HEALTH OF WOMEN IN THE 'HEALTH' INDUSTRY

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The authors of this article provide a new dimension to all those working for rational drug policy, against misuse of drugs, and so on. Individuals and groups working in health have so far formulated their programmes with a concern for the consumers of drugs. But an important section, the producers of these drugs is left out. The authors' study of health problems of women workers in the drug industry shows that they are the first and worst sufferers. They stress the need for health groups to orient themselves towards producers of drugs, as workers need their expertise, and to find a strong and reliable ally in their fight against the controllers of drug industry. Health groups, trade unions and women's groups have many meeting points.

In the last two decades, some amount of thought, research and action has gone into the health hazards posed by the drug industry vis-a-vis the consumers of the products. Voluntary health groups and agencies are exposing the dangerous effects of drugs taken in quantities of 5 milligrams a day over years or also just once. However, hardly has any concern been directed against the effects of these drugs on the producers, the people working in the companies producing these drugs. The workers in their work process are exposed to the same drug, inhale the same drug, the drug enters their systems thorugh touch, through the mouth and through their respiration. They work for 9 hours a day, day after day, year after year, producing hormones, vasodilators, antibiotics etc.

If one has to look at the drug industry from the point of view of the health effects on the producers, one cannot be confined to a narrow conception of health as a lack of disease initiated by a drug. The conception of health effects has to be broadened considerably.

Drug Production and Worker's Health

The last ten years have seen a phenomenal increase in the production of Bombay pharmaceutical companies and in that of newer industrial centres. Many more liquid orals, tablets, vials, ampoules have been thrown in to the market. This is leading, not to increase in employment, but to the extraction of more work from less or the same number of workers. The impact of this process is increasingly being felt by the women on the packing lines. Behind the heavy advertising campaigns stand overworked packers lifting heavy ampoule-rings or heavy crates of bottles. This fantastic increase in production, from 22,000 ampoules per shift to 60,000 ampoules in 7 years or 8,000 to 50,000 per shift in 11 years, with very little increase in the number of women doing the work, is brought about in two ways. These two related methods produce two types of health hazards.

The simplest, age-old but out-dated method is to keep the process intact and increase the speed of the machine and hence of the entire process Such *speed-ups* on manually operated packing lines lead to fatigue, weakness, back-aches, aching arms, feet and shoulders.

Work on the packing line involves the fitting of bottles, sealing, labelling, optical checking, packing in boxes, inserting leaflets and case-packing. All these jobs may be manually done or some jobs are semi-automatic or automatic. The manual filling of bottles is extremely strenuous involving holding the bottles with hands, regulating the volume of the liquid by turning a tap or switch on and off, by pressing a foot pedal to start and stop the flow while holding the bottle under the nozzle. The strain is felt most on the arm and feet muscles.

In the manual spooling of adhesives, the operator mounts the rolls of plaster on the machine and pulls by hand till the plaster reaches the spool. "We have to stand on one foot and to pedal with the other to spool, and at the same time guide the plaster, and finally cut it when the required length has been reached. If the roll is tight, continuous pulling by hand is very strenuous. Continual cutting results in corns. Carrying rolls causes chest pains".

All these operations, when manually done cause extreme fatigue. "We have to lift the heavy rings of the capsule machine several times in the shift. It is very exhausting and dangerous as we have to stand on a stool to fit the heavy rings." By itself the single operation may not be very heavy, but repeated over hundreds of times in the 8 hours of shift, everyday, it becomes strenuous and causes tiredness.

Another major health hazard is the deteriorating eyesight of the women working on optical checking. Every vial, bottle has to be checked for the presence of foreign particles. Manual optical checking involves the packing up of one or more bottles or vials (depending on their size and weight), shaking

and viewing them against a strong light, sometimes against black and white backgrounds in succession. These have to be checked by the naked eye. Some women optical checkers told us, "Before we came to work here, most of us didn't have to wear spectacles. Now almost all of us have glasses. Sometimes we have to get our glasses renewed every 6 months."

In semi-automatic optical checking, "the bottles pass on a belt in front of the checker with a strong light shining through them. The speed of the belt is high and we cannot shift our eyes at all". "On our line, production increased from 8,000 to 50,000 per shift in 11 years due to the introduction of automatic filling and labelling machines. The optical checkers have increased from 2 to only 4".

Complaints of eye strain in optical checking were most widespread in companies where the women would have to check liquids for one day or more before moving on to another job. Rotation in jobs is an accepted practice in many of the larger pharmaceutical companies. Different types of rotation schemes exist. All the women who work in sections where jobs are rotated said they liked rotation, for two main reasons: (i) "There are hard jobs and easy jobs and the same people shouldn't always have to do the hard jobs". (ii) "It is boring to do the same job all the time".

