

“Physical and Psychological Hazards Faced by Child Labour in the Brick Kilns of Khejuri Blocks of Purba Medinipur District in West Bengal”-An Assessment.

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ABSTRACT: *Child labour is a worldwide phenomenon but more focus is required on developing countries. Over 170 million children worldwide still work in order to sustain their basic needs. About 22000 working children die due to occupational hazards every year, as per International Labour Organization (ILO) estimates. Indian population has more than 17.5 million working children in different industries (Child Labour in India 1994; Tiwari 2005), and maximum are in agricultural sector, leather industry, mining and match making industries etc. In this sense, about 3 lakh is in construction sector with brick manufacturing and only in brick kilns; number is 84972(2001).The relationships between child labour in the brick fields and their health are complex. They can be direct and indirect, static and dynamic, positive and negative, causal and spurious. There is epidemiological evidence of the great impact of some occupational exposures on child health there. Adverse environmental health conditions of the fields affect children more as these have negative effects not only on health but also on the development. Kiln’s Children are more prone to and more at risk because of rapid skeletal growth, organ and tissues development, greater risk of hearing loss, greater need for food and rest, higher chemical absorption rates, smaller size and lower heat tolerance due to their physiological and immunological countenance; some additional factors also contribute to this. Documented reports show the impact on health viz. poverty related (e.g. Malnutrition, fatigue, anemia etc), psychological effects and distress of child labour, occupational cancers, neurotoxicity, injuries, exposures to adverse physical factors, skin ailments etc. A multi-disciplinary approach involving specialists from medical, toxicological, environmental, psychological and socio-anthropological fields may produce integral information and, approach on various aspects of child development to prepare a better policy for child labour in the brick kilns. Although, India has the highest number of child workers, but unfortunately, there is hardly any research done or policies framed for their occupational safety and health. Hence there is an urgent need for intensive focus and research along with political and practical decisions to improve the conditions of working children in the brick kilns for the betterment of their health and development. The gravity of this situation led my initiative to study on child labour in brick field in the work area in Khejuri CD Blocks under Purba Medinipur district in West Bengal. This study uses data to examine the different components of child labor in brick field. Study used quantitative method for data collection and particularly survey was used. A total of 301 respondents of five brick fields in Khejuri CD Blocks have been interviewed. SPSS windows program is used to process and organize the data for the study.*

Key Words:- *Child labour, occupational hazards, brick manufacturing, child development and occupational safety and health.*

I. INTRODUCTION

“There can be no keener revelation of a society’s soul than the way in which it treats its children.”

-Nelson Mandela

“Children are the greatest gift to the humanity and they are the representation of the beautiful creation of God”. They are the most tender, gentle and fragile one and needs to be handled and protected with immense care and delicacy. The welfare of the entire community, its growth and development depends on the health, strength and well being of its children. The prosperity and development of any country would certainly depend upon ‘human development’ or the well being of its people in general and children in particular, than the development of their military or economic strength or the splendour of their capital cities and public buildings. **Child is** the person under the age of 18 and **Child labour**, the term “child labour” is often defined as work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development. It refers to work that:

- i. is mentally, physically, socially or morally dangerous and harmful to children; and
- ii. interferes with their schooling by: depriving them of the opportunity to attend school;
- iii. obliging them to leave school prematurely; or
- iv. requiring them to attempt to combine school attendance with excessively long and heavy work.

Child worker, the word “Child workers” means any person within the age group of 11 to 17 works in the Brick kilns. **Hazardous Child Labour** is the worst forms of child labour which comprises: (a) all forms of slavery or practices similar to slavery, such as the sale and trafficking of, debt bondage and serfdom and forced or compulsory labour, including forced or compulsory recruitment of children for use in armed conflict; (b) The use, procuring or offering of a child for prostitution, for the production of pornography or for pornographic performances; (c) The use, procuring or offering of a child for illicit activities, in particular for the production and trafficking of drugs as defined in the relevant international treaties; (d) Work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children.

Social norms and economic realities signify that child labor is widely conventional and very familiar in India. Many families rely on the income generated by their children for survival, so child labor is often highly valued. Additionally, employers often prefer to make use of children because they are cheaper and considered to be more compliant and obedient than adults. When children are forced to work, they are often denied their rights to education, leisure and play. Of an estimated 215 child laborers around the globe: approximately 114 million (53%) are in Asia and the Pacific; 14 million (7%) live in Latin America; and 65 million (30%) live in sub-Saharan Africa. Global number of children in child labour has declined by one third since 2000, from 246 million to 168 million children. More than half of them, 85 million, are in hazardous work (down from 171 million in 2000). Asia and the Pacific still has the largest numbers (almost 78 million or 9.3% of child population), but Sub-Saharan Africa continues to be the region with the highest incidence of child labour (59 million, over 21%). There are 13 million (8.8%) of children in child labour in Latin America and the Caribbean and in the Middle East and North Africa there are 9.2 million (8.4%). Agriculture remains by far the most important sector where child labourers can be found (98 million, or 59%), but the problems are not negligible in services (54 million) and industry (12 million) – mostly in the informal economy. Child labour among girls fell by 40% since 2000, compared to 25% for boys. Child labour in India is addressed by the Child Labour Act 1986 and National Child Labour project. Today in India, there are more than 10.12 million children who are spending their childhood learning carpet-weaving, beedi-rolling, domestic labour, agriculture, firework and apparel manufacture and countless other occupations instead of going to school and receiving quality education. In this sense, about 3 lakh is in construction sector with brick manufacturing and only in brick kilns, number is 84972(2001). The gravity of this situation led my initiative to study on child labour in brick field in the work area in Khejuri CD Blocks under Purba Medinipur district in West Bengal. Whereas, the aim of this study is to provide the information needed to inform policy and practical interventions that will (a) protect the health and safety of adolescent workers and (b) enable the removal of younger children (below age 17) from exploitation in the brick kilns.

