

Erasmus Mundus Scholarship Programme

**Working street children's perceptions of their health,
illness and health-seeking behaviour- A qualitative
study in New Delhi, India**

**Shveta Nanda
India**

**Royal Tropical Institute
KIT, Amsterdam**

March 2008

Will their voices be heard?

A qualitative study to explore the occupational health situation of working street children of New Delhi, India

Working street children's perceptions of their health, illness and health-seeking behaviour- A qualitative study in New Delhi, India

Master's thesis submitted to the Department of International Health, Royal Tropical Institute, KIT, Amsterdam, The Netherlands, in partial fulfilment of the requirements for the degree of Master of Science in International Health

**Shveta Nanda
(India)
March 2008**

Main Supervisor: Sanjoy K. Nayak

Declaration

Where other people's work has been used (either from a printed source, internet or any other course) this has been carefully acknowledged and referenced in accordance with departmental requirements. The thesis "**Working street children's perceptions of their health, illness and health-seeking behaviour- A qualitative study in New Delhi, India** " is my own work.

Date & Signature:

Total word count: 16,279

Shveta Nanda

Masters of International Health

KIT (Royal Tropical Institute)/ Vrije Universiteit Amsterdam

Amsterdam, The Netherlands

Acknowledgement

In the completion of my thesis, several people and institutions have helped me and been instrumental in fulfilment of my master's thesis. It gives me great pleasure to have this opportunity to remember them and to share my appreciation for all they have done for me.

I am thankful to:

My respected supervisor, **Sanjoy K. Nayak**, Professor, Department of International Health (IHCAR), Royal Tropical Institute (KIT), Amsterdam, for providing me with the opportunity of pursuing this field study. His valuable suggestions have been the guiding light all through. His attention and advice during my research work was a strong motivation in keeping me going.

Barend Gerretsen, Professor, Department of International Health (IHCAR), Royal Tropical Institute (KIT), Amsterdam, for his valuable suggestions, support and discussion during the writing of the thesis.

Kim, Rinia and other staff at KIT for their constant support and help all through.

Suzanne Fustukian, Professor, Department of International Health, Queen Margaret University College, Edinburgh, United Kingdom.

Carola Eyber, Professor, Department of International Health, Queen Margaret University College, Edinburgh, United Kingdom.

Erasmus Mundus (EM), for their financial support and for providing me the opportunity to pursue this course.

My dear friends **Luella, Lin, Asra & Syed, Vishal, Melody, Bharti, Shivika and my cousins Priyanka, Geetika, Swati and Kartik** for their continuous support and encouragement.

Above all this is for my dear **parents** and **brother Sahil** who were always there as a pillar of strength, love and encouragement, supporting my endeavours at each step.

Contents

Declaration	III
Acknowledgement	IV
Abbreviations	VII
Abstract	VIII
1. Background	1
2. Introduction	1
3. StreetChildren	2
3.1 Who are the street children	2
3.2 Working definitions	3
3.3 Factors making children the street children	3
3.4 Types of work done by street children	4
3.5 Health situations of street children	5
4. Street Children	6
4.1 The scenario in India and Delhi	6
4.2 Review of literature	7
4.2.1 Health of street children in India and Delhi	7
4.2.2 Review of existing health programs, interventions, welfare schemes for street children in New Delhi, India	10
4.2.3 Vulnerability of street children-Why is it heightened?	12
5. Relevance of the present study	13
5.1 Aim	13
5.2 Specific Objectives	14
6. Methods	14
6.1 Summary of the research methods	14
6.2 stepwise description of research methods	15
6.2.1 Study setting and site description	15
6.2.2 Study duration	15
6.2.3 Research Procedures	15
6.2.4 Sampling	15
6.2.5 Inclusion Criteria	16
6.2.6 Justification of selection of study subjects	16
6.2.7 Contacting the working children	16
6.2.8 Working street children	17
6.2.9 Pilot Testing	17
6.3 Analysis	17
6.4 Research team	17
6.5 Ethical Considerations	18
6.6 Study limitations	18
7. Results	19
7.1 Street children's profile	19
7.2 Health situation analysis of working street children of Delhi	19
7.3 Street Children-Case studies	20
7.3.1 Case study 1	20
7.3.2 Case study 2	21
7.3.3 Case study 3	22
7.3.4 Case study 4	23
7.3.5 Case study 5	24
7.4 Reasons to work	25
7.5 Types of work	25
7.6 Risks and exposures: impact of child work on health	25
8 Thematic Analysis	27
8.1 Working street children's perceptions of their health and illness	27
8.2 Working street children's decision making for healthcare	27
8.3 Choice of healthcare provider-Factors	28
8.4 Obstacles to healthcare as perceived by working street children	29

9. Discussion	30
9.1 <i>Effectiveness of existing programmes and interventions</i>	30
9.2 <i>Working street children's occupational health needs with special emphasis on their health seeking behaviour</i>	33
10. Conclusions	35
11. Recommendations	36
References	39
Appendix	44

Abbreviations

AIDS	Acquired Immuno Deficiency Syndrome
AIIMS	All India Institute of Medical Sciences
CRC	Convention on the Rights of the Child
CRY	Child Rights and You
DANIDA	Danish International Developmental Agency
DCCW	Delhi Council of Child Welfare
GOI	Government of India
HIV	Human Immuno Virus
ICCW	Indian Council for Child Welfare
ILO	International Labour Organization
MOL	Ministry of Labour
MoHFW	Ministry of Health and Family Welfare
MoSJE	Ministry of Social Justice and Empowerment
NGO	Non-Governmental Organization
PCI	Project Concern International
STD	Sexually Transmitted Disease
UBSP	Urban Basic Services Programme
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Program
UNICEF	United Nations Children Emergency Fund
WHO	World Health Organization

Abstract

Keywords: Working street children, street children, healthcare, health seeking behaviour, health perceptions, service utilisation.

Background

This is one of the very few studies conducted in New Delhi, India, to explore and understand working street children's perceptions of their health, illness and health seeking behaviour.

Objectives

To explore and understand the perceptions of Delhi's working street children regarding their health, illness, healthcare seeking behaviour and the obstacles to healthcare service use.

Methods

An exploratory qualitative study including semi-structured interviews and in-depth case studies of working street children of Delhi. The study was conducted in summer of 2007 and since it is hard to find/track working street children in summer due to their mobile nature, therefore, strategies like snowball sampling was applied and sampling was convenience based and purposive. Also, there is dearth of information or data on the working street children, so this sampling frame was considered suitable.

Findings

Results highlight that the working street children of Delhi are prone to many illnesses and negative health outcomes as a result of their conditions. Their health and medical problems ranged from minor problems such as cough, cold and fever to major ones such as injuries, diarrhoea, high grade fever, accidents, skin wounds and chest pain etc. However, the severity of these problems as perceived by them was low/poor. They preferred informal health providers if self-medication failed so there was medical pluralism. The obstacles to healthcare service use were perceived to be logistical and financial in addition to apprehension of ill-treatment from service providers owing to their substandard status in society.

Conclusions and Recommendations

The findings of study indicate that the health conditions of working street children are miserable and majority of the available health services are out of reach of street children and there are multiple obstacles faced by street children in accessing health care services. Working street children's perceptions of their health and healthcare needs and other requirements should be considered in designing interventions and programs targeted at them. The obstacles to healthcare service utilization need to be tackled keeping their perceptions in view and services should be made more user-friendly. In order to provide sustainable and normal health care to this group of children, there needs to be effective public-private partnerships or amalgamation of health services among private and public resources. Further research on the subject is important in order to find long-term solutions and to understand and address the root causes of their problems.

1. Background

The overall aim of this study is to provide comprehensive information on the illness and the health-seeking behaviour among street children in New Delhi, India. Further, this study mainly aims to assess the perceptions of the street children regarding their own health, their illness and health-seeking behaviour. By health, it is meant exploring the street children's occupational health and health seeking behaviour here means exploring the reasons (how, why, where, what, when) of their seeking health the way they do or don't do at all. The long-term aim of this project is to help administrators and planners keep the children's perceptions in view in developing schemes and programmes for the rehabilitation and welfare of the street children in New Delhi, India. For this purpose, the research was conducted on the streets of New Delhi, the capital of India. Specifically, the setting was South Delhi near the Bikaji Cama Bridge/flyover and Mohan Singh Market area. Also, the children involved were mainly working street children having no regular or family ties.

2. Introduction

In the world today, urbanization is expanding at the fastest. Mostly, developing countries have a need to find out solutions to this uncontrolled and unplanned growth in their major cities which leads to a '*population boom*' in those cities as described by Henry (2002), Pandey (1993) and Philips (2004). People migrate from rural areas to settle down in slums or squatters as Henry (2002) states that two thirds of Delhi's street children are migrants and mostly they arrive in large numbers by trains in Delhi everyday. When these people find no settlement they finally choose the street as their home dwelling on pavements, roadside trees, flyovers etc. According to UNCHS (1996), more than 100 million people in the world today are affected by homelessness and UNDP (2002) has projected that 53% of the developing world population will live in cities by the year 2015. An example from India is that every year, a community in rural Maharashtra (a state in India) seasonally migrates for better livelihood opportunities (Philips 2004). Street and working children are the biggest group of urban poor which is growing rapidly in the big cities. Either they have a home or are homeless. Rubenson (2005) points out that among the urban poor, this group is the most serious and vulnerable. Their reasons to be on the street could range from just being runaways as a result of disturbed families and thus end up being attracted by the big cities; to search for better opportunities for work and livelihood etc. Both developing and developed countries face the growing problem of street children and this is a global situation as well. However, there is surely a difference in the size and magnitude of the crisis. The number of street children is swelling as the countries are becoming more and more urbanized. And, as cities of both developing and developed countries experience this growth in numbers, it becomes a crucial issue of huge concern (Wright 1993; Ayaya & Esamai 2001). Nairobi, Marseilles, New York, Bagota, Kolkata, Mumbai, Delhi etc. serve as a few examples of metropolis and primate cities facing this problem.

The necessary resources and administrative machinery to organize the rehabilitation and welfare services for the street children are a major responsibility of developing countries (Henry 2002).

The reason for this is that developing countries are already struggling with the problems of urban poor. Not only these, they face other problems arising as a result of rapid urbanization and urban growth. Philips puts it this way: *“In India, the phase of urban boom is passing through a critical phase as it is facing the consequences of urbanization as well as of urban growth. The urban growth is a terrible strain on the economy as the population grows both in urban and rural areas”*.

We know that the most important asset of a nation is considered to be its children and adolescents. Hence, the street children having no access to basic amenities, healthcare etc., in such a situation is certainly one of the most serious problems to be tackled in India.

