Module 20 : Occupational Health

Lecture 33 : Occupational Health

In this lecture we will look at the concept of occupational health and its different aspects such as physical, sociological, and psychological. We will then discuss a few issues such as the impact of unemployment, antisocial behavior at the work place and end with a discussion of health promotion at the workplace.

Occupational Health refers to health matters concerned with employment and the work place. People spend a major part of their adult lives at the work place and hence there is a continued exposure to influences at the work place. Satisfaction at work is associated with better health. Jahoda (1982) proposed that work has both manifest and latent benefits. Manifest benefits are obvious benefits such as those related to earning an income and meeting one's needs and latent benefits or the less obvious benefits are psychological benefits related to time structure, social contact, common goals, status and activity. The latent benefits are associated with well being according to research. As Voltaire put it "Work spares us from three evils: boredom, vice and need."

The research in this area can be categorized into,

- Physical aspects of the working environment.
- Sociological aspects such as social status, economic security, caste gender.
- Psychological aspects such as role strain, perceived control, stress and psychosocial aspects such as relationships with colleagues, integration at the workplace.

Physical Aspects

Physical aspects of the environment concern exposure to toxins, hazardous conditions and other risks that the employee is exposed to as part of his/her job. Repeated exposure increases the chances of disease, injury and mortality. In India, with gross under reporting the annual estimated occupational fatalities are 36,700, occupational injuries are 18,300 and occupational diseases are 1,850,000 (Brecker, 2010). Only 10% of approximately 500 million workers have health coverage. Poor access to health care compounded by poor base levels of health due to poverty increase the vulnerability of workers to hazards at the work place.

In a review of occupational health in India, Agnihotram (2005) has reviewed the incidence of morbidity in various industries, which are briefly reviewed in this section.
In Agriculture which is a major occupational category in India, hazards include exposure to extreme weather, working in water in the paddy fields, crouching posture for women in the fields, organic dust during threshing, exposure to fertilizer and pesticide and injuries from machines. Some of the effects of these conditions result in dermatitis on the arms and legs, chronic backache, chronic respiratory ailments from inhaling dust from threshing, neurological damage from exposure to toxins in fertilizer and pesticide and injuries from machinery that result from lack of training.

There are a very high number of child agricultural labourers in India estimated at more than 10 million who suffer from chemical exposure, heat induced ailments, insect bites and mechanical injuries.

Carpet Weaving is another industry that employs children who indicate acute respiratory problems as compared with other children, from the fibre dust inhaled and the kneeling posture and long hours of work . Adults in this industry also report chronic respiratory ailments.

The Textile Industry which employs 20 million workers in India, has a high incidence of bysinosis – an asthma like chronic condition characterized by coughing and wheezing and tightening of the chest. The incidence of bysinosis was officially recorded for the first time in 1995 in India in the 150 year history of the industry. Bysinosis is aggravated by smoking.

Fireworks and Incense Making also employ child labour. The hazards of inhaling chlorate dust result in asthma, respiratory problems, eye infections, dizziness.

In Beedi making and the Tobacco industry, workers were found to have elevated levels of nicotine in the urine.

Most industrial units have poor industrial hygiene and safety standards and the workers health and safety are not a priority for the employers. Many workers have chronic respiratory problems and some have asbestosis and silicosis and these conditions are exacerbated by smoking and tobacco use. Industrial hygiene refers to improving working conditions such as reducing airborne particulate matter (dust) that can be inhaled by using filters, regular cleaning and maintenance of machines, changing filters regularly and maintaining general hygiene at the shop floor or factory or foundry. Other stressors are noise, odors, lack of ventilation, poorly maintained bathrooms, lack of a place to eat and in some cases even access to drinking water. The feeling that the white collar workers are shielded from these inconveniences whereas the blue collar workers needs go unnoticed causes resentment. Employees should be provided with masks and other appropriate protective equipment and safety standards must be followed strictly and enforced by the management. The general attitude in India and in some developing countries is that these precautions are unnecessary and what is to happen will happen and that workers lives are not so valuable.

