

SUMMARY

The present work is intended to provide on field study basis a clear picture of the health hazards to which the workers in Shubra El-Kheima factories are exposed. The work also aims towards surveying on a sample basis the health problems of the industrial workers of that area in order to be able to create a data base system and to plan a programme for community health participation and actions.

To accomplish such aim (540) male workers out of (4314) were chosen from Yassin Glass Factories". The sample chosen was randomly selected and subdivided according to the type of the work performed.

An informatory visit to the different factories was done to obtain data about the number of workers, their sex, type of raw materials used and the kinds of the products. Industrial processes were also noted, the line of flow of these processes were recorded starting with the preparation of the raw material to the packing of the products. Also any probable potential dangers were recorded.

Every worker was subjected to an interview to give detailed information about the different variables that may influence the health and disease again medical monitoring was done to the studied workers which includes social data, medical history, occupational, physical examination, pulmonary function measurements, laboratory examinations and radiological examination, (appendix I). Environmental monitoring was done in order to measure the dose of the hazardous agent absorbed by the worker at his work place and get the relationship between the hazardous agent and the resulting disease. These measurements were: dust sampling, thermal environment measurements and noise level of the working environment.

The results pointed out to the following conclusions:-

1. The mean age of the studied workers was $(42.65 \pm 9.87 \text{ ys.})$.
2. Most of the group studied (65 %) had family size of five and more individuals and the mean family income/month of the studied groups was 95 ± 42.8 pounds.
3. History of bilharziasis was common among the studied group or workers (59.07 %) and heat cramps came next which accounts for (42.78 %)
4. There is a significant association between exposure to heat and the development of heat cramps among the studied subjects.

5. Dental illness came on the top of the list of diseases in the studied group of workers. Errors of refraction came next and anaemia was recorded to occur among the studied workers.
6. Amobiasis and Giardiasis were the main parasitic diseases among the studied workers, it accounted for 15.93, 2.78 % respectively.
7. The percentage of hearing defects in the exposed group was significantly higher than those on non-exposed group. The relative risk of noise level in the induction of hearing defect was (11 %) and the attributable risk was (83.34 %).
8. The results of radiological examination revealed that a significant number of the workers (3.33 %) were suffering from small nodular opacities in their chest x-ray (suggestive of silicosis) and the most important factors in the occurrence of these radiological changes were the duration of exposure dust count average concentration of respirable dust and percentage of free silica in the air.
9. Environmental study revealed the following:
 - a- The atmosphere of the studied factories was extremely dusty. The percentage of free silica ranged from (25 %) and (47 %). Dust count was higher

10. The present study revealed a negative correlation between, duration of exposure in years, dust count in (m.p.p.c.f.), average concentration of respirable dust in (mg/m^3), percentage of free silica and pulmonary functions of the studied workers.

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