3. Street Children

3.1 Who are the street children?

Street children are a term which often highlights a certain set of working and living conditions rather than personal or social characteristics of individual children themselves. The term ‘street children’ should refer to all children of 5- 15 years of age who work in the streets of urban areas without reference to the time they spend there or the reasons for being there. So the term street children can be considered inclusive of street and working children. Description can vary covering a wide range of concepts like child labourers, juvenile delinquents, latchkey children, school drop-outs and maladjusted children. Since it is hard to outline any common characteristics, it can only be said that many of them spend a large part of their day in the street during their adolescence period (Henry 1993, Philips 2004, Rubenson 2005). Nobody can identify the term by any precise scientific criterion. Nor is it possible to give a definite set of characteristics to the street child. ‘Children without families’, high risk children’, ‘abandoned children, etc all these terms are overlapping so it’s particularly difficult to draw any rigid lines between them. The UNICEF has called them *‘children in difficult circumstances’*. Street children are not alike and there is another way of defining them i.e. on the basis of their relationship with their families. Majority of street children maintain contact with their families. They work on the street either under the supervision of employers inside or outside their family or are in business for themselves. They return to their families in the night. About 20% spend nights on the streets, parks or other public places. They are out of their homes forced by poverty, violence, drink and sexual abuse but are not abandoned by their families and vice-versa. Not only are they more and more vulnerable to the risks of exploitation/abuse of street life but often developing a very negative view of themselves (UNICEF 2007). Again as per UNICEF (2007), children having no family at all i.e. orphans, refugees, runaway’s etc. make-up 5 percent of all the street children.

UNICEF has defined street children as, “ those for whom the street (in the widest sense of the word, i.e., unoccupied dwellings, wasteland etc.), more than their family has become their real home, a situation in which there is no protection, supervision or direction from responsible adults- UNICEF 2007.

3.2 Working definitions

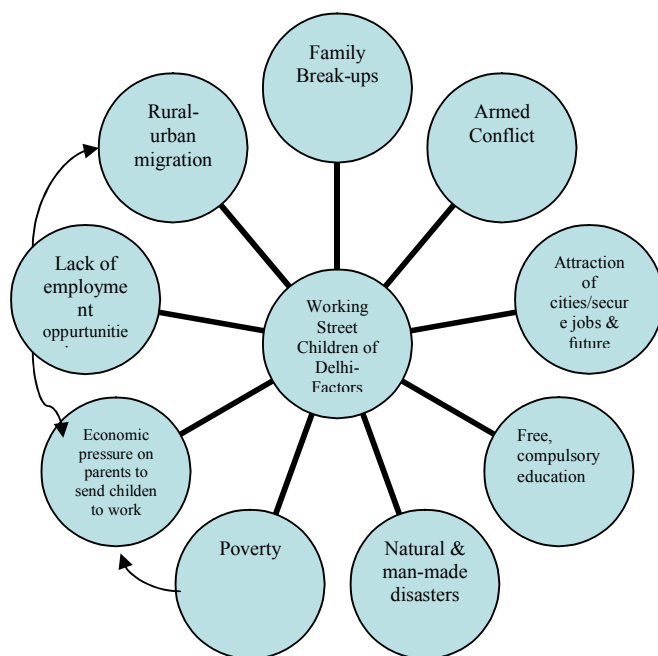
Street children and working children are found in all the major cities of the urbanizing developing countries. They are usually divided into three categories, according to how they relate to their families, mainly for facilitating programme planning related to each of these categories. A classification scheme outlined by United Nations International Children’s Emergency Fund (UNICEF) is commonly used in international literature to differentiate homeless youth: These categories are:

- i) **‘Children on the street’**- These are children with continuous family contact. Refers to children who engage in street based activities such as begging or peddling but have a home base to return to.
- ii) **‘Children of the street’** – These are the children who have weaker ties to their families or occasional family contact, and
- iii) **‘Abandoned children’**- These are the abandoned and neglected children who have no connection to family at all (Mufune 2000).

3.3 Factors making children the street children

Terrible conditions of poverty, urbanization/modernization, and industrialization are the major forces/factors which when coupled together negatively affect their family lives and in turn their lives. Rubenson (2005) points out other factors for them to be on the street like marital disharmony, separation/divorces, family tensions, death of parent/s, ill-treatment by step parents, selling of children as bonded labourers. The reasons for being on the street vary but poverty is the root cause as cited in many studies (Aptekar 1988; Aneci *et al* . 1992; de La Barra 1998). They need to earn money either to take home to their families or to support themselves. The root causes that keep them hungry, illiterate, exploited and abused are causes like gender, caste, livelihoods and displacement. The diagram (Fig.1) below depicts a summary of various causes or factors causing street children to work.

Fig 1. Factors causing street children to work (self created fig. based on factors studied)



The various factors contributing to children becoming working street children are given in the above diagram. As aforementioned, all factors like poverty, lack of employment opportunities, natural and man made disasters, armed conflict, family break-ups, rural-urban migration, attraction of cities for a secure job and future lead to children becoming working street children.
(Factors studied from various sources like UNICEF 2007, CRY 2007, PCI 2000, World Bank 2002)

3.4 Types of work done by street children

Mostly, street children survive by doing mobile street work such as washing and parking cars, begging, scavenging, hawking (Swart-Kruger & Richter 1997), cleaning gutters, picking rags, shoe-shining and so on. Street children contribute to the ‘unorganized sector’ by working in hotels, roadside stalls (e.g. tea/food stalls), repair shops, petrol pumps, motor, scooter garages. This group could be termed as street children or working street children. Mostly, they are subject to maltreatment by their adult supervisors which may result in beatings if they commit faults or errors. These children are also highly vulnerable to many adverse health outcomes due to their living style of extreme personal and high-risk behaviour (Ribeiro & Ciampone 2001). Since they move frequently so they are susceptible as they do not enjoy stable housing, formal education, or accessible health care services (Klein *et al.* 2000).

3.5 Health situations of street children

Street children have many health problems the range of which is wide (Sherman 1992). Pande (1993) highlights that, however, they do not consult for treatment. They generally feel the barriers to accessing health care as some of the issues including confidentiality, lack of trust, lack of respect or negative attitudes of providers due to low status, and furthermore, a shortage or inadequacy of services in a coordinated way (Morey & Friedman 1993; Geber 1997; Christine *et al* 1999). Pande (1993) goes on to state that most street children are not vulnerable to chronic ailments, at the same time, Berti *et al* (2001) are of the opinion that homeless children are much more prone to experience health problems than housed children. Morbidity in the street children is caused due to some of the common causes like skin ailments/infections, respiratory infections, vision, mental health, dysentery, injuries and dental problems (Wright *et al* 1993; Nigam 1994; Nzimakwe & Brookes 1994; Senanayake *et al* 1994; Ayaya & Esamai 2001; Berti *et al* 2001). It is also reported that street girls tend to suffer slightly lesser than street boys from all these health problems (Pande 1993). Generally, all the illnesses of street children are given the following classification based on findings by various studies:

- (i) the illnesses that can be cured only with modern medicine (Young & Garro 1994);
- (ii) other ailments/illnesses which only folk methods could successfully treat/cure (Young & Garro 1994); and
- (iii) yet others prefer spiritual healing methods or spiritual healers (Hunte & Sultana 1992).

Home/self-treatment is also very common and usually the first step of treatment. In terms of treatment alternatives, most people generally tend to select treatment alternatives according to one of two orderings, based on two key aspects of the available alternatives: (i) the probability that actually the person would be cured with the use of the particular source of treatment; and (ii) what each alternative would cost as estimated.

There are studies highlighting the strong peer support system of these street children. Through this network they are morally and emotionally supported. Many studies by Gross *et al* (1996); Baker *et al* (1997); Rhode *et al* (1998) mention that street peers are considered 'dependable' in times of need. These young children do manage to survive quite successfully by their standards, the difficult circumstances in which they find themselves. Chatterjee (1992) correctly bring forth the fact that street children serve as excellent examples and witness to the stamina, potential and spirit of mankind, even when their very existence highlights the malfunctioning of society.

4 Street Children

4.1 The Scenario in India and Delhi

About 90% of street children in India live with their parents or have regular family ties as is also the case in this study. These are working children who live with their families or have regular family ties. Poverty, unemployment of parents and several other factors bring them on the streets of urbanized cities like Delhi. This has been depicted in Fig 1 in the previous section already. UNICEF (2007) indicates that the remaining 10% children are either working or have few family ties. These are abandoned and neglected children who have no family ties and view the streets as their homes.

In developing countries, the number of children dying everyday is as high as 40,000 and 25% of them are in India (UNICEF 2007). The number of child workers in India is about 10% of the labour force (Human Development Report, UNDP 2002). The largest number of non-school going children workers in the world is also in India. The employment of children below the age of 14 years in factories, mines or hazardous occupations is prohibited by the Constitution of India. UNICEF (2007) differentiates between child work and child labour (as given in the box below).

Child work: Children's participation in economic activity - that does not negatively affect their health and development or interfere with education can be positive. Work that does not interfere with education (light work) is permitted from the age of 12 years under the International Labour Organization (ILO) Convention 138.

Child labour: This is more narrowly defined and refers to children working in contravention of the above standards. This means all children below 12 years of age working in any economic activities those aged 12 to 14 years engaged in harmful work and all children engaged in the worst forms of child labour.

Source: UNICEF 2007 www.unicef.org

NOTE: Although child work is considered as light, this study aims to highlight the negative effects of child work. IN fact, there is a linkage between child work and labor as depicted in this study. Since a clear demarcation between the above two types wasn't possible in this study, child work and labour are used interchangeably and as mixed terms for the purpose of this study. Our data indicate that certain forms of child work also need to be categorized under child labour, since any type of work done on the streets would lead to negative consequences for their health.

In India, street children are exposed and vulnerable to many risks. There is violation of their rights and their protection is threatened leading to abuse, exploitation and neglect (Nieuwenhuizen, 2006). It is estimated that 12.6 million children are engaged in hazardous occupations (2001 Census) and India has the largest number of child labourers under the age of 14 in the world. Pandey (1993) and Nigam (1994) highlight that poverty is often the root cause of the problems of street children. However, they also state other factors e.g.: social exclusion and discrimination; lack of quality education; attitudes of parents' about child work or labour; and they emphasize that these factors need to be tackled.

As per studies by UNICEF (2007), trafficking of children also is a very grave problem in India. Trafficking, according to UNICEF can be characterized into domestic/industrial labour; commercial sexual exploitation. Furthermore, their studies indicate that opportunities for rehabilitation (health) are scarce in India and their

reintegration process is difficult. There are child protection issues (systematic data on which is not available), which needs to be tackled. However, the labour cell of Ministry of Social Justice and Empowerment and UNICEF (2007) suggest evidence that children who belong to communities which suffer problems like social exclusion (e.g. scheduled castes and tribes /poor) are the ones needing special protection for health, education etc. A major issue of concern as realized by Henry (2002) is the shortage or complete lack of available services for street children. Also highlighted were the shortcomings of the law enforcement system and gaps in rehabilitative schemes.

Children should have adequate services during their period of growth for ensuring their full physical, mental and social development. This is as visualized in 'The National Policy for Children (1974)'. However, child labour or work both hinders their access to adequate services. Many studies indicate that working street children in India are deprived of educational and other opportunities thereby hindering their social, physical and mental development (Henry 2002; Nieuwenhuizen 2006). This poses a challenge to the UNICEF definition of child work as not being having a negative effect on their health and well being. This study (as we would see) indicates a major contradiction to this UNICEF definition as well because all kinds of economic activities engaging children would in turn have a negative impact on their education and health since that work would obviously consume their valuable time and energy (which need to be utilised in education and health). Our data describe that this definition is lacking and needs a change. Whether child labour or child work, both hamper the child's development negatively in some way or the other.