Other hazardous jobs are in mines, ship breaking yards and waste processing including e waste.

Health care workers are also exposed to infection and are especially at risk in government hospitals where they are overworked and see a large number of patients. Hygiene protocols are not standardized and strictly adhered to.

Two readings will discuss the exposure to toxins that workers face as part of their jobs.

Sociological Aspects

The high level of income inequality translates into inadequate pay for workers and labourers that is often not enough to meet the basic needs of their family. This results in a situation of chronic poverty for the mass of laborers and workers.Pervasive poverty renders people powerless and ensures a continuous supply of labour at very low wages and submission to any conditions and hazards.

Social status of jobs and perceived status of jobs contributes to satisfaction and well being. Certain jobs are considered inferior and people in those positions consider themselves powerless and at the mercy of the employers. In India this situation is exacerbated due to the caste system which had hereditary occupations. In India in some parts there are people who still carry human waste and dry latrines still exist. Dry latrines exist because there are people to carry the waste and they are always of a certain caste.

India ranks very low in terms of women's participation in economic activity. Gender disparity in income is universal but in India it is wider. The intersection of caste and gender results in the most oppressed groups (women who carry human waste, women who are forced into the sex trade as a religious ritual).

A situation characterized by a vast informal sector (casual labour who have no bargaining power) weak trade unions and poor industrial regulations results in the oppression and exploitation of workers.

In most developing countries such as India the strong profit motive of the industrial sector leads them to turn a blind eye to many safety regulations and standards that merely exist on paper but not in actuality. Many polluting and high risk industries are relocating to developing countries such as India from developed countries because of environmental concerns and pressure from their unions.

The current law on workers compensation stipulates a minimum payment of Rs 50, 000 to Rs 3 lacs in the case of loss of life and Rs 60,000 for disability. The compensation amount depends on the pay grade of the workman and the time period for which he has worked (Kanhere, 2005). This is rather a paltry sum and places at a disadvantage younger, newer and lower level workers whose families paradoxically would need more support .

Poor Training in skills and low education levels for workers increases the risk of accidents and injuries. Poor surveillance data - regarding accidents and fatalities and morbidities at the work place is available . For private firms and in the informal sector minimal data is available.When surveillance data is not available, then the pattern of injuries and its correspondence to high risk jobs and companies cannot be identified.

Psychological Aspects

(This section is based on A. Kenyon's chapter Work and Health from Health Psychology by Marks et al).

The psychological aspects that have been researched are job demands and perceived control of the employee. Job roles, stress and relationships at the work place compose another section of study. Career growth is also discussed in this section.

Karasek's (1979) demand – control model highlight these two elements as crucial for job satisfaction. Role demand had to do with working at a fast pace or intensively or having conflicting demands. Control or decision latitude is concerned with decision authority and skill discretion. Decision authority is the extent to which the employee can decide the pace, the methods, order of the work, when to take breaks and have control over other more meaningful aspects of the work. Skill discretion is concerned with the scope to learn new skills, have a wide variety of tasks and opportunity to improve oneself. The interaction of high role demand and low control impacts on mental health (Mausner-Dorsch and Eaton, 2000) immune functioning (Meijman et al, 1995) and physical health (Sacker et al, 2001, as cited in Kenyon, 2008).

- Warr (1994) proposed a list of environmental foundations for health at work.
- **Decision latitude –** optimal level of control is necessary for well being and helps to moderate strain.
- **Skill use –** the extent to which the employee perceives that skills are being used appropriately is related to job satisfaction. Job strain may lead to depression and anxiety may hamper the development of new skills. Depression is related with lowered motivation to deal with challenges and avoidance of challenges (Freese & Stewart, 1984) and reduced self efficacy (Bandura, 1997). Anxiety inhibits understanding and experimentation with new ideas (Warr & Downing, 2000) and skill acquisition (Colquitt et al, 2000). Thus employees are not motivated to learn new skills and stay abreast of changes that are continually taking place in the industry.