II. ABOUT THE STUDY AREA

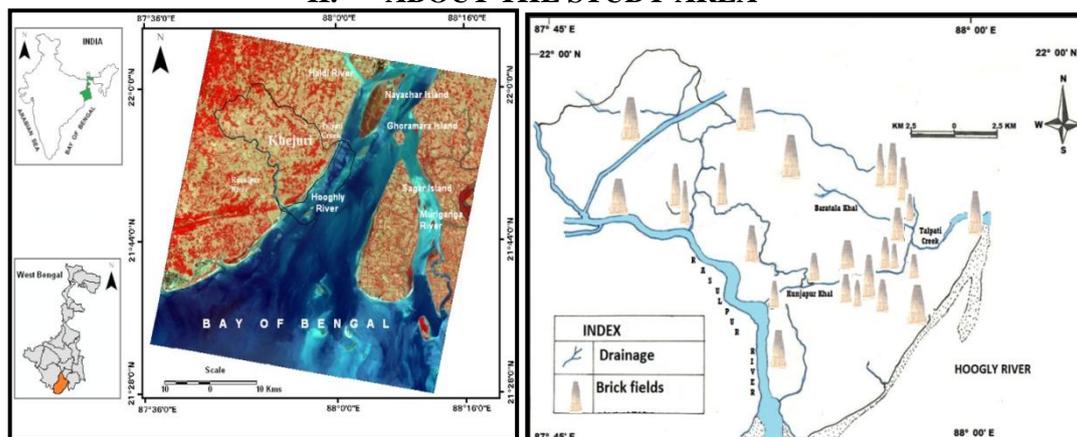


Figure-1 & 2: Location Map of the Study Area & Distribution of Brick Fields (Satellite/Sensor:-Landsat -5,TM, Date:-February 6,2010, No. Of Bands:-7, Spatial Resolution:-30m, Path/Row:-139/45)

The territory of Khejuri Block came into existence as a consequence of coalescence of twin sister islands- ‘Kedegree’ and ‘Hijili’ which emerged as small riverine islands along the western bank of Hugli estuary. Since then the area has undergone not only various morphological and environmental changes throughout its geological history but also witnessed social, political and economic transformations under the Mughal, Pathan, Portuguese and British rules. Its early importance as a trade centre faded out with gradual decline of the native port of Khejuri in response to estuarine morphodynamic modifications. All such transformations have brought about alterations in livelihoods of the local people and economy of the area under

consideration. In recent years, brick manufacturing has come up as an emerging economy in a big way that provides livelihood to a considerable proportion of the local population and has become third largest contributor (after agriculture and fish farming) to the local economy. It has grown in fabulous manner in Khejuri Block particularly during the last decade. More than 70% of the existing brick fields have been developed between 2005 and 2011 along the banks of rivers (Hijili and Rasulpur), tidal channels and canals or beside the roads having agricultural lands mainly.

III. OBJECTIVES OF THE STUDY

The main objective of the study is to determine hazards, risk reduction measures, and health impacts of child labour in the brick industry in order to guide both national policy & local action in the study area and also Bengal as well as India. Specifically the objectives of study are;

- To know the working environment of the brick kiln
- To identify the hazards & risk associated with each of the task
- To measure the health and nutritional status of the child workers.
- To find out the negative effect of hazardous work on child’s mental health.

Under these objectives, the results of this study may be used to:

- Guide the stakeholders and policy makers to take necessary initiatives to prevent and eliminate child labour from this hazardous sector;
- Sensitize the employers about the risks associated with the work and measures put in place to reduce the risks;
- Sensitize the trade unions to protect health of the children at risk of work in brick kilns.

IV. METHODOLOGY OF THE STUDY

This is a cross sectional study. Both qualitative and quantitative methods have been used to conduct the study. Quantitative methods (sample survey) have been used to know the hazards and health impacts experienced by the children working in brick kilns of Khejuri CD Blocks of West Bengal and qualitative methods (observation) have been used to measure the nature of the working environment and health hazards.

Girls and boys (11-17 years) who worked at least 2 years in the brick kilns were the basic criteria for sample selection. Using purposive sampling; verifying their age, period of work involvement and upholding the study purposes a total of 160 samples have been selected; individual child workers are the unit of analysis in the sample. The respondents totaled 70 working children. Twenty three brick kilns were treated as a single unit for the observational risk assessment component to know about the overall working environment and health hazards encountered by the child worker. Separate structured questionnaires for the child workers, Focus Group Discussion (FGD) and Observation Checklist were used to collect the data. The clinical data were collected (spirometry, hemoglobin, weight, height and temperature test) and recorded both digitally and manually. Face to face interviews, using a pre-tested structured questionnaire, test), was used for collection of quantitative data. The individual child was interviewed for the respective parts of the questionnaire. In cases where the child lives alone at the workplace or had migrated with relatives then the adult parts of the questionnaire were filled up by the child’s close adult workers. Separate structured questionnaires were used for the child workers. Observation method has been used to know the overall activities according to the age group and sex of the working child in the brick kiln and to measure the hazards associated with the work. Data has been entered and cross-checked using Epi-info version 3.5.1 and analysis is performed using SPSS version 20.0 for this study. Frequency table, percentages and contingency tables, different diagrams has been used for descriptive analysis. The formula of incidence rate is used to measure the incidence of various health hazards.

Table-1: Age at Start to Work for Money

Age at Start to Work for Money	Male		Female		Total	
	Frequency	%	Frequency	%	Frequency	%
6-8	20	10.1	5	4.9	25	8.3
9-11	28	14.1	9	8.7	37	12.3
12-14	49	24.7	28	27.2	77	25.6
15-17	101	51.0	61	59.2	162	53.8
Total	198	65.8	103	34.2	301	100

REVIEW OF LITERATURE : Child labour refers to all forms of work undertaken by children below 18 years of age. Child labour is an economic and social issue in developing countries because children are perceived to represent an important source of family total income. Available studies suggest that light work can have positive outcomes for child development because it provides work experience, builds confidence in children, and provides some financial support/means. However, child work is considered acceptable only when it is not hazardous to children's health and psychological development (ILO, 1999)¹. Certain forms of child labour can cause impairment to the physical and mental development of children. Frequently, many children who work usually do not go to school. ILO Convention 182 states that child labour that interferes with children's schooling is considered as the worst forms of child labour (ILO, 1999). ILO Convention 182 calls for the prohibition and elimination of the worst forms of child labour, child labour that violates rights to development of children. According to ILO Convention 182, the worst forms of child labour comprise (a) all forms of slavery or practices similar to slavery, such as the sale and trafficking of children, debt bondage and serfdom and forced or compulsory labour, including forced or compulsory recruitment of children for use in armed conflict; (b) the use, procuring or offering of a child for prostitution, for the production of pornography or for pornographic performances; (c) the use, procuring or offering of a child for illicit activities, in particular for the production and trafficking of drugs as defined in the relevant international treaties; (d) Work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children (ILO, 1999).

As stated in Emerson and Knabb (2007), there has recently been renewed interest in this topic among economists, which has led to a series of theoretical studies with the aim of better understanding the causes and consequences of child labor and to help guide appropriate policy responses. At least six publications focus on South Asia, addressing (i) the linkage between child labor and trade (Sharma, 2007). (ii) Child labor and child abuse (Bhattacharya, 2007), (iii) domestic and international initiatives to reduce child labor (Castle, Chaudhri and Nyland, 2002), and (iv) the linkages between child labor and educational issues (Kabeer, 2001; Kabeer, Nambissan and Subrahmanian, 2002; and Ray, 2001).