4.2 Review of literature

4.2.1 Health of street children in India and Delhi

There are several working children on the streets of New Delhi. The estimate is well above 100,000 whereas Prayas (an NGO for street ad working children in Delhi) indicates the number as 500,000 (Prayas 2002). UNICEF confirms the number since 25% of working children in India are street children and Henry (2002) states that more than two-thirds of Delhi street children are migrants. There with a 40% increase in child labor in Delhi within the past few decades (Jain 1994; MOL 2007). Studies in some major cities indicate that the street children in India suffer from various chronic diseases and are undernourished. Also, they do not enjoy a healthy life and are mostly of a moderate health status. Not only this, they are deprived of all health programs, however, when in urgent need, they seek healthcare from government hospitals (Nigam 1994).

While there are several studies addressing occupational health problems of children engaged in hazardous labour in Delhi and India, the needs of this group of working street children (engaged in street work) is not studied. For the former there exist several

examples; one study was conducted on the health concerns of children stitching footballs; another explored factors in the socio-cultural environment of child labourers in the leather industry (Mitra 1994); yet another reports their health status in the carpet weaving industry of Jaipur, India (Joshi et al 1994).

Joshi et al (1994) report on the health status of children in the carpet weaving industry in Jaipur city, India. Their findings from comparing children working in the carpet weaving to normal school going children indicate that the former were shorter and lighter. Their peak expiratory flow rate values were also lower as compared to normal children, and this was as a consequence of their growth retardation, they report. Another study by the same group on the growth retardation of these children was conducted. This was a cross-sectional study to determine the health status of children engaged in carpet weaving factories of Jaipur. They observed a high prevalence of signs of nutritional deficiencies in children engaged in carpet weaving. Further, their analysis also revealed a significantly higher morbidity in these children. This analysis was based on the complaints and the illness suffered by these children in the past six months.

Another study assesses air pollution and heat exposure levels to children and adult workers in the workplace environment in glass manufacturing unit located in the state of Gujarat, India (Bhanarkar et al 2005). In their study, serious occupational health hazard was reported caused by air pollution in the workplace environment due to industrial operation. They go on to state that, in India, heat stress is the most ignored occupational hazard.

Khurana assessed the mental health status of runaway adolescent boys in a cross-sectional study which they conducted at a child observation home in for boys in Delhi. In an effort to assess the psychological problems and to find out risk factors in the former, they found that 69.33% of children were found to have behavioural problems and 81% had antisocial behaviour; 20.7% of children were reported as having high hopelessness and 8% had depression. They observed that runaway street adolescents suffered a range of mental health problems. They concluded that there was a lack of a broad based psychosocial intervention programme for them and this was the urgent requirement.

In addition to the above studies there are other studies assessing health problems of street children or children engaged in some or the other forms of labour. However, the health status and of these children has not been analysed based on their own perceptions.

There are more examples such as the study measuring the peak expiratory flow rate of children working in lock factories in Aligarh, India (Singhal et al 2006); a fifth provides an ethnographic exploration of street and working children of Delhi misusing toluene (Seth et al 2005). Many other studies report Delhi street children's sexual exploitation (Pagare et al 2005); drug abuse (Pagare et al 2004); manhandling by the police etc. But,

relatively no studies could be found assessing the health situation of working street children of Delhi through their own perceptions. Since this study focuses on the working children at the most busy and riskiest traffic signals of one of the most polluted and populated capital cities of the world like Delhi, it can be well assumed or expected that they also suffer from occupational health hazards like those children engaged in child labour. This can be supported by study from Khurana et al (2004) which reports that there are 47.22 million homeless and runaway adolescents roaming on the streets of India of which 100,000 are in Delhi. They go on to confirm that very little is known about them, their needs or their experiences.

There is one such study by Ghosh (1992), however, that indicates street children's major need as food. Ninety percent of street children surveyed in Calcutta were found undernourished in his study. Pandey (1993) conducted a similar study in Kanpur. Most had two meals a day which were not adequate and had low nutritional value. His study recommended that children should be provided with high nutritious value food (e.g. dry food) for which they can be asked for a small fee.

An interesting example comes from the study conducted by Project Concern International (PCI 2000) on 1500 street and working children in Delhi. They found that 20% children suffered from some health problems different from under nourishment and post a period of providing basic health services to the same target population, there was a decrease of 50% in their illness incidence (i.e. less than 10% suffered from a health problem). This was also reported in Henry's study in 2002 stating that the remaining health problems, in general, arose due to a lack of availability of and accessibility to health services and the treatment cost of these services. This study aims to analyse the WHY of lack of the above through a child's perceptions.

Contrary to the above, Rubenson's study (2005) mentions the WHO definition of adolescence as a healthy period. Although no very serious health problems like HIV/AIDS, sexually transmitted diseases, sexual abuse are reported in the present study, however, this claim cannot be fully confirmed by the observations of this study. The factors here are not similar to Rubenson's findings in Vietnam, wherein she confirms the outcomes as indicators similar to the WHO claim of a positive and healthy development during adolescence. WHO (1999) mentions belonging and membership and responsibility; self-worth; safety and structure, and autonomy as important goals for adolescent development.

A '*sense of coherence*' (SOC) is important for protecting physical and psychosocial health in trying to cope with stressful situations, Antonovsky (1987) reports. These characteristics were observed to a certain extent in the study as Rubenson (2005) also reports that in the Vietnamese setting, these children had the duty to help their parents and the sense of belonging. Convention on the Rights of the Child (CRC) also mentions

the rights of every child to highest attainable standards of health and well-being and India has ratified the convention (Pandey 1993).

4.2.2 Review of existing health programs, interventions, and welfare schemes for street children in New Delhi, India

Children are the future of a country and health is an important part of their physical, mental and social well-being. Henry (2002) states that it is of utmost importance that health programmes for them should be provided much significance. As Nigam (1994) already indicated that street children lack access to basic health services so their healthy growth and development is at stake. Hence, for their survival needs there has to be a comprehensive vision for their sanitation, water, food and health education (all aspects essential for their health). Malnutrition and poor health since childhood has negative consequences on the growth and development of children. Therefore, exceptional focus of health and intervention programs should lie on these (i.e. health and nutrition).

There are existing programmes in Delhi run by NGOs and the Ministry providing health education but majority of them are aimed at HIV and AIDS (MoHFW 2007). Through the review of India and Delhi NGOs, it was observed that although educating street children about health is an important tool for promoting their health, how effectively this strategy is applied and what is the coverage are still big questions. Hardly any organization aims to inform, motivate and guide them into action to maintain healthy practices, a lifestyle that reduces their risks; or target their behavioural change in habits or practices unfavourable for their health e.g. smoking, drugs, any other addictions like alcohol etc. Rubenson (2005) indicates that health education needs to include aspects of environmental hygiene, human biology, personal hygiene, mental health, control of communicable and non-communicable diseases, nutrition, encouragement of utilization of various available health services, prevention from injuries and accidents etc. However, from literature review no such programme or intervention providing this comprehensive education or training was observed.

Furthermore, the literature reveals that health services in India need to incorporate regular medical check-ups of street children for early diagnosis and treatment of their diseases, providing safe water and sanitation which could lessen the burden of water borne diseases, immunization programs for reduction of occurrence of certain diseases, giving a healthy environ to protect against occupational health problems or hazards, to fight malnutrition and vitamin deficiencies, supply of essential vitamins and drugs and some better income generating schemes for their food etc., limitations of disability and rehab services, better nutrition through improved food distribution etc. All these factors are highlighted in various studies as important but few organizations or governments seem to practice them in effect. In Bangalore, for example, such a programme is followed by some referral services and NGOs (Nieuwenhuizen 2006). In Delhi, there is

contact building through referral services at Delhi Council of Child Welfare or Palna where the focus is curative, preventive and developmental but the limiting factors are authenticity and extent of coverage by the NGOs. There are also drop-in centres and shelter homes run by at Nizamuddin, Wazirabad, Red Fort, New Seemapuri Center, all in Delhi. These centres and their services are run and managed by the personnel from Project Concern International. Since 1997, PCI has been working in India and its main focus of PCI lies on health and development issues of communities (i.e. children and women). Activities such as HIV/AIDS prevention care and support, polio eradication, institutional capacity building and water and sanitation are being supported in India by PCI. They also have a mobile health service van for children manned by fulltime staff (paramedic and a doctor). Some of the shelter homes mentioned above offered lunch to children but the outreach of their health services is very limited (Henry 2002).

Recreation, training income augmentation, family counselling programs all seem to be in place but majority do not consider children's perceptions about their problems. With an objective to develop their name and attract funds, the NGOs overlook the cause they are addressing. The outreach of government run programmes in Delhi (MoHFW 2007) is also questionable as highlighted in the previous section 3, that universal immunization programmes etc. hardly cover any of the street children since they are a highly mobile group with or without families. Also, since coverage of these programs is mainly through families and permanent settlements, majority of them are out of reach of these services.

A review of welfare services (ICCW 1977) for children in critical situations in Delhi further revealed a government run children's home giving shelter and protection to orphan and vulnerable children. The central government run scheme for welfare of destitute children provides food, clothing and shelter to them (DCCW 2005). Delhi Council of Child Welfare also provides medical aid to these children but for chronic medical problems like orthopaedic problems, they need funds from the government as well as DANIDA was reported as supporting the project in 2005. Another such examples are in Indore (Philips 2004). For protection against malnutrition, the supplementary nutrition program is being run but working street children in the study had no access. Mid-day meal programmes are being implemented in government run primary schools to encourage education but again working street children in Delhi are essentially migrants and school drop-outs (Henry 2002). There is information about the UNICEF run UBSP in Madhya Pradesh and other states. Although this programme is implemented by the Indian government and incorporates health education and check-ups, immunization, income generating programmes for women, sanitary latrines, drinking water facilities and smokeless '*chullahs*' (gas stoves), however, it is mainly aimed at communities in permanent establishments like big slums (UNICEF 2007, GOI, Philips 2004) and not at street children.

Project Concern International is reported (PCI 2000) to have established four service centres in Delhi providing some good services for street and working children. PCI also has projects networked with Deepalaya, Prerana, Salaam Balak Trust (SBT) and Butterflies. All these NGOs are working with street children in Delhi. The outcome of

this collaboration between organizations is provision of special services for children (e.g. dental hygiene, treatment of STDs), referrals for children who need shelter facilities, all of which are due to sharing of best practices and lessons learnt. Fostering relationships with government-run institutions (e.g. hospitals and schools) is another aspect of these NGOs. However, their programs need a great amount of expansion for all centres to have equal access to food, healthcare, education, counselling, recreation etc. No such holistic and integrated program could be noticed in review of programs of the above organizations.

This is supported by Henry (2002) who cites poverty as the root cause of the street children phenomenon. UNESCO (1995) mentions the same as the universally accepted major cause. UNESCO (1995) also states that few organizations are there to help the working street children and that government budgets practically exclude street and working children. Further, Henry (2002) supports the fact by stating that although many NGOs work for and with these children, they have very limited program scope and coverage. He goes on to support his findings with interesting examples from Delhi describing that for every child who accesses the services of an NGO, many do not in Delhi. Further, he states that there are no more than 50 NGOs working for the 500,000 children who work and live on the streets of Delhi during the day, citing the average number of beneficiaries as 500. So, the coverage of NGO services gets limited to only one of twenty children. Delhi, he states is not an exception to the many large urban areas in poor countries suffering from the problem of resources for these children. There are some government services (for example public hospitals like AIIMS in Delhi) available to street and working children, however, apparently the resources to meet their needs are inadequate as is also highlighted by Nigam (1994) and Henry (2002).

