COMMENTARY

Occupational health hazard in India: need for surveillance and research

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Occupational health remains neglected in most developing countries due to competing social, economic, and political challenges. This has more to do with the fact that the demands are articulated by the less powerful i.e. the workers. Health care professionals not routinely obtaining occupational exposure history, long latency period of morbidities, lack of accurate data on toxic exposures and conflict of interest between the financial gains of the employer and the health of the worker are some of the major challenges to reporting of occupational events. Improved surveillance systems, stricter implementation of legislations, large scale clinical and epidemiological research and better educational opportunities are the need of the hour.

Background

Occupational health remains neglected in most developing countries due to competing social, economic and political challenges[1]. Workers in the developing world face unregulated and unprotected exposures to known hazards faced decades ago by workers in the industrial world. The informal workforce, which constitutes a large share of the total workforce suffers the most. The migrant workers, who often perform work deemed unattractive, face significant health risks in their workplace. Moreover, with industrialization and globalization the occupational morbidity pattern has changed drastically. These transitions have posed new challenges to the healthcare system, including high costs.

Why such neglect?

Inaction or destruction of demand has a big role to play in this neglect because demands articulated by the less powerful, i.e. the workers, rarely fall into the ears of the more powerful, i.e. the employers and the policy makers. There is poor general awareness about occupational safety, and occupational and environmental hazards. There is underfunding of occupational health programmes due to lack of political will.

Legislative framework

The National Health Policy of India 1983 and 2002 has outlined the urgent need to prevent and treat diseases and injuries arising due to occupational hazards in both the organized and unorganized sectors. Despite these policy initiatives, little attention has been paid towards control of environmental and occupational hazards in the country. The major legal provisions for the protection of health and safety at the workplace are the Factories Act and Mines Act. Under Factories Act, pre-employment, periodic medical examination and periodic monitoring of work environment is mandatory for hazardous industries. Some other legal provisions for protection of special working groups are the Plantation Labour Act, 1951; the Dock Workers (Safety, Health and Welfare) Act, 1986; the Building and other Construction Workers (Regulation and Conditions of Service) Act, 1996; the Beedi and Cigar Workers (Conditions of Employment) Act, 1966; Child Labour (Prohibition and Regulation) Act, and the Insecticides Act, 1968. However, more than 90% of the Indian labour force does not work in factories; hence, these workers fall outside the purview of the various legislations[2].

Need for occupational surveillance

Occupational disease and injury surveillance which entails the systematic monitoring of health events in working populations is essential to assess the nature, magnitude and pattern of occupational diseases and injuries. The surveillance data will be useful in determining control strategies and research priorities, and for evaluating the effectiveness of any interventions undertaken[3]. They will also lead to the discovery of new associations between occupational agents and accompanying diseases, since the potential toxicity of most chemicals used in the workplace is not known.

However, a comprehensive national surveillance system for occupational injuries and illnesses is lacking even in the developed countries. The Bureau of Labor Statistics' annual survey of occupational injuries and illnesses, compensation records of workers, and physician reporting systems are some of the sources of data in the developed countries. But data produced by these systems have been described as fragmentary, unreliable and inconsistent[4].

Hospital discharge diagnoses represent a good source of data for the surveillance of occupational diseases due to their easy availability, relative sensitivity to serious illnesses and reasonable accuracy. But lack of adequate information on occupation and workplace, questionable quality of data and inclusion of only those diseases requiring hospitalization are some of the limitations. The compensation reports of workers and mortality statistics are often criticized for their gross underreporting. Employer-based routine medical surveillance should be mandated and the data should be reported in the occupational disease surveillance systems.

Challenges

There are many challenges to the recognition and reporting of occupational morbidities.

1. Healthcare professionals do not routinely obtain history of occupational exposure from their patients because they are not adequately trained to suspect workplace condition as a risk factor for illness.
2. Most diseases that can be caused by occupational exposures also have non-occupational causes. There is a long period of latency between occupational exposure and presentation of

clinical disease. These characteristics render determination of occupational etiology of a disease difficult.

3. Workers may have a limited ability to provide an accurate report of their toxic exposures, as many of them are not informed of the hazardous nature of the materials with which they work. Also, many of the workers are not educated enough to understand the toxic nature of the chemicals they work with.
4. Employers may be an excellent source of information regarding occupational exposures and the occurrence of work-related diseases, but conflict of interest between the financial gains of the employer and the health of the worker, is a major obstacle to improving surveillance of occupational-related health events.
5. Poor investment on industrial safety, cheap labour, weak and politically driven-labour unions and lack of knowledge about occupational risks are other barriers.
6. Poor professional capacity and expertise in occupational safety and hazard management pose a major challenge.

Way ahead

Professional capacity building in the area of occupational health and safety is critical towards improving the plight of the workers. Globally, a number of successful coalitions exist that provide technical expertise. These coalitions work in priority areas of occupational health in several countries. They should assist developing countries in achieving adequate professional capacity through educational, research and training opportunities. The WHO Global Network of Collaborating Centers in Occupational Health, the International Commission on Occupational Health, the International Occupational Hygiene Association and the International Ergonomics Association are a few examples. The existing medical and engineering curricula should be revised to include occupational and environmental health.

There is a need to revise the occupational health research paradigm in developing countries. It is recommended to create a national advanced research centre for the analysis of occupationally hazardous materials. The agenda for future research should include effectiveness of interventions, study of hazard control technology and protective equipment, disease and injury research, large-scale epidemiological research to determine the exposure and occupational risks and improved surveillance systems.

Environmental and Occupational Health Cell with multidisciplinary expertise needs to be established to coordinate the action of various ministries such as Labour, Industries and Commerce, Mines, and Health and Family Welfare. All stakeholders – the employers, employees, government, academic research organizations and NGOs should come together to develop a strategy for occupational health and safety.

There are many evidence-based intervention strategies that need immediate enforcement such as: substituting hazardous materials with less hazardous materials or processes; applying engineering and administrative controls to separate workers from hazards and using personal protective equipment. Strict vigilance on hazardous industries through strict licensing, regulatory and implementation policies.

Many of the hazardous industries were started in the developing countries like India by the developed countries due to their environmental regulations, increased labour costs and go-green policy. Due to poor implementation of industrial regulations, cheap labour, poverty and unemployment, these hazardous industries found a place in India[5]. Our country should take a strong stand in the global market by tightening regulatory policies and promoting labour welfare.

In recent times, judicial activism has had a positive impact on matters of public interest. NGOs, media, labour unions and employee pressure groups can use judicial activism to play an important role in this matter.

Conclusion

With rapid industrialization and urbanization, occupational morbidities are on the rise. However, due to lack of adequate policies and strategies, the plight of the occupational workers has gone unnoticed. Improved surveillance systems, stricter implementation of legislations, large-scale clinical and epidemiological research and better educational opportunities are the need of the hour.

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