



OCCUPATIONAL AND INDUSTRIAL HEALTH DISORDER: Literature review

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ABSTRACT: An occupational hazard is a hazard experienced in the workplace. This encompasses many types of hazards, including chemical hazards, biological hazards (biohazards), psychosocial hazards, and physical hazards. In the United States, the National Institute for Occupational Safety and Health (NIOSH) conduct workplace investigations and research addressing workplace health and safety hazards resulting in guidelines. The Occupational Safety and Health Administration (OSHA) establishes enforceable standards to prevent workplace injuries and illnesses

KEY WORDS: Physical, chemical, hazards, nursing care, vibration, silicosis, health workers

OCCUPATIONAL HEALTH

WHO Defined Occupational Health As;

The Promotion and Maintenance of the Highest Degree of Physical, Mental and Social Well-Being of Workers In All Occupations

OCCUPATIONAL HEALTH NURSING

- Application of nursing principles in conserving the health of workers at the workplace.
- Based on principles of recognition, prevention and treatment of illness, injuries.
- Formally known as 'industrial nursing'

AIMS OF OCCUPATIONAL HEALTH NURSING

- Promotion and maintenance of the highest degree of physical, mental and social well- being of workers in all occupations;
- By preventing- departures from health caused by their working conditions,
- Protecting the workers in their employment from risks resulting from factors adverse to health and adaptation of workers to their jobs

OBJECTIVES OF OCCPATIONAL HEALTH NURSING

- Maintenance and promotion of workers' health and working capacity(health monitoring)
- Improvement of working environment and work to become conducive to safety and health (worksite visits)
- Development of work organizations and working cultures in a direction, which supports health and safety at work(health education)

OCCPATIONAL HAZARDS

1. PHYSICAL HAZARDS

2. CHEMICAL

3. BIOLOGICAL

4. PSYCHOSOCIAL

A.psychological and behavioral changes.

B.psychosomatic ill-health

1. PHYSICAL HAZARDS

Heat – direct & indirect effect of high temperature, radiant heat, heat stagnation.

Cold – general & local cold injury

Light– acute & chronic effect of bright & dim light & glare.

Radiation a. ionizing- x-rays, gammarays,beta particles, alpha particles b. non-ionizing - microwaves, infrared, and ultra- violet light

Noise – auditory & non auditory effect.

Vibration – hazardous in the frequency range of 10- 500hz

DISEASES DUE TO PHYSICAL AGENTS

Heat – Heat Stroke, Heat Rash.

Light – Occupational Cataract

Cold – Hypothermia, Frost Bite

Vibration – Osteoarthritis

Noise – Occupational Deafness

Radiation- Cancer

2. CHEMICAL HAZARDS

- Acids
- Bases
- Heavy Metals –Lead

- Solvents – Petroleum
- Particulates – Asbestos, Silica and Other Fine Dust/Fibrous Materials
- Fumes – Noxious Gases/Vapors
- Highly- Reactive Metals

DISEASES DUE TO CHEMICAL AGENTS

- Gases – Gaspoisoning.
- Inorganic Dusts:
 - Coal Dust - Anthracosis
 - Silica - Silicosis
 - Asbestos - Asbestosis
 - Iron - Siderosis
- Organic Dusts :
 - Cane Fiber - Bagassosis.
 - Cotton Dust - Byssinosis.
 - Hay or Grain Dust - Farmer's Lung.
- Chemicals – Burns, Dermatitis, Cancer, Respiratory Illness
- Metals – Lead, Mercury, Arsenic, Chromium Cause Poisoning

PNEUMOCONIOSES:-

It Is An Occupational Lung Disease Caused By Inhalation Of Dust.

Types:-

- Coal Worker Pneumoconioses
- Asbestosis
- Silicosis
- Bauxite Fibrosis-It Is A Form Of Pneumoconioses Caused By Bauxite
- Berylliosis-Beryllium
- Siderosis-Iron
- Byssinosis -Cotton

COAL WORKERS' PNEUMOCONIOSIS

black lung disease - exposure to particles of carbon when coal dust is inhaled for a long period of time, it builds up in the lungs, which the body is not able to remove - inflammation of the lungs - fibrosis - causes large size cavities in the lungs.