The most relevant for this study is that of Kabeer (2001), who explores the geographical, economic and social dimensions of the twin problems of child labor and poor educational outcomes in India and Bangladesh. She comes to the conclusion that poverty is not necessarily barrier to accessing educational services and that there is a need to draw out the lessons from the efforts of the few educational planners who have (i) understood the patterns of disadvantage caused by caste, gender, ethnicity and livelihood insecurity and (ii) started delivering educational services geared to the needs of the marginalized.

Hazardous conditions of child labour, coupled with the immaturity of children, increase the risk of work injuries and illnesses among child workers. Two forms of health hazards include work-related accidents and illness/disease. Common injuries are cuts, wounds and punctures. Other serious but less frequent injuries include burns, fractures or sprains, loss of body parts, contusions, bruises, haemorrhoids and abrasions. A study by Pinder (2000)¹¹ on work injuries among child brick factory workers reveals that the levels of musculoskeletal trouble found in the wrists or hands and the lower back of brick packers were far greater than the levels reported by other groups of working children. Furthermore, the negative impact of child labour on child health can have worrisome consequences on the mental development of children. Negative psychological aspects include decreased school performance, decreased participation in extracurricular and social activities, increased use of alcohol, and a consistent pattern of inadequate sleep (NIOSH, 1997)¹². As aforementioned, quitting school is one pervasive consequence of early participation of children in child labour. It is noteworthy that studies on the impact of child labour on child development are difficult and the findings are mostly inconclusive because of the dynamic of the child health and the absence of the comparison groups and the complexity of the relationship among these phenomena (O'Donnell, Van Doorslaer, and Rosati, 2002)¹³. Some children are more vulnerable than others even without working. In addition, studies, such as that of WVC (2006), are based on a relatively small sample size that may yield results with varying reliability.

The above review shows that children are engaged in child labour for a variety of reasons, ranging from the need to work for survival to the exploitation and abuse of children, and the impact of early child labour can be devastating on all aspects of child development. Thus, attempts to eliminate the worst forms of child labour have to be in line with the elimination of the etiological roots of child involvement in child labour. In other words, understanding the causes of child labour can help develop workable strategies for campaign and activities against the worst forms of child labour.

V. RESULT ANALYSIS:

☉**Occupational health hazards:** Due to lack of proper monitoring, brickfields have sprung up like mushrooms and the situation has created a serious threat to environment and biodiversity while the people in the neighboring areas face health hazards and fertility of farms is going down. Villagers living near the brickfields, especially children and elderly people are often affected with various diseases including bronchitis and asthma due to environmental pollution.

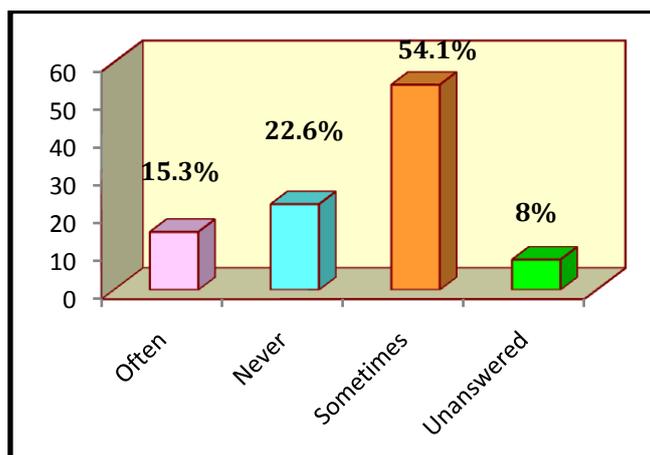


Figure-3: Experienced fatigue

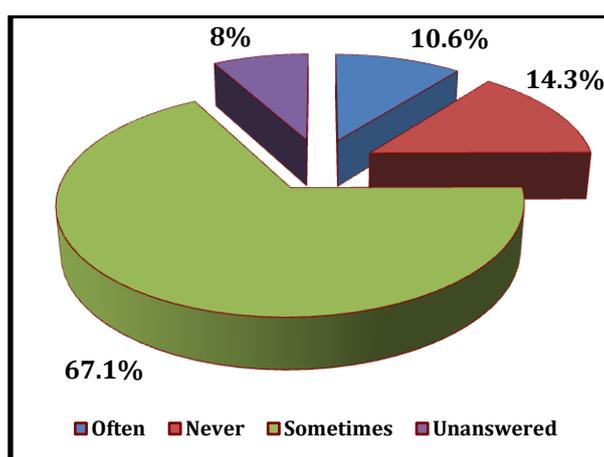


Figure-4:- Experienced minor cuts

Recent health events

All most half (77.7 per cent) of the child workers experience fatigue or exhaustion. This clearly demonstrates that the work is tiring for the child workers. A higher percentage of child workers (54.1 per cent) have sometimes experienced minor cuts or bruises. However the percentages of child that often experienced minor cuts or bruises is low (15.3 per cent for child worker) but not negligible. About two-third of child (62.8 per cent) sometimes felt pain in their body, whereas around one-fourth of child worker (23.6 per cent) often felt pain in their body during last one month.

Table-2: Recent health events (last 1 month)

Recent health events (last 1 month)	Child Workers				Total
	Often	Sometimes	Never	Unanswered	
Experienced fatigue	32(10.6%)	202(67.1%)	43(14.3%)	24(8%)	301(100%)
Experienced minor cuts	46(15.3%)	163(54.1%)	68(22.6%)	24(8%)	301(100%)
Felt pains in body	71(23.6%)	189(62.8%)	17(5.6%)	24(8%)	301(100%)
Felt anxiety or fear	67(22.3%)	114(37.9%)	96(31.9%)	24(8%)	301(100%)

Injuries during last 1 year

Among the child workers, 85.7 % experienced cuts or bruises, 10.0 per cent experienced sprains, strains or dislocation, 10.0 per cent experienced burns or scalds and 7.1 per cent experienced broken bones during the last year.

