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# Pattern of Health Status among Child Laborer In Rupandehi District of Nepal

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**Abstract:** *Poor health status among child laborer associated with poverty is an global as well as national child health issue as they are more vulnerable group among children. Poor health is resulted from deprived child rights of health care thus affecting their ultimate development to adulthood. Both qualitative and quantitative cross-sectional study on the topic “Pattern of health status among child laborer of Rupandehi District of Nepal” conducted aimed to study the pattern of health status among child laborer between 6-14 years (male and female). Purposive sampling method, interviewer administered questionnaire and focus group discussion among chosen 25 children’s were used. Among 123 respondents, prevalence of health problems was found as 64.22%. Majority age group was 12-14 years (83.73%) and male (85.36%) with mean age & SD of 12.8±1.3 where most of them were restaurants worker (16.3%). Among 79 who had health problems, skin infection (54. 43%), ARI (50.06%) and diarrhea (37.97%) were top three health problems. Long working hours, improper diet, poor habit on maintaining on personal hygiene were factor for existing health problems. It is recommended to take concern and implement government and non-governments health policy and programs on these vulnerable group in sector of nutrition, sanitation, immunization, free treatments facilities, basic need etc as these children group are neglected in our country in order to improve to health status of working children. But our foremost activity is to stop child labor.*

**Key words:** *Health status, Child laborer, health problems, Nepal.*

## INTRODUCTION

Child labor is an important global issue. The Global report of International Labor Organization (ILO) International Program on the Elimination of Child Labor (IEPC) 2012 reported prevalence of child labor

of 160 million. Asia and the Pacific still has the largest numbers (almost 78 million or 9.3% of child population).

Such work has an adverse impact on the health like injury and accidents, burns, respiratory infection, skin infection even STIs thus affecting development of these children to adulthood. (1) This is an alarming statistic. It is also potentially damaging to physiological and psychological development. (2) ILO (1999) Convention 182 calls for the prohibition and elimination of the worst forms of child labor that is likely to jeopardies the health, safety or morals of young persons (3).

Study by Deka H. (2008) in a community based cross sectional study among children of age group of 5-15 years reported major

health problems of skin diseases 55.96%, RTI 47.65%, worm infestation 45.08%, anemia 43.01% GIT infection 40.01% pediculosis 32.64%, dental caries 23.83%. (4)

It is distressing that there is less studies conducted to find out health problem on laboured child in Nepal so researchers intended to conduct this study to assess health status and factor contributing to present health status of labored child and to suggest way to promote and prevent adverse health effect due to labour work in children.

## METHODS

Both qualitative and quantitative cross-sectional study was conducted in Butwal city of Rupandehi District of Nepal. Purposive sampling technique was used for selecting study area as Rupandehi district and study population as well. Study population were child laborers between 6- 14 years old with both sexes who have been working in places like shopkeepers/ hotels/ restaurant, transportation,

construction, street (rag picker), factory/ industry, mine industry, plantation, domestic service, pottery, refugee, publicity and advertisement, circus industries, bounded laborers, migrant child laborers, commercial sexual workers.

Respondents were interviewed face to face individually. One focus group discussion was conducted among 15 respondents who were chosen purposively from different working groups. Video camera and hand written report was recorded during the discussion by researchers.

Sample size was 117 which were determined by using the following formula.

$$n = \frac{z^2 pq}{d^2}$$

Where, n=sample size

Confidence limit (z) =1.96,

Prevalence (p) =0.083 (8.3%), \*\*

Acceptable Standard error (d) =0.05 (5%) &

Person's proportion of free of condition (q) = 1-p = 1-0.083= 0.917.

\*\*Prevalence of 8.3% of child labourers were suffering from illness and injury working in wholesale and retail trade and hotel/ restaurant in developing countries.

Interviewer-administered questionnaire and checklist for focused group discussion was used as tool for data collection. Questions were translated into Nepali. All ethical issue was addressed. Verbal informed consent was taken from the respondent. Anonymity and confidentiality were maintained.

