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Social relations, Health Problems and coping strategies of street-connected girls in Dhaka City

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Abstract

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In Bangladesh, about one and a half million children roam the street of urban areas. Most of them don't have any family support or institutional care and treated as a sidelined group who experience abuse and deprivation of basic rights. About a quarter of total street children are girls who choose the street as an alternative in order to escape violence and abuse that happens in the family and community level. Regardless of government and NGO's initiatives, the number of street-connected girls is increasing in the city of Dhaka rapidly, raising questions about the effectiveness of existing services and policies to reduce the number. In addition, the limited knowledge about street-connected girls, health problems and coping strategies in Bangladesh depicts an extensive blankness for policy makers and social workers.

This qualitative study investigates how the street-connected girls in the capital city of Bangladesh construct social network and generate social support on the street to cope with health related problems without family support. This study includes eight street-connected girls and four service providers in Dhaka city to collect data through semi-structured interviews.

The findings of this study demonstrate that street-connected girls experience physical / reproductive health problems and they are vulnerable to HIV/AIDS and STDs because of their occupation and living condition. The study explores their capacity and agency to construct supportive network on the street without adult's supervision. Their network composes of peers, professionals, adults/job providers, romantic partners and family members, who are the primary sources of care and support to cope with health problems. They receive material, emotional and informational support from their social acquaintances, which assist them to cope with their problems. Finally, the findings of this study suggest the professionals and policy makers how to increase the effectiveness of existing services for street-connected girls in Bangladesh by using the social network relationships of street-connected girls.

Content

	Page no
Acknowledgment	5
List of Acronyms	6
Chapter-one (Introduction and Problem area)	7-9
1.1. Background of the problem	7
1.2 Definition of street-connected girls	8
1.3 Research questions	9
1.4 Significance of the study	9
Chapter-two (Review of Literature)	10-14
2.1 Context of street-connected children in Bangladesh	10
2.2 Common diseases and injuries of street-connected children	11
2.3 Reproductive health status of street-connected children	12
2.4 Coping strategies of street-connected children	12
2.5 Social network and social support of street-connected children	13
Chapter- Three (Theoretical framework)	15-17
3.1 Convoy model of social relations	15
3.2 Transactional model of stress and coping	16
Chapter- four (Methodology of the study)	18-23
4.1 Design of the study	18
4.2 Research participants	18
4.3 Sample and sampling design	19
4.4 Data collection	19
4.5 Data analysis	21
4.6 Limitations	22
4.7 Ethical considerations	23

4.8 Validity and reliability of the instrument	23
Chapter-five (Results and Analysis)	24-43
5.1 Socio-demographic info of street-connected girls	24
5.2 Convoys of social relations	26
5.3 Health problems and risks of street-connected girls	31
5.4 Support in convoys relations	36
5.5 Coping strategies of street-connected girls	40
Chapter six (Conclusion and Discussion)	44-47
6.1 How and under which conditions do girls construct social relationships on the street?	44
6.2 What are the health problems and potential health risks on the street?	44
6.3 Which different kinds of social support do they receive and from whom?	45
6.4 How do the social relationships assist them to cope with health problems and risks?	45
6.5 Recommendations	46
6.6 Concluding remarks	47
Reference list	48
Appendix-01 (Informed consent)	54
Appendix-02 (Interview guideline for street-connected girls)	56
Appendix-03 (Interview guideline for service providers)	57

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List of Acronyms

AIDS- Acquired Immune Deficiency Syndrome

ARISE- Appropriate Resources for Improving Street Children's Environment

BANBEIS- Bangladesh Bureau of Educational Information & Statistics

BBS- Bangladesh Bureau of Statistics

BDT- Bangladeshi Taka

CoE- Council of Europe Congress of Regional and Local Authorities

ECPAT- End Child Prostitution, Child Pornography and Trafficking of Children for Sexual Purposes

FPM- Family Planning Methods

HIV- Human Immunodeficiency Virus

INCIDIN- Integrated Community & Industrial Development Initiative in Bangladesh

LEEDO- Local Education and Economic Development Organization

MDGs- Millennium Development Goals

NGOs- Non-government Organizations

STDs- Sexual Transmitted Diseases

UK- United Kingdom

UNCRC- The United Nations Convention on the Rights of the Child

UNICEF- United Nations International Children's Emergency Fund

WHO- World Health Organization

Chapter-One

Introduction and problem area

1.1. Background of the problem

Regardless of national and international obligations, government and NGOs initiatives, there is no place in the world where homeless people do not exist and this is unexpected, particularly for children (Aptekar & Stoecklin, 2014). UNICEF first introduced the term “street children” in 1979 by observing the year as ‘International Year of the Child’ (Veale et al, 2000). In 2001, according to the estimate of the United Nations, the total population of street children was 150 million (Dabir and Athale 2011). The United Nations Convention on the Rights of the Child (UNCRC) is the most widespread and accepted international instrument to protect the child rights as it has been ratified by all of the countries in the world, with the notable exceptions of the USA, Somalia and South Sudan. But still children who survive on the street remain invisible in many countries’ policy agenda, especially in developing ones. To uphold the rights of street children, 12th of April is being recognized as ‘The International day for street children’ by the NGOs.

Many studies explored the correlation between economic poverty and child migration to street in the developing countries (Alexandrescu, 1996; Peacock, 1994; Scheper-Hughes and Hoffman, 1998). Several additional factors appear to be the most important for the increasing number of street children; war and displacement, natural disaster, inadequate state protection, lack or loss of formal identification, the exploitation of children through trafficking (CoE Report, 2008). Sometimes children see the street as the best available option when violence and abuse happen in family due to economic poverty and other factors (Conticini and Hulme, 2006). Children who are living on the street without family support and institutional care, logically they are in high risks of manipulation and exploitation (Aptekar, 1994) as they are viewed as marginalized group in the society. The gender ratio of street children is particularly lower for girls than the boys because they are raised to be at home in most of the culture (Aptekar and Stoecklin, 2014). In addition, the existence of girls on the street denotes that they are from dysfunctional families (Ibid). Female street children are in high risk of HIV/AIDS for their sexual behavior and occupation. They are also victims of sexual abuse and trafficking; even sexuality among children in street situations is often more related to group dynamics (Ibid).

Even though children face violence and exploitation on the street, still it plays a vital role in their life and gives them identity, especially for them who live without family support and institutional care. A new paradigm has been emerged in childhood studies (James and Prout, 1997) which advocates focusing on children’s agency and their social relationships to understand their everyday life from their perspectives. Children have the capacity to construct social networks on the street without adult’s supervision and generate social support, which protects them from harms and violence, give them shelter and identity and offers support during their health problems (Aptekar and Heinonen, 2003). They also learn new skills and strategies on the street based on relations of solidarity and reciprocity (Beazley, 2003).

Like other developing countries, street children in Bangladesh also born and brought up as a marginalized group in a state of negligence and deprivation, often without protection and

guidance from the adult members of the families. In 2005, a baseline survey was conducted by ARISE where they estimated that around seven hundred thousand children live on the streets of Bangladesh which will be 1.6 million by the end of 2024 (ARISE, 2005). There is no official statistics about the number of street-connected girls, but it is assumed that a quarter of total street children are female (Mozdalifa, 2012). Street-connected girls do some informal jobs to survive on the street and the majorities (around 10%) of them are involved in prostitution (Ibid) that makes them vulnerable to HIV/AIDS and other health diseases. Street-connected girls like other developing countries experience physical and sexual violence, trafficking and exploitation. In addition, girls usually have less knowledge about street life as a feature of patriarchal society and, they find sexual violence and sex work as the major component of street life (UNICEF, 2009). Work related injuries and diseases are common in street life but street children have limited access to the health care services, especially for street-connected girls (Hossain 2008) in Bangladesh, which makes them more vulnerable.

1.2 Definition of street-connected girls

There have been several thoughts and contributions to define children who live on the street. Most of the definitions concentrate on the amount of time they usually spend on the street and the contact frequency with their parents and relatives. Cosgrove (1990) defined street children from two dimensions; family involvement and the degree of deviant behavior of a child. UNICEF distinguished three groups (Dabir and Athales 2011) to define street children which became very popular during 1990s-

- Children ‘in’ the street: this group of children work on the street but go back to their family at night
- Children ‘of’ the street: this group of children live and work on the street but they maintain contact with their family
- Abandoned children: this group of children live and work on the street without family and kinship support and contact

But after the 1990s, some researcher found these categories unsupportive because they did not reveal the actualities; for example- some children move between those categories (Aptekar and Stoecklin, 2014). To avoid this problem researcher introduced the term “street-involved children” where street as the “central point of reference” (Ray et al 2011).

In this study I preferred to use street-connected (Meincke, 2011) girls instead of street girls or street-involved girls. This concept is more comprehensive for two main reasons as it focuses on children’s emotional attachment and recognizes the capacity of children as social actors who are capable to develop meaningful relationship on the street (Thomas de Benitez and Hiddleston, 2011). In addition, it also gives us the possibility to understand their attachment with the street rather than being confined by determinants (Aptekar and Stoecklin, 2014).

1.3 Research Questions

The general objective of this study is to explore the functions of social relations to deal with health problems and coping strategies of street-connected girls. This study is planned to explore the general objective by examining the following specific questions-

- a. How and under which condition do girls construct social relationships on the street?
- b. What are the health problems and potential health risks on the street?
- c. Which different kinds of social support do they receive and from whom?
- d. How do the social relationships assist them to cope with health problems and risks?

1.4 Significance of the study

This study is envisioned to explore the complex relationship of street-connected girls in Dhaka city, Bangladesh and how the relationships assist them to cope with health related problems and risks. For three reasons, it is important in social science research; first it focuses on the street-connected girls who were absent in most part of the research because of their invisibility on the street. Second, it suggests understanding the correlation between network relationship and health care of street-connected girls who live on the street without family support. Finally the lack of data on social relationships and health risks of street-connected girls impasses the professional practices in Bangladesh. This study explores valuable information for the service providers and policy makers, which will be supportive to design effective programmes to deliver health care services to protect street-connected girls from potential harm

Chapter-two

Review of literature

2.1 Context of street-connected children in Bangladesh

Bangladesh signed and ratified UNCRC in 1990 which is the most widespread legal document to protect the rights of children (UNICEF, 2008). Despite the government and NGOs initiatives, the number of street children is increasing rapidly which symbolizes the socio-economic condition of Bangladesh. Bangladesh is a developing country consisting with around 160 million people where majority of them live in rural areas with poverty. This reality has been revealed as a reason in previous studies to increase the number of street children. Bangladesh Bureau of Statistics conducted a baseline survey in 2003 where most of the children reported poverty and hungers as the main reasons to leave their home. (Ahmed et al 2003). In addition this study also demonstrated push factors of child migration, for instance- violence and lack of care at home, financial crisis at household (Ibid). Similar findings revealed by other studies and national reports in Bangladesh where some of the studies revealed natural disaster along with poverty (Ahmed & Adeeb, 1998, ARISE, 2001, Hasina, 1989) as reasons of child migration to street in Bangladesh.

Push factors have been highly emphasized in research to describe the migration process of street children. Conticini and Hulme (2006) conducted an empirical research where they argued with previous research that poverty and natural disasters play very limited role in decision making process of child migration in Bangladesh. They argued that child migration is a process of empowerment where children found more freedom on the street compare to family environment (Ibid) and sometimes street is the alternative to escape violence which happens in family and community levels. Mozdalifa (2012) conducted a study with a specific focus on street-connected girls in Dhaka city where she identified three basic reasons which differentiate girl's migration from boy's to street. Together with poverty she added exploitation and trafficking as the reasons of girl's migration in Dhaka city.

Street-connected children including girls live and work on the street with or without parental support. Most of the research showed that children generally sleep at railway stations, bus stations, footpath and in other public places (Ahmed et al. 2003) and they earn money through collecting garbage, begging, selling flowers and some other informal jobs to survive on the street. Children are involved in various activities; most of them are engaged in collecting papers and other things (19.6%), *coolie/porter* (14.7%) and begging (10.7%) (Ibid). Their study also demonstrated that majority (75.8%) of the children managed works by themselves and others got assistance from other children to get informal works on the street (Ibid). Most of the research explored the overall condition of street children without making gender differentiation in Bangladesh. Greksa et al (2007) also revealed the similar findings in their study in Dhaka city, where they got street-connected girls involve in vending (36.8%), waste collection (28.8%), begging (14.7%) in street to manage their survival needs. Mozdalifa (2012) found that most of the street-connected girls in Dhaka city worked as flower-seller (37.5%) and sex worker (18.80%). She got very few girls who reported that they worked as shop keepers, hawkers and beggars (Ibid).

Level of education is dejected among street children compare to the national level. Survey conducted by BBS in 2003 where it has been revealed that 60.7% street children never attendant any school, 82% children stopped their education who were attendant in school (Ahmed et al, 2003). Similar findings were exposed by other studies where Mozdalifa (2012) found that school enrollment rate is very much lower for street-connected girls compare to street boys and national level statistics. Some of them (62.5%) went to school for a few times but didn't complete their primary education and 25% of street-connected girls never went to the school (Ibid). She hypothesized that poverty is the main reason with other factors such as early marriage, distance of school, environment, and unwillingness of parents which make blockades for girl's education in Bangladesh (Ibid).

Despite of many international obligations and national laws, Bangladeshi women and girls suffer from violence in family, community and in wider society level including rape, sexual bullying, and acid throwing on them and so on (Mozdalifa, 2012). Street-connected girls also face those problems in street by adult and street boys. Some of them reported that they were beaten, deceived and forced during intercourse with customers who involve in prostitution (ibid) in Dhaka city. UNICEF (2009) also reported that street children are vulnerable to all forms of exploitation where sexual abuse, physical torture and trafficking are common in everyday life on the street in Bangladesh.

2.2 Common diseases and injuries of street-connected children

Street children is the sidelined and high risk of population in terms of health risks (Panter-Brick, 2002) but not so many studies have been conducted to discover the health risks face by street children in Bangladesh. Some of them partially included health problems in their research but excluded reproductive health of street-connected girls. Greksa et al (2007) conducted a quantitative study about health status of street children in Bangladesh. They found girls who live on the street without family support experienced common diseases, for instance- scabies, diarrhea, respiratory infection, burn scars, parasites and accidental in their street life (Ibid).