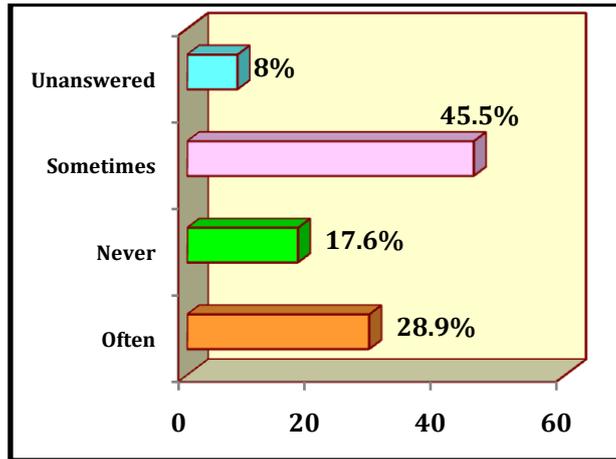


Figure-5: respondents experienced bad cuts

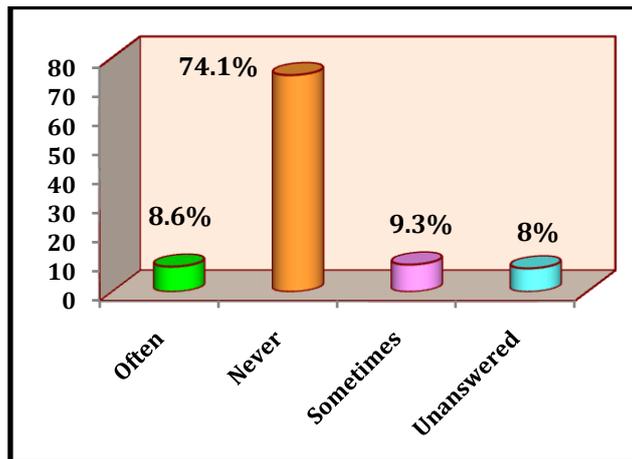


Figure-6: respondents experienced broken bones

Table-3: Distribution of respondents experienced different injuries during last 1-year

Recent health events (last 1 year)	Child Workers				Total
	Often	Sometimes	Never	Unanswered	
Bad cuts or bruises	87(28.9%)	137(45.5%)	53(17.6)	24(8.0%)	301(100%)
Broken bones	26(8.6%)	28(9.3%)	223(74.1%)	24(8.0%)	301(100%)
Sprains, strains, dislocation	9(3%)	21(6.9%)	247(82.1%)	24(8.0%)	301(100%)
Burns or scalds	4(1.3%)	19(6.3%)	254(84.4%)	24(8.0%)	301(100%)

The legs and hands are the part of the body of these child workers which are most likely to be injured.

Table-4: Parts of body that injured during last 1 year

Parts of body that injured (last 1 year)	Child Workers (%)			
	Bad cuts	Broken bones	Sprains, strains, dislocation	Burns or scalds
Legs/foot	72.1	56.9	68.2	49.8
Arms/hands	56	43.7	53.1	52.6
Head	2.5	0	0	19.1
Neck	5.1	0	0	0
Backbone	5.9	1.5	0	0
Abdomen	3.5	10.3	0	0
Shoulder	4.3	2.1	5.6	1.7

Table-5: Types of work responsible for injury

Types of work responsible for injury	Child Workers (%)			
	Bad cuts or bruises	Broken bones	Sprains, strains, dislocation	Burns or scalds
During carrying red brick	42.3	51.7	53.7	0
While using moulding machine	4.3	2.2	2.8	0
During brick making	6.8	1.8	1.9	13.3
During carrying green brick	30.2	42.5	38.9	0
During cutting firewood	0.9	0	0	0
During carrying firewood	11.7	1.8	2.7	0
During brick burning	3.8	0	0	86.7

Most of the child worker experienced bad cuts (42.3 per cent), broken bones (51.7 per cent) and sprains, strains or dislocations (53.7 per cent) while carrying brick from the kiln to where the fired bricks were stacked outside. A higher percentage of child workers (86.7 per cent) experienced burns while burning green bricks.

Table-6: Impact of injury in normal activities and treatment procedure

Variables	Child Workers (%)			
	Bad cuts or bruises	Broken bones	Sprains, strains, dislocation	Burns or scalds
Injury kept from normal activities for at least 3 days				
Yes	21.7	67.2	36.8	33.9
No	78.3	32.8	63.2	66.1
Take care of injury through				
Did nothing	35.4	2.3	1.8	2.8
Took care of it myself	32.8	1.1	26.5	39.0
Brick kiln owner/parent/other gave 1st aid	17.1	1.7	2.7	31.2
Went to a local healer	13.7	50.8	49.2	17.8
Went to a clinic or hospital	1.0	44.1	19.8	9.2

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These injuries kept child worker from normal activities for at least three days. About 67.2 per cent child workers were kept out of work due to broken bones, 36.8 per cent due to sprains, strains or dislocation, 21.7 per cent due to bad cuts or bruises and 33.9 per cent due to burns or scalds.

Among the child workers who experienced bad cuts or bruises, 35.4 per cent did nothing, 32.8 per cent took care by himself, and 13.7 per cent went to local healer. For broken bones, majority of injured child workers (50.8 & 44.1 per cent) went to a local healer and a clinic or hospital, but for burns or scalds, the majority of child workers (39 per cent) took care of it by him.

Table-7: Payment for treatment of injuries among child workers

Payment for treatment or medicine accomplished by/ Did you or your relative/parents pay for the treatment or medicine?	Child Workers (%)			
	Bad cuts or bruises	Broken bones	Sprains, strains, dislocation	Burns or scalds
Yes	31.6	72.7	80.1	33.3
No	63.2	22.1	14.7	61.5
Unanswered	5.2	5.2	5.2	5.2

For broken bones, sprains, strains and dislocation, most of the injured child workers have paid for treatment, whereas, in case of bad cuts, burns or scalds, no payments were provided for treatment. This study also observed that, most of the injured workers have paid for treatment of burns or scalds, sprains or dislocation, and bad cuts or bruises. But for a small percentage, the kiln owner paid for these injuries (33.3 per cent for burns or scalds).

© ***Specific illness during last 1 year***

The study investigated some specific illnesses, namely breathing problem or persistent cough, ear problems, skin problems, and stomach problems or diarrhoea among child workers, youth workers and control group.