Collected data were compiled and coded in excel worksheet. Data entry, analysis and interpretation were done by using SPSS & mean, frequency distribution, percentage etc. were used for analysis. Interpretation was done in frequency tables, pie charts & bar diagrams. Appropriate statistical test was applied as per requirement.

**RESULTS**

Regarding socio demographic characteristics, among 123 respondents, majority 103 (83.73%) were at age group 12-14 years and were male 105(85.36%) with mean age & SD of 12.8±1.3. About three fourth 76(61.8%) had native residence of Rupandehi districts whereas 16(13%) were migrated from other regions of Nepal (listed below) and neighboring districts (listed below). Similar proportion 15(12.2%)

were migrated from North- east India (esp. UP and Bihar). Majority 20 (16.3%) of children works on restaurants, Hotel 16(13.2%), Construction 14(11.4%) and 14(11.4%) in other services (rickshaw puller, India immigrate, toilet cleaner, and rag picker). (Table 1)

**Table 1 .Socio demographic characteristics (N=123)**

Age	Sex		TF (%)
	Male	Female	
6 – 8 years	2 (1.62%)	0 (0%)	2 (1.64%)
9 – 11 years	15(12.19%)	3 (2.43%)	18 (14.63%)
12–14 years	88 (71.54%)	15 (12.2%)	103 (83.73%)
Mean age= 12.8		SD=1.3	
<b>Child's occupation</b>			
Hotel	8 (7.61%)	8 (44.45%)	16 (13.2%)
Restaurant	12 (11.42%)	8 (44.45%)	20 (16.3%)
Motor garage	12 (11.42%)	0 (0%)	12 (9.8%)
Construction	14 (13.33%)	0 (0%)	14 (11.4%)
Transport	13 (12.38%)	0 (0%)	13 (10.6%)
Bread maker	10 (9.52%)	0 (0%)	10 (8.1%)
Foot wear	12 (11.42%)	0 (0%)	12 (9.8%)
Retail shop	11 (10.47%)	1 (5.55%)	12 (9.8%)
Other**	13 (12.38%)	1 (5.55%)	14 (11.4%)
<b>Native address</b>			<b>F (%)</b>
Rupandehi District			76 (61.8%)
Neighboring Districts**			16 (13%)
Other Regions of Nepal**			16 (13%)
India (esp. Uttar Pradesh and Bihar)			15 (12.2%)

\*\*Neighbor District: Palpa, Gulmi, Kapilbastu, Nawalparasi, Syangja, Arghakhanchi.

\*\*Other: rickshaw puller, migrated to India, toilet cleaner, and rag picker

\*\*Other Regions of Nepal: Central. Eastern, Mid-western and Far western

**Table 2. Health pattern of child labour**

	Male (%)	Female (%)	TF (%)
<b>Respondents' BMI**</b>			
Underweight (<18.5)	52(49.52%)	8(44.44%)	60(48.78%)
Normal (18.5-24.99)	48(45.71%)	9 (50%)	57(46.34%)
Overweight(25-29.99)	5(4.76%)	1(5.55%)	6(4.88%)
<b>X<sup>2</sup><sub>cal</sub>=0.21</b>		<b>DF= 2,</b>	
<b>Health problems reported since last year (Yes)</b>			<b>79</b>
<b>Past health problems ** (n=79)</b>			<b>F (%)</b>