Some other studies also revealed that street children experienced common diseases on the street. Bangladesh Bureau of Statistics (2003) explored their common physical problems on the street where fever is the most common problem as 58.6% children reported that they were suffered from fever in their street life (Ahmed et al 2003). Children sleep under the sky without permanent shelter home and often do hazardous works which are the main reasons of many problems on the street (Ibid). In Bangladesh almost half (48.2%) of the street children reported that they got injured during their work on street which includes, cut/wooden in their hand or leg, back pain due to heavy load of work (ibid).

Uddin et al (2011) assessed the vulnerability of Bangladeshi street children to HIV/AIDS where they reported some common diseases faced by street children, for instance- fever, cold and cough, eye disease, headache, and pain in stomach. Barkat et al. (2012) also conducted a study on child beggars in Dhaka city where they found that the frequency of falling sick is high among street children. Majority (73%) of the children reported that they felt sick or injuries in last three months (Ibid) which denoted their living and working condition on the street.

2.3 Reproductive health status of street-connected children

Most of the culture, girls are raised to be at home and usually mothers and female members of family are the main providers of reproductive health care in Bangladesh (Haq DM, 2010). In Bangladesh, adolescents have limited knowledge about family planning methods and HIV/AIDS, especially in rural areas it's a subject of embarrassment to talk about reproductive health. Uddin and Chowdhury (2008) conducted a research about reproductive health knowledge in Bangladesh where they found adolescents had limited knowledge about reproductive health and majority of them revealed misconceptions about the fertile period, reproduction, STDs, and HIV/AIDS in rural areas.

Adolescents who are out of family support and institutional care, reasonable they have poor knowledge about reproductive health care, especially for the street-connected girls. Mozdalifa (2012) found that majority (73 percent) of street girls in Dhaka city were the victims of physical, mental and malnutrition. She pointed out in her study that girls showed limited knowledge about family planning methods and HIV/AIDS (Ibid). Girls received reproductive health knowledge and support from their peers, NGOs workers and from campaigns (ibid) on the street.

Uddin et al (2011) demonstrated reproductive health related problem of street-connected girls in their study. They revealed that white discharge, pain and irregular menstruation were the common problems faced by street-connected girls during their menstruation (Ibid) which also common to other girls who live with families in Dhaka city (Afrin et al, 2010).

Street-connected girls who were involved in prostitution reported that they experienced diseases and symptoms of diseases in sex organs but they did not know the name which denotes the lack of knowledge (Uddin et al 2011). Most of the street-connected girls were not familiar with STDs and HIV/AIDS but who were the beneficiaries of NGOs exposed partial knowledge and they got basic skills from shelter home (Ibid). Some of street-connected girls revealed misconceptions about HIV/AIDS for example; they believed that eating and sleeping together can be the reasons of HIV/AIDS (Ibid).

2.4 Coping strategies of street-connected children

Ignoring and hiding are the common coping strategies of street-connected girls to cope with their health problems. Some of them consider diseases as minor and common in street life which was revealed by Mozdalifa (2012). She reported in her study that majority of street-connected girls who felt sickness never went to doctor due to consider it minor problems which include fever, cough and cold, pain, minor injuries and other diseases (Ibid). Few girls went to medical center and bought medicine from local pharmacy when they felt problems as severe (Ibid). Only few of them reported that they went to *kobiraj/ sadhus* (traditional healer) to get treatment from them (Ibid).

Barkat et al. (2012) revealed almost similar findings in their study among children who beg in Dhaka city. Their study revealed that majority (80%) of the respondents were looked for some kind of treatment during their illness but due to financial problems only 14% of children went to

medical center to get medical care where others (83%) simply bought medicine from local pharmacy or shops with doctor's instruction (Ibid).

Uddin et al (2011) revealed in their study that children did not seek medical care during their illness and they waited for cure naturally without treatment. 68 out of 119 children reported that they bought medicine from local pharmacy when they found the problems are severe and cannot cure naturally (Ibid). In relation to coping strategies and health care, BBS (2003) revealed that majority (53.9%) did not have anybody on the street to take care when they got sick or injured while 25.8 percent children revealed that they received primary care from their friends during their illness on the street (Ahmed et al, 2003).

Barkat et al. (2012) also emphasized menstrual hygienic factors in their study where they got majority of respondents (86%) use old rags as protective measure during their menstruation while only nine percent use new rags. They also revealed that, girls desired to use sanitary napkin but they cannot meet the expense of sanitary napkin while only 5% informed that they used sanitary napkin.

2.5 Social-networks and social support of street-connected children

Street children construct social network relationships on the street as a survival strategy and they create specific norms and regulations for their own interest which guide their group activities (Whyte, 1995). Street children functions within the structure of their social relations which enhance their coping capacities to deal with problems on the street and they learn new skill from network relationship. Sometimes social relations give them identity and sense of belongings to a group (Beazley, 2003) which reduce their loneliness on the street. Street children are capable to lead a supportive life on the street without parental support and they construct their relationship with emotional attributes (Ayuku, 2005). Strong supportive ties and caring relationship are the principle to make network relationship which helps them to cope in different situation. Oino and Auya (2013) conducted a study about network relationship of street children in Kenya where the findings suggested that children followed specific role to recruit new members in their group. Age, occupation, gender and living areas are the most important conditions to make social network on the street (Ibid).

Mizen and Ofosu-Kusi (2010) also conducted a study in Accra about street children's survival strategies and social support where they revealed that cooperation, mutuality and exchange were the main principals to construct social network and to generate social supports on the street.

Very few researchers focused on social networks of street children in Bangladesh. Uddin et al (2011) conducted a research with a focus on vulnerability of street children into HIV/AIDS where they identified social relationships of street children in Bangladesh. They found most of the time children developed good contacts with their employees and other adults (Ibid) on the street to get support. Thirty six children were participated in their in-depth studies where they reported that adults helped them with jobs and social supports (Ibid). They found *vangari mama* (who buy and sell plastic and garbage) were helpful on the street (Ibid). Street children maintained relationship with peers, seniors and others who were significant in their street life and they often separated from other street children by groups (Ibid). They exposed very strong ties with them who spent time together, share food and exchange work related information (Ibid).

They also demonstrated that street-connected girls preferred boys of similar age and female adults (Ibid) in their network relationships.

Most of the studies deliver basic ideas associated with social networks and social supports but previous studies ignored street-connected girls in many ways. In Bangladesh, girls usually stay inside the home. Even some families do not allow their female children to play outside with boys. That means girls who live on the street in Bangladesh, they are from dysfunctional families and reasonably they face more problems than male children on the street (Aptekar and Stoecklin, 2014). In addition, girls who live on the street without family supports, they are in high risks of reproductive health problems for their lack of knowledge and absence of supervision. Therefore this study offers a picture how network relationships assist street-connected girls to cope with their health related problems and risks on the street.

Chapter-Three

Theoretical Framework

Social research is a systematic study requires a sound theoretical foundation and solid methodology. Theory and social research are interrelated and interdependent. There is some controversy about the role of theory in social research but still theory is important in social research for three basic reasons; it gives us clear explanation of social phenomena, it helps to develop strong tools for data collection and finally it conveys structure for analysis (Harlow, 2009). In this study, convoys of social relations (Kahn and Antonucci, 1980) and transactional model of stress and coping (Lazarus and Folkman, 1984) theories have been used to understand the problem areas of street-connected girls. Social convoy's model helps us to understand the social network and supportive relationship of street-connected girls where stress and coping theory has been used to identify health related threats and challenges of street-connected girls and their coping strategies on the street.

3.1 Convoy Model of social relations

The convoy model of social relations was developed by Kahn and Antonucci (1980) as a theoretical and methodological approach in 1980 but the term was first introduced by David Plath (1980) in anthropology to conduct a study on Japanese (Ibid). Kahn and Antonucci (1980) developed the convoy model to carry out a life-span and developmental perception on the concept of interpersonal social relations (Levit, 2005).

Convoy model viewed as a network of interactions that moves with an individual throughout his or her lifetime (Ibid). It provides continuous social supports (e.g. aid, informational and emotional) that are transferrable by the members of convoys even though construction of social relationship changes with time and life course (Levitt et al, 1993). Individual is in the center of social convoys and they conquers a specific role as a member of a group, for instance- member of a family, organization, community and society as a whole.

Convoy model of social relations describe social relationship of an individual who are emotionally close and important by using three concentric circles. These are inner, middle and outer circle which denote the different levels of closeness (Antonucci et al, 2004) of individual relationship. Inner circle represent those who are very close and have very strong ties that life cannot be imagined without them, as Kahn and Antonucci (1980) defined inner circle members as a person "so close and important to you that it is hard to imagine life without them". Individual who are not very close but still have strong ties and important are consider in the middle cycle (Ibid). People who are not as close as middle cycle but still have influential role in their life are in outer circle (Ibid). Most of the time family members include in the convoys relations of children but it change with the transition of life course. For example- peers have dominant role in adolescent convoys rather than family members. It is suggested that, people in convoys provide at least few forms of social support which include material, informational and emotional support (Ibid).

The convoy model recommends that personal and situational factors fundamentally influence social relations (Antonucci et al, 2004) with a significant implication for health and well-being

(Antonucci et al, 2013). Personal characteristics refer to individuals' socio-demographic characteristics which include; gender, ethnicity and age-related developmental changes, and situational factors include; living condition, occupation, culture and context of an individual (Ibid). Gender play specific role in social convoys where many researcher argued that women have more intimate relation with their close relationship (Acitelli & Antonucci, 1994).

3.2 Transactional model of stress and coping

Lazarus and Folkman (1984) developed transactional model of stress and coping in explaining the dynamics of troublesome experiences. Stress define as outcome of transaction rather than event of stress as they defined "psychological stress refers to a relationship with the environment that the person appraises as significant for his or her well-being and in which the demands tax or exceed available coping resources" (Lazarus and Folkman 1986, p. 63). This definition points to two processes as central mediators within the person–environment relations appraisal of stress and coping with stress.

3.2.1 The Appraisal of stress

Lazarus (1993) viewed appraisal as a continuous process by which a person constantly evaluate the significance of a situation through his resources and choices. In his work, Lazarus (Ibid) has distinguished two types of appraisal that may happen in person-environment relationship. Primary appraisal denotes the judgment of a person's perception about a situation (Ibid). Actually a person assesses the possible effects of demands and available resources on well-being. And in secondary appraisal, people look for resources and alternative solution to deal with primary appraisal (Ibid). Both appraisal are intertwined and influence one another (Lazarus and Folkman, 1984).

Primary appraisal is outcome of continuous evaluation of a person-environment relation. It includes actual harm/loss, potential threat, and challenges of potential benefit or gain (Folkman et al, 1991). Actual harm refers to the situation that has already experienced by individual (Ibid). For example- injury or accident or violence that already occurred in one's life. Threat includes the potential factors of harm (Ibid), for example- children live in a dysfunctional family. And challenge refers to learn new skill and there is chance to be gained or to be benefited (Ibid), for example, migrated to a new country.

Theoretically actual harm, potential threat and challenge are different but in practically people have complex appraisal (Folkman et al 1991), for example- children run away from home to escape violence which put them into risk of trafficking and abuse. Similarly, children learn basic survival skills on the street which sometimes put them into threat and harm for their learning sources and environment.

There is another type of appraisal defined by Lazarus and Folkman (1984) which called secondary appraisal. It denotes the evaluation of available resources and coping to deal with primary appraisal. Lazarus and Folkman (1984) suggested that cognitive appraisal influence by some other variables which include psychological, socio-economic status, health and contextual factors. These variables give us possibility to explain individual differences in cognitive appraisal.

3.2.2 Coping with stress

Coping is defined as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus & Folkman, 1984, p. 141). This definition contains three important features of coping (Folkman et al, 1991). First, it clearly judges coping as a process-oriented. Second, it differentiates between general and specific stressful situation and finally it denotes the management of primary appraisal but it does not measure the success of efforts.

Coping has two major functions as Lazarus and Folkman (1984) identified two forms of coping; problem-focused and emotion-focused. Emotion-focused coping regulates the emotional response where problem-focused coping is directed toward managing the primary appraisal (Ibid). It depends on the situations and changeability of the primary appraisal. If the situation is changeable then individual use the problem-focused coping but if the situation is not changeable then emotion-focused approach helps to regulate the emotional wellbeing (Ibid).

Problem-focused coping strategies include; cognitive problem solving and decision making, generate alternative solutions, take actions to change and learn new skills etc. (Folkman et al 1991). Emotion-focused coping strategies are directed toward decreasing emotional distress and to maintain hope and optimism. These tactics include such efforts as distancing, avoiding, minimizing, wishful thinking, seeking social support, exercising and meditating etc. (Ibid).

Coping process are influenced by available resources of individual. Lazarus and Folkman (1984) emphasized that every human being have resources to cope with their situations. Individual strengths and capacities, social support and cultural factors help individual to cope with the situation as a member of society (Ibid). Positive beliefs, problem solving skills, emotional control and self-esteem are the common forms of individual resources which help individual to cope with problems (Ibid). The environment also influences the individual’s coping strategies and generates social supports which include; emotional, informational and material supports to assist the individual to overcome their problems (Ibid).

Most of the literature about coping strategies focused on cognitive development of individual where Thoits (1986) first presented the relationship with social support and coping where she emphasized on common functions of social support and coping which include perceptual, instrumental and emotional function (Folkman et al 1991).

For this study, the stated two theories are useful to explain the social network, health problems and coping of street-connected girls. Convoy model helps to understand the relationships and social network of street-connected girls and it also offers network maps as data collection tool. In addition this model helps us to understand the functions of social network to meet their health needs and the conditions to construct social network. Previous studies revealed that street-connected girls experience abuse and violence in street life. Transactional model of stress and coping helps us to understand their health problems and challenges as primary appraisal of stress. On the other hand, coping with stress is useful to understand the functions of network relationships to cope with their health problems on the street. In general these two theories provide the opportunities to examine the general objective of this research.

Chapter- Four

Methodology of the study

4.1 Design of the study

The general aim of this study was to explore the social network of street-connected girls and how they generate social support in relation to health care and well-being in network relationship. Taking into consideration the objective of this study, I used qualitative research design to explore their everyday life on the street. Qualitative research design provides more in-depth and widespread data and tries to realize the interpretation of common people from their life experiences. In this study, I used explorative qualitative study design in order to explore the experiences of street-connected girls in relation to health care and coping strategies on the street because very few researches were conducted in this field. More so, there has not been any study about the significance of social network on health care of street-connected girl in Bangladesh. As Crang and Cook (2007, p1) stated that- “the basic purpose in using this method is to understand parts of the world more or less as they are experienced and understood in the everyday lives of people”. The qualitative research design helped me to get insightful information about social networks of street-connected girls from girls and service providers who were experienced. Qualitative research design also helped me to use multiple tools to collect data and helped me to choose a smaller and manageable number of respondents which produced meaningful and quality result.