Where the workers have complaints of fatigue or tedium and want rotation they could, through their unions, try to devise schemes with (a) rapid rotation, perhaps within lines to prevent strain and fatigue in certain operations, and (b) rotations on a longer cycle, such as three months perhaps between lines, to allow workers to become competent at a variety of operations.

The operations which were earlier either manual or semi-automatic and which have now been automated, almost always involve a reduction in the physical effort required to do the work. However, with automation, managements have tried to combine, two or three operations and a single operator has now to cope with 2 or more machines. Though the quantum of physical effort has been reduced, the strain of minding these machines increases manifold and results in mental strain and tedium.

Where physical strenous functions have been automated the women often told us that the work had become less tiring. Increases in the level of automation have brought about this result by eliminating certain highly repetitive tasks such as holding bottles or vials under a nozzle, pressing a lever foot-pedal etc.

Any method which replaces the hazardous physically strenous and fatiguing work, by work that is lighter, safer and less unpleasant, and does it in far less time, is potentially a means of emancipation from long working hours, industrial fatigue, coercive work routines, health hazards and rigid sex stereotyping. Whether automation ever has this meaning, will depend on (i) the way in which it is introduced, which depends on (ii) how much control unions exercise over its introduction and use.

Experience of workers demonstrates that if the changes are made completely under management control, the chances are that workloads will increase, employment will decline, health hazards will increase and workers lose any sense of stability in their jobs. **It is only when those who actually work on the machines in the factories have some control over this process through their representatives and unions can the potentiailities of automation be realised.**

When production is increased in such proportions, not only is there an increase in workloads and fatigue for the women workers, but it also results in making the women workers less resistant to the effects of the drug they are producing. At the same time, the possibility of the hazards is multiplied due to the sheer increase in the amount of chemicals the workers come into contact, as in the case of optical checking, the eye-strain increases as the number of bottles and the speed with which they are to be checked increases. The increase in workloads or speedups is hazardous in itself and it also increases the intensity of the hazardous effects of the chemicals.

Health Costs of 'life saving' Drugs

Here we will go into the *case-study* of one such product-Isosorbide dinitrate. This is used as a coronary vasodilator for the treatment of angina pectoris patients. It is considered to be a life-saving drug and is sold under different brand names.

An approximately 1,500-word leaflet, besides the references of 22 'scientific' books of one of the companies producing the above drug has only this to say about the side-effects of the drug :

'Side-effects other than occassional typical vascular headaches are not common in effective dose.... Histological (microscopic) examination of the tissues from animals did not reveal any evidence

of toxic injury as a result of administration of the drug'. In fact, says the leaflet, 'the increased exercise tolerance produced by the drug usually results in a gradual lowering of psychic influences, and often gives the patient a new feeling of well-being.'

The leaflet refers only to two possible side-effects, 'headache during the early phases of therapy' which 'disappear within one week of continuous, uninterrupted therapy'. Secondly, 'mild gastrointestinal disturbances might occur rarely with larger doses. These could be prevented by taking the drug with food'. Lastly, the drug 'should be given with caution to patients having glaucoma (severe eye problem).

The women packers who work on these drugs, sorting and filling the tablets into bottles, however, have a different story to tell, "See how our faces are swollen up. This line always gives up problems. Our heads ache, — throbs all day and night. We feel giddy". "We don't feel like eating at all, no appetite, nausea and constant headaches.". . . . "Our monthly period is also affected. Very heavy flow and sometimes two periods in a month."

One of the women operators told us the case of one woman, who had had two healthy children and no family history of abnormal children, had a child who was completely deformed and died a couple of days after birth. This woman had worked on the Isosorbide dinitrate line all through her pregnancy. After this incident, however, the women decided that no pregnant woman should work on the line.

The department where this drug is packed is a small 121X81 room, where 8 workers work together at sorting and filling of the bottles. The sorting woman shakes the tablets in a scoop and the powder flies into the air everytime she does it, at least about 20 times in a minute. The room is air-conditioned with no natural ventilation and with a weak air-conditioner and exhaust. The masks given to the women are very thin, white pieces of cloth and quite ineffective. The women have to stop working every few hours in order to go to the dispensary to get aspirins or simply to breathe air free of the Isosorbide powder. The women cannot explain about this too often, as the management might insist on reducing their trips to the dispensary and push them for more production. So everything remains unofficial - the doses of aspirins, the swollen faces, the fits of dizziness and nausea.

Workers have no access to correct information

The standard scientific books about drugs state the following : "Of 42 patients with agina of efforts given sorbide nitrate, two-thirds suffered from side-effects which included headaches, malaise (feeling of illness), vertigo (dizziness), dyspepsia (indigestion), nausea, epistaxis (bleeding from nose)" (Martindelle.)

