



Original Article:

Health Status of Padia Workers in Slums of a Taluka Headquarters in Gujarat.

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Abstract: Background: ‘Padia’ is cup or plate made from paper. A cross-sectional study was carried out in 3 slum areas of Petlad town of Anand district in Gujarat state to describe the socio-economic and health status of the Padia workers using a pretested questionnaire. **Results:** 68.5% of the study participants were male. Only 27.6 % persons were educated upto higher secondary school and none beyond. There was no worker below 14 years of age. 74 % work at their residence. Most of them spend about eight hours for the ‘Padia’ making work over and above their household job. Addictions were present in more than 1/3rd of workers. Musculoskeletal problem was commonest health problem. 18(12.1%) had experienced work place related injuries accidents. None of the workers used any protective devices. **Conclusion:** Padia workers have several health issues including occupation related health hazards. Need exists for a participatory occupational health programme for this working population. **Key Words:** Padia worker, Unorganized sector, Musculoskeletal problems, Occupational health, Occupational accidents.

Introduction:

Occupation is one of the most important extrinsic factors that influence health. Other than home probably workplace is setting where people spend maximum time. For several people however this demarcation is nonexistent as they work at home or in cottage industry. Unorganized sector contributes to more than 90% of workforce and 50% of revenue in India. (1) The ‘cottage’ industries of India have provided ample opportunity of employment for the workers of low socio-economic class although their problems are not much explored. Cottage industries are also known to have several inherent hazards. (2-3) ‘Padia’ is a cup or plate made from paper commonly used for serving eatables at functions.

Padia making involves repeatedly running the press using foot paddle. (Figure1).



Figure 1: A Padia worker working on a Padia making press.

Two layers of paper need to be put in the cast of the press simultaneously. The cast is continuously heated by a burner using liquid petroleum gas. Pressing by foot and placing paper by hand requires great level of co-ordination. Any mismatch can lead to severe injury to hand especially fingers. Most of people work at their homes which are usually poorly lit and ventilated. Most of the padia making units are located in slums in our setting. The payment is usually in cash depending upon number of cups made. The payment is about 1-1.25 rupees per "Sekhi" (1 Sekhi is a unit of 40 cups/plates). Padia making industries existing mainly in non-organized section and as with other non-organized health issues of Padia worker are also not much explored. Padia making exists across the country as evident by nearly universal use of paper plates. The present study is intended towards estimating the health status of the worker who involved in this work in slums of Petlad town of Anand district in a systematic way.

Methods

All the slums where padia making units in service area of Petlad Urban Health Training Centre were visited and all the workers were approached along with local social worker. The consenting workers were interviewed using a pre-tested questionnaire at their work place. The questionnaire was designed in English and later translated to Gujarati and back translated to ensure adequacy of translation. Height, weight, blood pressure measurement (single reading) carried out at common places close to workplaces using standard protocol. Oral cavity examination was carried out for those addicted to tobacco chewing. The data was entered in Microsoft Excel sheet and analyzed using Statistical Package for Social Sciences (SPSS) version 15. This was followed by health education sessions regarding common health problems and addictions. Project was cleared by Human Research and Ethics Committee of the institute.

Results

Total respondents were 149. 102 (68.5 %) of the study participants were male, 123 (82%) were married and all were Hindu by religion. 27.6 % persons are educated in the higher secondary school and none beyond. Mean age of the study participants was 33.21 (SD=13.81) years. There was no worker below 14 years of age. The detail of socio economic profile of padia workers is provided in Table 1.

Table 1: Socio-demographic profile of the Padia workers in the study.

