Poor/excessive housekeeping |
| • Photocopying | • Pollution sources |
| • Recent renovation | |
| • Carbonless copy paper | |
| • Work stress | |

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Sick Building Syndrome

- 70% deficient outside air supply
- 60% inadequate air distribution
- 60% standing water and biological growth
- 40% visible contamination of insulation
- 20% malfunctioning humidifiers

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Mass Psychogenic Illness

- Convergence and Contagion variables
 - Inaccurate perceptions of triggering event
 - Index case and sympathetic physician
 - Explosive person-to-person spread of symptoms via employee networks
 - Symptoms: hyperventilation, syncope, fatigue
 - Favorable worker compensation laws and legal environment
 - Media and family reactions

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Solvent Syndrome

- Controversial Diagnosis for low level exposures
 - Chronic exposures, usually to mixtures
 - Cacosmia: previously innocuous odors causing headache and nausea
- World Health Organization summary
 - Type 1: reversible personality and mood changes
 - Type 2A: sustained personality or mood changes
 - Type 2B: symptoms accompanied by objective intellectual impairment
 - Type 3: dementia



Management and Treatment Strategies for Occupational Psychiatric Disease

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Pain Drawing

SOME PM&A PHYSICIANS HAVE THEIR PATIENTS COMPLETE A PAIN DRAWING SO THEY CAN UNDERSTAND THE LOCATION AND INTENSITY OF THEIR PAIN.

Instructions: Mark these drawings according to where you hurt (if the right side of your neck hurts, mark the drawing on the right side of the neck, etc.). Please indicate which sensations you feel by referring to the key below.

RIGHT HANDED
 LEFT HANDED

KEY	
	Stabbing
XXXXX	Burning
OOOOO	Pins & Needles
=====	Numbness
+++++	Aching

PAIN LEVEL	
0	No pain
1	Mild pain; you are aware of it but it doesn't bother you
2	Moderate pain that you can tolerate without medication
3	Moderate pain that requires medication to tolerate
4-5	More severe pain; you begin to feel anxious
6	Severe pain
7-8	Intensely severe pain
9-10	Most severe pain; it may make you uncontrollable anxious

CIRCLE YOUR CURRENT PAIN LEVEL
0 1 2 3 4 5 6 7 8 9 10

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Initial Therapeutic Response

- Evaluation of toxic exposure
- *Medical and psychological evaluations
- Counseling
- Early referral
- Education and reinforcement
- *Informal bedside tests generally considered unreliable for diagnosis.

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Medical Therapies

- Anxiolytics and hypnotics
- Antidepressants
- Appropriate medical and physical therapies for accompanying medical disorders

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Stress Management

- Exercise
- Avocational endeavors
- Relaxation training
- Family support



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Psychotherapy

- Cognitive Restructuring: altering patterns of thinking
 - Identifying and refuting dysfunctional thought patterns
 - Developing new thought patterns
- Behavioral Therapy:
 - social skills training
 - biofeedback
 - systematic desensitization
 - relaxation techniques

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Neuropsychological Evaluation

- Through detailed Hx
 - Childhood development, family history, academic history, substance abuse, legal history, occupational and military history, recreation
- Specific testing
 - WAIS-R: Wechsler Adult Intelligence Scale-Revised
 - MMPI: Minnesota Multiphasic Personality Inventory
 - TAT: Thematic Apperception Test (variation of Rorschach)
 - NAART: North American Adult Reading Test

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Mental Status Exam

- Emotional
 - Range, quality and authenticity of affect and mood
- Behavioral
 - appearance, attitude, cooperation, credibility
- Cognitive Measurement
 - Attention and concentration
 - Intellectual function
 - Executive function (independent behavior)
 - Language
 - Visual-spatial functions
 - Memory and learning
 - Motor Speed and Dexterity
 - Malingering and Deception

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Residual Functional Capacity Testing

- Understanding and memory
- Social interaction
- Adaptation
- Sustained concentration and persistence
 - Carrying out short and simple instructions
 - Carrying out detailed instructions
 - Maintain attention and concentration
 - Conform to a schedule
 - Sustain an organized routine
 - Work with others
 - Make simple work-related decisions
 - Perform a normal workday without psychological interruptions

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EAP's: Employer Supported Employee Assistance Programs

- Detection and early intervention
 - Family, marital, social and legal problems
- Appropriate cost-effective referral
- Self-referral and Confidentiality
- Various structures
 - On-site
 - Off-site
 - Consortium
 - Joint labor/management initiative

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Health Promotions Programs

- Programs
 - May incorporate EAP
 - Health and Fitness
 - Stress Management
- Benefits
 - Reduced Absenteeism
 - Reduced health care costs
 - Reflects employer attitudes: Vision, Mission, Goals

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Job Redesign

- Shift work modifications
- Ergonomic considerations
- Engineering controls
- Administrative controls
- Personal Protective Equipment (PPE)

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Organizational Redesign

- Basic elements
 - Change agent
 - Client
 - Interventions
 - Diagnostic activities
 - Education
 - Coaching and counseling
 - Life and career planning

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Organizational Redesign

- Major Organizational Development Interventions
 - TQM: Total Quality Management
 - Sharing of information
 - Need for developing knowledge
 - Rewarding organizational performance
 - Redistributing power
 - ISO 9000: International Organization for Standards
 - Quality standards including management responsibility, product quality, record keeping, training, use of statistical methods

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Summary

- There is a wide range of psychiatric disease that is being claimed under workers compensation
- Interrelatedness exists between worker's environment and industrial organization
- Neural sensitization and cross reactivity of pharmacological, psychological and physical stressors may contribute to less well understood entities that are non-dose related
- A variety of emergent and long-term management and treatment strategies are available.

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