"In 14 patients, sorbide nitrate when given 5 milligrams sublingually, headaches occurred in 20% of the patients (Martindelle) "Reports of ankle oedema associated with Isosorbide therapy" (Martindelle).

"In some individuals, the blood accumulates in abdomen and lower limbs, venuous return of the blood to the heart is grossly reduced and the cardiac output and blood pressure fall precipitiously. The reduced supply of blood to the brain may cause fainting preceeded by nausea, shivering, cold sweats. The most likely side-effects of Nitrite therapy are methaemoglobinaemia (which results in breathlessness after exertion), serious hypotension (low blood pressure) and headaches". (Lewiss' Pharmacology.)

"Nitrites can affect ureteral and uterine smooth muscles . . " (Goodman Gilman).

This scientific information obviously tallies more with the experience of the women workers than with the leaflet put out by the management. But the day-to-day experience of the women has had up to this day not much of an effect with the management as there is very little easily available material which the women may use to back up their own genuine problems. To begin with, there is hardly any material or research done on the actual effects of the drug on the producers themselves. The little research that we could obtain with difficulty concerned only the consumers of the drug. And even this was not easily available. The leaflet that is given with the drug is obviously misleading and far from the truth. The labour institutes, chemical directories and chemical abstracts do not list these effects at all. It was only after a great deal of scanning through medical books that the above scant information could be compiled. How are workers who work for 9 hours at the factory and the women workers who have an additional shift at home, supposed to know what it is that they are working at every day ?

There is obviously a monopoly of information and a systematic campaign of misinformation by the management. The management has its own experts, expertise and can handle knowledge and information and use it for its own purpose. If the

workers have to have some control over their own situation, they have to have their own channels of expertise, information and initiate campaigns on that basis.

The hitherto most stable organisations of the workers have been trade unions. The trade unions, however, especially in a country like India, have not been stable and confident enough to take up issues like health of workers seriously and consistently. It is a fairly new dimension and more effort needs to go into such a systematic insistence on issues like health.

On the other hand. voluntary health groups are a comparatively new phenomenon in this country. *These health groups have concerned themselves mainly with the consumsers of drugs and not the producers* This may be so because as individuals interested in health issues, their day-to-day contact is with the consumers. In fact, unless there is such a conscious perspective, health issues of producers may not be addressed at all.

When, however, it comes to the question of the health issues of women workers, there is an additional dimension to the entire perspective. A special focus on the special effects on women workers at the level of research as well as that of campaign can be effected through the insistence of women's groups at the workplace.

These three types of organisations and groups have various meeting points and can come together over very concrete demands and campaigns, which in fact have been suggested by the workers themselves.

The immediate demands in this particular case may be :

1) Immediate research into how the drug enters the system of the workers and its effects. Dissemination of this research; (2) Easy availability of the currently available research; (3) Regular monitoring of the health of the workers; (4) Well-ventilated, larger work-rooms; (5) Proper exhausts; (6) Comfortable and effective masks; (7) Gloves; (8) Rotation in work schedules and new recruitment, so that no woman receives effective, harmful doses.

Much of the work process in the packing of Isosorbide e.g the sorting and filling of the tablets is manual. While sorting the tablets and while filling them in bottles by the scoop, the tablets have to be shaken. This give rise to the powder flying in the air, which the women breath in. Alternately this process is automated, the women will have to fill the hopper which should be covered with a lid to prevent the powder from getting into the air. By automation of this process, less powder will fly and secondly less women will be required to do the work, which in turn will result in a lengthier rotation cycle. If for e.g 54 women work on the product, in rotation, each batch consists of say, six women. There are nine batches with each batch working for three days a month on Isosorbide.

If the process is automated, only three women would be required per shift to work on the product. There could then be 18 batches, working for only one-and-a-half day a month on Isosorbide. The health problems of those working would be considerably reduced as they would be working for less days as well as the atmosphere in which they work would be less contaminated. The workers would, however, have to see to it that the production norma are not increased, which is a common demand of the management in cases of automation. For these demands to be worked out, it is necessary that women workers having similar problems have an opportunity to come together to share their experiences at work and evolve a common strategy. As of today, the women workers do not have a platform through which they can begin to do this. The formation of plant level women's committees and inter-factory women's committees could act as such a platform where women workers could share experiences and take up collective campaigns on common demands.

Campaigns could be initiated to plan and attempt the implementation of alternative production processes centred around the interests of the producers and consumers. And until this alternative is implemented, the above immediate steps have to be realised so that the ill-effects of working on a life-saving drug may be minimised for those who are producing it.

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References

Crossland, James. *Lewiss Pharmacology* - 5th edition.

Goodman & Gilman. *The Pharmacological basis of therapeutics* 6th Edition.

Martindelle. *Extra Pharmacopoeia*, 27th and 28th Editions.