SILICOSIS: Lung fibrosis caused by the inhalation of dust containing silica

BERYLLIOSIS OR CHRONIC BERYLLIUM DISEASE (CBD)

It is a chronic allergic-type lung response and chronic lung disease caused by exposure to beryllium and its compounds, a form of beryllium poisoning

SIDEROSIS (WELDER'S DISEASE):- it is the deposition of excess iron in body tissue

ANTHRACOSIS:-

It's a type of pneumoconiosis as caused by the accumulation of carbon in the lungs due to repeated exposure to air pollution or inhalation of coal dust particles" farmer's lung is a disease caused by an allergy to the certain crops.

Farmers are most likely to get it because it's usually caused by breathing in dust from hay, corn, and grass for animal feed, grain, tobacco, or some pesticides.

ASBESTOSIS

- Asbestosis (as-bes-toe-sis) is a chronic lung disease caused by inhaling asbestos fibers.
- Prolonged exposure to these fibers can cause lung tissue scarring and shortness of breath.
- Asbestosis symptoms can range from mild to severe, and usually don't appear until many years after continued exposure.
- Asbestos is a natural mineral product that's resistant to heat and corrosion. it was used in products such as cement and some floor tiles.
- Reducing exposure to asbestos is the best prevention against asbestosis

BAGASSOSIS

BAGASSE is the name given to sugar cane after it has been crushed and the juice has been extracted. The term was originally used in Provence, France, to refer to the refuse from the olive-oil mills. Bagasse disease of the lungs, or bagassosis, is a pulmonary disorder brought about by the inhalation of dried bagasse dust.

BYSSINOSIS

Byssinosis is a narrowing of the airways caused by inhaling cotton, flax, or hemp particles. Byssinosis may cause wheezing and tightness in the chest, usually on the first day of work after a break.

3. BIOLOGICAL HAZARDS

Bacteria

Viruses

Fungi

Insects – Mosquitoes Animals

DISEASES DUE TO BIOLOGICAL AGENTS

Hepatitis B Virus

Hepatitis C Virus

Tuberculosis

4. PSYCHOSOCIAL HAZARDS

Work-Related Stress – Excessive Working Time And Overwork

Violence – From Outside the Organization

Bullying – Emotional and Verbal Abuse

Sexual Harassment

Mobbing

Burnout

Exposure to Unhealthy Elements – Tobacco,

Uncontrolled Alcohol

DISORDERS DUE TO PSYCHOSOCIAL HAZARDS

- Musculoskeletal Disorders (Msds) Can Affect the Body's Muscles, Joints, Tendons, Ligaments and Nerves. As Well As The Back, Neck, Shoulders And Upper Limbs; Less Often They Affect The Lower Limbs.
- Depression
- Discouragemet
- Anxiety
- Memory Loss
- Dissatisfaction
- Frustration & Irritability

PREVENTION METHODS

- Medical methods such as periodic examinations, replacement, working environment supervision and health education. Notification, maintenance and analysis of records, and counseling are also steps towards prevention.
- Engineering measures such as proper design of plant, ventilation, dust isolation through enclosure and isolation, and protective devices.
- Legislative protection like the factories act of 1948 and the employees state insurance act of 1948.

PREVENTION OF OCCUPATIONAL DISEASES MEASURES FOR HEALTH PROTECTION OF WORKERS.

1. Nutrition

2. Communicable Disease Control

3. Environmental Sanitation.

- Water Supply
- Food
- Toilet
- Proper Garbage & Waste Disposal.
- General Plant Cleanliness.
- Sufficient Space.
- Lighting.

- Ventilation.
- Protection Against Hazards.

4. MENTAL HEALTH: GOALS:

- To Promote Health And Happiness Of Workers.
- To Detect Signs Of Stress And Strain And Take Necessary Measures.
- Treatment of Employees Suffering From Mental Illnesses.
- Rehabilitation of Those Who Become Ill

5. HEALTH EDUCATION

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