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Assessment of social and nutritional constraints of labourers working in Tata steel plant - Sukinda, Odisha

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Abstract

The objectives of the present research was to asses the social, psychological and nutritional constraints of the labourers working in Tata Steel Plant, Sukinda, Odisha. One hundred labourers working in Tata Steel Plant were selected by random purposive sampling method. For the collection of data questionnaire cum interview schedule was used to get information on their socio-economic condition. Height and weight of the respondents was recorded with the help of required tools. The results of the study revealed that most of the respondents belonged to rural area having low education and low socio-economic condition. Their salary was not sufficient to run their family smoothly. Most of the workers dis-satisfied due to low remuneration, overloaded work, no provision of free food at work place, no medical facilities for their family members, no education allowance for their children etc. Promotion facility of the workers was also not healthy. However safety measures provided by the plant authority was very good. Pulses, milk, egg, fish and meat consumption was found to be less in their diet in comparison to RDA. Alcohol, Desi daru, Cigarette, biddi etc. was regularly consumed by of the respondents. Diabetes, hypertension, irritation in eye, musculo-skeletal pain etc. were their common health problems. Along with medicine different traditional household remedies was also taken by the labourers to get relief from their diseased condition. Thus it can be suggested that the plant authority should take necessary steps to solve the problems of the labourers as they are the key to economic development of the nation and the society.

Keywords: BMI, Nutritional Status, RDA

Introduction

Labourers are the back bone of our society. Since human appeared on earth, we have had to work to secure what we need to survive or to improve our standard of living. Needs are not satisfied without human effort that results in successful production. Many argue that increased employee involvement in manufacturing is central to lean production. Increasing the responsibilities and abilities of front line workers has been labeled empowerment. Such empowerment is said to increase job satisfaction. Labours belong to low socio-economic condition. With the changing trends of the society they are neither capable to satisfy the demands of their family members nor satisfy their self-requirements. Sometimes they have face difficulties in their work place. Ultimately they suffer lot socially, psychologically as well as nutritionally. Therefore the present research is designed to study the social and nutritional problems of labours working in Tata Steel Plant, Sukinda. Odisha. The objectives of the study were -

- 1) To study the socio-economic conditions of the labours working in steel plant.
- 2) To know the psychological problems of the respondents.
- 3) To study the dietary pattern of the respondents.
- 4) To asses the nutritional status & health problems of the respondents.

Materials and Methodology

The study was carried out in "Tata Steel Plant" present is Sukinda, Jajpur, Odisha having 97% Chromites reserves of the country and listed as one of the 10 most polluted places in the world. One hundred labourers working in this steel plant were selected for the study by random purposive sampling method. The data was collected with the help of pretested questions by questionnaire cum interview method (personal contact). The dietary habits of the respondents was assessed by 24 hours recall method. Weight & Height was measured with the help of weighing machine and measuring tape respectively and the BMI was calculated.

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Research Findings and Discussion

The results of the study were compiled and discussed below:

a) Socio-economic indicator of the respondents.

The socio-economic conditions of the respondents provides relevant information regarding their family background. It was observed that majority of the respondents belong to the age group of 21 to 40 years i.e. 72%. Most of them were Hindu by religion and were living in nearby by villages or towns. All of them were literate and majority (62%) of them passed High School Examination. Joint family system having 4-6 family members (66%) was found to flourish in that area. Grandparents found a place in their family structure and also cared for 88% of them were married. 52% of them were staying in Kutcha houses. All of them had kitchen garden growing fruits and vegetables from there.

Table 1: Socio Economic Indicator

Sl. No.	Characteristics	Percentage
1	Age- 21-40 years	72
2	Religion - Hindu	96
3	Education- Illiterate - Literate	Nil 100
4	Family system - Joint - Nuclear	66 34
5	Marital status- Married - Unmarried	88 12
6	Types of house – Kutcha- Pucca	52 48
7	Kitchen Garden	98
8	Farm animals	89
9	Income (Rs. 8000-Rs.11000)	100

As most of them were staying in their villages majority of them kept poultry and dairy in their houses for the purpose of meat and milk. Hundred percent of the respondents were getting their salary in time i.e. about Rs.8000 - Rs.11,000. They were paid extra money for over duty and also deducted money for their absence.