Item	Value
Total no. of participants	149
Sex (Percent)	
Males	102 (68.5)
Females	47 (31.5)
Marital status (Percent)	
Married - living with a life partner	123 (82.6)
Single - widowed or divorcee	26 (17.4)
Mean age years (SD)	33.21(13.82)
Age category (Percent)	
≤19 years	19(12.8)
20-29 years	53(35.6)
30-39 years	30(20.1)
40-49 years	18(12.1)
50-59 years	20(13.4)
≥60 years	9(6.0)
Mean family size (SD)	5.71(1.94)
Mean number of earning members in family (SD)	2.37 (1.12)
Mean number of family members in Padia work (SD)	1.68 (0.78)
Education (Percent)	
Illiterate	42(32.9)
Primary	71(47.7)
Secondary & Higher secondary	26(7.4)
Graduate and above	2(2.0)

Of the workers, 110 (74 %) worked at their residence, 33 (22%) within one kilometer of their residence. There were no migrant workers. Most of them spend about six and half hours for the padia making work over and above their work. Among them, 128 (85.9%) were exclusively involved in padia making and 21 (14.1%) also had a secondary occupation. Most common secondary occupation was manual labour. The padia work was available for about 7.7 months a year. On average each worker made about 85 Sekhis of cups/dishes per day and earned about 2400 rupees per month. All the payments were in cash and there was no provision of any health related benefits. About half of the workers worked on their own machine and other half were employees. Average duration since joining work was 5.7 years. Tobacco chewing and alcohol addiction was present in 48 (32.2%) and 9 (6.0%) of workers. However smoking was reported by only one worker. Thirteen (8.7%) had experienced illness in last month for which they had to consult doctor. Thirteen (8.7%) had required hospitalization in last one year. Whereas 101 (67.8%) accessed nearby government health facility, 18(12.1%) had experienced work place related injuries accidents. Injury to fingers was the most common being experienced by 15 (10.1%) workers. Other health problems of the padia workers are listed in Table 2. None of them reported using any protective devices. On oral examination staining of teeth was seen in 37 (24.8%), decreased mouth opening (less than 2 fingers) in 3 (2.0%) and erythroplakia in one worker.

Table 2: Health related characteristics of Padia workers in the study.

Item	Value
Body Mass Index (Percent)	
BMI<18.5	28 (18.8)
BMI 18.5-23	83(55.7)
BMI 23-25	18(12.1)
BMI >25	20(13.4)
Health problem* (Percent)	
Leg pain	50 (33.6)
Backache	45(30.2)
Neck pain	13(8.7)
Tinling sensation in feet	18(12.1)
Tingling sensation in hands	16(10.7)
Watering/ Burning in eyes	22(14.8)
Decreased vision	14(9.4)
Decreased hearing	9(6.0)
Hypertension**	
Optimum	38 (25.5)
Pre-Hypertension	96(64.4)
Stage1 Hypertension	15(10.1)
Stage 2 Hypertension	0

*Based on history only. **Based on single measurement in sitting position and JNC-VII cut offs.(4)

Prevalence of various health problems was similar across sexes, various education and work experience categories. However there was statistically significant less accidents among more experienced workers (p=0.033).

Discussion

Occupation is one of the most important extrinsic factors that influence health. Other than home probably workplace is the setting where people spend maximum time. Presence of good working environment can thus go a long way in improving the overall health of workers.

Most of the Padia making units were located in the homes. These deprive other family members of their privacy, available space and also expose them to air and noise pollution. Though studies done among other cottage industries have reported high prevalence of child labour(5), we did not come across even a single case of child labour. This could be due to the fact that running a Padia press may be difficult for a child. The work was also not available for

about four months a year and earnings were very less and hence many of them were forced to look for secondary employment. Many had very low BMI (18%). This reflects the poor nutrition and overall poor economic status of the workers. About 1/3rd of the workers were addicted to tobacco or alcohol. Some workers with tobacco addiction had also developed precancerous lesions. Musculoskeletal pain especially of leg and neck was most common health issue. This was also reported as reason for various addictions. Vision problems were reported in about 10% of workers. Other studies among workers involved in similar home based work requiring repeated manual operations eg. papad making, garments and tailoring have also reported similar finding.(6-8) Though about 12% had experience work related injuries none of them had received any compensation for the same. They believed that it was a part of the job and they had to risk it. They also did not use any personal protective devices. None of them were aware about possible benefits and schemes available for workers in unorganized sector. These are further compounded by various other factors like poverty, poor nutrition, lack of awareness etc.(2, 9)

Conclusion

The padia workers suffer from variety of health problems many of which are related to their occupation. Hence need exists for a participatory occupational health programme for this working population. This will involve shared responsibility of the contractors, various government and non-governmental agencies and workers themselves.

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