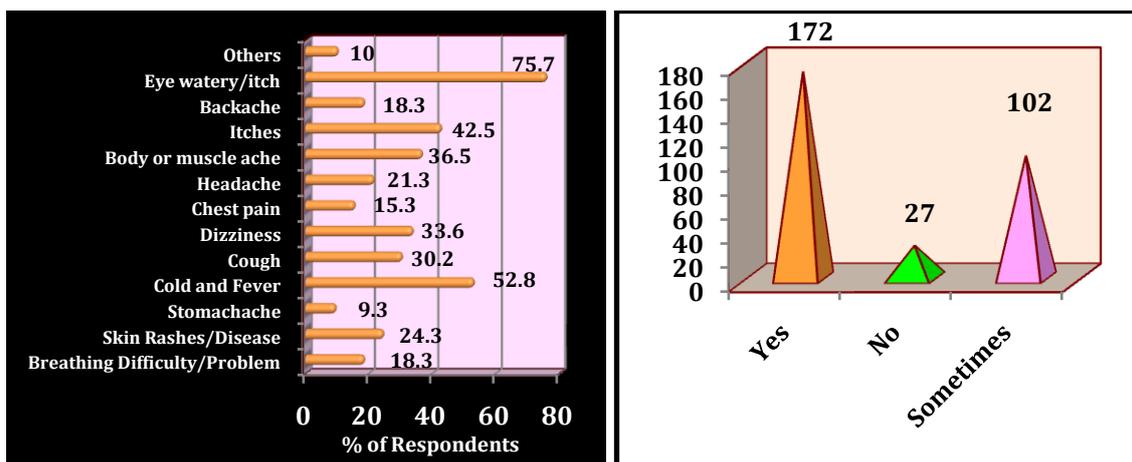


Figure-7: General Health Problems & Figure-8:- opinion towards whether their job causes their illness or not.

From the above diagram shows 53% worker suffer from cold and fever & 9% suffer from stomachache. It is evident from the above table that 57% respondent state that their work is caused for their disease.

Table-8: Distribution and Impact of general health problems in normal activities and treatment procedure

Variables	Child Workers (%)			
	Breathing problems	Eye/ear problem	Skin problems	Stomach problems
Injury kept from normal activities for at least 3 days				
Yes	15.8	19.7	11.5	26.8
No	84.2	80.3	88.5	73.2
Take care of injury through				
Did nothing	46.4	61.3	13.7	11.2
Took care of it myself	6.1	9.2	27.6	13.5
Brick kiln owner/parent/other gave 1st aid	22.6	19.5	24.4	32.7
Went to a local healer	19.7	4.5	32.2	24.8
Went to a clinic or hospital	5.2	5.5	2.1	17.8

General health issues

The study shows that, fever is quite common among all respondents of this study. About 79.6 per cent child worker have reported that they have suffered from fever during last one year. However, the incidence of headache is higher among working child (55 per cent). Conversely, feeling weak and bad all over was much more common among child workers (65.9 per cent).

Table-9: Percentage distribution of respondents experienced fever during last one year

respondents experienced fever during last one year	Frequency (%)
Yes	67 (22.3)
No	61 (20.4)
Sometimes	173 (57.3)
Total	301 (100.0)

Table-10: Percentage distribution of respondents experienced headache

respondents experienced headache during last one year	Frequency (%)
Yes	48 (15.7)
No	103 (34.3)
Sometimes	150 (50.0)
Total	301 (100.0)

Table-11: Percentage distribution of respondents felt week during last one year

respondents during last one felt week year	Frequency	%
Yes	76	25.3
No	103	34.1
Sometimes	122	40.6
Total	301	100.0

Table-12: Distribution and Impact of general health problems in normal activities and treatment procedure

Variables	Child Workers (%)			
	Fever	Headache	Feeling weak	Feeling bad all over
Injury kept from normal activities for at least 3 days				
Yes	76.5	49.3	66.8	27.2
No	23.5	51.7	33.2	72.8
Take care of injury through				
Did nothing	14.7	17.1	58.9	66.9
Took care of it myself	12.3	17.8	9.5	5.5
Brick kiln owner/parent/other gave 1st aid	18.9	9.2	15.2	5.6
Went to a local healer	27.4	18.5	4.3	15.2
Went to a clinic or hospital	26.7	37.4	12.1	6.8

Table-13: Hours of sleep at night

Hours of sleep at night	Child worker (%)
Less than 8 hours	19.7
8 hours	26.4
More than 8 hours	53.9
Total	100.0

About half of child worker (53.9 per cent) sleeps more than eight hours at night. However 19.7 per cent child worker sleeps less than eight hours.

Table-14: General health issues among child workers

Other General health issues	Child Workers (%)	
	Yes	No
Have trouble of insomnia	33.7	66.3
Have a nap or rest during the day	56.8	43.2
Feel hungry a lot of time	74.9	25.1

A total of 33.7 per cent of child workers were suffering from insomnia during last one year. About 56.8 per cent child worker have reported that they take rest during the day. More than half of child worker (74.9 per cent) feels hungry a lot of time.

☉ **Serious Health Issues**

About 15.7 per cent of child workers have had other very bad injuries at work. About one-fifth of child workers (21.4 per cent) know other people of their age who were injured very badly at work. A few respondents (2.3 per cent child worker) know about some people who died because of injuries at the brick kiln. More than 80 per cent of child workers have noticed that young people use tobacco products.

Table-15: Serious health issues

Serious health issues	Child Workers (%)	
	Yes	No
Ever had any other injury that was really, really bad at work	21.4	78.6
Other people of their age have been hurt very badly at work	28.2	71.8
Other persons died because of an injury at the brick kilns	2.3	97.7
Knows that young people use drugs or alcohols	79.0	21.0
knows young people use tobacco products	82.4	17.6
Know young person (< 18) has been sexually/physically abused or had bad things done to them	54.6	45.4

☉ **Focal health issues**

About 59.1 per cent of child worker have reported pain in neck or back. However among them, 27.6 per cent of child workers have mentioned that the level of pain in the neck or back is very bad.

Table-16: Focal health issues

Focal Health Issues	Child Workers	
	Number	%
Neck or back has been bothering		
Yes	178	59.1
No	123	41.9
Level of pain or bother by back or neck		
Very Bad	83	27.6
Medium	185	61.3
Not Bad	33	11.1
Trouble in breathing or cough a lot		
Yes		43.3
No		56.7
Level of trouble in breathing or cough		
Very Bad	120	39.8
Medium	124	41.2
Not Bad	57	19.0

Troubles in breathing or cough are more prominent among child workers (81 per cent). Among these child workers, 39.8 per cent have reported that the breathing problems or cough are very bad.

☉ **Nutritional status and anemia**

The study found that about 36.7 per cent of child workers are underweight, only 6.8 per cent have overweight and 56.5 per cent have normal weight.

Table-17: Nutritional status of child workers

Factors	Child Workers (%)
Nutritional status of Youth worker	
Underweight	36.7
Normal weight	56.5
Overweight	6.8
Total	100

☉ **Psychosocial functioning**

(1) **Self-esteem**

This was very crucial that the respondents evaluated their activities between their real self and ideal self. Some of them are somehow satisfied with their involvement with brick kilns whereas most of the worker looks on the others' attitude towards their work. But, whatever the attitude towards them, the workers engaged themselves due to their family and livelihood necessity.

