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HEALTH ISSUES AND WELLBEING;
WORKING CHILDREN IN CARPET INDUSTRY IN PUNJAB, PAKISTAN

Farkhanda Anjum[1], Muhammad Iqbal Zafar[2], Ashfaq Ahmad Maann[3], Munir Ahmad[4]

1. Department of Rural Sociology, Faculty of Social Sciences, University of Agriculture, Faisalabad, Pakistan
2. Department of Rural Sociology, Faculty of Social Sciences, University of Agriculture, Faisalabad, Pakistan
3. Department of Rural Sociology, Faculty of Social Sciences, University of Agriculture, Faisalabad, Pakistan
4. Institute of Agri. Extension and Rural Development, University of Agriculture, Faisalabad, Pakistan

Correspondence Address:

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ABSTRACT… Children are perceived as the future of any country. With this in mind, child labor does nothing but destroy the future of the children. Carpet weaving is destructivefor children because children often sit in odd positions for extensive hours, inhaling dust and working in inadequate lighting situations, all these aspects are hazardous to the wellbeing of children. Child carpet weavers have to face occupational damages and diseases. **Objective:** To identify the factors contributing to child labor and effects of work-related health issues on the wellbeing of carpet weavers. **Study Design:** Cross sectional survey. **Setting:** Punjab province. **Meterial & Method:** A sample of 320 carpet child workers of age group 8-17 years was interviewed. A well-structured questionnaire was constructed to collect the data. The SPSS/PC + 20.0 Statistical Package for Social Sciences were used for analyzing the data. **Results:** The study found that majority of the respondents was facing the problem of body aches, backbone problem, eye strain and general exhaustion and cuts and wounds. The significant relationship was observed between work-related illness (type of illness) and the personal wellbeing of carpet working children. It was strongly suggested that comprehensive strategy consisting of macro as well as micro policies is to be commenced to control, reduce and eradicate. The ill effects related to carpet weaving. The participation of children in carpet weaving industry should be stopped or at least immunizad present. **Conclusion:** The carpet workers immediately need concentrated efforts not only to solve their work-related issues, but also to make them productive adult in their own wellbeing as well as in the welfares of society.

Key Words: Work-related factors, wellbeing of working children, Carpet industry

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INTRODUCTION

Child labour as a universal problem exists in many states of world. Although its intensity varies from nation to nation, however its extent and consequences are quite shocking, mainly in the under developed nations of Asia, Africa and Latin America. The severest facet of this issue is of unawareness about the harmful effects on the working children. Child labor impedes the natural physical and psychological development of children. Children in their developing process can eternally disable the bodies when these children are enforced to adopt odd positions at work place for excessive hours. Children cannot resist diseases and hurt more readily from different hazards than adults. There are three main hazards in child labor categorized by UNICEF, namely i- Physical; ii- cognitive; iii- social and moral. So the division between child work and child labour determined by child's age, working environments, interfering with education, kind of work and number of hours completed by children.[24]

UNICEF delineates the weaving as hurtful and destructive for children; Children often sit in odd positions for extensive hours, inhaling dust, working in inadequate lighting situations and with chemical colors, all these aspects hazardous to the wellbeing of children. The working children similarly developed backbone abnormalities. Child carpet weavers have to face occupational damages and diseases, such as wounds due to dangerous tools, respiratory infections, and headaches. Their education also stopped due to work. As the length of carpet rises, the workers

must bend over to accomplish the task and they also face the problem of sleeplessness which affects not only their physical health but also social and psychological activities as Anjum (2014)[2] explored that sleep deprivation of medical students is a major risk to their health and performance. Researches revealed that weaving of the carpets is harmful for the physical health of weavers, predominantly for children because they are inclined to advance skeletal complications owing to odd sitting position and blindness[17]. The problems of backache, head-ache, obscuring of sight, stomach pain, and lung toxicities were more dominant in children working in carpet industry.[19] Other research studies have determined that continuous cough, backache, joint pains and colds, were most common health problems among adult workers in carpet weaving.[9]