4.2 Research participants

In qualitative research it is important to select the appropriate respondents who are willing to contribute in study to get insightful information. Creswell (2007) suggested that the importance of selecting participants who are willing to share information from their life or work experience. In this research street-connected girls and service providers were selected based on their experiences and work expertise. Girls were selected because the researcher intended to get in-depth information about their health related problems and coping on the street. On the other hand, services providers gave valuable data from their professional experiences about street-connected girls in Dhaka city. They were knowledgeable and important sources to get in-depth data about street-connected girls and their problems. The selection of street-connected girls carried out according to the following criteria-

- i. Living on the street more than six months without family support.
- ii. Being aged 13 to 18
- iii. Beneficiaries of LEEDO and INCIDIN, Bangladesh

The first criterion follows from the study objective. This also differentiated street-connected girls from other children on the street. Minimum duration of stay on the street gave me insightful to their supportive network and health related problems on the street. In qualitative research, trustful relationship is very important to get in-depth data. Previous studies showed that street-connected girls were involved in prostitution and they were not as visible as boys' on the street. So I interviewed street-connected girls who were beneficiaries of LEEDO and INCIDIN, Bangladesh in their shelter home and it was easier to get contact and make trustful relationship within short of time. The organizations were selected purposively because they allowed me in

their shelter home and open air schools. The age group of 13 to 18 was chosen as criterion for the average age of menarche and cognitive development. Previous research showed that the average age of menarche is 12.8 in Bangladesh (Rah et al, 2009) and at the age of 12 a person usually reached a certain level of cognitive development. In this research I tried to involve professionals from different background to get insightful information about street-connected girls. Here I considered their academic background and working experiences. I interviewed them who were willing to provide information and had working experiences at least two years in relevant field. From these two organizations I interviewed counselor, social worker, community mobilizer and house mother who were experienced and willing to provide information.

4.3 Sample and sampling design

Sample for qualitative studies are generally smaller than the quantitative research. The main reason is that qualitative research is concerned with meaning instead of taking generalization of hypothesis (Ritchie et al, 2003). For this study, twelve respondents were interviewed to generate empirical data from their living and working experiences. Among the respondents four were service providers of NGOs which included social worker, counselor, outreach worker and house mother while the rest were street-connected girls. For this research, small and manageable size of respondents was selected to get in-depth data about street-connected girls where I agreed with Onwuegbuzie and Leech (2007) that it is difficult to get rich data from a large number of samples. For this study sample size was easy to manage and possible to avoid difficulties in data analysis.

In this study, street-connected girls and service providers were purposively selected from LEEDO and INCIDIN, Bangladesh in Dhaka city who work with street children for many years. Purposive sampling method used to select the respondent to get in-depth data with a focus on research objective. Street-connected girls were selected purposively who were experienced to live on the street to get insightful data about their social network on the street and health care. This method also helped me to select girls who were willing to participate and live on the street without family support. Service providers were also selected purposively to cover wide range of professions who were experienced in this area.

4.4 Data Collection

For this study, primary and secondary data were collected about social network of street-connected girls and their health related problems and coping strategies. Street-connected girls and service providers were interviewed to get primary data. Primary data allowed me to get in-depth ideas about street-connected girl's experiences on the street. On the other hand, secondary data allowed me to review previous studies and report carried out in the field of social networks, street children and health problems on the street.

For this study, primary data were collected through in-depth interview from respondent which allowed me to understand from the respondent point of view. Environment and settings is important for in-depth interview. I carried out interview in the shelter home and open air school run by LEEDO and INCIDIN, Bangladesh in order to ensure the comfortable environment for participant. Creswell (2007) noted that it is easier to conduct the interviews with participants in a comfortable environment where the participants do not feel embarrassment to share information. In addition, it was easier to make trustful relations with them in the environment of shelter home

and school. All interviews including professions were conducted in Bangla because it allowed them to participate in this project. Thereafter the collected interviews were translated into English after transcription. Two separate interviews guideline were developed to use for interviews. Kvale (1996) also affirmed that interview should be based an interview guide. Following were the identified themes of interview guidelines for street-connected girls-

- A. Socio-demographic and family background
- B. Social networks of street-connected girls
- C. Physical and reproductive health problems
- D. Perception about family planning methods and HIV/AIDS
- E. Social supports from network relationships
- F. Coping strategies of street-connected girls

For this study, I used “network maps” developed by Kahn and Antonucci (1980) in their theory ‘convoy model of social relations’ for identifying social networks of street-connected girls on the street. This method allowed me to understand the emotional proximity and importance of person in network on the street by using three concentric circles. These are inner circle, middle and outer circle which indicated the level of closeness (Antonucci et al, 2004). Inner circle presented those who were very close to the street-connected girls and their life was not possible without them on the street (Ibid). Second circle denoted the people who were not very close but they were important in their life and in third cycle, it denoted those people who were less close but part of their life (Ibid). It was difficult for some of street-connected girls to put individual in different circles. To avoid these types of problem they were helped by research assistant to put individual in different circles according to their choice. Following is the example of network maps that I followed during interview with street-connected girls.

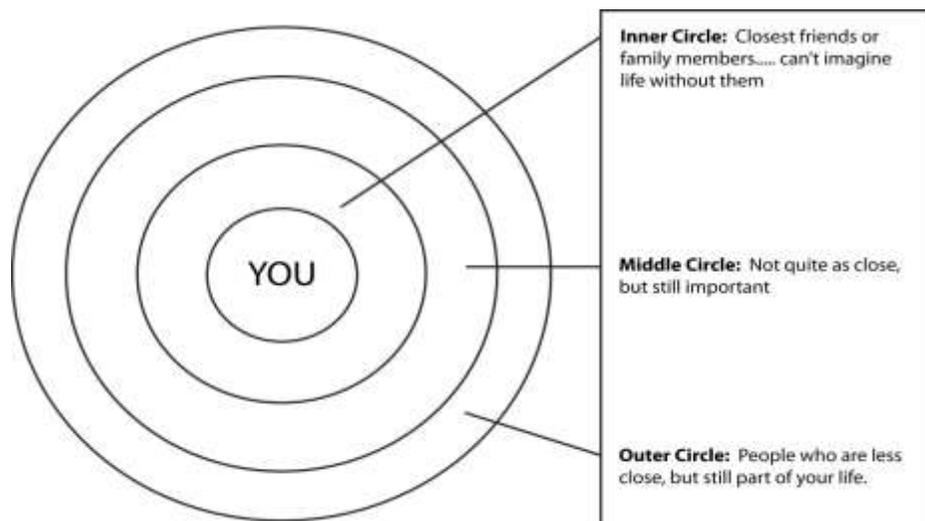


Fig: example of network map

In this research, I used a female social worker as research assistant to collect data from street-connected girls who was not regular staff of NGOs. She had a master degree in social work with some professional experiences to work with street children. My supervisor suggested me to use

someone as female research assistant to avoid the ethical problems. I found her very professional and organized to collect data. I helped her to understand the guidelines of interviews which developed for street-connected girls. In addition she also participated in a seminar organized by INCIDIN, Bangladesh about the safe guard policy to work with children and visited their shelter home and schools to develop trustful relationship with street-connected girls.

Service provider of LEEDO and INCIDIN, Bangladesh were the part of this research. They gave insightful information about street-connected girl's life and their problems. I used separate interview guideline for service providers. Social worker, counselor, outreach worker and house mother were participated in this study. I conducted in-depth interview in their office in their convenient time. Following themes were used in interview guideline for service providers-

- i. Working background and experiences
- ii. Perception about social networks of street-connected girls
- iii. Physical and reproductive health problems of street-connected girls
- iv. Access and availability of health care supports
- v. Support seeking strategies of street-connected girls

For this research, data were collected through in-depth interviews and observation. Project manager of INCIDIN, Bangladesh and Managing Director of LEEDO helped me to get access to their shelter home. They also allowed me to participate in their school activities which helped me to make trustful relation with street-connected girls and also allowed me to observe them in natural settings. Very few researches were carried out in this field, so I interviewed service provider first and I got insightful information which helped me to reorganize the themes for interviews with street-connected girls. All street-connected girls were interviewed except three in the shelter home of INCIDIN, Bangladesh. Other three girls were interviewed in open air school run by LEEDO. All interviews were audio recorded for analysis after getting consent and permission from the respondents.

4.5 Data analysis

For this study, thematic analysis method was used to analyze transcribed data from interviews. This method is suitable for qualitative research design when the aim is to explore or to describe social phenomena in a specific context (Clarke & Braun, 2013). In this research, I found very few studies conducted with street-connected girls in Bangladesh where thematic analysis helped me to analyze the data based on their experiences and words. In this research all interviews were recorded. Recorded interviews were transcribed where I followed verbatim method. During transcription of interviews, I was repeatedly listened the interviews to avoid any wrong interpretation.

For thematic analysis, data was coded into categories of similar meaning which is called "meaning categorization" (Kvale, 1996). I used framework method which developed at the National Center for Social Research (Bryman, 2012) in the UK. Central themes and sub-themes were represented in framework which derived from through reading and rereading of transcribed interview and field notes (Ibid). Themes such as social networks, health related problems and risks, social supports, coping strategies were created which later used in analysis to present the data to address the purpose of study.

4.6 Limitations

I had difficulties to contact with street-connected girls because they were not visible in any specific place. I visited several times in train stations and launch terminals where most of the street children live and work but it was difficult to find out girls without family support. I found some of them were working on the street but they lived with their parent on the street or in the slum. Then I contacted with NGOs to contact with street-connected girls and they helped me to find out them. As a male researcher I also faced challenges to make trustful relationship with street-connected girls. Moreover, reproductive health care was a part of this study. I used female research assistant to overcome this challenges. I found street-connected girls were more comfortable to talk with female researcher than me while I was visiting their schools and shelter homes. I used network maps to collect data about social networks of street-connected girls. It was difficult for them to put individuals in different circles. In this case, research assistant helped them to place the members in different circles. It was also sensitive to talk about their networks who were involved in prostitution. In this case research assistant emphasized on health related social supports to construct their network instead of work related supports.

4.7 Ethical consideration

In qualitative study ethical issues consider extremely throughout the entire research process. Kvale (1996) declared that that consequence of respondent need to be taken into highly consideration for two reason mainly; to produce scientific values and for the improvement of the investigated areas. This study conducted with street-connected girls who were vulnerable and marginalized group in Bangladesh for their age and working condition. In the case of marginalized group researcher need to be more aware of their rights and sensibility. Kvale and Brinkmann (2009) pointed out that ethical issues in interviews arise mainly from the complexity of private life study. This was very true for this study to explore social networks of street-connected girls. This study was guided by the ethical principles developed by Bryman (2012). He discussed four main areas of ethical principles which include harm to participants, informed consent, invasion of privacy and deception (Ibid).

For this study, participants were notified about their rights and anonymity. I also informed them about my study plan and purposes which made them secure to participate in this study. At the beginning of interviews a letter of consent was handled to the respondent to get consent and permission to collect data. For the street-connected girls who were below 15, I managed permission and consent from service providers of the organization after discussion with my supervisor. I had another challenge to get written consent from the street-connected girls. They were very scared and some of them were unable to sign in the form. In this case I considered oral approval from street-connected girls who were unable to sign. Service provider also helped me to get consent from street-connected girls. I also recorded the interviews when they gave consent and permission and I assured them they were free to terminate the interview if they felt any problems. Even, I assured that they were free not to answer any question if they felt private. In this research, I used female research assistant to avoid ethical issues. To keep their privacy I didn't talk about their occupation as I was noticed from service providers about their occupation. I didn't interfere in their personal life as I conducted all interviews in shelter homes and open air schools not in their work places. Anonymity was assured as I used pseudonym instead of real

name to keep their rights and dignity. In addition, I followed the safeguard policy provided by save the children which considered as ethical tools for NGOs to work with children.

4.8 Validity and reliability of the instrument

In social science research, validity and reliability are important considerations to produce scientific result and acceptable knowledge. Kvale & Brinkmann (2009) defined “reliability as the consistency and trustworthiness of the research and validity as the measure to understand whether a method investigates what it intended to investigate” (p. 327).

Validation of research involves collecting and analyzing data. To ensure the validity of research, I used interview guidelines and followed participants with probe question to address the research objective. Interviews were conducted with a manageable sample unit who were presented the larger group of street-connected girls in Dhaka city because generalization was not the aim of this study. Data were collected from street-connected girls and service providers which allowed me to analyze data from different angle which produced more valid result. For data collection I used network maps developed by Kahn and Antonucci (1980) which is verified and tested by other researchers in social network studies. In addition previous literature and theoretical concepts also used to validate the findings of this study.

Chapter- Five

Results and Analysis

5.1 Socio-demographic info of street-connected girls

5.1.1 Age of street-connected girls:

For this study, I interviewed the street-connected girls who were between 13 and 18 years old. Two basic factors guided me to choose this age group; at first I considered the international documents and national laws to consider the age of a child and second, I looked at the average age of menarche (first menstruation) in Bangladesh.

UNCRC (1989) and the child Act in Bangladesh (2013) define the child as a person who are below the age of 18. The age of menarche was important for my study to know about their reproductive health problems. The average age of menarche in the world is between 10 and 14 but it always varies and depends on some other social indicators. For example, 12.54 in United States, 12.9 years in Europe, 12.5 to 12.9 in India and 13.3 in Africa (Bayet et al, 2012). It was really hard to find the statistics of the average age of menarche in Bangladesh but some researcher found average age of menarche is 12.8 (Rah et al, 2009).

5.1.2 Level of education

Education levels of street-connected girls are quite dejected where most of them never admitted in formal school. Some of them went to the school but dropped out for various reasons including the poverty, child marriage, lack of parental willingness, and involve in income generating activities (Mozdalifa, 2012). This research also revealed that five girls out of eight never admitted in formal school but they knew to write their name. Others went to primary school but did not finish their primary education. None of them were enrolled in formal school when they were interviewed. There are some donor funded and voluntary Open Air School/ School Under the Sky in different areas in Dhaka city run by NGOs (for example, Aparajeyo Bangladesh, LEEDO, INCIDIN, Bangladesh) and voluntary organizations. Street-connected girls reported that they frequently went to those schools.