4.2.3 Vulnerability of street children- Why is it heightened?

Given below is an excerpt from a World Bank study in 2002 which describes why street children are more vulnerable i.e. the prime reasons for heightened vulnerability of working street children. Another study by Fassa et al (2000) indicates that children are more susceptible to hazards or risks because of their young age and also because they are still undergoing the processes of physical and psychological growth and development. They go on to state that although adults face the same exposure to poor working conditions, children are more at risk due to the above factors.

Some points below (as taken from the World Bank study) highlight the high level of susceptibility of children in the following areas:

- i) **Work environment:** Since children need more sleep and often lack physical and emotional maturity, so they are developmentally incapable of assuming some types of responsibility and work.
- ii) **Ergonomic factors:** Children are at a greater risk for injuring ligaments and bones since they experience rapid growth.
- iii) **Carcinogenic factors:** Children's susceptibility to carcinogens is increased because they undergo rapid cell growth.
- iv) **Chemical exposures:** Other health problems in children can arise due to their hormonal development being adversely affected by exposure to chemicals (for e.g. harmful chemicals in pollutants in the air). The chemical exposures can be applied to the findings in this study since the children worked in the second most polluted city in the world i.e. Delhi and that too near main streets, under flyovers and at traffic signals. Thus, they were exposed to the various air pollutants and heat stress as highlighted by Bhanarkar's study in the glass manufacturing units (see literature review).
- v) **Latency period:** Due to rapid cell growth, the latency period of some diseases is shortened among children.
- vi) **Tools and equipment:** Musculoskeletal disorders such as back problems and repetitive-motion trauma can be caused among young people upon working with tools, machinery, and equipment which is designed for adults.
- vii) **Permissible exposure limits:** For chemical and physical exposures there are established limits but those are targeted to adults due to which they could translate into inadequate protection for children.

5. Relevance of the present study

5.1 Aim

The long term aim is to strengthen healthcare provision for working street children of New Delhi, India by including their perceptions in program planning in order to improve their health status.

5.2 Specific Objectives

1. To explore street children's perceptions of their occupational health needs or problems faced by them.
2. To explore where, when and why do they access healthcare i.e. their health seeking behaviour and if these children have used medical services in hospitals.
3. To correlate the problems perceived by children on occupational health with access to health care. Perceived health problems and problems in reality can be different.
4. To assess (literature review etc.) if there are any existing interventions/programmes (NGOs, providers) relating to these children's health and find out their effectiveness in meeting children's priorities. In doing so, also address the knowledge gaps in this area.

6 Methods

The street children phenomenon is an increasing problem in most growing cities like New Delhi. Various issues about the children involved are not known yet which is mainly due to dearth of literature in this area. It is therefore important to have baseline data on their health perspectives, in order to design better approaches for health care services delivery to them in future.

6.1 Summary of research methods

The proposed study is a piece of qualitative research based on phenomenological approach. It was an exploratory study and includes qualitative methods for field-work and analysis. A purposive sample of working street children of Delhi was selected by snowball sampling. The study was carried out during April and May 2007. The data was collected through individuals, semi-structured street based interviews, with 10 school-age (8–14 years) participants, in addition to in-depth case studies of 5 children. The sampling was convenience based. There is an absence of sampling frame for street-based children (Ayuku 2003) and not very clear existence of other reports, therefore, this strategy of convenience based sampling was applied. Geber 1997; Dematteo *et al* .1999; Adeyinka 2000 also highlight the difficulty of tracking the street based children due to their very mobile status.

All respondents participated in a 1-hour semi-structured interview, guided by an outline which was developed to assess their demographic background, ethnic identities; concepts related to health, health care seeking behaviour and perceived obstacles to service use. Analysis of the in-depth interviews was performed manually. They were coded, categorized, and domains/themes were identified for analysis. Out of these participants, in-depth case studies were conducted with five children selected through convenience based purposive sampling. Data from in-depth case studies and interviews

were analysed by focusing on meaning, context and internal consistency as well as frequency and intensity of comments.

6.2 Stepwise description of research methods

6.2.1 Study Setting and Site Description

The study was conducted in New Delhi, India. The study population included the working street children of New Delhi mainly those at working at the traffic signals, bridges and markets. Specifically sites were fly-overs and traffic signals near Bikaji and Mohan Singh Market. The focal areas in Delhi were chosen based on the recommendation on experience, systematic observation of the known areas where they congregate, and key informants in each city.

6.2.2 Study Duration: April to July 2007. April was the preparatory phase and the field visits were made in towards April end and May 2007. The contacting and rapport building was also done during May. Data collection, analysis were performed in June and July 2007.

6.2.3 Research Procedures

The present qualitative study was performed as an exploratory study with a long-term aim to improve and strengthen the health care provision for working street children in Delhi. From the start, the research project was participatory and research team (including the assistant known to these children) explored and discussed various factors that influenced the perceptions and practice of stakeholders. Different methods of in depth case studies, semi-structured interviews were used in the present study. The study was conducted in close collaboration with the people known to these street children and their help was sought at several steps.

6.2.4 Sampling

Due to various logistical and financial reasons only the main streets of New Delhi were chosen to select the sample. The sample was purposively selected. Table 1 describes the number of sample for each research methods to be used for each category.

Table 1: Summary of various research tools and participants in the study

	Working Street Children
Numbers	10
Characteristics	Boys+Girls
Data Collection	Unstructured interviews, interview questionnaire, case studies
Data Analysis	Narrative structuring, categorizing, thematic

6.2.5 Inclusion Criteria

Working Street Children: Children living and working on New Delhi streets for the past 2 years and working on the traffic signals.

6.2.6 Justification for selection of study subjects

All the stakeholders and beneficiaries of health care in general work together for achieving results (either negative or positive). However, perceptions of one of the main subjects in the picture for whom these stakeholders work i.e. the street children themselves are often not considered or studied. Therefore, in the present study views of children is important to understand their own occupational health situation and the healthcare provision arrangements/interventions for these working children. The perceptions of health workers and health facilities is not considered in the study since exploring the perceptions of street children was the prime focus of the study, since it has not been found to be done earlier in many studies. Hence the study revolves around systematic exploration of street children's perceptions taking street children to be the main study subjects.

6.2.7 Contacting the working children

The research team made contact with the working street children of the study area through the local people known to these children. Social networks and life calendars (demographics, participants and parental background etc.) were also used.

6.2.8 Working Street Children

Semi-Structured Interviews: Working street children for semi-structured interviews were selected and in total ten semi-structured interviews of children were conducted.

In-depth case studies: To validate data from semi-structured interviews, in depth case studies were conducted with five working street children of the same group. Case studies were performed in order to attempt to gain an in depth picture of these street children. It is generally the case that tabulated data and survey information is useful but not as informative as case studies, due to the fact that case studies provide holistic information and are quite informative. Case studies provide a picture of the real life stories of these working street children. It not only greatly aids in providing important insights into their real lives but also helps with analysis of their health situations by being cohesive in approach. In addition, since the participant is responsive to the investigator or researcher in narrating or revealing their own life stories, it becomes informative as it does not get limited by a question-answer approach. In this part it was important to establish a rapport with the respondent. At the same time, it was crucial to get to win their confidence.

6.2.9 Pilot Testing

Guides for interviews and case studies were prepared and piloted before the actual research and necessary changes were made in study procedures .

6.3 Analysis

Data collection and data analysis was done simultaneously and question guide for further interviews were not modified based on comments of children. A thematic design was applied in analysis. Interviews and case studies were not recorded on audio tape due to privacy reasons. Narrative structuring and interpretive and categorical method (with systematic and coherent approach) was used to summarize the results. Manual coding and sub-coding of each interview was done and common and similar issues was be identified (Pope et al., 2000).

6.4 Research Team

The assistant researcher (known to the working street children and the main researcher undertook the project. The assistant was trained and interviews were performed by the assistant and main researcher. Case studies were done jointly by the research team.

6.5 Ethical Considerations

As the present study deals directly with human subjects, all efforts were undertaken to safeguard the rights of children and others involved in the study. The study was initiated after receiving approval of the children and their employers and parents. Study was conducted under following ethical norms:

1. Participation was voluntary for children they could withdraw from participation at any time.
2. The field notes and interview transcripts were stored in a safe place, and are only accessible to the investigators of this study.
3. The data material is not identifiable by name. The notes and transcripts were labelled with numbers
4. Prior to interviews and case studies, participants were informed about the research and the reason and rationale behind conducting it.
5. Informed consent was sought from participants and their employers and or parents. Approval was obtained from the informants and participants of the study and their employers, families or any relatives. Since informed consent could not be obtained for tape-recording any information, so tape-recording was not performed. All those involved were made aware that they would be informed of any changes in the research methods (of research design flexibility in terms of research tools i.e. if any additional tools are used during any part of the study).
6. All were assured of the confidentiality of the information/data acquired. There was anonymity wherever desired.
7. All interviews were performed in the local language.

6.6 Limitations of the Study

- The study was conducted in specific sites and on a small group of children, therefore, it cannot be generalized.
- Only ten interviews were conducted, given the limited time frame, resources and also due to working street children being a highly mobile group in the intense summer heat in Delhi during the period of research.
- In few cases, due to various reasons, the employers and relatives of the children were not supportive of the later participating in the research.
- There may be a possibility of some hidden fears among children in their responses owing to their psychosocial behaviour, social upbringing etc.

- An aspect of children's perceptions may also be subject to confidentiality issues or apprehension. Issues related to sexual abuse and the gender dimension were not explored in the study and this was another limitation as well.
- Due to limited resources, time and logistical constraints, gender aspect and views of NGOs working with street children and other health providers could not be explored

7 Results

7.1 Street children's profile

Demography: Characteristics of respondents

Background of respondents

The respondents' ethnicities were predominantly Bihari and Rajasthani although there was one from Uttar Pradesh. Males were more than females and all were living with either parents or relatives and only one in the group was living on the street. The central and root cause for migration from their home towns to the big city of Delhi and for being on the street was poverty although other causes like family break-ups or death of a parent or sickness of a parent were also cited. Only few of the respondents went to school but had to drop-out and were unable to continue at one point when forced or put into street work. Three were school drop-outs whereas two didn't attend school at all. The school drop-outs did have the dream of going back to school. All of them had to work for long-shifts (usually between 9-12 hours) during the day for wages that varied but were almost as meagre as less than a \$ (equal to 55 Indian Rupees) a day. Some earned about \$2 a day.

Parental background of respondents

It was thought important to study the parental background of respondents and so it was found that for almost all the parents were alive. Almost all had big families with many siblings (five to six) and all the families were illiterate except for one whose younger siblings were studying. Mostly, parents were also engaged in some or other kind of work (unskilled, mainly) with two mothers not working and a father who was dismissed from work and was looking for another job.

7.2 Health situation analysis of working street children of Delhi

All the important aspects of their profile and health situations (7.1 and 7.2) are summarized under the 5 case studies below. These studies also include the intensity of their work, sectors of work, types of activities, working on the streets-risks and

exposures, the reasons these children work, education and poverty, earnings and poverty and whatever is relevant to the present study.

7.3 Street Children-Case Studies

The following case studies describe the aspects given in sections 7.1 and 7.2.