The ICF international (2012) projected that in carpet industry of Pakistan there are engaged almost 646 manufacturing units and approximately 39,366 households, involving a total labor force of around 105,915 workers whereas 31.5 % of that workers were children. The frequency and incidence of child labor and the magnitude of the carpet industry was much small as compared to previous estimates. Majority i.e.96.3 % of the working children involved in carpet industry was at work in households and is living with family. About 54 % of the carpet children were girls, but in factories working children were mostly (78 percent) boys. The study explored that all working children in carpet manufacturing in Pakistan were involved in dangerous work. The school attendance rate and literacy levels of child carpet workers in Pakistan were very low and their capability and the well-being were also low. Female child weavers, working in carpet manufacturing in Pakistan were 53.6%. Working children in the carpet sector in Pakistan are engaged in hazardous work. In addition, the data indicated that majority i.e 81.1 percent of the children worked for long hours. There were strong signs that many carpet weaving children and their families were in bonded labor, as one-fifth of the households were indebted, and two-thirds of the households conveyed that they having difficulties to repaying their debts.[14]

All Child labor is not the same with the same anticipated health effects; every type of action presents different risks. There are very limited literatures on definite types of work which has been considered potential hazardous occupations. There are evidences of the larger impact of work-related exposures on children's health when compared to adults, and the theoretical concerns about the impact of child work on health. Some dangerous work activities may reveal threshold effects and such type of health effects are apparent only after a specific number of working hours[18].The evidence of a research study in Lebanon showed that nine self-reported health grievances were compared with control group; three verified statistically significant, specifying worse health of working children.[22] In a study of wellbeing and disease screening between 500 child carpet weavers and 450 schools going children the results exposed that the calculated heights and weights of school attending children were better than child carpet weavers. Equally all children in these two groups were monitored for six months. The frequency of personal and impartial abnormalities from health was higher in carpet weavers than in other children and major health issues in the child carpet workers were headache, respiratory tract infection, backache, joint pains, and pain in the abdomen, diarrhea, fever and chilblains.[19]

The purpose of the present study was to identify the factors contributing to child labor and effects of work-related issues on the wellbeing of carpet weavers.

OBJECTIVES

- To identify the work-related health hazards to children in the carpet weaving industry.
- To investigate the relationship between issues of working children and their wellbeing.

CONCEPTUAL FRAMEWORK

A Conceptual framework is a group of defined and organized concepts systematically to provide awareness, rationality, and an instrument for

the integration and description of information. A conceptual framework is a graphic or written product that "clarifies, either graphically or in written form, the central things to be considered the main factors, ideas and the supposed relationships between them[12]".This study aims to explore the impact of carpet weaving issues on the wellbeing of the working children in the context of socio-economic situations of household in Pakistan. The conceptual framework as presented in Fig. 1 that indicates that the independent variables i.e. work-related illness and injuries directly influence the dependent variable i.e. Personal wellbeing of working children in carpet weaving which is measured by the personal wellbeing index scale consisting on seven life domains like Living standard, health, Achievements, personal relationship, Personal security, community retaliations and Future security. As in the figure it is reflected that background variables directly and indirectly affect the personal wellbeing.

Predictor Variables	Dependent Variable
• Work-related illness • Work-related injuries	Wellbeing of working Child
Background Variables	
Age, Education (Respondents and Parents), Family occupation, Income (respondents and Parents), Family Structure.	

Figure1: Relationship between Work-related Illness and Injuries and Wellbeing of working children in carpet weaving

MATERIAL AND METHODS

A cross-sectional survey was conducted in three districts of Punjab province; Faisalabad, Toba Tek Singh, Sheikhupurato investigate the issues of child carpet weavers and its effects on their wellbeing. From each district the respondents were selected proportionally from the given population of carpet weavers (AKIDA, 2001)[1]. All the carpet weavers of 8-17 years of age from both sexes working in urban as well rural areas were considered the 'population' of the study. However, a rough estimates indicated by different NGOs like Akida and ILO regarding child carpet weavers has been utilized as a source of selection of study area and sample.[1,14] Therefore, three districts i.e Faisalabad, Sheikhupura and Toba Tek Singh were selected through simple random sampling technique from a list of districts of central Punjab that was selected purposively on the basis on information regarding the number of child carpet workers collected in a child labor survey by AKIDA. According to this report about 70 percent child carpet weavers were in the central Punjab.[1] At the second stage Tehsils and urban and rural localities regarding the selected sample from each district were also selected where a sizeable number of child carpet weavers were concentrated as documented in the report.[1] A sample of 320 carpet weavers children of age group 08–17 years old were selected randomly from each village and locality by using the list of carpet weaving households with the help of local contractors.