The statistics about educational level and enrollment rate of street-connected girls is very much lower than the national level in Bangladesh. According to BANBEIS (2013), around 19 million children were enrolled (in 2012) in primary school which is 96.7% of the total children. Girl's enrollment rate in school was higher than boys (girls 98.1%) which were quite satisfactory (Ibid). But still the girls who live without parental support are out of educational services and it is hard to reach them for their mobility. Previous studies also revealed that most of the street-connected children (60.7%) never enrolled in school (Ahmed et al. 2003) and even the dropout rate also higher compared to other children who live with their parents. Mozdalifa (2012) also got the similar findings where 25% street-connected girls in Dhaka city never enrolled in formal schools and others went to the informal schools run by NGOs. Here it is mentionable that, in Bangladesh, primary education is compulsory and free from 1990 by the Primary Education (compulsory) law, 1990 but still street-connected girls are out of educational service which is a big challenge for government to achieve the target of MDGs by 2015.

5.1.3 Occupation

Street-connected girls in Bangladesh are vulnerable to violence which includes physical, sexual and all other forms as a child labor on the street. Street-connected girls reported that they worked on the street to survive and they experienced violence and harassments. A large number of street-connected girls found prostitution is the only way to survive which is a big challenge for social workers to protect their rights. It has been revealed in this study, five out of eight street-connected girls were involved in prostitution and others engaged in flower selling, water selling, and begging in public places. Sometimes girls run away to escape from violence and found prostitution is the only alternative choice to survive on the street which made them more disregarded in Bangladesh (ECPAT, 2006). Previous study also exposed similar findings as Mozdalifa (2012) reported that flower selling and prostitution as main occupation of street-connected girls in her study.

5.1.4 Catchment area

It has been reconnoitered from this study that children prefer to live in the bus stations, train stations and launch terminals. There are three inter-district bus stations in Dhaka, which are situated in Saidabad, Mohakhali and Gabtali, and one launch terminal which known as Sadharghat and Komlapur is the central train station. In this study, I found five out of eight girls live in train station (Komlapur). Others live in Sadharghat and Mirpur areas. Service providers called the places as “catchment area” from where they rescue new children. One of service provider made a comment about catchment area and their living places-

Basically we target bus stations, railway stations, and launch terminals as our catchment area. In Dhaka city, children live in Sadharghat launch terminal, Komlapur train station and Saidabad bus station. Those are the place where children come from different district by bus, train and launch. Sometimes it's their hobby to travel by train or launch and some of them get lost or start new life after coming there. (Community Mobilizer)

Children found those transport as convenient for them as they can travel without fare. Many children don't know their destination when they run away from home. They just travel by train or bus from the nearby stations of their village and arrive to Dhaka without knowing the place. One of street-connected girl exposed in following way-

I took the train from B-Baria. I thought I will go where train goes. It stopped here. Then I came down from the train and I saw they are changing the compartment. I asked them and they replied that ‘this is the last stop for this train’. Then I started to live here. (Lavli, age 13)

Apart from the facilities of transports, children also prefer those places for job availability and for open spaces to sleep. They usually get shelter and work from adults who make business there. Helping the passengers, opportunities to sell water and flowers, collecting plastic and garbage are the most common informal jobs usually they get in station areas. Previous study also validated that, children including girls live in stations, parks and footpaths where they get informal jobs and places to sleep (Ahmen et al, 2003).

5.2 Convoys of Social Relations

For this study, network maps were used to collect data from street-connected girls about their social relationships on the street. Kahn and Antonucci (1980) developed convoy model of social relations as a theoretical and methodological framework for social network study. This model describes the formation of social relations and how they affect health and well-being of an individual (Ibid). In this study this model was used to understand the social networks of street-connected girls and the consequences of social supports in health and wellbeing. Alongside with street-connected girls, service providers exposed valuable information about social networks of street-connected girls. This study demonstrated that, street-connected girls construct social networks on the street as a survival strategy which had a positive impact on their health and wellbeing.

5.2.1 *Construction of social relations*

People are surrounded by supportive others who move with them throughout their life course which is important in health related research (Marsden, 2006). It is recognized that children have the capacity to make social network as active agent with or without adults support. Sometimes children construct social networks as survival strategy, sometime they involve by force in a group, or just for protection (Hagan and McCarthy, 1997). In this study, professionals and street-connected girls were interviewed about social relations of street-connected girls. Professionals recognized that they survive in a group on street for shelter and protection; sometimes they used networks to get jobs as well. One of the workers revealed the purposes and techniques to construct social network-

They share their past history with each other which help them to make good relationship, even their problems and background to become street children almost similar. For example- they lost their parents or someone tortured them, or may be teacher crushed them and they escaped from home. These stories they share with other children and make a supportive relationship on the street which helps them to survive and give them a sense of belongings (Community mobilizer)

Street-connected girls construct social network not only for survival on the street but also it gives them a sense of belongings as a group member and sometimes they make it purposively. Their past experience and living condition united them in a relationship. Social worker exposed the functions and composition of convoys of street-connected girls on the street.

They also live in a group, sometimes live alone, it depends. But they know each other on the street. Sometimes they stay together for their protection and belongings. Among them who are senior or living for long time on the street, they provide them shelter. They are very experienced about street life and they were exploited by others. So they want to pick up new children from street and giving them shelter. Sometimes they work with us as peer group member (Social Worker)

Convoys of social relations of street-connected girls are distinct than boy's network on the street. One reason might be the occupation of street-connected girls. Most of them involved in prostitution and they don't want to make their relation visible. Social network of street children was explored by previous studies. Wiehler (2002) found in his study that majority (93%)

children somehow belong to groups in the street in Kampala. Oino and Auyu (2013) also revealed the social networks among children on street in Nairobi. In Bangladesh, social network of street-connected girls is absent in research. Some of them, for example Uddin et al, 2011 conducted a research with street children but paid little attention to street-connected girls and their networks on the street.

5.2.2 *Convoy composition*

Social composition represents the surrounding others of an individual's social relationship which includes; family and kinship, peers, formal and religious organization etc. It is assumed that the more social ties individuals have, the more incorporated they are in social network (Mattson and Hall 2011) which also have positive influence on health and wellbeing. In this study, five supportive groups were identified from the interviews with street-connected girls and service providers, those were- (a) Peers (b) service providers/professionals (c) influential adults (job provider/adult/street family) (d) family members (e) Romantic partners.

Their network exposed that peers and service providers were very prominent in their groups. They also included outreach workers, peer supporters, teachers of open air school, counselors, house mothers and social workers as professionals in their supportive networks. Some factors were associated to consider peers in their social networks which were revealed by counselor-

Girls have good contact with others on the street, primarily with other children. Actually when a girl starts to live on the street she receives help from them. They used to sleep and work together. So they form relationship with them and they are very close. (Counselor)

Age, social supports, occupation and past experiences are the most influential factors which make peers more prominent in social network. Some of them included service providers in their network for their supports and help. Rahana (age 17) mentioned that- "Nobody but Apa (Worker)" helped them during illness and she got necessary information about reproductive health care from them. Sathi also mentioned that-

I preferred to get help from apa (service provider). I like them very much. We don't need to pay them for their services. They also visit us most of the time. (Sathi, age 15)

Apart from peers and professionals, girls included adults, family members and their romantic partners as sources of social support during their physical and reproductive health problems. This findings also revealed in previous studies where some researcher exposed in their studies that adolescents tend to report peers as their top supporters in network relationship (Demaray & Malecki 2002). But Uddin et al (2011) found that employers played vital role in social network relationship of children who live on the street in Bangladesh.

5.2.3 *Convoys characteristics*

I used the convoy map suggested by Kahn and Antonucci (1980) to understand the proximity and ties of street-connected girl's social relations by placing them in three concentric cycles which represent three levels of closeness: inner group, middle and outer circle. Basically street-connected girls considered social supports to make their arguments about social relations on the street.

i. *Inner circle (Very close relationship)*

It is demonstrated in this research that, girls were surrounded by supportive others who helped them to meet their health needs. Girls included peers, professionals and adults in their convoys. Some of them included their family members who had good contact and feelings for them. It also depends on proximity, ties and qualities of help. Social support and proximity played important role to choose them in first cycle as it revealed from one girl's opinion-

Rasel Bhai (street adult) took me to his home when I had arrived in station, gave me food and place to sleep. From the beginning of my street life, he is helping me. I have another friend, Moushumi (another street girl), most of the time we stay together and supports each other. (Lavli, age 13)

Emotional ties give them a sense of belongings on the street and the mutuality of help and reciprocity were the core principles of their supportive network. Girls were very grateful to them who provided support on the street. Fahima included her job providers in closest group. She got help from them and she revealed that-

He spent around 300 taka (BDT) to buy medicine for me. When I came here, he gave me job and shelter. It's not only me who received help from him, some other children in Sadharghat got help and jobs from him. He is so kind of children. (Fahima, age 17)

In closest group girls considered them who provided supports to meet their health needs. Emotional ties, proximity, reciprocity and positive supports were the important factors to make closest group as a sub group in social relations on the street. Other studies also suggested the findings as Uddin et al (2011) revealed that, street boys in Dhaka city maintained good relationship with their job owner who gave them jobs and some of them mentioned their peers who usually took drugs together.

ii. *Middle circle (Close relationship)*

According to Kahn and Antonucci (1980), closer circle will be the group who are not that close as closest group but still they have strong ties and emotional bond. Street-connected girls reported that some of their friends helped them but now they lost contact who were placed in this group. Here children made some comments about their second cycle. One of the respondents mentioned Farzana and Shabnor (both were street-connected girl) in her second cycle and she explained the reason-

Farzana was very helpful when she was here (Sadharghat). I liked Shabnor very much but now she takes drug. Now I don't like her, but she helped me many times during my illness. She took me to the pharmacy when I got sick there. (Rojina, age 14)

Street-connected girls considered proximity, behavior and their life style to make social networks. Lavli, another girl also revealed trust is important to make networks. She mentioned Sharmin in her second cycle and the reason was-

She also lives on the street. We were very good friend but she stole my stuffs. Now I don't trust her anymore but still she is my friend. (Lavli, age 14)

Trust, communication, proximity all those affect relationship of street-connected girls. Girls always remember their help even if they do not have contact. Individual who were in second cycle had also positive influence in their life. Peers, adults and family members were the prominent group in second cycle of street-connected girl's convoys.

iii. Outer circle (Less close relationship)

This is the last cycle in convoy's model of attachment (Kahn and Antonucci, 1980). Communication and quality of support were two important factors revealed from the perception of street-connected girls about this group.

Liza lives in our village. She is not close but we used to play together in our village. She got helped from me but sometimes she betrayed with me. Many times she complained to my mothers against me. (Lavli, Age 13).

Alongside with quality of support and response from peers, Moushumi mentioned contact frequency and living area to include them in third cycle. Moushumi revealed that-

Lima, yes, she was very close to me. She did many things for me but now she is not here. (Moushumi, Age 16)

Street-connected girls emphasized some factors to place them in different cycle and they took quite long time to decide them to place in different circles. Stohl (1995) developed social network integration measurement methods in health care studies where he included three different aspects; network ties, density and reciprocity. This study also revealed that, girls included and positioned networks members in three different circles based on ties, social support, quality of help and some other factors. Antonucci et al (2004) also exposed that children develop more trustful relationship with them who are very close and supportive.

5.2.4 Influential factors of convoys support

Occupation, geographical proximity and gender were the most influential factors in social relations and social support. Following were the factors revealed from the interviews with street-connected girls and service providers.

i. Occupation

Girls usually got help from job owners and colleagues where they work. They had greater influence in their networks and provide necessary social supports to meet health needs on the street. Fahima (age 17) mentioned Bhabna and Shabnor in her closest cycle. Actually she worked with them in Sadharghat area and they also helped her during her illness. Working relationship had positive impact on their social convoys. One of the professional pointed out that-

Yes, sometimes they got financial help from their job owner during their illness. But that's not frequent. (Community mobilizer)

Street-connected girls reported that they also received support from their colleagues. Girls had good contact with them who work together on the street as Sathi mentioned that she got help from her dance partner when she got sick. They also reported that they received financial and emotional supports from their colleagues as Sathi stated that-

We are very close because we dance together in some occasion. For example- last month we went to Chittagong for dance programme. I was suffering from fever after reaching there. They bought medicine for me. Sometimes I also help them. (Sathi, Age 15)

Working relationship has positive influence in their networks and they provided supports during physical illness and reproductive health care. It also exposed by Uddin et al (2011) where they found street children had good contact with job providers to get works on the street in Dhaka city.

ii. Geographical proximity

Geographical proximity is an important factor to make social network on the street. In this study, it is revealed that girls included them in their social relations who live and work together in same places. Moushumi included Ruma (another street-connected girl) in her social relations and she stated that-

Ruma apa helped me. Once, I suffered from high fever and cold cough. She bought medicine and washed my head. She also lives here. (Moushumi, Age 16)

Like other girls, Moushumi, included them who live with her on the street in her first cycle of social network because of their geographical proximity. Usually they had good contact with them and they played prominent role to meet their health needs. In addition, it is easier for them to communicate and to generate social support during their problems who live in same places which help them to make good relationships on the street.

iii. Gender

Gender is very noticeable factor for reproductive health care. Most of the time girls received help from their female peers and female professionals. They felt more comfortable to share them about reproductive health problems. Street-connected girls also revealed that they got informational support from their female peers mostly as Sathi stated that-

No, I didn't know that much about menstruation. I was only eleven when I had first menstruation. I was very scared. Then they (other girls) told me, nothing happened to be scared. It's common for everyone and I am growing up as woman. At first I thought I am going to die. (Sathi, Age 15)

This was not only about reproductive health care. Even in physical illness they preferred to inform their female colleague instead of male friends and sometimes their female peers contacted with the NGOs worker in case of emergency which revealed by the counselor-

They involved in prostitution. Sometimes they are taking many customers and getting injured but they don't share us because we always discourage them. In this case other girls and sometimes peer workers give us information about their problems. (Counselor)

Working relationship, geographical proximity and gender played vital role to construct social relationships and those factors also affected to generate social support on the street. In addition, age, romantic relationship also revealed as influential factors in their social networks. This findings also validated by previous studies where Uddin et al (2011) publicized working

relationship and living areas are vital in children's relationship in Bangladesh. Those factors are universal for social networks as Oino and Auya (2013) revealed that age, occupation, living areas and gender played important role to provide social support in network relationships in Kenya.