SUMMARIES

7.3.1 CASE STUDY -I

[Name: Ramesh (name changed), Age: 13 years, Male, Area: Mohan Singh Market Area, Delhi]

Ramesh, was found working at a very small tea vendors stall on the street. He is 13 years and came from a village in Bihar, India where his family stayed prior to migration to Delhi. He earns his livelihood by working at the tea stall making tea, running to offices nearby to serve tea and also cleaning at the tea stall. His mother brought him to Delhi and came together as a family with the hope of earning more in this metropolitan city. His father left his mother to remarry and he was the eldest child in the family with 4 brothers and 3 sisters to take care of. Being the eldest, he had to leave his studies and start working at the age of 8.

Although, he confessed of his relationship with his parents as being fine and also felt that it was right to take the responsibility since his mother keeps unwell and sick and so cannot work. He told that his mother put him to work. His daily wages were as meagre as Rupees 90 a day but working hours were from 7 am to 7 pm. The income he said was never enough for his big family. He said he did not wish to work but had to do it and said he had no big dreams. He wanted to go back to school if given a chance and also wanted to do a course in hair-cutting or work with a roadside hair cutter.

Regarding his health conditions and illnesses, he said the work made him stand and run around the whole day due to which he felt very weak and unable to work the next day. He had never been admitted to the hospital. When asked about his general health, he said he didn't know about it but told about having visited a doctor in the slum area near Safdarjung. Ramesh explains:

“The doctor in the slum area near Sadarjung is good as my friends also said. My mother also tells me to go to him. I feel weak generally but have not had any accident or something. I wish to study further.”

This healthcare seeking decision was influenced by his friends and neighbours, peers etc. Regarding treatment from healthcare provider, he said it wasn't as good. He was not taking any prescription medicines or anything else for a specific health condition or problem and did not have a place to go for regular medical care where they knew his medical history. However, he said that generally this way of healthcare seeking helped him and he was satisfied. All the health problems weakness etc. was due to his occupation and he said he could do nothing about it to change his work or job because they would be starving if he did. He also said that the only person who cared about his health was his mother he felt.

7.3.2 Case Study- Two

[Name : Malkit (name changed), Age: 12 years, Male, Area: Near Bikaji Cama]

Malkit, a 12 year old boy was spotted working at a small stall on the street selling some eatables to the passers by. He migrated from Rajasthan to Delhi because his father called the family. His father was working in Delhi already when he came. Better opportunities and money was cited as the main reason for migration. He said that he began to work when his father asked him to and left school at a very early age which he didn't even remember. All he knew was that he started working at the age of 9.

Education was stopped and he was sent to work daily from 9 am to 6 pm. He had to remember the prices of various goods to sell to his customers which he felt was not a very challenging task. He had dreams to do something more, to get training to be a car mechanic. Monthly wages of a meagre Rs. 800 were not enough to run his family, he told. No big dreams he had but he said he wished to go back to school one day.

When his leg was noticed, he was limping and so when asked, he tells us about his health. He felt he didn't know about how the general health of other children his age was, but he described about his injuries quite clearly. He said that he once had a small injury on his leg due to which he used to get regular fever. He remembered that he also felt very irritated during that time. When things became serious, he was taken to a hospital back in Rajasthan, his home town, where his maternal uncle seemed to know the doctor and thus the latter recommended that Malkit be brought there to get his treatment, since they felt the doctors in Rajasthan were better and more caring than those in Delhi.

“ My uncle said that the doctor in Rajasthan he knew was very good and would treat him well, so his parents decided to get his treatment there.....the doctors in Delhi have no time for us because we are poor and have no money for big hospitals out there”

Malkit went on to state that he was applied bandage in that hospital. Later that bandage came off and then a plaster was put. He said that the plaster lasted for 5 long years on his leg. He told he underwent 15 operations and his bone was wearing out. Just three months ago he had another accident due to which he now had other problems. He could

not stand or walk erect. Could not stand at one place for a long time and still had to go to work. He said he could not stop working because he had to serve his family alongwith his father. Still his optimism and courage was impressive when he admitted that things would get better and he would be able to work better once his leg becomes fine. During his treatment he was hospitalized for 5-6 months previously and then for one year when his condition wasn't improving. He said he wasn't able to gather what was going on then. After that he remained at his house for 4 years in that plaster. He said there was some medication and confessed that the doctor at the hospital gave him good treatment. In addition to the above problems he said that someone told him that his heart was weak and so Malkit used to have chest pain for which no treatment was being sought.

He did not know of any children's organizations working towards helping out children in difficult circumstances and no one had ever approached him to offer help. He says that work makes him forget his medicine which he usually should have and he gets verbally abused by his employer from time to time for even small mistakes. Malkit's occupation he felt made him too tired and his health worsened due to that he said. He also told that money was the biggest problem and they could not afford better hospitals due to financial reasons. Poverty he said was a barrier in accessing good hospitals or gain treatment at good places. He said he knew about big public hospitals in Delhi but his parents didn't take him there because his family trusted the doctor in Rajasthan more.

7.3.3 Case Study – Three

[Name: Kaami (name changed), Age: 9 years, Female, Area: Bikaji Cama flyover crossing]

The 10 year old girl Kaami, who never went to school was found selling flowers on the street and near the traffic signal near Bikaji Cama flyover area. Her mother was around doing the same work and brother, who was 6 years, she said sold flowers at some other traffic signal. She said she began working at the age of 6 years. They had migrated from Rajasthan to Delhi as there was no work in Rajasthan to do and Delhi they felt was big city so had more work and opportunities to offer. The employer sold flowers to them and they had to in turn sell flowers and make more money.

She told that her parents who always fought put her to work and her family conditions were not good. While she worked from 9 am (office hours when the traffic signals get really busy in Delhi) to 8.30 pm and usually earned a meagre Rs.100 a day. Sometimes she said it was lucky to earn a little above that. This she knew was enough for her and her family, who lived and slept in a shack near that street. She didn't feel good about this work at all and said she wanted to study but had no money.

She said she felt she had some health problems like going out in extreme conditions of hot and cold used to make her feel very worn out and weak. She admitted having never been to any sort of doctor or medical practitioner or hospital and didn't even know why.

Neither did she have any idea about any organization or people who would come to help them on the street. If they wouldn't do this work, they would starve to death she said.

Rather she surprisingly mentioned and asked for help for her little brother who she said had a broken arm from an accident on the street.

"I request you to please take my ill brother to the doctor. I am only weak but he had an accident that broke his arm.....my mother and I would be very thankful to you for taking him please."

She said he was taken to some hospital near some bridge (the investigator found out that the hospital was a government hospital due to the name of the bridge she mentioned) and there they didn't give him nice treatment, she told her family felt. She said that big hospital never treated them well and her brother was still in pain. He still used to get pain but there was no way he could stop working she said. She didn't know anything why her health was deteriorating but said that work was not good as it didn't allow her much sleep and rest. She gets extremely tired by the end of the day and the police also disturbed them and took some money from them. While she was going on to elaborate on that one, her mother quickly intervened to fearfully state that now they were alright and the police never intervened. Regarding what she felt could be done to improve her health; she had no answer but to say that she didn't want to do this work.

7.3.4 Case Study – Four

[Name: Mukesh (name changed), Age: 8 years, Male, Area: Near Mohan Singh Market]

Mukesh, a small boy of 8 years, was found repairing an auto-rickshaw on the main street with his hands and face all dirtied with grease from the machinery. He was from U.P. and had migrated with his father. So at home was just his father who sent him to work daily from 8 am to 7 pm. He had no idea who and where his mother and rest of the family were. His employer was a small taxi-stand owner on the side of this street. Amongst the heavy traffic and pollution, Mukesh was working everyday to get a meagre wage of 50 Rupees a day.

Treated badly by his employers, he confessed that he was given very little to eat by them during the day. He told he never went to school but he wished to see his father happy and felt nice when his father was happy. Health wise, after a long and tiring day at work, he said he always felt ill and never felt strong. He said he often had cough and cold, his eyes would water and pain from the pollution and working on the repair work with the machinery. He was verbally and sometimes even physically abused by his employers and the drivers whose vehicles he repaired. He had never seen a doctor or hospital in his life he admitted. Mukesh described:

“In my house I have my father but here I have no friends other than the boys who work with me. I get so tired that I sometimes sleep without eating anything. If I don’t do this work, then I don’t know what I will do as we are poor and we will dieI have never been to any doctor. I have injuries (pointing to his wounds) which pain sometimes but I have to work my father says.....if I don’t work properly, my employers would scold me ”

Mukesh’s small injuries were evident on his arms and legs which could occur as a consequence of handling machinery meant for adults. He had a group of other boys around him at work who were older than him but he said he felt secure and happy in their company. Sexual abuse by those around him could not be strongly commented upon because of his confidence about being happy when one or two of those boys were around working with him. He had also never encountered and wasn’t at all aware of any NGOs or other organizations or people out there to help children in difficult circumstances or working street children.

7.3.5 Case Study – Five

[Name: Gauri (name changed), Age: 11 years, Female, Area: Street near Malai Mandir]

A girl aged 8, Gauri, found going from door to door asking for clothes for ironing and working at small ironing shed placed under a tree on a street near the main street of Malai Mandir. She was working for her aunt and uncle and her parents had sent her to Delhi from Rajasthan to work as a ‘*dhoban*’ (*people ironing clothes for money are known as ‘dhobi’ in Hindi*) with her maternal aunt and uncle. The prime reason was that she had a big family in Rajasthan and her parents couldn’t financially support all the children. So she knew she was sent here to earn whatever little money she could, which her uncle and aunt would save and send back to her family. She was dependent on them for food and her shelter and when asked about how much money was being sent she said she had no idea.

She never went to any school though she always wanted to upon seeing other children go, was undernourished, weak and feeble as could be made out from her appearance, and treated badly by her relatives who also made her do their household chores in addition to the food and shelter they gave her she said. All this made her feel very weak health wise and she had regular fever and headaches (something like giddiness) she admitted. Astonishingly, she still said she was ok and had seen a doctor, a nearby informal practitioner whom all the domestic servants, house maids and ‘*dhobi-dhobans*’ etc. of the area visited for any kind of medical aid. Her aunt had taken her to that practitioner she says. When asked about how regularly the practitioner asked her to visit, she said he was nice and if they didn’t have money to pay him, he would ask them to pay later. Gauri also told that he gave her some white powder medicine in a ‘*pudiya*’ (*a small paper wrapped up around the powder*). Asked about the effects, Gauri said that she temporarily felt relieved after having the powder but again her symptoms would resurface in a few days. Gauri explained:

“ The doctor my aunt takes me to is nice and humble.....he talks softly and his ‘pudiya’ is effective...as everybody also says he is nice.....sometimes he does not even take money from us and is just at the end of this street.”

Though she had visited him a few times, frequent visits to him were not possible she realized due to money problem. She said they were poor and hardly could eat. In an effort to see her family happy, she didn't like to waste money and skip work due to her illness. A child so mature and responsible at the age of 11 is an astonishing and admirable fact. Her courage was commendable and worthy of respect. When asked if she felt her health would deteriorate if she didn't take proper treatment or if she knew there were better places (clinics, hospitals etc.) to go for treatment, she said that doctor was trustworthy and nice and that she would feel better if she kept going to him and that generally she felt ok.