Table -18: Self-esteem of the respondents

Factors	Child Workers (%)			
	Never	sometimes	often	always
Proud for work	44.7	33.8	5.6	15.9
Self-assessment about skills need to work	63.1	28.3	6.8	1.8
Appreciation by others about work	42.9	23.3	13.9	19.9
look down because of the work	28.2	39.4	14.5	17.9
Family relies on and needs help	5.6	21.0	32.2	41.2

(2) **Stress**

Occupational stress is very important in any psychological setting. It is accounted for the physical illness, substance abuse, and family problems experienced by blue and white-collar workers in the world. Child workers involved in brick kilns areas really feel their physical and mental pressure than their elder groups. Some of their prolonged stress like harder and faster work creates some long-term effects on their mind and body.

Table -19: Stress among the respondents

Factors	Child Workers (%)			
	Never	sometimes	often	always
Pressure of work: faster and harder	19.2	43.4	17.6	19.8
Feel bored because there is not enough to do	21.2	45.5	21.9	11.4
Family, employer or others asking too much for work	24.6	38.7	26.5	10.2
Fell bored because for doing same work for many hours in a row	17.1	39.9	27.3	15.7
Feel tired because of the long working hours or heavy work load	7.6	45.6	33.8	13

(3) Personal agency

Personal agency usually functions three levels of human interactions which include human nature and human condition, human behaviour and professional practice. Among the brick kiln workers, youth workers gave their matured response than the child workers. Labour’s free will and self-actualization may not present the appropriate scenario in the study areas, but of course draw a conscious experience of the brick kiln workers.

Table -20: Personal agencies among the respondents

Factors	Child Workers (%)			
	Never	sometimes	often	always
Feel that this work prevents from doing things you would like to do	16.2	44.7	27.9	11.2
Do you feel that, if you wanted to, you could choose what to do and what not to do	19.5	48.3	25.9	6.3
Does the environment in which you are working bother you at all	17.6	48.0	29.7	4.7

(4) Relationships

Table -21: Relationship with surroundings

Factors	Child Workers (%)			
	Never	sometimes	often	always
Does the environment in which you are working bother you at all	17.6	48.0	29.7	4.7
Are you comfortable with the people you work with	19.4	33.6	28.6	18.4

Workplace relationship is usually defined the voluntary interdependence between two persons over time. The study tried to explore the experiences of child and youth workers with work setting and other employees. The respondents did not mention their misery caused directly by the owner, but their answers indicate some misfortune with their works.

(5) Supervision & training

Table -22: Supervision & training of the respondents in the brick kiln

Factors	Child Workers (%)			
	Never	sometimes	often	always
At work, do you feel that people watch over you to make sure you don’t get hurt	21.2	43.2	21.0	14.6
Do people at work teach you what to do and how to do it	9.8	41.4	27.9	20.9

In any workplace, training, supervision and protection are the prime concerns in a safety environment. In the brick kiln sector, the child labours (as the data mentioned in the table) get more concentration to learn a new work whereas youth workers do not get it. On the other hand, the supervision is very strict at any level with their works. There are some levels of supervisors in the brick kiln industry in the country. This is very unfortunate that the labours have no protection training or instruction in the study area. They only learn it from their senior colleagues.

(6) Leisure

Table -23: Leisure period of the respondents

Factors	Child Workers (%)			
	Not at all	A little	Quite a bit	A lot
Free time each day to do just what wanted	13.5	46.4	27.8	12.3

Children differ from adult workers, for that they have special needs that must be taken into consideration, when defining psychological functioning. The amount and quality of leisure time is important for the child labour's well-being and satisfaction. Leisure also contributes to the well-being of the children. But from the study, the amount of leisure time spent by the child labour is a matter of concern. Child labour reported that they get few hours of leisure time in a week. For this, the children in the workplace suffer different types of psychological effect. Such as, emotional distress, frustration, reduced productivity, posts traumatic stress disorder, anxiety, chronic depression etc.

Figure -24: Percentage distribution of the respondents feeling tension in the body

Factors	Child Workers (%)			
	Not at all	A little	Quite a bit	A lot
feeling tension in the body	26.2	33.4	29.8	10.6

Figure 4.19: Percentage distribution of the respondents feeling dizzy

Factors	Child Workers (%)			
	Not at all	A little	Quite a bit	A lot
feeling dizzy	27.6	47.9	14.5	10

(7) Chronic fear & anxiety

Chronic fear and anxiety are two integral parts of any psychological settings whereas child and youth labour feel it as a burden while they work. The study explores the responses from three categories of respondents with the answers about their nervousness, worry and fortunes.

Table -25: Chronic fear & anxiety among the respondents

Factors	Child Workers			
	Not at all	A little	Quite a bit	A lot
Do you feel afraid or nervous	33.6	25.5	22.6	18.3
Do you worry and think a lot	27.7	33.4	19.5	19.4
Do you think back about all the bad things that have happened to you	34.4	39.1	17.8	8.7

(8) Hopelessness & helplessness

Table-26: Hopelessness & helplessness among the respondents

Factors	Child Workers			
	Not at all	A little	Quite a bit	A lot
Do you think your life will get better some day	9.9	41.2	33.5	15.4
Do you think your life is worse than that of other children	17.6	39.6	35.5	7.3
Do you think life isn't worth living	29.5	45.1	19.4	6.0

Hopelessness and helplessness is a universal cause of job stress. Hopelessness & helplessness are *two integral parts of any psychological settings. This study explores this psychological functioning* among the child and youth labour. Child and youth labour feel hopelessness and helplessness in their job for unfair labour practices, pressures of work, low salary. Work setting (noise, dangerous working situation, lack of privacy, poor lightening, inadequate sanitary facilities, poor ventilation, poor temperature control) also creates powerlessness and hopelessness among child labour. For this cause children in the workplace suffer very much. Three to four million children in the world suffer hopelessness and helplessness due to their job stress and nature of the job.

(9) Social factors

Negative influences on a child can affect psychological development. These factors can come from a number of different sources such as family, friends etc. This study also explores the psychological setting from social factor. The child and youth labour in Bangladesh, negatively affected by the conflict environment in the family (Such as conflict between parents, death of a family member or by divorce, etc.). Psychological development also affect by the peers of the children. Negative influences in this category include having no

friends, not feeling accepted, being picked on or bullied and losing previously established friendship affect the children psychologically.