Street-connected girls were surrounded by others on the street who provided basic health care services during their problems on the street. Kahn and Antonucci (1980) also talked about that individual are surrounded by supported others who move throughout their life. Three concentric circles of social networks were demonstrated from the interviews where they showed close relationship with their peers on the street. Kahn and Antonucci (Ibid) also had spoken about three concentric circles in their study. They received most of the support from them who were in their inner circle. Their networks also changed with time and mobility which also demonstrated by Levitt et al (1993) where they emphasized on life courses to develop social networks of individuals. This study revealed that girls move away from their families and developed new relations on the street which denoted to life span development emphasized by Kahn and Antonucci (1980). Street-connected girls received at least few forms of social support in their life from social network relationships which they were exposed in their arguments to place individual in different circles that is also emphasized in previous studies (Ibid). Personal characteristics (e.g. age and gender) and situation factors (living condition, occupation, geographical proximity and culture) influence social relations (Antonucci et al 2013). This study also revealed gender, occupation and geographical proximity as important factors to construct social networks on the street.

5.3. Health problems and risks of street-connected girls

The concept of health first separated from medical care in 1974 by Lalonde report in Canada and later WHO identified three main factors of health which included; the social and economic environment, the physical environment, and the person's individual characteristics and behaviors. Dahlgren and Whitehead (1991) also identified the important factors of health which included biological and social factors. Social factors include; life style, social and community influences, living and working conditions, general socio-economic status, cultural and environmental factors which all affect individual health and wellbeing.

In this study, street-connected girls and service providers exposed physical and reproductive health problems and health related risks on the street. Majority of the street-connected girls involved in prostitution which made them vulnerable into HIV/AIDS and STDs. They were deprived from their basic rights of education and health care. Following health problems and risks were revealed in this study.

5.3.1 *Common diseases*

The term disease roughly denotes to the illness or ruining of usual functioning of our body. Street-connected girls reported that they were experienced common diseases which were related to their living and working conditions. Girls who were participated in this study, they usually sleep in open spaces in the stations or footpaths and involved in hazardous works, such as prostitution. They were deprived from their basic human rights of shelter and did not get access to pure drinking water and healthy food. In this study, the respondents, both professionals and children identified some common diseases which were- fever, skin diseases, chest pain, cold and

cough, pain in body, physical injuries and headache. One of the professionals revealed the common diseases of street-connected girls in the following way-

When we rescue any children from railway station or other places, we give them primary health care if it's required. We are noticed about some common diseases among street children, including girls, for example- fever, headache, weakness, skin diseases, injuries in their hand and leg. (Community mobilizer)

Girls also revealed their physical health problems on the street. Everyone reported that they had suffered at least one common disease on the street. Evidence from a girl who used to live in the launch terminal-

I got sick when I was in launch terminal. I was suffering from high fever. My whole body was aching. I used to sell water in the terminal but I could not work on that time. (Fahima, age 17)

Apart from interviews, I observed children on the street with rescue team members in railway stations and launch terminals where I found some unhealthy and harmful practices among them, for example- they were eating dirty foods, wearing dirty and unhygienic cloth, walking without shoes, carrying heavy luggage of passengers etc. Those were the factors affect their health indirectly. Physical health problems related to their living and working condition where most of them reported that they were involved in prostitution and they used to live in open spaces in the stations. Previous studies also identified those common diseases in their study while conducting studies with street children. UNICEF (2012) also reported that the frequency of falling sick is high (76%) among the children who live in Dhaka city. Fever, cough and cold, headache, dysentery, diarrhea and skin disease were identified as most common diseases among street children (Ibid). Other studies (e.g. Greska et al 2007, Ahmed et al 2003 and Uddin et al 2011) also exposed common diseases among street children where they emphasized on working and living conditions (Dahlgren and Whitehead, 1991) as the reasons of their health problems on the street.

5.3.2 *Physical injuries*

This study demonstrated that, girls often got injured on the street. Some injuries were caused for accident during work and some were related to physical and sexual abuse. One of the respondents exposed her experiences about street life where she mentioned that she was traveling and got injured, in her own view-

I was traveling by train with them (other street children) and suddenly I fell down from running train in Airport station. I got injured in my head and it was bleeding, I was so scared, I didn't know what to do on that time. Then my friends (another street girl) took me to the medical center. I was admitted for long time in the hospital. (Rani, age 15)

Children often travel to another place by train without ticket. Sometimes they tried to board on train via the sides of the train and the roofs of the compartment which put them in risk of accident and injuries. Children who live on the street, especially the young children experienced physical abuse on the street.

Most of the people on the street do not like us. They often beat us with stick if they find us in the station. Sometimes we get injured, sometimes we run away if we see them, mainly railway guard don't like us and sometimes police too. Nobody loves us apart from Apa (worker). (Sathi, age 15)

Street life put them into risk of injuries and accident which is very common in their life which also revealed by other studies as Bangladesh Bureau of Statistics (BBS, 2003) conducted a baseline survey in 2002-2003 where they found that 48.2% children suffered from work related injuries and cuts/wounds (68.7%) and back pain were common forms of physical injuries (Ahmed et al, 2003).

5.3.3 Complexity with menstruation

Menstruation and the management of menstruation is a part of reproductive health care. In this study, I found girls were experienced complexity and physical problems during menstruation which make them little bit stressed. Painful period (dysmenorrhea), irregular bleeding, whitish discharge, pain in lower abdomen were the common forms of complexity during menstruation. Those problems were revealed by social worker where she stated that-

Yes, they have some problems like other normal girls, for example- pain in lower abdomen, sometimes irregular menstruation, infection in vagina or something like that. They always share their problem with us and especially if they see any symptoms of pregnancy, for example- irregular menstruation. And I think pain is common to all of them. (Social Worker)

Girls also exposed pain and irregular menstruations were common during menstruation.

I feel pain and it's common during menstruation. I feel pain at least two/three days during menstruation. And sometimes I found irregular menstruation is a problem for me. (Rojina, age 14)

This study revealed common problems which associated with menstruation of street-connected girls. Most of them faced complexities during their menstruation which also demonstrated by previous studies with adolescents girls in urban areas of Bangladesh. Parvin, T. et. al. (2008) found that majority (83%) of urban girls were reported their problems during menstruation where their study revealed that pain in lower abdomen, white discharge and pain in inner part of vagina were common symptoms of difficulties during menstruation.

5.3.4 Lack of knowledge about FPM and HIV/AIDS

Street-connected girls exposed poor knowledge about reproductive health and some of them were not familiar with family planning methods (FPM) and HIV/AIDS which made them vulnerable to HIV/AIDS and STDs as they were involved in prostitution. House mother agreed that the girls have limited knowledge about reproductive health care as she stated that-

They don't have sufficient knowledge. We discuss some hygienic factors in group session but that is not enough, I think. We do not talk about family planning methods and HIV/AIDS in our shelter. Most of them are not familiar with HIV/AIDS and actually we do not have any specific programme for reproductive health.(House mother)

Some of them were familiar with family planning methods. Condom (*packet/balloon*) and Oral pill (*Bori*) were familiar methods to them. But the girls who were not involved with organizations, they were not familiar about family planning methods. One street-connected girl told that she never heard about those methods, and she replied about condom that-

Yes, I saw it, we call it balloons. We used to make balloons in our village and play with others. I didn't know it as family planning methods. Now, I know. (Imana, age 13)

It depends on occupation and the attachment with the organizations. The girls who never received services from the organizations had exposed limited knowledge about these methods. Girls who involved in prostitution, they were familiar with condoms and oral pill. In this study it is also found that girls were not interested to use condom which put them into risk of HIV/AIDS. Social worker shared that-

Girls take oral pill often. They don't like to use condom because they are doing sex for entertainment and sometimes it depends on their customer too. But we encourage them to use condom instead of oral pill. They can be protected from STDs if they use condom. (Social worker)

Knowledge about sexuality and reproductive health of street-connected girls were somehow reflected the picture of adolescents of Bangladesh. Previous studies about reproductive health knowledge also revealed that adolescents were not well informed and some of them had misconception about reproductive health. Haque (2010) exposed that youth had partial knowledge about sexual and reproductive health. Sometimes they also learned misconceptions from peers (Mitra SN et al, 2001) in Bangladesh. Similar findings also revealed in other south Asian countries, for example in Pakistan, Shahid Anjum et al (2012) showed that adolescents had partial knowledge, misconception and wrong attitudes towards the reproductive health care, especially for STDs and HIV/AIDS.

5.3.5 *Health risks in street life*

Street-connected girls found street as convenient for them to live and work which put them into risks and stress. They are vulnerable for their age and gender on the street. They exposed that they were experienced physical and sexual abuse on the street. Some of them reported that they were trafficked by others and forced to involve into prostitution, and also their living condition publicized as health risk in this study. A professional pointed out the risks factors in street life-

Sometimes, people pick them up by force and rape them. These things happen frequently in Komlapur (train station) when adult find them alone on the street at night. Sometimes they offer them jobs and force them to involve in prostitution. Some other health risks also associated with their living and working conditions. They are in high risk of HIV/AIDS and STDs for their insecure sexual behavior. (Counselor)

This study also revealed that girls were trafficked and forced to involve into prostitution as Rahana stated that-

I came from Nandail with a friend. She encouraged me to visit Dhaka with them. They often travel to Dhaka by train and go back again. I also came with them but lost in Tejgaon. Then I asked a woman for help. I thought she is a good lady, she looked like

mother and she bought food for me. She offered me job as maid-servant. I agreed, but it was not that at all. Around two weeks I stayed with them in a house and they did bad things forcefully with me, then I escaped and came back to street. (Rahana, age 17)

This study demonstrated that girl live on street with lots of fear and health risks which directly and indirectly affect their physical and emotional growth. Three types of hazardous event can be identified; physical, mental and social health hazards (Dahlgren and Whitehead, 1991) in street life. Other studies also showed health risks on the street, for example- Hai (2014) conducted a qualitative research in Bangladesh where the findings demonstrated that children faced oppression, torture and insecurity to survive on the street. Habib et al (2007) revealed the similar health risks among the street children in Pakistan where they pointed out living and working condition as health risks on the street.

5.3.6 *Past traumatic experiences*

In Bangladesh, like other developing countries, it is wide spread believe that children migrate to street from rural areas because of economic poverty. But in this study, it is demonstrated that somehow children found street as alternative to escape violence. Most of the girls who interviewed in this study were experienced physical and verbal abuse in their family by parents and/or siblings. Most of the time it happened by their step-parents, as one girl stated that-

I have step-mother, that's why. I mean, she abused me verbally while eating meal. She used to complain to my father that I am useless. I don't work. I don't help her in cooking. She crushed and abused me. Most of the time, she got angry and used to tell me to leave home. Suddenly, I decided to leave home and came to Dhaka. (Lavli, age 13)

This study revealed that violence, dysfunctional family (Aptekar and Stoecklin, 2014) and lack of parental care are the main reasons why street-connected girls migrate to the street. Most of the researcher claimed that economic poverty and natural disaster as the main reasons of child migration on the street (Ahmed et al 2003, Ahmed & Adeeb, 1998, ARISE, 2001, Hasina, 1989) but Conticini and Hulme (2006) argued in their study that children often run away from home to escape violence and found street as the alternative to survive in Bangladesh.

The findings of this study suggested that street-connected girls had three different types of primary appraisal on the street as Lazarus and Folkman (1984) defined that appraisal is an outcome of continuous evaluation of person-environment relations. Street-connected girls live on the street without family support and institutional care. They were involved in prostitution and experienced physical and reproductive health problems. Some of them were exposed partial knowledge about family planning methods. In addition, girls preferred to their peers to construct social networks who provided necessary supports to meet health needs. Those all risks and problems related to the primary appraisal as Folkman and Lazarus (1984) defined three forms of primary appraisal; actual harm, potential harm and challenges (Folkman et al, 1991). Street-connected girls experienced physical and sexual violence at home and on the street which is actual harm according to transactional model of stress and coping (Ibid). In addition, this study revealed their physical and reproductive health problems which were the result of their living and working condition. Their occupation, living condition and lack of knowledge about reproductive health care are the potential risks on their life as they were exposed risks of being trafficked and raped on the street (Ibid). Street-connected girls constructed social relations on the street as a

survival strategy where they generated social support to meet their health needs. They learned new skills to cope with the situation from their network relationships. This is a big challenge (Ibid) for them as they can be misguided by their peers and sometimes they are learning misconception about reproductive health care. Finally, street connected girls had complex appraisals (Ibid) on the street life as they experienced physical illness, violence on the street, on the other hand they found street as the alternatives to escape violence which put them into risks.

5.4 Support in convoy's relation

In order to discuss the functions of convoy's relations in health care of street-connected girls, it is important to identify social supports in network relationships. Social supports sometimes consider the communication both verbal and non-verbal (Albrecht and Adelman, 1987) which reduce uncertainty of the situations. Street-connected girls reported their health problems which included physical illness, injuries and problems related to reproductive health. This research demonstrated that they received material, emotional and informational support from their network relationships which considered as actual support in analysis. I looked for answer of three prominent questions here which include; what is said, what is done and what is given during their health problems. Street-connected girls received following supports from network relationships-

5.4.1 *Financial assistance*

Street-connected girls reported that, they received financial help from their network relationships. They got direct financial help either from their peers or from adults who gave them shelter and work on the street. Professionals did not help them financially. Instead of financial help they provided expenses of medical care. Fahima (age 17), who lived in Sadharghat, got financial aid from her job owner when she had fever. Like other street-connected girls, Rahana mentioned that she received financial help from network members when she got sick, she revealed-

I get loan from my friends when I need. I also supported them when I had. Sometimes I asked for help and sometimes they helped me willingly if they found me sick or injured. (Rahana, Age 17)

Professionals also agreed that, they didn't provide direct financial aid but they provided medicine and other necessary treatment for street-connected girls, as social worker stated that-

We don't give them financial supports but we bear their medical expenses, for example-treatment, test or medicine. (Social Worker)

Previous studies also revealed that material support exist in network relationship of street children as Mizen and Ofosu-Kusi (2010) conducted a study in Accra where they found reciprocity of material help in social relations of street children. Uddin et al (2011) also stated that street children got help from adults on the street who gave them job and shelter in Bangladesh.