b) Facilities provided by the employer

Table 2: Facilities for labourers

Sl. No.	Facilities Provided	Percentage
1	Regular Health Checkup	92
2	Bonus for – Festival -Education of Children - Illness	92 26 20
3	Medical Facilities - Highly Satisfied - Not Satisfied	94 06
4	Positive work atmosphere	98
5	Promotion facilities (Satisfied)	18
6	Safety measures (satisfied)	70

It was interesting to note that 92% of the labourers were availing regular health check-up camps organized by the plant authority and taking medicine as per their doctor's advice. They were highly satisfied with the medical facilities available there such as health checkup, free medicine, ambulance service and monetary help for dreadful complications. Most (98%) of them opined that there is a positive work atmosphere and steps taken for the safety of the labourers such as providing helmets, shoes, jacket & glass to the labourers. 92% of the respondents were getting bonus for festive occasions. Madhesh R. (2014) [4] found out welfare measures play important role in employee satisfaction which results in improve quality work.

c) Constraints at work place

Table 3: Problem of the respondents.

Sl. No.	Characteristics	Percentage
1	Facing problem	08
2	Abused/humiliated / Always - Sometime - Never	12
3	Overloaded with works - Always - Sometimes - Never	02 60 38
4	Income not sufficient	94
5	Non-co-operation of co-workers	20
6	Feeling fatigue	08
7	Negative work atmosphere	02
8	No promotion - Dissatisfied - Highly dissatisfied	34 30
9	Not satisfied with safety measures	30
10	Not Getting help for education of Children	74
11	Not paid extra money for illness	20
12	Not satisfied with salary	92

Eight percent of the respondents were found to face problem in their work place because of their irregular job and salary and twelve percent of them abused or humiliated sometimes because of their absence and untidy work. Two percent of the respondent were overloaded with work though out the year as they were supervisors of labourers. Because of low salary (92%), less chance of promotion (64%) no facility for education & medical facilities for their family members, most of the respondents were found to be dis-satisfied.

Further it was interesting to note that 94% of the labourers expect extra facilities from their employer along with pension after retirement. It was noted that 20% of them found to be depressed due to non-cooperation of co-workers & higher authority and felt fatigue. 92% of the respondents thought of to leave the present job if they will get a better chance.

d) Dietary Intake

Food Habits			
SI No.	Characteristics	Frequency	Percentage
1	Vegetarian	02	02
2	Non-Vegetarian	98	98
Dietary Pattern			
1	Breakfast + Dinner	-	-
2	Breakfast + Lunch + Dinner	64	64
3	Breakfast + Lunch + Snacks + Dinner	36	36

Majority of the respondents were found to be non-vegetarian. 64% of the respondents were found take three meals per day which includes of heavy breakfast followed by packed lunch to the work place. In dinner they took whatever prepared at home. 36% of the respondents were taking four meals per day which includes light-breakfast like tea with puffed rice, chapatti & mix vegetable, or water rice with sabjee followed by packed lunch to the work place. In tea time usually they took some biscuits or puffed rice with tea. They took a heavy dinner at night which includes rice/chapatti with dal/vegetables/non-veg like egg/fish/chicken etc.

E) Mean Food Intake of the respondents

Mean food intake of the respondents revealed that their diet was dominated by cereals followed by roots and tubers and leafy vegetables which was more than RDA. Pulses milk, egg,

fish & meat consumption was found to be less in comparison to RDA. Milk was taken only with tea. Fruits and nuts and oil seeds was taken by them occasionally. 90% of the respondents took tamakhu, gutkha/biddi/cigarette daily and 56% respondents took alcohol/desi daru regularly. Khan (2005) [7] found poor intake of eggs, milk, meat, green leafy vegetables by the respondents their studies.

Table 4: Mean Food Intake of the Respondents

Sl No.	Food Stuff	Mean Actual Intake	RDA (ICMR)	%Excess (+) or Deficiency (-)
1	Cereals (gm)	753.8	670	12.5 (+)
2	Pulses (gm)	38.7	60	35.5 (-)
3	Green leafy (gm) Vegetables	56.9	40	42.2 (+)
4	Other vegetables (gm)	49.2	80	38.5 (-)
5	Roots & tables (gm)	98.3	80	22.8 (+)
6	Egg (gm)	35	50	30 (-)
7	Meat / Fish (gm)	24.8	50	50.4 (-)
8	Milk (ml)	50	100	75 (-)
9	Fruits (gm)	25.8	55	53.1 (+)
10	Sugar (gm)	30.3	55	44.9 (-)
11	Fats & Oils (gm)	20.8	65	68 (-)

f) Nutritional Status

Nutritional status of the individuals is considered as indicators of health. Height and Body Mass Index of the individuals is calculated based on their height and weight & reflected below.