Role

Role refers to the employee's primary responsibilities in the organization. A lot of research has been done in the area of role strain, role ambiguity and role conflict primarily in industrial organizations. Role Ambiguity refers to the lack of available information necessary to conduct the role. Effective communication on role boundaries, working procedures and practice, expected time frame and outcome can contribute to role clarity(Kenyon, 2008).

Role Conflict refers to incompatible demands on the individual. Role conflict impedes achievement and organizational strategies that minimize role conflict need to be utilized. Role Stability is related to control and security at the workplace – such as being in a contract position versus a permanent position. Unstable positions are related to poor well being (Kenyon, 2008).

Stress at the Workplace

Stress is experienced when the environmental demands exceed the individual's ability to deal with it. The individual's perception and assessment of the situation determines their response. Research in the area of job stress has revealed outcomes such as decreased job satisfaction (Fox et al, 1993), poor mental health (Mausner-Dorsch & Eaton, 2000) and compromised immune function (Meijman et al, 1995).People, however adapt to stressors and develop coping strategies and personal resources.

Social support

High levels of social support at the workplace contribute to enhanced physical health and job satisfaction. Social support also moderates the negative impact of stress.
Studies by Unden et al., (1991) and Evans & Steptoe (2001) showed that low support at work correlated with elevated heart rate. A study by Greenglass & Burke (1988) found that social support was negatively associated with burnout in women but not men. However evidence from studies have been mixed regarding the role of social support.

Career Growth

Most people aspire to having positions with increased responsibility and challenges at their workplace. A

higher position is also associated with greater control and autonomy and increased financial reward and valued social position. The lack of opportunities for career growth is a primary source of job dissatisfaction. Organizations and employers that encourage skill acquisition and career growth at all levels will have better morale and productivity than organizations that are rigid (Kenyon, 2008).

Unemployment

Work contributes to psychological well-being through the opportunity to utilize skills, financial rewards, interpersonal contact, time structure, status and identity.

Unemployment thus is a state that has many ramifications such as loss of purpose and meaning in life, identity, financial resources, relationships, status and time structure. These effects result in lowered self esteem and a higher incidence of depression (Evans & Haworth, 1991).

These consequences are more apparent among the middle aged, men, single women and the long term unemployed. Morris et al., (1994) found a strong causal relationship between unemployment and mortality (even when tobacco and alcohol use was controlled for). Job insecurity has similar consequences. However the presence of social support and perceived control moderate the negative impact of job insecurity (Kenyon, 2008).

Antisocial Behavior in the Workplace

Antisocial behavior refers to incidents such as assaults, fights, harassment, aggression and other negative behaviors. This behavior comes at a cost both for employers as well as employees. For the employer it results in lost productivity due to absenteeism and high turnover. For employees it results in reduced job satisfaction and well being (Kenyon, 2008).

Health Promotion

Employers can make a concerted effort to improve safety standards and industrial hygiene conditions. Stricter regulations would aid in ushering in these changes. Employees can be trained in safety and made aware of their rights by unions. Given that employers make an effort to make the workplace more healthy and safe, attention can be focused on improving employee health behaviors.

People spend a major part of their lives at the work place and hence this is an ideal setting for initiating behavior change for better health. High stress jobs are associated with increased tobacco and alcohol consumption(Cohen & Williamson, 1988 as cited in Kenyon, 2008)). Tobacco and alcohol consumption exacerbate existing occupational ailments over and above their harmful effects on health. Behaviour change initiatives to overcome tobacco and alcohol addiction would improve employee health and morale as well as productivity. However focusing on employee health behaviors without improving the working conditions is not an effective or fair strategy.

It would be necessary to improve surveillance data (records of morbidities, fatalities and accidents) to see the pattern of occupational morbidity and changes that occur. Only when data is available are trends revealed which in turn influences the development of policies and legislations that are effective and appropriate.

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