ABSTRACT

This is a study on young children of working women from the low-income group. It was conducted in the city of Aligarh, which is 135 kms from Delhi. Aligarh is an industrial center for brass work.

Women form a large part of the labor force in many small scale and cottage industries. A majority of this labor force of the unorganized sector is “invisible”. Their lack of visibility is that they are not counted as workers in any national statistics. They are not on the official rolls of any business concern even if they work in a factory, nor are the home-based piece rate workers counted as workers.

The work pattern of these working women is either factory based or home based. The women take up this work due to economic necessity, hence, their young children are the main beneficiaries or the victims of the mothers work pattern. The nutritional status of these underprivileged children may be considered a good measure of the development of the country. The physical and consequently the mental quality of a large number of the future citizens of India should be central to all planning and policy formulation.

The focus of the present study was to assess and compare the nutritional status of the children of factory-based working and the children of home based working women and also to
understand the various factors which influence their nutritional status. The particular cottage industry studied was the metal (brass) cap for bulbs industry. This industry is located mainly in Aligarh, Dehradun, Delhi, Meerut and Shikohabad. Women form the bulk of the unorganized labor in this sector. Local agents of the actual employers employ them indirectly. The women work on a piece rate basis. The periods, when work is available, are erratic, specially in Aligarh, which is a communally sensitive area.

The women and their children constitute cheap labor for the employers without being provided any of the attendant rights and privileges. The workers were Muslim and Hindu. The sub contractors also belonged to the same communities but it was found that the workers were not selected because of their religious affiliations. In fact in most cases where the workers were Muslim, the subcontractors were Hindus or even Christians. The lack of social interaction prevented the formation of workers unions.

The sample of the present study was purposively selected from four areas representing the different zones of Aligarh, Mushtaqnagar, Mahendranagar, Jeevanagerh and Chandaniya.

The exact universe of the women workers could not be pinpointed as most of the factory owners denied having women workers on their employee rolls. Home-based women workers constituted seventy per cent of the sample studied. The total number of the working mothers in the sample was...
212 – 149 home based and 63 factory based. The number of children of these mothers, who fell into the age group of one-six years, was 320. Of these 213 were children of home based working women and 107 were children of factory based working women.

Three different kinds of questionnaires were constructed – one for the unit, one for the worker and one for the child. It was pretested on a sample of 32 children, 20 workers and 3 units. Relevant data on the physical and socio economic environment of the women workers and their children was collected.

The nutritional status of the children was determined by anthropometrical measurements of weight, height, sitting height, head circumference, chest circumference, mid upper arm circumference and calf circumference, which are the most reliable. The reference standards used were the ones set by the Indian Council of Medical Research, the Indian Academy of Pediatrics and the National Center of Health Statistics.

The nutritional status of the children was assessed by the acknowledged classifications in use recently namely Gomez’s, Jelliffe’s, Indian Academy of Pediatrics and The National Center of Health Statistics USA. The nutritional status was assessed by age dependent and age independent classifications. This was specially done because the sample
The mother's work pattern was studied as also her nutritional awareness. Environmental factors both physical and social were also noted and observed. Information regarding availability of potable water, toilet facilities and community facilities like roads, drains, waste disposal, ventilation etc, was also collected. Personal particulars like type of family, its composition, whether local or migrant, religion and husband's employment was also noted.

The findings were analyzed and interpreted accordingly – those that could be quantified were treated statistically while the others were qualitatively dealt with. The results of the study were as follows –

1. The 12-23 month age interval among both the groups studied had the maximum number of severely malnourished children.
2. The most severely malnourished children among factory based and home base women workers were girls.
3. The birth order of the malnourished girl children fell steeply after 4.
4. The heights and weights of almost all the children in both the groups were below the reference standards set by the Indian Council of Medical Research, the Indian Academy of Pediatrics and much below the internationally accepted standards set by the National Center of Health Statistics.
5 The mean Mid Upper Arm Circumference of the children of factory based women workers was better than the MUAC values of the children of the home based women workers

6 The mean calf circumference values of the children of the factory based women workers was greater than the calf circumference values of the children of the home based women workers