5.4.2 *Primary care*

Girls received necessary primary care from their network relationships on the street as well. Lavli received primary care from her network relationships as she stated that-

Wife of Rasel Bhai, I call her Bhabi (sister-in-law). She washed my head when I was suffering from fever. One day Sharmin helped me with medicine. She gave a tablet to take for cold. (lavli, Age 13)

Peoples who live on the street, they don't have adequate knowledge about health care but still they are providing care and supports to others who are close to them. Imana (age 13) also mentioned that she received care from her friends when she had headache. They put water in her head. These findings also validated by previous studies (for example, Uddin et al, 2011, Oino and Auya, 2013).

5.4.3 *Medical support*

Girls received medical supports from the professionals in their supportive networks. Girls included social worker, counselor, outreach worker and other influential person in their network. They provided care during their health needs. One of the professional indicated that-

We contact with physician and in case of emergency we admit them into hospital. We have agreement with medical center here as well. And we have volunteer doctors who visit them often. (Community mobilizer)

Street-connected girl received diagnostic supports from organizations as counselor stated that-

When we rescue a girl, at first we refer them for medical tests, basically we test their blood to know that they are infected or not. Periodically we check their HIV/AIDS. In addition we talk about health care in group sessions. We show the way how they can be protected from HIV/AIDS and STDs. (Counselor)

Professionals played very prominent role in street-connected girl's life but it depends on whether they have contact with professionals or not. It is also revealed that, Fahima (age 17), Imana (age 13) and Rojina (age 14) did not have contact with professionals so that they did not receive medical services from the organizations. They also exposed poor knowledge about family planning methods and HIV/AIDS.

5.4.4 *Provide menstrual pad*

Street-connected girls pointed out that they received menstrual pad from their network relationships. They reported that, sometimes they received rags and cotton and sometimes they got sanitary napkin from their network relationships. As Rahana stated that-

When I was eleven years old, I had my first menstruation. I was working with others on the street. Then I shared with my friend and she gave me cotton to use as napkin under my pant. (Rahana, Age 17)

Not only Rahana, Imana (age 13) also revealed that she got rags and napkin from her friend to use during menstruation. Girls, who were beneficiaries of NGOs, reported that they received sanitary napkin from organizations. Three out of eight girls reported that, they use only cloths

and cottons as napkin during their menstruation. One of the workers made an important comment about reproductive health care services-

We organize life skill training and group sessions where we provide necessary information about reproductive health and hygienic factors. Alongside with awareness programme we provide them sanitary napkin but we are not allowed to provide contraceptive. (Counselor)

Street-connected girls received sanitary napkin and rags from their network relationships. Contact with service providers is an important factor to receive menstrual pad. Street-connected girls basically preferred to share their problems with their female peers and female professionals. Sometimes they also received help from romantic partner as Lavli (age 13) reported that, her boyfriend bought sanitary napkin sometimes.

5.4.5 *Provide contraceptive*

Majority of street-connected girls (five out of eight) were involved in prostitution. Girls conveyed that they were familiar with condom (*balloon/packet*) and oral pill (*Bori*) as family planning methods. They received contraceptive from their network relationships if they required. Here romantic partners played important role to buy condom for them. As Lavli (age 13) stated that she got help from Shohel (street-connected boy), who was her boyfriend. They also borrowed condom sometimes from other girls who were involved in prostitution as Sathi stated that-

Actually I am not bad girl. I don't use frequently, but if I need something, I asked Moushumi (another street-connected girl). She gives me sometime if it is available to her. (Sathi, Age 15)

Girls do not receive contraceptive from NGOs. Social worker revealed the truth behind their reproductive health care services-

We work with our organization policy and UNCRC. According to our policy, we do not provide any contraceptive to the children because of their age. But we organize training session and awareness meeting where they learn about those contraceptive. We know this is a big dilemma to work with child sex workers. (Social worker)

Receiving contraceptive is an important support for street-connected girls because they are in high risk of HIV/AIDS. Sometimes girls received direct help from network relationships and sometimes they just got information which also helped them indirectly to cope with reproductive health problems. Peers and romantic partners were the main sources to get contraceptive because they were not allowed legally to get contraceptive from NGOs.

5.4.6 *Emotional support*

The findings of this study suggested that, street-connected girls received emotional support from their peers and service providers most of the time. Sometimes romantic partners helped them emotionally if they got sick as Lavli (age 13) mentioned. Empathy and assurance were two common forms of emotional supports that they received from their network relationships. As Rani stated that, she received mental support from workers and peers.

Yes, sometime Apa (worker) and Sharmin (another street-connected girl) asked me if I stay alone in shelter home. I shared them if I suffer from fever and headache. Then they give me medicine. Sharmin also stay with me and make fun sometimes. We also go out often to watch movie. (Rani, Age 15)

Girls who were the beneficiaries of NGOs, they received mental support from counselor as one professional stated that they provided mental support to the street-connected girls who got scared during menstruation-

Sometimes they feel scared; basically it happens for them who are new in this shelter home. We also inform them, this is not disease, it's a natural procedure to be a woman and this is the first step. (Counselor)

Organization also provided medical assistance to check their HIV/AIDS and other STDs. Street-connected girls usually got scared to hear about medical test. Professionals provided necessary information before and after medical test through individual counseling. Social worker revealed that-

Alongside with material help, we also provide them mental support through counseling. We have counselor who talk with them before and after medical test which are necessary for them. We work based on our ethical guideline and we always take consent from girls before taking any decision for them. (Social Worker)

Emotional support is very important for street-connected girls which reduce loneliness and give them a sense of belongings. Girls live on the street without parental support but at least they have someone there in social network who give them company and primary care during their health problems. Professionals and peers are two prominent groups who provide mental support to the street-connected girls on the street.

5.4.7 Informational support

Street-connected girls received necessary information from their network relationships. They received reproductive health care knowledge from their peers and service providers. Girls received practical information, guidance and advice from social network relationships. As Rahana stated that she got to know about family planning methods from service providers.

Counselor Apa (worker) told me about that (condom). She told me that 'we need to use (condom) if we meet someone (for sex) on the street'. (Rahana, Age 17)

Like, Rahana, other girls also received information from network relationships about reproductive health care as Sathi (age 15) told us that she got to know about menstruation from her peers. Sometimes network relationships work as channel of information. When girls get information about shelter home and health services, they tell other girls as well. They also get practical information from network as Imana (age 13) stated that- *I learned from my friend how to use cloth during menstruation*. They also received practical information about reproductive health care from professionals. Counselor revealed their existing services for street-connected girls in following way-

We provide sanitary napkin and medicine to reduce pain during menstruation and also told them how to use napkin. We always discourage them not to do sex during menstruation, its harmful for them. Apart from this, we give them advice in counseling sessions. (Counselor)

Convoys of social relations were the main sources for them to learn new skills and survival strategies on the street. It works as a channel of socialization. Sometimes children get wrong information from their supportive network as Uddin et al (2011) revealed some misconception among street children about HIV/AIDS and they exposed that they were learning from their peers on the street who were not knowledgeable.

The findings of this study suggested that street-connected girls received material, emotional and informational supports from their convoy's model of social relations as Kahn and Antonucci (1980) mentioned that members of convoys generate at least few forms of social supports (Levitt et al, 1993). Street-connected girls received social supports from their peers, service providers, adults, family members and romantic partners where peers and service providers had prominent role in their network relationships. Gender is an important factor (Kahn and Antonucci, 1980) in convoy's model of social relations of individual (Acitelli & Antonucci, 1994) which was validated by this study that street-connected girls received reproductive health care from their female peers and female service providers. Lazarus and Folkman (1984) also emphasized on social support as environmental resources which helped individual to cope with their primary appraisal. It is revealed that street-connected girls experienced harm, threat and challenges (Ibid) on the street where they received social supports from their network relationships which facilitated them to meet their health needs and risks on the street.

5.5 Coping strategies of street-connected girls

5.5.1 *Taking medicine only for severe case*

Street-connected girls reported that they experienced diseases and injuries in street life. Fevers, cold cough, pain, headache, cut in hand and legs, diarrhea were the common physical problems of street-connected girls. They also experienced reproductive health problems, for instance, white discharge, pain in lower abdominal, diseases in vagina and pain for force sex which were identified by professionals and girls. According to them most of the problems were not severe and they wait until it cures naturally. But when the girls found the problems as severe, they bought medicine from local dispensary as Imana exposed that-

Yes, I often suffered from bad headache but I think it's normal. Usually I don't take medicine until it gets severe. Sometimes I take Napa (paracetamol) and take rest for a while. I don't work when I suffered from any problems. (Imana, age 13)

Imana did not receive any support from NGOs in her street life and she revealed that she is not familiar with the services of organizations; even she doesn't know where she can get free medical care. Another girl, Rojina shared the same experiences as Imana told us but she added that her friend helped her to buy medicine from the local pharmacy. In her own view-

I buy medicine when the problem is not tolerable. Sometimes I buy medicine from shop (pharmacy). Shabnor (another street-connected girl) sometimes go with me and sometimes I go there alone if I don't find anybody here to help. (Rojina, age 14)

Street-connected girls also revealed that they experienced at least one disease in last six months on the street but some of them did not take medicine. According to Sathi-

I don't like to take medicine for fever. It recovers naturally. I know it's good to take medicine but I feel vomiting if I take medicine. I am used to face this kind of problems on the street. (Sathi, Age 17)

It is demonstrated that girls usually do not take medicine during their illness but if they found it severe then they contacted with others on the street for help. Fahima (age 17) who used to live in launch terminal also exposed that she went to the medical center because it was severe. Previous study (e.g. Mozdalifa, 2012 and Uddin et al. 2011) also revealed that majority of street-connected children do not take medicine and some of them prefer to buy medicine from nearest pharmacy in case of severe problems.

5.5.2 Protective methods during menstruation

Girls who were interviewed in this study exposed clear knowledge about hygienic factors during menstruation. Street-connected girls exposed that they used sanitary napkin and cloths/rags as protective measure during their menstruation. They received napkin from NGO and from their peers. Some of them also told that their boyfriend helped them to buy sanitary napkin and sometimes they bought sanitary napkin from pharmacy and shops by themselves. Three street-connected girls, who were not beneficiaries of NGOs, reported that they used cloth/rags as napkin. But majority of street-connected girls used sanitary napkin as protective measures during menstruation. Rani told us-

Now, I use senora (sanitary napkin). I do not use rags, it's not work actually. Apa (worker) gives us napkin and sometimes I buy from shop. (Rani, Age 15)

Most of the girls got sanitary napkin from NGOs but three street-connected girls told that they used rags/cotton because they could not afford the cost of sanitary napkin and they did not receive help from NGOs. Fahima who lived in launch terminal, exposed that- "I use cloth. My mother taught me how to use it (Cloth)". (Fahima, Age 17)

Street-connected girls were migrated from rural areas and they got basic knowledge about reproductive health care from their mothers which move throughout their life span (Levitt et al 1993). They preferred to use sanitary napkin but some of them used rags/cotton as protective measure which validated by previous studies. For example- Barkat et al (2012 and Parvin T et al. (2008) revealed that girls preferred to use old rags/cotton where many of them showed there interest to use sanitary napkin but they cannot afford the cost.

5.5.3 Seeking social support in network relationship

Social network relationships assist street-connected girls to cope with their problems on the street. They reported that they received material, emotional and informational supports from their network relationships during physical and reproductive health problems. When they faced any health related problem on the street, they preferred to share them who belong to their closest groups in convoys of social relations. In this case they rely on their advice and help. Most of the time girls shared their problems with peers and professionals to get support. Rojina stated that-

I always share my problems with Apa(school teacher) in this school. Sometimes I got help from Shabnor (another street-connected girl).When I cannot walk alone,she helped me to buy medicine from pharmacy. Sometime Shabnor inform them (service providers) and they come to help me, even if I don't tell her. (Rojina, Age 14)

Sometimes they seek help from their peers and adults, especially when they need financial and emotional supports to cope with their problems. Sometimes street-connected girls shared their problems with service providers, as Rahana stated that -

I was crying in the station. I was waiting for Apa (service providers). When I saw them in the station, I shared my problems.They took me to their shelter home and gave me medicine. (Rahana, Age 17)

Sometimes street-connected girls shared their problems to get social supports from their convoys of social relations. They were seeking supports from professionals, peers, adults and other supportive persons who were influential in their daily life which also revealed by previous studies in this field (Mizen and Ofosu-Kusi, 2010 and Uddin et al, 2011).

5.5.4 Learning new skills

Street-connected girls received necessary information about reproductive health care from their network relationships which assisted them to cope with problems. Five girls were directly involved in prostitution which made them more vulnerable to HIV/AIDS and STDs. They got necessary information about physical and reproductive health care from social network through life skill training and counseling. One of the girls shared that-

I didn't know it (contraceptive) before. I became pregnant once. After that I knew family planning methods from my friends. We also learned many things from Apa (Service providers). (Rahana, Age 17)

It is revealed that they got scared when they had first menstruation. They shared with their peers and professionals for the clarification of their problems. Girls who involved in prostitution, they often reported to the professionals to check their pregnancy. Girls received information from organization which helped them to cope with their reproductive health challenges as Lavli stated that-

I heard after coming here (shelter home) about this (HIV/AIDS). Counselor Apa told us in group sessions. I don't know the name of that disease but it's not curable and sex is a reason for this. Apa (worker) also told us not to do bad (sex) things. I don't go with them (other street-connected girls). (Lavli, Age 13)

It is revealed that, most of the girls choose street as the alternative to escape from violence. Some of them came to Dhaka without prior knowledge of street life. Every day they are learning new skills and knowledge about reproductive health from shelter home and open air school run by NGOs in Dhaka city to cope with their problems. Street-connected girls also got practical information from social networks, for example- they learned how to use condom, which develop their skills. But the quality of information is important and it depends on sources of information as Uddin et al (2011) found that street children in Bangladesh sometimes learned misconception about reproductive health from their peers.

Lazarus and Folkman (1984) identified two major functions of coping; problem-focused and emotion-focused coping. Emotion focused coping normalizes the emotional response where problem-focused coping is directed towards managing the primary appraisal (Folkman et al 1991). It depends on the situations and changeability of the primary appraisals. Street-connected girls used these two types of coping to deal with their physical and reproductive health problems. It is revealed that girls experienced health related problems on the street which include diseases, injuries and reproductive health problems. In addition, they had risks of being trafficked and raped on the street. Street-connected girls considered those problems as normal in their life in the street and they usually ignored their physical problems which denoted to the emotion-focused coping (Ibid). Street-connected girls received material, emotional and informational supports from their network relationship which helped them to cope with their problems. They exposed that they always had someone who helped them and they looked for social support in their network relationships which helped them to regulate their emotions (Ibid). In addition, informational supports helped them to learn new skills (Ibid) which assist them to cope with their reproductive health problems and risks. Street-connected girls revealed that they took medicine during their physical and reproductive health problems when they found the problems were not naturally curable and they used sanitary napkin and rags as menstrual pads during their menstruation which are the examples of problem-focused coping (Lazarus and Folkman, 1980).