7.4 Reasons to work

It was observed that these children were mainly on the streets due to their families. 3 of them described the reasons for being on the street and working due to their family pressure for extra income. One admitted that it was difficult for his family having many members to survive without another member of the family (i.e. him) earning. Another had been selling flowers on the busy traffic signals going from vehicle to vehicle and had no idea about why she was there except for poverty. *'I'm here because if I don't do this, then we'll have no money to survive,'* she states when asked about why she felt she was doing that work. So, in general, poverty and family pressure were the root causes. In addition, urbanization and migration were another which are also attributes of poverty, displacement and unemployment and are inter-related. Broken marriage was the case in one case where the family had migrated whereas death of the poor parent was another cause in one case.

7.5 Types of work

The activities or type of work they indulged in is varied. One girl was working as a flower seller at traffic signals, another as a *'dhobi'* daughter (so had to become *'dhoban'* –ironing clothes but did not have a home base to return to), one boy was an auto rickshaw mechanic or repairer, another worked at a street stall, yet another worked at a very small tea and food vendor's as a cleaner of dishes.

7.6 Risks and Exposures: Impact of Child Work on Health

Based on interviews and case studies, children were beaten up, abused economically and physically by their respective employer, however, none of them mentioned any kind of sexual exploitation. The results from this study indicate that these working street children do suffer from health problems, which, if ignored for a long time, could lead to serious consequences. Perhaps, the only thing that needs to be there is realization of the intensity of their problems.

The following Fig.2 summarizes the reasons leading to the occupational health problems of street children in Delhi.

Fig 2. Occupational Health Problems of Street Children of Delhi- Reasons (self created fig. based on factors studied)



8 Thematic Analysis

To summarize the results from semi-structured interviews and in-depth case studies, thematic analysis was performed and based on that four main themes regarding the perceptions of working street children aged between 8 to 14 years, about their health, illness incidence and healthcare seeking behaviour emerged from the data. The four main themes are described as follows:

8.1 Working street children's perceptions of their health and illness

All the working street children studied here had living circumstances that helped shape their concepts about their health and illness. This is because most of the participants described that if they were ill, they would be rendered incapable to work. Their health was important for them as something that was a state allowing them to work and earn income for their families. Small injuries and minor illnesses were categorized as participants as nothing but only a frailty which does not hinder their livelihood. These minor illnesses included minor cuts; sometimes skin infections and burns; some described weakness, mild fever, cold and diarrhoea as minor.

Major illnesses were identified by participants as a condition that would lead them or rather force them to stay away from work. For this, they also felt they some kind of medication would be required. Some of the common illnesses described by them as major were accidents and/or major injuries, persistent high-grade fever and severe diarrhoea. These would immobilize them and constrain them from daily work they felt.

From the general physical examination of respondents few other problems were also revealed. One boy had small bruises and injury marks on hands, feet and faces which was also the case with other boys and girls. Another boy was weak and limping because he had a broken leg. . Although all the respondents were found to be undernourished and weak, it was more so the case with the two girls and the auto-rickshaw mechanic boy. These occupational health problems stem from this study.

8.2 Working street children's decision making for health care

The factors on which the respondents' health care decision making depended were varied but three factors were pointed out by almost all of them. The following three factors mainly influenced their healthcare decision making:

- i) Parents/relatives/neighbours/friends.
- ii) Intensity or severity of the illness, and,
- iii) Financial condition of family and/or relatives

Most of the children in the sample, as noted earlier, were not residing alone. They lived with their parents or relatives and thus their healthcare seeking decision was

significantly influenced by their families or relatives. At times, it was found that one or two participants might also take their own decisions but most of the times, for seeking medical advice, their parents (mother or father) were mainly the decision makers. For two it was also friends and neighbours that were who played quite a vital role. Visiting a healthcare provider was seldom alone, it was mostly with someone, be it one of the parents or relative.

Coping strategy of respondents

Two of the respondents had never been to a healthcare provider at all. The role that their peers (friends or neighbours) played was crucial as acknowledged by the respondents. They would also lend help (monetary or advisory) in times of need but since they had their own battle for survival, this was not always possible.

Whatever the condition or circumstances, 'self-medication' was their first reaction or attempts to combat an illness. This was the foremost response to any illness and for this they would utilize remedies from home or the market (i.e. prepared at home or commercially). They only sought healthcare when they or their parents or relatives felt that the situations were worse and beyond their control. At the point that the circumstances immobilized them, especially when they are unable to work and their conditions persisted for many days, health care would be sought.

Most importantly, the most crucial role for decision making in all cases was played by the economic circumstances of the respondents' families. Poor financial conditions obviously did not allow them to seek healthcare at the big hospitals or with health care providers who charged heavily. So, in times of dire need and during financial crisis, mostly they preferred visiting an informal practitioner who would either charge a nominal fee or give credit (do not charge at that point) at the time of need, was easily accessible and trustworthy as the peers also followed that tradition. As mentioned about the strong peer network, money borrowing sometimes solved the issue. Mostly, they would choose to let the disease be and wait for it to get better by itself. At times, they would also think and wait that someone (either their peers/relatives or anyone conducting research with them etc.) sympathetically takes them to visit a practitioner and bears expenses for the treatment as was also the case with the flower seller girl. Kaami requested the investigator to take her brother to the doctor. She saw the investigator as an 'option' to seek healthcare. This also poses another question about the extent outreach and coverage of health services provided by NGOs and the government (literature review). It also highlights the fact that children are ready to seek healthcare if provided with options.

8.3 Choice of health care provider- FACTORS

The factors and criteria for choosing a healthcare provider were not only based on the existing financial possibilities but also the way the provider's skills and other factors like accessibility, trust, credit were perceived by them. In trying to treat medical

conditions or infirmity, as we know, everywhere people must make choices from the numerous options of action. This obviously depends on the number of choices available to them.

Respondents answered differently on questions on their choices but majority had one thing in common as their first mode of action or choice for seeking medical care. A majority opted for unqualified or informal private practitioners as their first choice for seeking medical advice during any illness, while one preferred medical doctors. It could not be observed whether traditional healers were the option with any of the respondents since we don't know the kind of medicines provided by the healthcare providers visited. Thus, central to all treatments was the choice of informal health care. By and large, the respondents felt and believed that illness was mainly because of their work. For this, they thought informal providers treated them well and were no less knowledgeable than the other doctors. Of course, the knowledge that other treatment options existed was there.

They stated that consulting big hospitals and doctors was very expensive and mostly inaccessible. Even if they could consult the other doctors or hospitals, the treatment from the informal practitioner would continue alongside. This could be attributed to the trust factor. The respondent with the leg injury and accident preferred big and allopathic doctors as his first choice. Although, informal practitioners were considered to have adequate and correct knowledge, mostly big doctors were considered by respondents as having power to cure 'big' problems (acute). These 'big' problems they thought were big injuries or accidents, high-grade fever, severe diarrhoea, operations etc. There was a certain fear or apprehension observed about approaching a big hospital or doctor, not only for monetary reasons but also for the fact that the respondents preferred the familiar due to trust and reliability. To them, since allopathic providers charged heavily, so they seemed to have the ability to treat them sooner to bring them back to health for them to quickly get back to their work. What restrained them, however, from approaching these allopathic providers was money, family/friends/relatives, trust, accessibility, apprehension or fear of ill-treatment, a sense of inferiority and lack of confidence in some way.

Therefore, informal private practitioners were considered much more approachable, familiar, economical, safer, and trustworthy. The very reputation of the former as being economical, trustworthy and carrying important knowledge about treatment and cures made them popular. This undoubtedly was the case in situations of economic crisis and when financial reasons become the central factor to make modern medicine unsuccessful.

8.4 Obstacles to health care as perceived by the working street children

Some of the obstacles as perceived by respondents have been mentioned in the previous section. The responses were varied but the crux of the issue influencing their health care seeking behaviour was common.

Theories of accessibility applied to the present study

As per Penchansky and Thomas (1981), the five A's influencing access to health services are **Availability, Accessibility, Affordability and Acceptability/Accommodation**. As identified in the present study, the above theory of accessibility can be applied to highlight the factors influencing perceptions of children regarding barriers to utilization of health services. These are as follows:

- i) **Availability-** None of the children interviewed had any idea of any health services available to them through NGOs or other government run institutions.
- ii) **Accessibility-** Their daily schedule of work do not allow for long waiting hours at big hospitals (government), clinics etc. and they described that as an extremely time-consuming factor posing a hindrance to their work. This factor was obviously restricting since they worked daily to make a living for themselves and their families and this waiting led to a loss of time or working hours.
- iii) **Affordability-** For health problems according to respondents, none was able to bear the cost for better treatments.
- iv) **Acceptability-** Adding to that was factors such as apprehensions of being ill-treated or less seriously and disrespectfully treated by healthcare providers. Due to that they felt, the doctors would compromise on the quality of health care given to them considering them as an inferior group.

Access was mentioned as an issue by almost all respondents. One of the respondents specifically mentioned that since her relatives took her to that doctor, they would never entertain her independent decision, she was afraid, in choosing to visit another doctor.

9. Discussion

This study has assessed the effectiveness of existing interventions/ programmes regarding health of the street children (based on literature review). In addition, a qualitative field research was performed to explore working street children's perceptions of their occupational health needs with special emphasis on their health seeking behaviour.

9.1 Effectiveness of existing programmes/interventions

This study included a review of the programmes and conventions in place in India and Delhi with a view to gain insight into the very design of those programmes and existing services and in order to provide comprehensive information and recommendations on how and why children's perceptions could be considered important for program planners and administrators in improvising programs targeting street children.

From the literature review, the following 3 kinds of approaches were mainly evident, but again their impact cannot be analysed since the coverage was very limited. This is also similar to the World Bank study conducted in Latin America and the Caribbean (2002).

- i) An attempt in removing their barriers and providing them with opportunities through 'empowerment' of street children is termed as the outreach approach. This could include providing street children with shelter, food and helping them gain knowledge about their health and behaviour through health education, however, the effects of it at large are not clearly known although there are some examples of NGOs such as Child Relief and You (CRY) following the empowerment approach through community mobilisation. CRY operates from Delhi with branches throughout India and follows a rights based approach to address the root causes of children's problems.
- ii) The approach to correct them had the fundamental of perceiving street children as aberrant or delinquent. This correctional approach is followed by some NGOs in Delhi (example Deepalaya, Prayas and SBT).
- iii) Another approach (mainly followed by NGOs) was the rehabilitative approach which focused on skill development of the street children for them to be able to get placed or reintegrated in the mainstream. Skill providing and vocational training existed in some NGOs like Prayas and SBT.

All these three approaches although having an impact on their health, still do not address the root causes except for CRY. There needs to be a switch over from social control and change as Lusk (1989) illustrates in his table. Only through this, a solution to their problems including illness and poor health could be successfully achieved.