Table -27: Social factors among the respondents

Factors	Child Workers (%)			
	Not at all	A little	Quite a bit	A lot
Do you feel supported and loved by your family	9.8	27.4	21.5	41.3
Is there conflict in your family	36.5	27.6	24.8	11.1
Do you feel accepted by the other families around here	11.7	33.8	26.9	27.6
Do you have one or more good friends that support you	13.1	21.2	27.8	37.9
Do you people reject or tease you or call you names	43.3	31.5	14.4	10.8
Do you feel very different from other children your age	17.8	38.2	28.4	15.6
Do you play games or sports with friends	15.8	26.5	34.4	23.3

(10) Abuse & maltreatment

Abuse and maltreatment also affect the youth and child labour psychologically. In the study area, child and youth labour, face different types of abuse and maltreatment. In the families, where child abuse and neglect occurs (scold, beating) suffer psychologically. Sexual harassment also makes the child and youth worker psychologically weak and put them in depression.

Table -28: Abuse & maltreatment among the respondents

Factors	Child Workers (%)			
	Not at all	A little	Quite a bit	A lot
Do you get scolded, or criticized or made to feel small or stupid	26.7	38.9	19.8	14.6
Do you get beaten at home or work	49.7	36.5	11.1	2.7
Has anyone at work tried to touch you in a bad way	51.4	28.7	16.1	3.8
Have you been severely punished for mistakes made at your work	43.2	36.7	14.1	6.0
In your day-to-day life do you feel safe	14.5	27.3	35.1	23.1

The above-mentioned table shows that there are some persistent a substantial abuse from the co-workers towards the child and youth workers in the brick kiln industry of the study areas. The child workers feel their insecurity when they are harassed by the supervisors and/or other co-workers. As the child and youth workers have no work experience, they are easily treated wrongly by their dominant work partners.

VI. Major Findings

A. General Environment

Main Areas: Presence of hazardous materials	Remarks
Air: It is observed that there is visible dust being produced from the burned bricks during the loading and unloading of the burned bricks. The dust mainly contains particles of burned brick and is red in colour. The dust is also seen when red coloured dirt is put on the layer of bricks before it goes into the kiln. Beside this, the moving vehicles are also another main source of dust in the brick kiln.	No one is seen with masks and Handkerchief
Temperature: The workers have to work the day long depending on the nature of the work. The workers involved in clay preparation, moulding, carrying green bricks into the kiln and burned bricks from the kiln are seen to work during the hottest part of the day.	There is no shade or existence of tree.
Landscape: The ground of the kiln is dry and dusty and rough. There are also a lot of sharp tiny burned brick particles which may cause of cut and injury for the foot or leg.	Frequent moving of motor vehicle with heavy load creates a rough landscape.
Water: There are water reservoirs to hold alongside the main water sources such as the river or canal.	As in Khejuri-II most of the brick kilns are situated on the bank of the river or channels, so they can use the river as a water source.
Location: The brick kilns of this rural area are visible and accessible from the outside. Specially, it is noted that the brick kilns are situated inside or beside the residential area.	This area of brick kiln is more polluted because of environment problem.
Biological: Dogs, Snakes, Scorpions, insects, mosquitoes, water born disease are the common phenomenon of the brick kiln in both urban areas.	The location like bank of the river or channels, congested areas and open access facilitates the presence of dangerous animals.

B. Hazards in Work process (Equipment Risk & effect on body)

	Steps of Work	Machine /Tools Uses	Hazards & Risks associated
Collection of Clay	Digging out Clay	Excavators, Spade	Cutting of fingers on leg
	Load onto the Car		Back pain, headache
	Transportation	Truck	Falling from the truck
Preparing Clay	Unload	Spade	Cutting of fingers on leg, Chance of injured by the spade of others in any part of the body
	Digging out clay	Spade	Bad cuts & feel pains in hand & neck.
	Hauling clay	Van top (One wheel cart)	Bad cuts, sometimes sprains & broken bones also
	Hauling water to make mud	Through plastic pipe joined in a motor	Bad cuts
	Mixing soil with water	Pugg machine	Cutting of fingers, hearing problems
Moulding	Kneading clay	Pug machine	Pain in shoulder,
	Packing clay in mould	Mould made by timber or steel and thin yarn	Minor Cuts.
Emptying	Emptying clay from mould	Mould made by timber or steel and thin yarn	Bad cuts, skin problems, eye problems
	Arranging brick to dry	Manually	Minor cuts or skin burns in sun, feeling weak
Drying	Turning bricks as they dry	Manually	Minor Cuts, pain in hand.
	Sprinkling sand over bricks	Manually	Breathing problems, skin problems.
Burning	Transporting bricks to kiln	Mainly by head, sometimes with push cart or pull cart	Bad cuts or bruises, dislocation & Broken bones.
	Placing brick in the kiln	Manually	Falling of brick in body, Breathing problems, skin problems, bad cuts, & sometimes broken bones.
	Taking bricks out of the kiln	Manually by head	Breathing problems, skin problems, bad cuts, & sometimes broken bones.
	Stacking bricks	Manually	Feeling of pains in body, skin & breath problems, week feeling.
portation	Lifting bricks onto cart/animal	Manually	Broken bones, Sprains, strains, dislocation
	Herding animals that transport bricks	Manually	feeling weak in body,