Chapter- six

Conclusion and discussion

This study conducted with an aim to explore social relations of street-connected girls and how their network relationships assist them to cope with physical and reproductive health problems on the street. Eight street-connected girls and four service providers were interviewed to collect data through semi-structured interviews in Dhaka, Bangladesh. Two theories primarily guided to organize the whole research project. Convoys' model of social relations (Kahn and Antonucci, 1980) theory used as theoretical and methodological concepts which allowed me to understand their social network. In association with convoy's model, I used Lazarus and Folkman's (1984) transactional model of stress and coping which emphasized the cognitive appraisal of individual and coping strategies to deal with stress. Following findings revealed in this study in relation to the research questions.

6.1 How and under which condition do girls construct social relationships on the street?

The findings of this study revealed that street-connected girls run away from family without or limited ideas about street life. Sometimes they traveled with other children by train with an intention to go back and sometimes they found street as alternative to escape violence (Conticini and Hulme, 2006) which they experienced in family and community level. When they arrived in Dhaka city, they found many problems and challenges on the street. Then they looked for supports from other people who were on the street like them. Their work nature, living conditions, challenges on the street and common past united them together in a social relationship (Whyte, 1995, Beazley, 2003) which was not as visible as boy's network. Occupation, geographical proximity and gender were the most important factors (Oino and Auya, 2013) that street-connected girls considered to make trustful relationships on the street.

Peers and street adults played dominant role in convoys of social relations of street-connected girls. Sometimes girls found job providers helpful for their supports on the street (Uddin et al, 2011) as they got jobs and shelter from them. Gender also an important factor on the street as their network showed that girls were closer to their female peers on the street because they felt safe and comfortable to share their health related problems. Service provider also had dominant role in their network as many NGOs work for street-children in Dhaka. NGOs provided shelter, schooling and health care services which helped them to cope with their problems and risks on the street. Three concentric circles were found in their convoys relations who were supportive to them (Kahn and Antonucci, 1980) on the street. Their peers, service providers and romantic partners were mostly in their inner circle. They placed job providers and influential adults on their second circle and in third circle basically they placed their early childhood friends or family members. Trusts, geographical proximity, reciprocity of help, age and gender were the determinants of close relationships in street-connected girl's convoys of social relations.

6.2 What are the health problems and potential health risks on the street?

Street-connected girls survive on the street rather than live. They reported that they suffered from many diseases on the street because of their living and working conditions. They always travelled from one place to another place as they had no permanent place to live. Bus stations, launch terminals, train stations, and parks (Uddin et al, 2011) were the common places in Dhaka

city where they usually live and work. Sometimes they got wet by rain, sometimes night guard or police crushed them when they slept on the stations. Fever, headache, skin diseases, stomach pain and common cold were the common diseases (Ahmed et al 2003, Uddin et al 2011, Barkat et al, 2012) that they experienced on the street which related to their living condition. Street-connected girls involved in prostitution by force or by choice to survive on the street in Dhaka city (Mozdalifa, 2012). Pain in body, infection in vagina, headache were related to their occupation. Sometimes they raped by adults on the street which affected their physical and mental health as well. Street-connected girls exposed that they had problems related to menstruation, for instance irregular period, pain in abdominal, white discharge (Uddin and Chowdhury, 2008, Uddin et al 2011, Afrin et al, 2010).

Lack of permanent shelter home, insufficient knowledge about reproductive health and involvement in prostitution were the major potential health risks of street-connected girls. They lived under the sky without permanent shelter home which put them in risks of sexual harassment on the street. In addition girls involved in prostitution before their maturity. They exposed partial and inappropriate knowledge about family planning methods (Mozdalifa 2012) and some of them showed unwillingness to use condom. Even some girls never heard about family planning methods before. These all factors made them more vulnerable to HIV/AIDS (Uddin et al, 2011). In addition, street-connected girls found difficulties in access to health care for their age as service providers mentioned that they were not allowed to provide contraceptive to the children.

6.3 Which different kinds of social support do they receive and from whom?

Street-connected girls exposed that they were capable to generate social supports in network relationships during their health needs. Social supports helped them to cope with physical and reproductive health problems. Material, emotional and informational supports were common form of support (Kahn and Antonucci, 1980) that they received from their convoys of social relations during their physical and reproductive health problems. This study showed that girls received medicine, medical care, primary care, financial aid and napkins from their network relationships as material support. Street-connected girls received social supports from peers, adults, job providers, service providers and romantic partners on the street. They received most of the help from service providers and from their peers. They were the main sources of informational and emotional supports in their convoys of social relations. On the other hand job providers helped them financially during their physical illness and injuries (Uddin et al 2011). Street-connected girls received reproductive health care supports from their female peers and service providers. Some times their romantic partners helped them to buy sanitary napkins and condoms on the street. In general, they received formal and informal supports from their convoys of social relations. Service providers provided formal supports through life skill training, counseling and group sessions. They exposed that they learned about family planning methods and got knowledge about HIV/AIDS from service providers. In addition, they received medical support (e.g. HIV/AIDS test) from NGOs. Rest of the convoy's member helped them informally which included financial aids, emotional and informational supports.

6.4 How do the social relationships assist them to cope with health problems and risks?

Street-connected girls experienced actual harms, risks and challenges on the street which are the primary appraisal according to Lazarus and Folkman (1984). They experienced common

diseases, injuries and reproductive health problems on the street. In addition they exposed the health risks on the street for their occupation and lack of knowledge about family planning methods and HIV/AIDS. To deal with their physical and reproductive health problems and challenges, they used problem-focused and emotion-focused coping (Lazarus and Folkman, 1984). Street-connected girls used sanitary napkin and took medicine as problem-focused coping. On the other hand, they used their social networks and learned new skills to cope with their physical and reproductive health problems. Problem-focused coping helped them to manage their problems where emotion-focused coping helped them to learn new skills.

Street-connected girls revealed that they received emotional, material and informational supports from their convoys of social relations which helped them to enhance their coping strategies to deal with problems. They received financial aids and medicine to cope with their diseases, injuries and menstrual problems from their peers, service providers, adults and job providers on the street who were their network members. They also influenced by their peers and adults to buy medicine during their illness. In addition they received medicine and medical care from NGOs which also supported them to cope with their problems. They used sanitary napkins, rags and cottons as menstrual pads where they exposed that they received napkin from their peers, romantic partners and service providers in their network relationships. They also revealed that they received free sanitary napkins from NGOs which helped them to manage their problems. Street-connected girls received informational supports about reproductive health care from network relationships as they mentioned that they learned hygienic factors, family planning methods and HIV/AIDS from their peers and from service providers. They learned new skills and gathered new knowledge from skills development training, counseling and group sessions on the shelter homes and schools. In addition it is revealed that they shared their problems with network members to get social supports when they found something as severe.

6.5 Recommendations

This study revealed that street-connected girls were vulnerable on the street because of their living and working conditions, risks of physical and sexual harassments, lack of knowledge about family planning methods and lack of health care services. It is also revealed that street-connected girls had the capacity to generate social supports during health needs. Following is my recommendations based on the research findings to work with street-connected girls in Bangladesh.

Street-connected girls Construct social network and generate social support on the street to meet their health needs. The networks and social support depend on their occupations, age, living areas and some other factors. It showed that girls were very close to their peers and some of them had good interactions with service providers. They exposed the risks to become a group member on the street. For example- new street-connected girls have a risk to be motivated to enter into prostitution by their peers. Sometimes girls learned from their peers who were not knowledgeable at all. In this case they are learning misconceptions about reproductive health care. In Bangladesh, government and NGOs focus on financial aid and reintegration of street children to their families. It cannot be a sustainable solution; moreover it brings more risks to their emotional development as most of them reported that they were from dysfunctional families who were unable to provide care and protection. In this case policy makers should focus on protective measures instead of material aids. Permanent shelter home can be the solution to protect them from potential harms on the street. Few NGOs provide shelter homes to the children

until 18 but still the number of shelter home is not sufficient considering the number of the street children. By providing institutional care, it will be easier to protect them from HIV/AIDS and STDs. In addition, community level awareness campaign should be emphasized in community level to reduce the flow of child migration on the street. In this case NGOs can work with influential persons (e.g. school teachers, religious leaders) to enhance campaign program.

Street-connected girls reported that they had good contact with adults and job providers on the street. In advocacy-based intervention is important to work with them to protect the rights of street-connected girls as children. In addition, street-connected girl use trains, buses and launches to arrive in Dhaka. In this case NGOs should involve the people who work in those areas and sectors to protect them from trafficking. They can also provide necessary information about new children to service providers.

Gender, occupations and age were the important factors in convoys of social relations of street-connected girls. It is revealed that girls felt comfortable to share their problems with their female peers. They also received informational, emotional and material supports from female peers who lived and worked with them. In this case peer worker approach can be effective. NGOs should involve more female children in their activities to provide reproductive health care supports.

Street-connected girls involved in prostitution by force or by choice but they did not have equal access to buy or receive family planning methods from NGOs which put them into risks of HIV/AIDS. Even though prostitution is legal in Bangladesh but street-connected girls are not allowed to sell sex by law and child welfare policy until they reach 18. This is a big dilemma to work with child prostitution from child welfare perspective. In this case professionals should be flexible to provide them necessary services who already involved in prostitution.

Finally, a gender based street children policy is required which will address all sorts of health problems and potential risks of street-connected girls with specific attention to the best interest of child.

6.6 Concluding remarks

Street-connected girls in Bangladesh exposed lots of health problems and risks on the street. They formed social relationships and generated social supports to cope with the adverse situations on the street. They received material, emotional and information supports from network relationships which helped them to cope with their health related problems and risks. Most of the street-connected girls involved in prostitution but they exposed limited knowledge about HIV/AIDS. So they are vulnerable to HIV/AIDS and STDs. Social networks of street-connected girls can be used in advocacy program to provide effective health care services. In addition, community level intervention should be highlighted in policy agenda to control the flow of child migration in urban areas.

For this study, I interviewed street-connected girls and service providers in Dhaka city. But I didn't involve influential adults in the street in this research. During data collection and analysis I realized that it would be better to include influential individuals who give jobs and protections on the street to get wider interpretations which will be helpful to make intervention plan for the street-connected girls in Bangladesh.

Reference list

- Acitelli, L.K., Antonucci, T.C. (1994), Gender differences in the link between marital support and satisfaction in order couples. *Journal of Personality and Social Psychology*, 67, 688-698
- Afrin S, Rahman MR, Jahan AA, Zaman UKS, Rahman N, Rahman S (2010), Reproductive health problems among the adolescent girls, *Bangladesh Medical Journal* 2010, 39 (2)
- Ahmed, S. and Adeeb A.M. (1998), Methods and techniques of street education and substance abuse prevention among street children. Dhaka: *Aparajeyo- Bangladesh & Child hope-Asia*.
- Ahmed K. S. U., Mosleh M., Islam S. M., Huq M. N., Nehar S. M., Nessa Z. M., Huq Obaedu, (2003), A Baseline Survey Of Street Children In Bangladesh*, *FREPD*, Dhaka, Bangladesh
- Albrecht, T.L., & Adelman, M.B. (1987), Communicating social support: A theoretical perspective. In T.L. Albrecht T.L., & Adelman, M.B (Eds), *Communicating social support* (pp. 18-39). Newbury Park, CA: Sage
- Alexandrescu, G. (1996). 'Programme Note: Street Children in Bucharest'. *Childhood, Global Journal of Child Research* 3(2):267-270
- Antonucci TC, Kristine J. Ajrouch, and Kira S. Birditt (2013) The Convoy Model: Explaining Social Relations from a Multidisciplinary Perspective, *The Gerontologist Cite journal as: The Gerontologist doi:10.1093/geront/gnt118, oxford university press*
- Antonucci, Toni, H. Akiyama, and K. Takahashi (2004), Attachment and close relationships across the life span, *Attachment & Human Development*, 6:353-370
- Aptekar, L. & Stoecklin, D. (2014), *Street children and Homeless Youth: A cross-cultural perspective*, Springer Dordrecht Heidelberg New York London
- Aptekar L. (1994), Street children in the developing world: a review of their condition. *Cross Cult Res* 28: 195–224.
- Aptekar, L. and P. Heinonen (2003) Methodological implications of contextual diversity in research on street children, *Children, Youth and Environments*, 13 (1), Spring.
- ARISE. (2001). Baseline Survey of Street Children in Six Divisional Cities of Bangladesh, *Department of Social Services*, Ministry of Social Welfare, Government of Bangladesh.
- ARISE (2005) Estimation of the Size of Street Children and their Projection for Major Urban Areas of Bangladesh, *Bangladesh Institute of Development studies*
- Ayuku, D. (2005), Family Networks of Street Children and School Children of Eldoret, Kenya, *East African Journal of Public Health* Vol.2: 6-9.
- BANBEIS (2013), Bangladesh Bureau of Educational information and Statistics 2012. Dhaka: Government of Peoples Republic of Bangladesh.

- Barkat A., Osman A., Ahsan M., Hena S. H. (2012), Situational Analysis of the Street Children involved in Begging in Dhaka City, *Human development research center*, Dhaka
- Bayet D. P., Hfanbari A., Khazaei M., Ghorbani and Amiri S (2012), Age at Menarche and Related Factors in Girls of Urban Areas of Markazi (Central) Province of Iran, *Int. J. Morphol.*, 30(1):15-18
- Beazley, H. (2003), The Construction and Protection of Individual and Collective Identities by Street Children and Youth in Indonesia, *Children, Youth and Environments* 13(1), Spring.
- Bryman A (2012), *Social research methods*, Oxford university press, Fourth edition, pp 808
- Clarke V. & Braun V., (2013), Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning, *The Psychologist*, 26(2). pp. 120-123.
- CoE (Council of Europe Congress of Regional and Local Authorities) (2008) Recommendation 253 on 'The social reintegration of children living and/or working on the streets' adopted by the Congress on 29 May 2008 as Document CPL (15) 6REC
- Conticini, A. and D. Hulme (2006) Escaping violence, seeking freedom: Why children in Bangladesh migrate to the street, ESRC, *Global Poverty Research Group – WPS-047*, September
- Cosgrove, J. (1990), Towards a working definition of street children. *International Social work*, 33, 185-192
- Crang, M. & Cook, I. (2007), *Doing Ethnographies*. London: SAGE Publications Ltd.
- Creswell, J. W., (2007), *Qualitative inquiry & research design: Choosing among five approaches*. 2nd ed. Thousand Oaks, CA: Sage.
- Dabir, N. and N. Athale (2011) *From Street to Hope: Faith Based and Secular Programs in Los Angeles, Mumbai and Nairobi for Street Living Children*, Sage: London
- Dahlgren G, Whitehead M. (1991), *Policies and Strategies to Promote Social Equity in Health. Institute for Future Studies* Stockholm
- Demaray M.K., & Malecki, C.K. (2002), Critical levels of perceived social support associated with student's adjustment, *school psychology quarterly*, 17, 213-241
- ECPAT (2006), Global Monitoring Report on the status of action against commercial sexual exploitation of Children, Bangladesh, *ECPAT International*, Thailand
- Folkman, S., Chesney, M., McKusick, L., Ironson, G., Johnson, D. S., & Coates, T. J. (1991), Translating coping theory into intervention. In J. Eckenrode (Ed.), *The social context of coping* (pp. 239-260). New York: Plenum Press.