RESULTS AND DISCUSSION

Work-related ailment

Carpet weaving is one of the most tedious professions, requiring long hours of static work. It can be a high risk occupation for developing musculoskeletal and nerve injury, such as carpal tunnel syndrome.[17] The working posture and weaving workstations are poorly designed that expose the weavers to various types of musculoskeletal disorders. Workstation improvement will reduce the postural stress on weaver's bodies and consequently, the prevalence of musculoskeletal problems.[7]

Last Sickness	Frequency	Percent
Never	46	14.4
In the past 7 days	41	12.8
In the past 1 month	142	44.4
In the past 12 months	65	20.3
Longer ago	26	8.1
Total	320	100.0

Table-I: Distribution of respondents regardingtheirlast sickness.

Table-I depicts that 14.4% respondents responded that they were never sick, 12.8% respondents were sick from last 7 days, 44.4% respondents during last one month, 20.3% respondents in the past 12 months and 8.1% respondents a long ago.

Type of illness	Often	Sometimes	Never	Mean	S.D.
Fever, Cold etc.	28.13	54.69	17.19	1.89	.665
Skin Diseases	3.13	21.56	75.31	2.72	.514
Body Aches / pain (head, back, Muscles, joints and hand)	34.06	28.75	37.19	2.03	.845
Eye strain / eye sight	30.94	33.13	35.94	2.05	.818
Breathing problems (e.g.asthma,TB pneumonia)	32.94	26.88	40.19	2.21	.830
Diarrhea/ constipation	27.19	17.50	55.31	2.28	.865
Malaria	2.00	3.44	93.56	2.97	.182
Typhoid fever	4.31	4.69	91.00	2.95	.238
General Exhaustion	24.69	35.31	40.00	2.15	.791

Table-II: Distribution of respondents regarding the type of illnesses.

Types of ailment

Carpet weaving activities are hazardous and dangerous, and carried out in unconducive environment that have adverse effects on children health and growth. The present study used the method of self-reporting regarding their illness and health status. The data displayed in table 2 presents the information regarding the types of illness the respondents suffered due to work and other deficiencies. The results show that the common diseases among the respondents were fever, body aches, eye strain and breathing problems. About 28.13% respondents suffered from fever and cold often, 54.69% respondents sometime, while 17.19% respondents reported that they never suffered. The cases of skin diseases was observed very few as it is evident that only 3.13% and 21.56% reported often and sometime respectively about the of skin irritation. The next health problem explored in this study was body aches (head, back, joints and muscles disorders); according to the data the major proportion of the respondents were lying in two categories 'often' and sometimes by having percentage of 34.06% and 28.75% respectively. The more significant aches among respondents according to observation were backache, muscular stress due to sitting in awkward position. Evidences further showed that the most likely cause of rhinitis in the carpet weaving children is the exposure to wool dust during work and also during their daily life as most families' use the same rooms are living quarters and workplace. The incidence of rhinitis increases markedly amongst the girls of higher age groups. The results of another study also revealed that carpet weaving children are highly likely to suffer from muscular-skeletal disorder.[5]

Similarly almost more than half of the respondents (64 %) told that they have eye strain problem due to long time eye concentration on very thick and complicated designs. Regarding breathing problems (e.g. cough asthma, TB pneumonia) about more than half of the respondents are lying in two categories 'often' as well as sometimes having the percentages 32.94% and 26.8% respectively. So it can be inferred that due to the wool dust children were facing some kind of breathing problem but some cases were seen as a victim of chronic asthma. Cough and breathing difficulty were some specific reported respirational symptoms in child workers, while work-related asthma.[23] Further, table shows that general exhaustion was also a common problem among respondents due to excessive working. Numerous research studies have identified the health problems of children involved in hazardous activities.[20,5,22] In another empirical study on health implications of working children the same results were found that due to tough tasks done by children, frequently many of them were sick but cannot afford to get the expensive medical treatment.[16] The evidence depicted that there is a contemporaneous inverse U-shaped relationship between child labor and child health in rural Cambodia.[12]