Injury	26 (32.91%)
ARI	40 (50.06%)
Skin infection	43 (54.43%)
Diarrhea	30 (37.97%)
Fever	28 (35.44%)
Headache	9 (11.39%)
Other	13 (16.46%)
<b>Present health problems ** (n=79)</b>	<b>F (%)</b>
Redness of eyes	4 (4.21%)
Night blindness	1(1.05%)
Discharge From Ear	9 (9.47%)
Hard of hearing	2 (2.10%)
ARI	21 (22.1%)
Fever	11(11.57%)
Headache	12 (12.63%)
Rashes on skin	15 (15.78%)
Scabies	22 (23.15%)
Ring worm infestation	19 (20%)
Diarrhoeal disease	17 (17.19%)
Wounds	14 (14.73%)
Chill blain	13 (13.68%)
Oral hygiene	
<b>Present habits</b>	
Substance abuse (Yes)	54 (43.9%)
<b>Type of substance abuse ** (n=54)</b>	
Smoking	14 (25.92%)
Tobacco and gutkha	48 (88.88%)
Alcohol	10 (18.51%)
Sniff glue and dent ride	1 (1.85%)

\*\* Multiple responses

Regarding health pattern, prevalence of health problems faced in past was found in 79(64.22%). BMI showed 60(48.78%) were under weight. The association of sex and BMI was non-significant. Among 79 respondents with health problems, skin infection 43(54.43%), ARI 40(50.06%) and diarrhea 30(37.97%) were top 3 past health problems. Likewise, scabies 22(23.15%), ARI 21(22.1%) and ring worm infestation 19 (20%) were top 3 present health problems. Among all children, 54(43.9%) had habit of substance abuse where 48(88.88%) had habit to tobacco and gutkha, smoking 14(25.92%) and alcohol 10(18.51%). (Table 2)

Factors for existing health problems revealed majority 50(40.66%) did 10-11 hours' work. 95(77.2%) didn't take any holidays. 73(59.3%) slept for 9-10 hours. 43(34.95%) shared common bed while sleeping. Hand washing by soap and water is done by 74 (60.16%). 51 (41.50%) of respondents

took bath daily. 41 (33.30%) brush their teeth twice a week. (Table 3)

**Table 3. Factors for existing health status (Major only) (N=123)**

	TF (%)	
<b>Working hours</b>		
10 – 11 hours	50(40.66%)	
<b>Holidays</b>		
No holidays	95 (77.2%)	
<b>Food habit</b>		
<b>Sleeping hours</b>		
9-10 hours	73(59.3%)	
<b>Sleeping place</b>		
Common bed	43 (34.95%)	
<b>Personal hygiene maintenance habits</b>		
Hand washing habit with soap and water (Yes)	74 (60.16%)	
<b>Frequency</b>	<b>Bathing</b>	<b>Brushing</b>
Daily	51 (41.50%)	24 (19.50%)
Twice a week	13 (10.60%)	41 (33.30%)
Weekly	19 (15.40%)	37 (30.10%)
Occasionally	29 (23.60%)	21 (17.10%)
No	11 (8.90%)	0 (0%)

**Table 4: Association between health problems and factors affecting health problems**

	X <sup>2</sup>	p value	df
Food habit & diarrhoea	19.35	<0.5	3
Sleeping place & skin infection	5.32	>0.5	4
Brushing habit & oral health status	15.15	<0.5	4
Working hours & presence of health problems	17.04	<0.5	2

Association regarding factor for existing health status and presence of health problems revealed there was statistically significant association between type of food intake & diarrhoea ( $x^2=19.35$ ,  $p<0.5$ ) and brushing habit & oral health status ( $x^2=15.15$ ,  $p<0.5$ ), sleeping place & skin infection ( $x^2=5.32$ ,  $p>0.5$ ). But there was no statistically significant association between sleeping place & skin infection.

**DISCUSSION**

Health problems among labored children is a major issue on child health that may hampered their healthy adulthood.

Present study revealed more than fourth fifth 83.73% were 12-14 years and were male 85.36% with mean age & SD of 12.8±1.3. Similar result i.e. 76% of 12 to 16 years of age child laborer in Brick Kilns was

reported by a National survey conducted by CONCERN-Nepal 2005. (5) This might be due to during this age children will be able to do hard physical work. Our study showed nearly 13 % migrated from other districts and from other countries i.e. India. High result was revealed in a study by Kaphle M. (2006) conducted on domestic child labor in Kathmandu city of Nepal where 65.3% migrated from other district and no one emigrated from India. (6) This might be because the study area of this study lies at boarder of India and Kathmandu is a capital city that with holds more migrants from rest districts in search for opportunities.