Table 2: Types of interventions directed at street children

Approach		Characteristics
Correctional Approach	Social Control 	<ul style="list-style-type: none"> • Perceives children as delinquents • Problems can be resolved through juvenile justice and youth corrections • Based on assumptions that the root causes of problem is personal pathology, and therefore, intervention strategy is clinical at its best and punitive at its worst.
Rehabilitative Approach		<ul style="list-style-type: none"> • Views street children as victims of child abuse and neglect, extreme poverty and unstable family life • Focus on transforming street children into skilled, pro-social school graduates through work and values education.
Outreach Approach		<ul style="list-style-type: none"> • Perceives children as agents of change (influenced by Freire’s philosophy that individuals change the world while learning about it) • Focus on structural problems and individual empowerment (use of street educators who provide educational, counselling and advisory services to children about their health etc.)
Preventive Approach		<ul style="list-style-type: none"> • Perceives the problems of street children including health problems as a symptom of structural problems such as migration to urban areas, inability of cities to provide adequate services (employment, housing etc), breakdown of family structures • Interventions focus on community-based programs, environmental/structural changes, such as providing day-time activities, schooling, community kitchens, artisan cooperatives etc.
	Social Change	

Source: Lusk 1989

9.2 Working street children's perceptions of their occupational health needs with special emphasis on their health seeking behaviour

Anyone who generally observes street children's situation would comment on it as being miserable and so does the present study aim to highlight which is also quite evident even from their extremely low socio-economic conditions. However, it is relevant and useful to know, from their own perceptions, about the extent of deterioration in the health conditions and the kind of illnesses they suffer from. This will help in formulation of health programmes for them and also for organization of health services among them. In the present analysis, such items such as handicapped children, history of past illness, medical treatment, nutrition and food intake, addictions, smoking etc. have been analysed. This study makes an endeavour to explore the working street children's perspectives on their health. In addition an attempt has been made to explore the obstacles faced by them in utilization of services. To address the needs of this group, the above efforts are imperative.

As pointed out in this study and also supported by Dachner et al (2002) in their study that since the daily life of these street children was challenged by a never-ending fight for existence, for earning to serve their families and help get food; their difficulties were further affected by or made worse by their health problems. They go on to state that the health problems varied and were also caused by their unhygienic surroundings which were mostly overcrowded and the extreme weather conditions in which they have to remain to work. So their very existence due to poverty was worsened by these environmental conditions as well.

It was also crucial to study the respondents' parental background and other demographic characteristics. These helped understand their reasons for migration, deserting home, and being forced to work, thus making their health problems manifold. The study mainly involved interviewing boys and girls were few since mostly girls worked as domestic workers as is also supported by the study in Vietnam by Rubenson (2005). There were, of course other reasons since girls also worked at their own homes to help their mothers in household chores or take care of their siblings, and then mostly who worked were also not on the streets till late nights to be noticed. This could be due to the previous option available to them. Aneci et al (1992) and Barra (1998) worked in Brazil and Columbia and reported poverty as the main reason like in this study as well and also described that it was due working for more than 8 hours to earn as meagre as 1 USD a day.

The data obtained in this study showed that almost all the families studied were illiterate and were either not earning, or either one of the parents was working or just the child or one parent was working to support the family, which is similar to studies in Vietnam by Rubenson (2005). Adeyinka (2000) reports quite similar findings in Nigeria. As highlighted in this study, roles of friends, neighbours and peer groups were important for children, who they said were dependable in their times of need. This is similar to the studies by Baker (1997) and Gross et al (1996) in Nepal and Indonesia,

However, in the present study, it was also found that respondents were unable to depend on them at all times since their counterparts on the street also had their own work and struggle. Concisely, all these street children had common risks and exposures, their fears of living in dangerous environments and their own struggle for survival.

It was found that for street children, the understanding and concept of health was a state that would allow them to work. This understanding stems from their day-to-day experiences on the street life and their own work. Little do they understand that health is a state very important for life, for survival? For them, it is just a condition must for work. The data points out that many children have a low self-perceived risk of diseases and illnesses. This could be compared to the data from the studies in USA and Vietnam by Christine (1999) and Rubenson (2005) respectively. There was however something more in this study, that some children reported that about persisting fever and said they felt weak and feeble and found it hard to work with it or recover from it. The data indicates no sort of sexual abuse or sexually transmitted disease whereas the same is highlighted by Rew (2002) and few others like Christine (1999). They characterized persisting cough, pain in the leg, chest pain, and accidental injuries as something acute they could not get rid of even with the help of informal private practitioners. Nigam (1994) and Wright et al (1993) have findings coinciding with these. Among street children, Senanayake (1994) and Ayaya et al (2001) also report a common and high occurrence of diseases such as skin diseases, dysentery, injuries and respiratory infections.

The observations from present study also suggest that in times of choice making, self-medication was the first preference amongst street children. It also points out that they or family only decide about seeking healthcare based on how intense their illness is (again depending on the fact that it would render them unable to work or not) and on how costly the treatment could be. Hardly any independent decision was made and mostly parents, family or relatives/peers proved instrumental in this decision-making.

Furthermore, it was observed that the picking of providers was based on factors such as how skilled and popular the provider is perceived as, in their surroundings. More factors were trustworthiness of the informal treatment, its effectiveness and the relief it provided (even though temporary) by costing them much lesser money. Choice was also a result of comparing all the above with qualified treatment in modern medicine in curing the illnesses. Not only that, the cost of various alternatives was also a deciding factor depending on the resources they had to meet them. During times of a financial crisis, it was the peers who were supportive in lending money for a costly treatment that became mandatory if it was thought to consume valuable work hours.

Rubenson (2005), Klein (2000), Philips (2004) and Geber (1997) have all studied the lack of access to regular health services for street children in different countries. Morey et al (1993) and Christine (1999) have also reported similar findings in the past. In this study, working street children never perceived their problems as being too serious and therefore, don't find it a must to seek healthcare.

Further adding to this distress is the fact that they're not provided attention or care. Their rights and protection are subject to constant violations due to the harsh conditions of street life. Our data substantiate the findings in different developing countries by the various other studies mentioned above and i.e. the fact that according to children their perceptions of their low status (inferiority) leading to apprehensions about the healthcare provider's feelings or attitude towards them; their financial conditions and further, the situational conditions; equity and accessibility issues (previous section: accessibility theory) regarding access such as distance to the hospital/clinic, trustworthiness/confidentiality issues (Christine 1999), long waiting times and loss of work hours were also cited as important reasons. Shortage of health services for them (as perceived by children) was cited as another important reason. Henry (2002) brings out that Delhi is not an exception to the many large urban areas in poor countries suffering from the problem of resources for these children. There are some government services (for example public hospitals like AIIMS in Delhi) available to street and working children, however, apparently the resources to meet their needs are inadequate as is also highlighted by Nigam (1994). There is a shortage of doctors for them even in the very large urban areas like Delhi.

There are NGOs working to provide solutions to the above problems (example Prayas, PCI, SBT etc.), but, the extent of coverage is an issue (as described in the previous sections). Regarding knowledge about other health care providers, there was no such reason cited by the participants of the study since they knew that big, better and costlier hospitals, doctors and clinics existed.

10. Conclusions

- The present study was conducted in Delhi, India, to explore and understand working street children's perceptions of their health, illness and health seeking behaviour. Study also included a review of the programmes and conventions in place in India and Delhi. This was done with a view to understand the very design of those programmes and existing services
- Snowball procedure with convenience and purposive sampling was applied as it is hard to find/track working street children in summer due to their mobile nature, risk associated with these children and their families and also insufficient information or data on the working street children.
- The findings of the present study are based on qualitative data like semi-structured interviews and in depth case studies which helped bring to light the working street children's perceptions of their health and illness, and the barriers to health service utilization.

- The respondents were predominantly Bihari and Rajasthani with more males than females. Only few of the respondents went to school but had to drop-out and at one point forced or put into street work. All of them had to work for long-shifts with income mostly under a \$ (equal to 40 Indian Rupees) a day.
- The findings of study indicate that the health conditions of working street children are miserable and majority of the available health services are out of reach of from street children and there are multiple obstacles faced by street children in accessing health care services. Extremely poor socio-economic conditions are obviously one of the root causes.
- Finding of present study not only corroborates with findings and themes from other studies and literature, but also does highlight more factors. In particular, the somewhat similar factors could include some common health (medical) problems, their self-perceived risk of illnesses as low and certain other factors similar regarding hindrances to health care service utilization. We don't know about aspects relating to culture specific health-seeking behaviour in this study. However, preference to informal private providers in the vicinity when self-medication failed was very common.

11. Recommendations

- As per the findings, in targeting street children, there needs to be the necessary curative and preventive services for them. This could be achieved by effective public-private partnerships than just public sector services available to them. Additionally, this could also be achieved as highlighted in Table 2.
- It is recommended that delivery of health services should be very cost-effective. Further areas of development of successful health services for street children would mean frequent medical attention; follow up by a qualified paediatrician. Also, first aid services at observation homes and all sites providing shelter and frequent health camps (e.g. those that treat leprosy STDs, TB and dental problems) should be in place. An effective and excellent referral system to local health facilities is also suggested. Effective preventive and awareness campaigns on HIV/AIDS and other important health risks should also be provided.
- From the results of this study, it is clear that working street children have different circumstances and needs, since they are subject to different constraints and conditions. Owing to these targeting street children by interventions designed for them requires more specific and localised attention based on their circumstances.
- Children's perceptions need to be considered in designing programs and interventions targeted at them which until recently has not been the case. Till

now, the interventions have not considered their perceptions and not tackled street children's problems based on their perceptions of their circumstances, needs and/or constraints.

- Rights based approach needs to be followed in order to provide them health care and protection of their rights as a human right.
- Since none of the children in the study had gone through an immunization program or knew about any organizations working for the needs of street based working or other children, this clearly indicates the need of lot more further efforts than just designing universal immunization and other programmes or just having NGOs in place which find short term solutions to the problems of these children.
- It is recommended that considerable efforts should be done to find out about the extent of their problems or diseases/illnesses they feel they suffer from which could be helpful in planning and formulation of health programmes for these children.
- Medical treatment should be expanded to reach more and more children. A small fee could be charged by these clinics for their services. Medical supplies could be obtained by pursuing donations from companies e.g. pharmaceuticals etc.
- Low cost but nutritious meals should be sustained and extended. Thus, to attract more children to the drop-in centres this lunch program can be effectively observed and monitored.
- In projects run by PCI, a part-time nutritionist is employed for dietary considerations of the children. Similar services can be utilised by other NGOs running shelter homes etc.
- There can be other interventions such as use of 'street theatre' performed by street children and other general health awareness programs or campaigns targeting them. This could help increase awareness on human rights issues, general health, HIV/AIDS, sexual exploitation etc.
- Health camps should be conducted to provide medical interventions in areas like eye care, dental and other camps for STD's etc. An effective and excellent referral system to local health facilities is also suggested.
- Various strategies should be applied in bringing about a social change, a major one being "Empowerment" This can be achieved through activities aimed at providing better economic opportunities through improved vocational and other skills leading to '*economic empowerment*' of the child and improve the savings skills

- Interventions should be aimed at the types of activities or work they perform. This could again have a gender aspect to it since roles and expectations could differ between boys and girls (as mentioned in the previous sections).
- Further, their health needs should be addressed through training in development of character and counselling services including health education; improved psychosocial relationships with the community and peers and also through enhancing their level of education
- Informal healthcare provision could be strengthened through more effective strategies of public-private partnerships such as more recognition and training/certification of informal healthcare providers, in an effort to better the healthcare delivery at their level.
- NGOs can be a part of long term solutions as well if they concentrate on and apply a holistic approach (Table 2) to bring about a social change. There is a need for them to expand their programmes and outreach to be able to provide coverage to more and more children. The root causes of their problems need to be tackled, rather than or in addition to just studying and addressing the symptoms of those causes.
- There needs to be emphasis on the philosophy of alteration of individual behaviour and greater life enhancing opportunities as being crucial to prevent or put an end to their problems.
- Projects and outreach of local NGOs should expand to contact more and more children, their families and the communities surrounding them. The study recommends that in cases where there is a lack of health facilities in the immediate vicinity of the child, mobile health van or clinic should be brought to the communities. This clinic should be well equipped with facilities to provide medical care and services like counselling.
- Working street children's needs of services through their perceptions should be further assessed through research. It should be combined with researching their health service consumption in relation to their need. The obstacles for children requiring treatment but not seeking it should be analysed in-depth. It is useful for health service providers to have this information since it would aid them in designing strategies for more effective intervention and targeting street children considering their needs and perceptions.