Work-related injuries

Time of last injury	Frequency	Percent
In the past 7 days	75	23.4
In the past 1 month	152	47.5
In the past 12 months	36	11.3
Longer ago	49	15.3
Not injured	8	2.5
Total	320	100.0

Table-III: Distribution of respondents regarding the time of their last injury.

The history of injuries during working life of children was also explored in this study and the results presented in table 3 show that there were about 23.4% respondents who reported their injury in the past 7 days, 47.5% respondents who said that they injured in the past one month, 11.3% respondents in the past 12 months while 15.3% respondents informed a long ago and only 2.5% respondents had not injury throughout their weaving.

Work-related injuries	Often	Some-times	Never	Mean	S.D.
Injury or swelling in hands	4.06	22.19	73.75	2.70	.542
Injury to abdomen	2.30	2.50	95.19	2.97	.191
Injury to knees or legs	2.00	8.75	89.25	2.91	.283
Twisted ankle or legs	2.81	10.00	87.19	2.84	.434
Injury to feet or legs	1.56	5.00	93.44	2.92	.326
Cuts/wounds	41.25	50.63	8.13	1.67	.621

Table-IV: Distribution of respondents regarding work-related injuries in the last 12 months (most recent injury)

The research reveals that the incidents of injuries to the soft muscle, wrists, average nerve, cuts and wounds are common between hand-knotted carpet weaver.[6,3] Above 90 percent of the working children complained of respiratory infections and severe joint's problems. Children also reported skin diseases due to continuous contact with wool including scabies and respirational ailments. All child carpet weavers were asked about any injury they had faced continuously during their work. The data indicate that as far the injury or swelling in hands is concerned there were more than one fourth of the respondents who were laying in the categories of 'often' and sometimes having the percentages 4.06% and 22.1% respectively. Similarly, there were about ten (2.00 and 8.75%) percent respondents who reported injury to the knees/legs and the mean was 2.91. According to information in the table there were also signs of twisted ankles and legs as 2.81% respondents said they had faced this problem often while 10.00% respondents sometime. It is evident that there are chances of feet and legs injury during the work as more than 5.00 % respondents were facing it.

The data given in table-IV reflect that the work-related cuts/wounds was the major health problem of majority carpet weaving children as more than 90 % (41.25% and 50.63%) respondents were laying in the categories of 'often' and sometime. Similarly, the result presented in this table gives a reflection of the results of Awan (2010)[4] in which he concluded that physical examination shows that carpet weaving child worker had a great incidence of signs of severe injury, musculoskeletal defects, and nasal sensitivities. Similar results were also found by WVC (2007)[24] that minor cuts were common form of injuries practiced frequently by laborers in brick factories and main reason of these cuts was bricks while loading and carrying them. Likewise, the results of a study reflects that causes of injury among patients were road side accident 23.2%, falls 36.04%,manufacturing hand injuries 13.95% and farm injuries 26.74%.[8]

Who arrange treatment	Frequency	Percent
Parents	195	60.9
Yourself	88	27.5
Contractor/employer	13	4.1
None	24	7.5
Total	320	100.0

Table-V: Distribution of respondents regarding the treatment.

In order to investigate about the treatment of illness and any type of injury during work, it was asked from respondents that who arrange treatment. The data presented in Table-V reveal that more than half of the (60.9%) respondents' parents had arranged treatment in case of any health issue, 27.5% respondents had arranged themselves and 4.1% respondents said contractors/employers arranged treatment while on the other hand 7.5 % respondent were not getting any treatment.