Table 5: Distribution of the Respondents according to BMI

Sl No	Class	Frequency	Percentage
1	< 16.0 (Chronic Energy deficiency Grade-III)	04	04
2	16.0-17.0 (Chronic Energy deficiency Grade-II)	02	02
3	17.0 - 18.0 (Chronic Energy deficiency Grade-I)	04	04
4	18.5 to < 20.0 Low weight	18	18
5	20.0 to < 25.0 (Normal)	58	58
6	25.0 - <30.0 (Obese-I)	14	14

Majority of the respondents had normal BMI i.e. 58%. 14% of the respondents were found to suffer from Obesity-I. Rest of the respondents (28%) belonged to low weight/chronic-energy deficiency Grade-I/II/III.

g) Health problems of the respondents

Table 6: Health problem of respondents

Sl No.	Disease Condition	Frequency	Percentage
1	Diabetes	24	24
2	Hypertension	30	30
3	Eczema / Skin Problem	04	04
4	Eye Problem (irritation / redness)	18	18
5	Cold / Asthma / Allergy	12	12
6	Lungs in Infection	02	02
7	Pain in limbs (Musculoskeletal Pain)	63	63
8	Any others (Cold, Diarrhoea, Fever, Vomiting etc.)	22	22

Health problems like Diabetes, hypertension, cold, Asthma,

lungs infection etc. was found among the respondents. Generally they consult doctor and take medicines or take household medicine to get relief from their common health problems. In case of severity they usually went to hospitals. Fahmida khatun *et al.* (2013) [5] found significant prevalence of different disease condition such as respiratory ailment, weakness, eye irritation & redness etc. in their studies among the respondents.

h) Traditional household remedies practised to get relief from diseases.

Most of the respondents practised traditional household remedies to get relief from different disease conditions which is shown in the following table.

Table 7: Practice of Household remedies

Sl No.	Disease	Remedies	Frequency	Percentage
1	Cold & Cough	i) Tulsi with honey ii) Blackpeper with Honey / Ghee	68	68
2	Diarrhoea	i) Juice of Guava leaf and Juice of immature pomegranate ii) Sugar Candy with Cumin seeds iii) Juice of bael leaves	29 38 36	29 38 36
3	Gastritis	i) Juice of bael leaves ii) Roasted ripe bael	56 39	56 39
4	Vomiting	i) Smell of lemon ii) Skin of lemon with sugar candy	88 32	88 32
5	Skin Rashes	Neem leaves	24	24
6	Indigestion	Cumin seeds with salt i) Bat's meat	14 28	14 28
7	Asthma	ii) Kochia (one type of snake)	12	12
8	Malaria	Juice of Gangasiuli leaf with black peper / honey/Ginger - day-1, day-2, day-3 respectively.	67	67
9	Diabetes	i) Bitter gourd juice ii) Cow's urine iii) Black berry seed powder	32 08 12	32 08 12
10	Conjunctivitis	Mother's Milk	36	36
11	Mouth Disease	i) Cows ghee ii) Discarded water of rice (Peja)	58	58

Common household remedies practised by the respondents were Tulsi with honey or black peper powder with honey or ghee for cold, skin of lemon with sugar candy for vomiting, juice of gangasiuli leaves with honey/ginger/black peper for malaria, cows ghee for mouth ulcer etc.

It was interesting to note that some of the respondents were using cow's urine / black berry seed powder for diabetes, bat's meat or Kochia for Asthma, mothers milk for conjunctivities' etc.

Conclusion

Even though plant authority has provided so many facilities to the labourers such as regular salary, free health check up & medicines, very good safety measures etc. still then dissatisfaction was observed among the respondents. As they belonged to low socio-economic condition, their earnings is not sufficient to fulfill the demands of their family members, so they expect free medicine & free education for their children, free food at work place, free house for their shelter,

above all enhanced remuneration / salary to meet their day to day needs. Thus it can be suggested that the higher authority should take look after the matter and try to fulfill the demands of the respondents as far as possible to provide them physical and mental support. Further indepth research is required to be carried out in this direction to do draw a strong conclusion.

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