Health pattern among child laborer in this study nearly half 48.78% were found under weight. Association of BMI and sex was non-significant ( $p>0.05$ ). Prevalence of health problem was found more than three fourth i.e. 64.22%. Among 79 respondents with health problems, skin infection 54.43%, ARI 50.06% and diarrhea 37.97% were top 3 past health problems. Likewise, scabies 23.15% ARI 22.1% and ring worm infestation 20% were top 3 present health problems. A similar study done by Deka H. (2008) in a community based cross sectional study among children of age group of 5-15 years reported major health problems were skin diseases 55.96%, RTI 47.65%, worm infestation 45.08%, anemia 43.01% GIT infection 40.01% pediculosis 32.64%, dental caries 23.83%. (4) Another study by Khan (2000) done in Dhaka, Bangladesh reported prevalence of influenza 35%, dysentery 8%, skin disease 0.8% and others 20% which includes injury, headache, hepatitis (jaundice) and chest pain. Likewise, in a study by NN Ambadekar, genital development was observed to be delayed significantly in male child laborers. (7) This shows there is high prevalent and chances for the working child to get infectious and communicable diseases and health problems.

This study disclosed poor habit of maintain personal hygiene. Brushing wasn't done daily rather majority one third did brush twice a week. Almost half 47.96% were having normal oral health, 43.08% were having dirty and unhygienic oral health, 31.70% were having plaque and calculus and 17% were having dental caries due to poor behavior of hygiene maintenance. Two fifth 40.66% did prolong working hour of 10-11 hours' work. 34.95% shared common bed while sleeping.

Association regarding factor for existing health status and presence of health problems revealed there was

statistically significant association between type of food intake & diarrhoea ( $\chi^2=19.35$ ,  $p<0.5$ ) and brushing habit & oral health status ( $\chi^2=15.15$ ,  $p<0.5$ ), sleeping place & skin infection ( $\chi^2=5.32$ ,  $p>0.5$ ). But there was no statistically significant association between sleeping place & skin infection.

From the focus group discussion, the child laborers working in construction and foot wear industries said that they suffered many times from wound, injuries, skin infections like scabies & ring worm etc. They had to sleep on common room on the floor of the working place, some said that they used to sleep on the table on single bed sheet.

### CONCLUSION

Prevalence of health problems was found high. Child laborers were mostly 12-14 years of age group and were male. Most of them were restaurants worker. Skin infection, ARI and diarrhea were top three health problems. Long working hours, uncomfortable & poor food habit, poor habit on maintaining on personal hygiene were factor for existing health problems. It is recommended to concern and implement government and non-governments health policy and programs on these vulnerable group in sector of nutrition, sanitation, immunization, free treatments facilities, basic need in order to improve to health status of working children. But our foremost activity is to stop child labor.

### AUTHOR STATEMENTS

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### REFERENCES

1. (ILO) ILO. Global estimates and trends 2000-2012, Marking progress against child labour. 23 September 2013.
2. Ashagrie K. Statistics on child labor and hazardous child labor in brief. ILO, Geneva. 1998.
3. Dennis MJ. The ILO Convention on the worst forms of child labor. The American Journal of International Law. 1999;93(4):943-8.
4. Deka H. A major health problems of the child labourers in the non organized sector of urban Dibrugarh. National inference Indian public health association Delhi India. 2008.
5. CONCERN-Nepal. A National survey of child labour in Brick Kilns in Nepal. July 22, 2005.

6. Kaphle M. Study on the background characteristics and problems faced by the domestic child workers in Katmandu metropolitan city. An unpublished thesis submitted to FHMS, AAI-DU Allahabad 2006.

7. Ambadekar NN. Effect of child labour on growth of children. The Society of Public Health Published by Elsevier Ltd. 1999;113(6):303-6.