Work-related illness	Personal well being		Total
	Dissatisfied	Satisfied	
Often	20	8	28
	71.4%	28.6%	100.0%
Sometimes	167	26	193
	86.5%	13.5%	100.0%
Never	53	46	99
	53.5%	46.5%	100.0%
Total	240	80	320
	75.0%	25.0%	100.0%

Table-VI: Association between work-related illness of the respondents and their personal well being

*Chi-square = 38.19 (P-value = .000**)*
*** =Highly Significant*
*Gamma = -.488 (P-value = .000**)*
*** = Highly Significant*

Association between work-related illness and personal wellbeing

The healthy growth of children is very important to the imminent well-being of any society. Children's well- being depends on activities that could jeopardize the child's health such as illnesses, malnourishment, work and poverty that endangered the future of children and on other hand the nation as a whole. One of the major problems faced by carpet weaving children was health problems that are completely and significantly affecting the wellbeing of working children. The information presented in Table 6 indicates that there was a strong association between type of illness of the respondents and their personal wellbeing. It can be seen from the table 6 that if the respondents were suffering often and sometime illness, then majority i.e. 71.4 and 86.5 percent of them were dissatisfied, respectively. Whereas if the respondents never faced any type of illness then 46.5 percent of the respondents were satisfied with their personal well beings. Therefore it is reflected from the information presented in the table that the children who were facing frequently the work-related illness their personal wellbeing was lower. In another empirical study Euro found (2012)[10] found that there was an increase in average incidence of reported backache and muscular pains among respondents when individual well-being was lower, confirming the significance of controlling for this possible source of reverse causality. Further, the results of present study were supported by Izzet and Őzener (2005)[15], Turkey: Adolescents in an apprenticeship program were compared with the children attending school as a control group of the equal socioeconomic status. The working teenagers had lesser weight and height, though nutritious differences were actually the explanatory cause.

Type of injuries	Personal well being		Total
	Dissatisfied	Satisfied	
Often	5	2	7
	71.4%	28.6%	100.0%
Sometimes	53	18	71
	74.6%	25.4%	100.0%
Never	182	60	242
	75.2%	24.8%	100.0%
Total	240	80	320
	75.0%	25.0%	100.0%

Table-VII: Association between work-related injuries of the respondents and their personal well being

*Chi-square = .058 (P-value = .972**)*
*** = Highly Significant*
Gamma = -.024 (P-value = .870^{NS})
NS = Non Significant

The 1996 Child Labor Survey collected information on hazards affecting children in different industries, and the carpet industry had the highest prevalence of illness and injuries for children. The surrounded environment of the sheds was a respiratory health hazard. Almost all child carpet workers experienced cutting themselves, especially their fingers, while using sharp instruments and no medical help was available in case of emergency.[21] It is evident from the information presented in Table-VII that there is no association between work-related injuries of the respondents and their personal wellbeing. The respondents were asked to answer about type of injuries and categorized as often, sometimes and never In order to examine the significance of the relationship Chi-square and Gamma tests are applied. The value of chi-square (.058) non-significant at 5% level of significance indicates the no relationship between type of injuries and personal well-being of the respondents. The negative value of Gamma .024 also shows a week relationship between the variables.

CONCLUSION

Based on empirical and comprehensive investigations of wellbeing of carpet workers, it can be concluded that it is a complex deep-rooted problem and long lasting and it is mainly explained in the socio-economic context. The study reveals that children involved in carpet weaving were working for long hours. Work-related illness and injuries considered as major long lasting implications or hazards which the carpet weaving children have been facing. The research findings indicate the same phenomena. The major health issues and injuries among the carpet weavers were fever, eye strain, breathing problems or asthma, diarrhea, muscular stress, joint pains, cuts and swelling in hands. Low personal wellbeing was observed among the working children who had practiced illness and injuries during work. Therefore, it has become a severe problem and threating not only the physical and a mental health of these children but also damaging their future by interfering education. It is the need of time that all stakeholders including government should focus this issue. The carpet workers immediately need concentrated efforts not only to solve their work-related issues, but also to make them productive adult in their own wellbeing as well as in the welfares of society.

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"The great aim of education is not knowledge but action."

Herbert Spencer

AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Farkhanda Anjum[1],		
2	Muhammad Iqbal Zafar[2],		
3	Ashfaq Ahmad Maann[3],		
4	Munir Ahmad[4]		