- Greksa Lawrence P., Rie Naganuma, Islam Rafiqul A.B.M., Maki Uchida, And Kinuko Omori (2007), Growth and Health Status of Street Children in Dhaka, Bangladesh, *American Journal Of Human Biology* 19:51–60
- Habib F, Nayib R., Khan S.K., Jamal A, Cheema AA and Iman N. (2007), Occupational Health Hazards Among Street Children, *E:/Biomedica*, Vol.23, 2007/Bio-16 (A)
- Hagan and McCarthy (1997), *Mean Streets: Youth Crime and Homelessness*, Cambridge University Press, New York
- Hai MA (2014), Problems Faced By The Street Children: A Study On Some Selected Places In Dhaka City, Bangladesh, *International Journal Of Scientific & Technology Research*, VOLUME 3, ISSUE 10, OCTOBER 2014
- Haque Dm (2010), Knowledge of reproductive health social awareness, *JAFMC Bangladesh*. Vol 6, No 2 (December)
- Hasina, S. (1989), Ora Tokai Keno. Dhaka: United Nations Children's Fund.
- Harlow, E. (2009), *Contribution, theoretical Encyclopedia of Case Study Research*, Thousand Oaks, CA:Sage
- Hossain, M.R. (2008), Health scheme for street children The Daily Star, dated 08-09-2008. Available at www.thedailystar.net/story.php?nid=49585
- James, A., & Prout, A. (Eds.), (1997), *Constructing and reconstructing childhood*. London, Falmer.
- Kahn RL and Antonucci TC (1980), Convoys over the life course: Attachments, roles and social support. In: Baltes PB, Brim O, (eds), *Life span development and behavior*. Vol 3, pp 253-286, Academic Press; New York
- Kvale, S., (1996). *Interviews: an introduction to qualitative research interviewing*. Thousand, Oaks: SAGE
- Kvale, S and Brinkmann, S (2009): *Interviews: Learning the craft of qualitative research interviewing*. Los Angeles: Sage 354 p.
- Lazarus, R S and Folkman, S, (1984). *Stress, Appraisal, and Coping*. New York: Springer
- Lazarus, R S, (1993). Coping theory and research: Past, present, and future. *Psychosomatic Medicine*, 55, pp. 234–247
- Lazarus, R S and Folkman, S, (1986), Cognitive theories of stress and the issue of circularity. In M H Appley and R Trumbull (Eds), *Dynamics of Stress. Physiological, Psychological, and Social Perspectives* (pp. 63–80). New York: Plenum

- Levitt, MJ (2005), Social Relations in Childhood and Adolescence: The Convoy Model Perspective, *Human Development*, 48:28–47
- Levitt, M.J., Guacci-Franco, N., & Levitt, J.L. (1993), Convoys of social support in childhood and early adolescence: Structure and function. *Developmental Psychology*, 29, 811–818.
- Marsden V (2006), Network methods in social epidemiology. In: J. Michael Oakes and Jay S. Kaufman (Eds), *Methods in Social Epidemiology*, Jossey-Bass Publications, San Francisco (2006), pp. 267–286.
- Mattson, M. and Hall, G. J. (2011), *Health as Communication nexus: a service-learning approach*, Kundal Hunt publishing co.
- Meincke, A. L. (2011). Children’s voices paper: “Nothing about us, without us.” London: Consortium for Street Children.
- Mitra SN, Al-Sabir, Saha I, Kumar S. (2001), Bangladesh demographic and health survey 1999-2000, *National Institute of Population Research and Training*, Dhaka
- Mizen Phillip and Ofosu-Kusi Yaw (2010), Asking, giving, receiving: Friendship as survival strategy among Accra's Street children, *Childhood* , 17(4) 441–454 , Sage publication
- Mozdalifa J. (2012), Social connection in the context of Dhaka City, Bangladesh, *Unnayan Onnesha*, Dhaka
- Oino Peter and Auya Samwel (2013), The Role of Networks of Relations among Street Children in Kenya: Evidence from Eldoret Municipality, *International Journal of Science and Research (IJSR)*, India, Volume 2 Issue 6, pp 313-319,
- Onwuegbuzie, A.J and Leech L.N., (2007), Sampling Designs in Qualitative Research: Making the Sampling Process more Public, *The Qualitative Report*. Huntsville, Texas: Sam Houston State University, 12(2), p.238-254.
- Panter-Brick C. (2002), Street children, human rights and public health: A critique and future directions, *Annual review of Anthropology*, vol 31: 147-171
- Parvin T., Uddin F.S., Akhtar S., Jabbar MA and Miah AM (2008), Reproductive Health and Nutritional Status of Girl Students in an Urban Area Of Bangladesh, *Ibrahim Med. Coll. J.* 2008; 2(1): 9-11
- Peacock, R. (1994), Street Children, *Africa Insight* 24(2):138-143.
- Primary Education (Compulsory) Act, (1990), Ministry of Primary and Mass Education, Governemnt of the People’s Republic of Bangladesh
- Rah, J.H., Shamim A.A., Ummeh T. A., Alain B.L., Mahbubur Rashid & Parul Christian (2009), Age of Onset, National determinants and seasonal variations in menarche in rural Bangladesh, *J Health Popul Nutr*, 27 (6): 802-807

Ray, P., Davey, C., & Nolan, P. (2011), Still on the street—still short of rights: Analysis of policy and programmes related to street involved children. London and Geneva: Consortium for street children and Plan International.

Ritchie, J et al., (2003). Designing and selecting samples. In Jane Ritchie & Jane Lewis (Eds.), *Qualitative research practice. A guide for social science students and researchers* (pp.77-108), Thousand Oaks, CA: Sage.

Scheper-Hughes, N. and Hoffman D. (1998), Brazilian Apartheid: Street Kids and the Struggle for Urban Space. In *Small Wars: the Cultural Politic of Childhood*, edited by N. Scheper-Hughes and C. Sargent. Berkeley: University of California Press.

Shahid Anjum, Pirzada GA, Memon AA (2012), Perception regarding reproductive health among adolescents of rural Sindh, Pakistan, *South East Asia Journal of Public Health* 2012;2(1):39-45.

Stohl, C. (1995), *Organizational communication: Connectedness in action*, Thousands Oaks, CA: Sage

Thoits P.A. (1986) Social support as coping assistance, *Journal of consulting and clinical psychology*, 54, 416-423

Thomas de Benitez, S., & Hiddleston, T. (2011), Research paper on the promotion and protection of the rights of children working and/or living on the street: OHCHR 2011 Global Study. Geneva: OHCHR.

Uddin J. Md, Sarma H, Nahar Q., Koehlmoos T. P., Imam A. Md., Wazed, AT. (2011), Vulnerability of Bangladeshi Street-children to HIV/AIDS: A Situation Analysis, *ICDDR,B working paper* no. 175, December 2011

Uddin, Md. Jashim, PhD, and Choudhury Abdul Mannan, PhD (2008), Reproductive health awareness among adolescent girls in rural Bangladesh, *Asia-Pacific Journal Of Public Health* Volume 20 Number 2

UNCRC, 1989, *Convention on the Rights of the Child*, Office of the United Nations High Commissioner for Human Rights <http://www2.ohchr.org/english/law/crc.htm> accessed on 4th january,2011

UNICEF (2009), Protection of Children Living on the Street, Dhaka, UNICEF Bangladesh

UNICEF (2012), Situational analysis of the street children involved in Begging in Dhaka City, *Human Development resource center*, Dhaka

UNICEF (2008), *Basic education and gender equality*, UNICEF in action http://www.unicef.org/education/index_action.html

Veale A., Taylor M., & Linehan C. (2000), Psychological perspectives of 'abandoned and abandoning' street children. In C. Panter Brick & M. Smith (Eds.), *Abandoned children* (pp. 131–145). Cambridge: Cambridge University Press.

Whyte, W. F., (1995). *Street corner society: social structure of an Italian slum*. Chicago: University of Chicago Press.

Wiehler, S. (2002), An Examination of the “Pull Factors” Affecting Kampala’s Street children and the shape of a comprehensive solution. In J.L.P. Lugalla and C.G. Kibassa (eds.), *Poverty, AIDS, and street children in East Africa*, New York: The Edwin Mellen Press, pp. 235-259

Appendix- 01

Informed consent

Research Title: Social relations, health problems and coping strategies of street-connected girls in Dhaka city

The research project is a part of our education in the International Master program in Social Work at the University of Gothenburg, Sweden. In order to insure that our project meets the ethical requirements for good research we promise to adhere to the following principles:

- Interviewees in the project will be given information about the purpose of the project.
- Interviewees have the right to decide whether he or she will participate in the project, even after the interview has been concluded.
- The collected data will be handled confidentially and will be kept in such a way that no unauthorized person can view or access it.

The interview will be recorded as this makes it easier for us to document what is said during the interview and also helps us in the continuing work with the project. In our analyze some data may be changed so that no interviewee will be recognized. After finishing the project the data will be destroyed. The data we collect will only be used in this project.

You have the right to decline answering any questions, or terminate the interview without giving an explanation.

You are welcome to contact us or our supervisor in case you have any questions.

Student name: Billal Hosen

Supervisor: Ulla-Carin Hedin

(Email: billal045_scw@yahoo.com)

(Email: ulla-carin.hedin@socwork.gu.se)

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Interviewee

Appendix- 02

Interview guideline for Street-connected girls

Research Title: Social relations, health problems and coping strategies of street-connected girls in Dhaka city

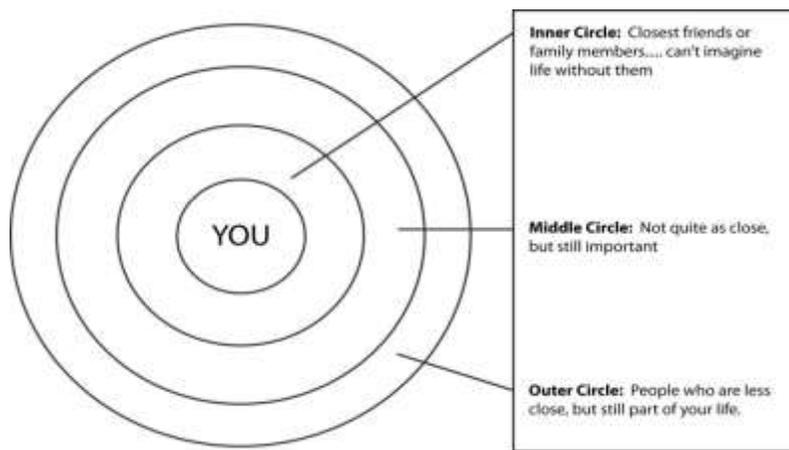
A. Personal information: Location of interview, age, level of education, present occupation, previous occupation

B. Family and other background info

Q. Why did you leave your home? Are your parents still alive? Are they live together, if alive? What is their occupation? Do you contact with your family members? Do you visit them? Do you have any brother or sister on the street? Why and how did you arrive in Dhaka?

C. Social networks of street-connected girls

Here is a network map that includes a number of people who are important and helpful in your everyday life on the street.



Q. Have you included everyone who is important to you? How do you know them? Where do they live? What is your relationship with them? Why did you put them in different circles? What were the reasons? Which group is more supportive?

D. Physical and reproductive health problems

Q. What physical problems and injuries you ever faced on the street? Do you have any problems with menstruation? Do you have any reproductive health problems? Do you face any other problems on the street? Do you have any health risks on the street?

E. Perception about family planning methods and HIV/AIDS

Q. Do you have any ideas about family planning methods? Which methods are you familiar with? Have you heard about HIV/AIDS? What are the reasons and protective measures of HIV/AIDS?

F. Social supports in network relationships

Q. Do you receive any supports from network relationships during health related problems? What types of support do you receive? Who help you most of the time on the street? Do you also help them? Do you receive any help from NGOs?

G. Coping strategies of street-connected girls

Q. How do you cope with diseases and menstruation? Do you contact with health professionals? Do you share your problems with them? Does anybody help you willingly? What are the skills you learned from them? What do you think about your supportive networks?

Thank you so much for your patience and time!!!

Appendix- 03

Interview guideline for service providers

Research Title: Social relations, health problems and coping strategies of street-connected girls in Dhaka city

A. Working background and experiences

Q. For how long have you worked with street children? What is your professional role? What is your academic background?

B. Perception about social networks of street-connected girls

Q. What do you think about living and working condition of street-connected girls? Where do they live? What is their occupation? Do they live in a group? Why and how do they construct social relationships on the street? Who give them shelter on the street? What types of support do they have in network relationships to cope with health related problems?

C. Physical and reproductive health problems of street-connected girls

Q. What are the common physical problems that they face on the street? What do they think about puberty age? Do they have any menstrual problems? Do they familiar with family planning methods? What are the perceptions of street-connected girls about HIV/AIDS? Do they have any problems related to reproductive health? Do they have any health related risks on the street?

D. Access and availability of health care support

Q. What types of health supports do they receive from NGOs? Do you provide medical support? Do you provide reproductive health supports? How do you provide supports? Do they get equal access to medical center?

E. Support seeking strategies of street-connected girls

Q. Do they share their problems with you? How do they share their problems? Do they contact with others for health care? Do you receive information from other girls about their health problems?

F. Do you want to add something else about street-connected girls?

Thank you so much for your patience and time!!!!