C. Brick Making Environment

Main Areas	Observation factors	Findings
Fall risks	Stacks of Bricks, Piles of coal	There are stack of bricks in the entire brick kiln and height of a stack ranges from 60 to 96 inches. The bricks are arranged systematically but it has a high risk of falling on the workers. Alarmingly in this area the child workers are mainly involved with the work of transferring green brick from the stack to the kiln. Though the coal is the main fuel of brick burning the observation did not found any notable piles of coal in this area, instead of coal it is observed that there was a stacks of firewood in this rural area which have the higher probability to fall on the workers.
	Holes in the ground	There were not found any notable holes in the ground that the workers can fall into.
	Open wells or water sources	In some area there was the existence of open water sources connected to the nearer river. They mainly use the deep pump machine as water source so both in the urban and rural areas there were no existence of open wells.
Equipment Risks	Moving Motor Vehicles	Moving vehicle is the common scenario of the brick kiln in both the areas. Mainly the vehicles are used for transporting the clay, the burned brick, coal and firewood. The vehicles are seen to move roughly and alarmingly it observed that sometimes the helper of the truck drives the car. The driver uses this technique in order for the helper to learn how to drive, but this is obviously highly risky.
	Noisy Equipment	The pug machine, the pump machine, excavators and the generator (which is used as an alternative of electricity during the night) are the main noisy equipment.
	Equipment that has moving parts	The pug machine is the most risky equipment which has a higher probability of trapping hand, leg and clothes.
	Electricity	Electricity is only available in the office room where cords and electric sockets were observed.
Air Quality	Low visibility	The low visibility due to the dust is concentrated in one area. It is observed that when the workers are taking out the burned brick from the burning chamber the places become low visible due to the dust arises from the dirt previously spread out on the green brick before burning. It is also created when vehicles are moving around the area.
	Smoke	There was no observation of smoke on the ground.
	Fired with plastic, old tires, toxic materials	There was no observation of such types of activities during the observation period.
Workers need	Work at night	The workers involved in brick burning are seen to work at night. Beside this the workers involved in brick transporting the brick kiln out of the kiln are observed to work at night.
	Source of abundant clean water for drinking	Deep tube well is the main source of drinking water in this rural area; it uses a motor regulated pump.
	Latrines	The most miserable scenario of the brick kiln. It is not only unhygienic but also likely to fall. In urban area it is observed that the latrine is situated on the bank of river or beside the kilns temporarily and very poorly protected. It is totally unusable for workers especially for the women and child.
	Private areas for women	There was no private area for the women.
	Shoes for protect the feet	The observation did not find any special protection measure for feet except the workers involved in burning. The workers involved in brick burning use shoes but the other workers have not any protective measure including normal shoes.
	Rest break	The work is shift basis and as the payments depend on production there is limited scope to take rest. They work continuously and only rest when they reached at the highest limit of strength but it is not over 5 minutes.
	Lunch break	They take lunch break for the period of 40-60 minutes not more in anyway.

VII. Recommendations

- 1) Children should be prohibited from undertaking all dangerous jobs, including operating brick machines, brick firing operations, and clay preparations. In addition, work-load and work-age regulations should set and strictly enforced.
- 2) Children have the rights for development. Thus, efforts against child labour should make sure that child workers have equal chance to attend school, that they attend school, and that they stay in school to complete at least their basic education. If they cannot attend school regularly for whatever reasons, especially those who live in brick factories, continued education should be provided either at the work place or at a designated place. Educational program should enhance so that every student get educational opportunity. For that formal and non formal education through part time & full time school, vocational training activities may be enhanced. Educational facilities, different vocational training facilities should be free for the poor children.
- 4) Child workers should be entitled to full health benefits. In other words, employers should take full responsibility for their child workers to cover their health expenses in case of injuries or sickness due to work, as well as recovery care. Local health authority should be involved.
- 5) Increase knowledge and awareness of work hazards. Efforts should aim at developing the public awareness of children's rights and the damage to children caused by child labour. Such awareness requires partnerships among many different groups, including government sectors, businesses, trade unions, educators, researchers, NGOs, the community leaders and stakeholders, parents, and children themselves.
- 6) Work safety regulations should be set and standardized for all brick factories. The legal force should be given to the regulations. The regulations should list also safety measure requirements for all child workers, including safe working environment and use of protection devices that include safety helmet, working shoes, workable gloves, masks, and protecting glasses. The employer should be responsible for providing these safety devices to child workers; and should workers should be charged for or not be allowed to work if not wearing the protection device at work. Warning signs or stickers of danger should be placed on each of work equipments and areas that are health-threatening or injury- or incident inducing.
- 7) Safety devices should be required for all brick making machines. The machine belt should be properly and completely covered. The machine slot where clay is put should be funneled in such a way that avoids direct contact of hand and the machine.
- 8) Monitoring and enforcement mechanisms should be created, including codes of conduct for employers in which they be confined employing children as set by work and work safety regulations, work safety orientations to all child workers, labour inspections, safety inspections, fines, and health checks.
- 9) By nature, children cannot fight for their rights because they are powerless. Thus, child workers need others to advocate and campaign on their behalf. Advocates against the worst forms of child labour should initiate social activities aiming at increasing the public awareness of child labour issues and at involving all parties concerned and relevant. In addition, they should set as priority identifying children who live in impoverished families and are involved in the worst forms of child labour because these children are most at risk of being forced into labour.

VIII. Acknowledgments

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IX. Conclusion

Working children in the brick kilns are from different age, race, income or health-status groups. The nature of work, its hazards and possible health effects, the situation in which children work are important aspects with respect to predictive short and long term effects of physical, mental and chemical work exposure on the health development of child labours in social system. Anatomical, physiological and mental aspects in different socioeconomic conditions are health components that require urgent attention, particularly concerning growth and development, orthopaedic and musculoskeletal disorders, poisoning, intoxication and premature deaths. Brick field's children are more prone and at high risk than adults because of rapid skeletal growth, development of organ and tissues, greater risk of hearing loss, developing ability to assess risks, greater need for food and rest, higher chemical absorption rates, smaller size and lower heat tolerance due to their physiological and immunological aspects.

So, there should be urgent need of intensive focus and research along with political and practical decisions to improve the conditions of working children. Government, workers, employers and the community must share the responsibility for controlling the special psychological risk factors that child face. The primary health care approach is better way to provide health care to working children. Considering the present situation, there is imperative call for social, political and technological intervention, good quality research, proper legislation and law, a comprehensive policy, which can be implement, for better planning and management of child labour issues, to improve the condition of working children. From this study, it is evident that child workers in the brick kiln are suffering from various health hazards and their living condition is not even sub-standard. They have to do hard work and sometimes very risky task. As a result they suffer from various injuries and major health problem and it is hampering their normal physical and mental growth. Even, they do not have the facility to get proper treatment. Government has already identified child labour in brick kiln as a worst form of child labour. But in reality, still child labour in brick kiln is being practicing in alarming rate. The owners are not still aware about this concern, rather they are depriving child from their basic rights in work and involving them in risky tasks. The government, NGOs, civil society, media and all stakeholders should come forward and take necessary steps immediately to eliminate the child labour in brick kilns, not only within this area, but also in Bengal and India ensuring the proper growth of children.

X. Limitations of the Study

Research is a complex, complicated and scrutinizing activity based on scientific knowledge and competence. For doing the study a lot of problems are suffered by the researcher's. Some of these problems are given below:

- 1) The fieldwork was limited only in Khejuri CD Blocks of Purba Medinipur District of Bengal. The study sample size is very precise.
- 2) Most of the sample respondents are illiterate or less illiterate. So, due to this reason, proper and adequate answer could not be taken from the respondents against questionnaires.
- 3) To prepare an analytical study, financial assistance is most necessary. Lack of sufficient money, various types of analysis did not possible.
- 4) To conduct the field work there has been faced different kinds problems and obstacles from political, administrative and also brick field owner's sites.

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