7 Head circumference values of boys from both groups were greater than the head circumference values of the girls

8 Chest circumference values of the children of the factory based women workers were higher than the corresponding values of the home based group and at some age intervals were higher than the ICMR standards

9 The chest head ratio of the children of factory based working women was not less than 1 at any age interval. The home based sample children had values less than 1 till the age of two years

10 The Rao Index indicated that all the children were malnourished at the 12-23 month interval after which there was a slight improvement. At the 36-47 month interval all the children showed normal values

11 The Kanavati Index showed that children of factory based working women were less malnourished than the children of the home based group

12 The Quetlet's Index clearly depicted the fact that most of the children of home based women workers were in
a state of gross malnutrition. The children of factory based working women were marginally better nutritionally.

13. According to Gomez's Classification, most of the boys in the factory-based group were in Grade 1 and Grade 2 of malnutrition. There were no boys who were severely malnourished. 20.4% of the girls were in Grade 3 while the majority were in Grade 2 and Grade 1. Among the children of the home-based working women, the percentage of boys who were normal was slightly higher but there were 11.2% in the severely malnourished Grade 3. The majority were in Grade 2. The percentage of girls in Grade 3 was 28.8% while 45% were in Grade 2 and 22% in Grade 1.

14. Assessment of nutritional status by Jelliffe's classification showed that most of the children of both the groups were in Grade 2 of malnutrition though the findings indicated that one-fifth of the girls were in Grade 4 and no boys were present in this category. In the home based group of children there were no children in the normal category till the last age interval. The majority of boys were in Grade 3 (36.20%) while the girls were in Grade 2 (32.98%). An equally large number of girls (28.88%) were classified in Grade 4. Boys had a much lower percentage in this grade.

15. According to the classification recommended by the Indian Academy of Paediatrics, a large percentage of children fell marginally into the normal category
especially after the age of 3 years in both the groups. Most of the boys in the factory based working women’s group were in Grade 1 as also the girls. The only difference was that there were girls (16.32%) in Grade 4 while there were no boys in Grade 3 or Grade 4. Among the home-based group, the boys and girls were mostly in Grade 1 and 2 although the percentage of boys in Grade 4 (5.17%) was slightly lesser than the percentage of girls (6.18%).

16 In the classification of the National Center of Health Statistics it was found that most of the boys were underweight and stunted (68.96%) in the factory-based group while only 61.22% girls were underweight and stunted. There were a lower percentage of boys who were stunted and wasted as compared to the girls (24.48%) in the wasted category there were 8.62% boys and 10.2% girls. 6.89% of the boys were in the normal category in the group of children of home based women workers 11.2% boys were underweight as compared to 12.37% girls. 43.96% boys were stunted as against 47.42% girls. 14.65% boys were wasted as compared to 12.37% girls and 23.27% boys were stunted and wasted while only 21.64% girls fell into this category.

17 The nutritional status of children of both the groups became noticeably better after 3 years of age.

18 The sample children of both groups showed that the majority had sparse dyspigmented hair and pale conjunctiva.
19 The diets of the children were mainly carbohydrate in content.

20 A higher percentage 57 11% of factory based working women's children were immunized as compared to 30 51% of children of home based women workers.

21 Most of the factory based women workers were locals of Aligarh while most of the home based workers were migrants.

22 The majority of the factory based working women were Hindus while the majority of the home based working women were Muslim.

23 Only 27% of the husbands in both the groups were employed on a regular basis.

24 Most of the home based and factory based workers lived in nuclear families.

25 The majority of women workers of both the groups earned Rs 500 or less a month.

26 The women workers of both the groups were mostly illiterate.

27 The majority of children of both groups were left in the care of older siblings.

28 A larger percentage (68.25%) of women from the factory based group had easier access to potable water as compared to 54.36% of the home based group.

29 52.3% of the factory based working women had toilets in their homes as compared to 37.59% of the home based working women.

30 The presence of the mother did not have a significant impact on the nutritional status of the child.
31 There is no significant difference in the nutritional status of the children of factory based working women and the children of home based working women after the age of 3 years.

The results suggest that the mother's work pattern influences the food availability in the family, which affects the nutritional status of the child. It has also been noticed that the gender and birth order of the child determine the food distribution within the family. This study will add to the body of information and will act as a guide to future researches in this area.