Overall, '*the child*' should be the main centre of further research into this area and the core process of the design should focus on 'the child.'

REFERENCES

Adeyinka A. 2000. Social correlates and coping measures of street children in southwestern Nigeria. *Child Abuse and Neglect*, 21.

Aneci R, Borba E, Ebrahim J. 1992. The street children of Recife: a study of their background. *Journal of Tropical Pediatrics*, 38.

Antonovsky A. 1987. *Unravelling the Mystery of Health*. London: Jossey-Bass Publishers.

Angelli S. 1986. *Street Children: A growing urban tragedy*. Weiden Feld and Nicolson: London.

Aptekar L. 1988. *Street children of Cali*. Duke University Press, London, UK.

Ayaya S, Esamai F. 2001. Health problems of street children in Kenya. *East African Medical Journal*, 78.

Ayuku D, Odero W, Kaplan C, Bruyn R, Vreis M. 2003. Social network analysis for health and social interventions among scavenging street children in Kenya. *Health Policy and Planning*, 18, 110-120.

Baker R, Brick C, Todd A. 1997. Homeless street children in Nepal; their lifestyle and demography. *Journal of Comparative Family Studies*, 29, 127-45.

Barker G. 1991. *Exploited Entrepreneurs: Street and working children in developing countries*. Childhope: New York.

Bhanarkar A, Srivastava A, Joseph A, Kumar R. 2005. Air pollution and heat exposure study in the workplace in a glass manufacturing unit in India. *Environ Monit Assess*. 2005 Oct; 109(1-3):73-80. Available <http://ncbi.nlm.nih.gov/pubmed>. Accessed May 2007.

Berti R, Rolnitzky L, Zylbert S. 2001. Comparison of the health status of children using a school based health centre for comprehensive care. *Journal of Pediatrics Healthcare*, 15, 244-50.

Child Rights and You. 2007. Available www.cry.org. Accessed April-June 2007.

Chatterjee A.1992. India: The forgotten children of the cities. Innocenti Studies. United Nations Children Emergency Fund.

Dachner N, Tarasuk V. 2002. Homeless squeegee kids-food insecurity and daily survival. *Social Science And Medicine*, 54, 1036-1045.

Department of education, Government of India. 2006. Available <http://www.education.nic.in/>. Accessed April-June 2007

De La Barra..1999. Poverty- The main cause of ill health in urban children. *Health Education and Behaviour*, 25, 45-59.

De Rosa, Kipke D, Iverson E, Unger J, Montgomery S. 1999. Service utilisation among homeless and runaway children in Los Angeles, California: rates and reasons. *Journal of Adolescent Health*,24, 191-200.

Fassa A, Facchini L, Marinel M, Christiani D. 2000. Child Labour and Health: Problems and Perspectives. *International Journal of Occupational and Environmental Health*, 6:1; 56-62.

Fyfe A. 1989. *Child Labour*. Available KIT Library, Amsterdam.

Geber M.1997. Barriers to healthcare for street youth. *Journal of Adolescent Health*, 25, 286-289.

Ghosh A. 1992. *Street Children of Calcutta*. National Labour Institute.

Henry A. 2002. *Street Children-Their lives today, their hopes for tomorrow*.

Hunte A, Sultana F. 1992. Health seeking behaviour and the meaning of medication in Balochistan, Pakistan. *Social Science and Medicine*, 43, 34, 1384-1395.

Indian Council of Child Welfare. 1997. *ICCW: Working Children in Urban Delhi: A study of their life and work*.

Jain M. 1994. *Child Labour in India: A Select Bibliography*. National Labour Institute.

Joshi S, Sharma U, Sharma P, Pathak S, Sitaraman S, Verma C. 1994. health status of carpet weaving children. Indian Pediatr. 1994 May;31(5):571-4. Available <http://ncbi.nlm.nih.gov/pubmed>. Accessed May 2007.

Khurana S, Sharma N, Jena S, Saha R, Ingle G. 2004. Mental health status of runaway adolescents. Indian J of Pediatrics. May;71(5):405-9. Available <http://ncbi.nlm.nih.gov/pubmed>.

Klein J, Woods A, Wilson K. 2000. Homeless and runaway youths' access to healthcare. Journal of Adolescent Health, 27, 330-338.

Lieten K, White B. 2001. Child Labour –Policy Options.

Lusk M. 1989. Street Children Programs in Latin America. Journal of Sociology and Social Welfare, 16:1, March.

Mitra S. 1994. Factors in the socio cultural environment of child labourers: a study in a small scale leather goods industry in Calcutta. Occup Environ Med. 1994 Dec;51(12):822-5.

Mufune P. 2000. Street youth in Southern Africa. International Social Science Journal.164, 230-240.

Nieuwenhuizen P.2006. Street children in Bangalore (India)-their dreams and their future.

Nigam S. 1994. Street Children of India: A Glimpse. J Health Management; Jan-Jun;7 (1):63-7. Available <http://ncbi.nlm.nih.gov/pubmed>. Accessed April-June2007

Pandey R. 1991. Street Children of India.

Pandey R. 1993. Street children of Kanpur-A situational analysis. Ministry of Social Welfare, New Delhi, India.

Pagare D, Meena G, Singh M, Sahu R.2004. Risk factors of substance abuse among street children from Delhi. Indian Pediatr. Mar;41(3):221-5.

Pagare D, Meena G, Jiloha R, Singh M. 2005. Sexual abuse of street children brought to an observation home. Indian Pediatrics. Feb;42(2):134-1139.

Philips W. 1992. Street Children of Indore, India. National Labour Institute. <http://www.vvgnli.org/publication/nlirestudy.htm>.

Philips K.2004. Street children of India.

Prayas. 1996. Children and AIDS, Pune, India. Available www.prayas.org . Accessed April-June2007.

Project Concern International. 2000. PCI Needs Assessment Survey of Children. Available PCI Library, New Delhi.

Rew L. 2002. Relationship of sexual abuse, connectedness and loneliness to perceived well-being for homeless youth. Journal of Pediatric Nursing, 7, 51-63.

Ribiero M, Ciampone M. 2001. Homeless children-the lives of group pf Brazilian street children. Journal of Advances Nursing, 35, 40-48.

Rubenson B. 2005. Working children's experiences and their right to health and well being. Available Royal Tropical Institute Library, Amsterdam.

Senanayake M, Ranasinghe A, Balasurya C. 1994. Street children- preliminary studies. Archives of Pediatrics. Adolescent Medicine, 148, 705-708.

Singhal S, Singhal A, Singh P, Agarwal D, Gulati R. 2006. Peak expiratory flow rate of children working in lock factories. Indian J Public Health. Jan-Mar;50(1):47-8.

Sherman D.1992. The neglected healthcare needs of street youth. Public Health Report, 107, 432-440.

Swart Kruger, Richter M. 1997. AIDS related knowledge , attitudes and behaviour of South African street youth. Social Science and Medicine, 45, 957-960.

UNDP. 2002. HDR-Human Development Report. Oxford University Press, USA. Available <http://www.undp.org/> Accessed April-June2007.

UNESCO. 1995. Working with Street Children. Paris: United Nations.

UNESCO 2006. Available <http://www.unesco.org/>

UNICEF. 2001. The state of World's Children 2001. Geneva: UNICEF.

UNICEF 2007. Available <http://www.unicef.org/infobycountry/india.html>. Accessed April-June 2007.

United Nations Center for Human Settlements. 1996. An urbanizing world: Report on human settlements. Oxford University Press. Oxford, UK.

United Nations High Commissioner for Human Rights. 1989. Committee on the Rights of the Child, Convention on the Rights of the Child (CRC). www.unhcr.ch.

World Bank. 2002. Gender Dimensions of Child Labor and Street Children in Brazil. The World Bank- Latin America and the Caribbean Region. Gender Sector Unit. Available: www.worldbank.org. Accessed May 2007.

World Health Organization. 1998. Proceedings from the Meeting on Street and Working Children; 8-11 December, New Delhi, WHO, 1998.

Wright D. 1993. Homeless children two year later. American Journal of Diseases of children, 147, 517-519.

Wright D, Kaminsky D, Wittig M. 1993. Health and social conditions of street children in Honduras. American Journal of Diseases of Children, 147, 279-280.

Young J, Garro C. 1994. Medical choice in a Mexican village. Waveland Press, Illinois, USA.

Appendix

1. Performa of informed consent form for street children and their employers/parent /relatives.

INFORMED CONSENT FORM

Consent statement:

(To be explained by the Investigator or dedicated research assistant).

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions which have been answered to my satisfaction. I hereby consent to participate voluntarily in this study to explore my perceptions of my health status, incidence of illness and health seeking behaviour.

Name:..... Signature:.....

Date:.....

Witness name:..... Signature.....

If illiterate: The content has been explained to me by the Investigator or dedicated research assistant, and additional explanation given to me in my own language by another person other than the researcher.

Signature/thumb print:..... Date:.....

Witness 1:..... Witness 2:.....

Signature of person who explained the content in participant's own language.....

Date:.....

Witness 1:..... Witness 2:.....

You can contact the investigator Ms. Shveta Nanda at Tel. number 9868151385 if you have queries.

(The above consent form was translated in Hindi, the language most frequently used by street children)

2. Semi-structured interview questionnaire

A. Child Characteristics (General characteristics, etiology/identification, and health)

Child Name:

Gender:

Age:

Place of birth:

Date on Interview:

1. If you were not born in Delhi, specify when you migrated to Delhi ?

2. What do you think is the reason for your migration?

3. Whom do you stay with in Delhi and where do you sleep?

4. How is your relationship with your parents?

Excellent Very Good Good Fair Bad

5. Specify the age when you began to work?

6. What kind of work do you do?

7. Did your parents put you to work?

Yes

No

If no, who put you into this work?

8. What are the reasons you think they made you work?

9. What are your working hours?

10. How much do you earn?

11. Is it enough for you and your family? Why or why not?

Yes

No

12. How and what do you feel about your work and employer? Why?

13. Do you feel you want to do something else also? What are your wishes?

14. Have you been diagnosed with any health conditions/illnesses? Specify.

15. How do you feel about your health ?

16. Compared with other children about the same age, would you say your general health is...

Excellent Very good Good Fair Poor Don't know

17. Have you ever been to a doctor? How does he/she treat you?

Yes No Don't Know

18. Are you now taking any prescription medicine/ or use of anything else for a specific health condition or problem?

Yes No Specify if yes:

19. Do you [CHILD] have a place to go for regular medical care where they know [him/her] and [his/her] medical history?

Yes No Specify if yes:

20. Do you feel that helps? Why or why not?

21. Is there any other organization/people that help you seek medical care or advise you?

22. In the last years, have you [CHILD] been admitted to hospital?

Yes No Specify why and for how long if yes:

23. If you feel all these health problems are due to the your occupation, what do you think you should do for the occupation?

