ejpmr, 2021,8(1), 208-214

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Review Article

ISSN 2394-3211

EJPMR

STREET CHILDREN: SOCIO-DEMOGRAPHIC AND HEALTH PROFILE, CHALLENGES AND POSSIBLE INTERVENTIONS

Sujata Banerjee[1], Pradnya Jadhav[2]* and Sundaram Kartikeyan[3]

[1]Junior Resident, Community Medicine Department, Rajiv Gandhi Medical College, Kalwa, Thane-400 605, Maharashtra, India.

[2]Assistant Professor, Community Medicine Department, Rajiv Gandhi Medical College, Kalwa, Thane-400 605, Maharashtra, India.

[3]Professor and Head, Community Medicine Department, Rajiv Gandhi Medical College, Kalwa, Thane-400 605, Maharashtra, India.

***Corresponding Author: Dr. Pradnya Jadhav**

Assistant Professor, Community Medicine Department, Rajiv Gandhi Medical College, Kalwa, Thane-400 605, Maharashtra, India.

Article Received on 25/10/2020 **Article Revised on 15/11/2020** **Article Accepted on 05/12/2020**

ABSTRACT

Street children comprise a socially-marginalized, vulnerable, under-served group who need a range of social services, education and health care. Though a difficult task, it is essential to estimate the numbers of street children to plan and implement interventional measures. Children leave their homes to live on the street due to multiple reasons and most are primary school dropouts. Girls are less noticeable on the street probably because of their willingness to stay in residential institutions or with relatives or because of their involvement in the sex trade. Street children usually earned money through unskilled work, sex work, petty theft or begging. Children living on the street without family contact had better nutritional status but had higher prevalence of poor personal hygiene, substance abuse, suicide, injuries, infections and parasitic infestations and many preferred self-medication. They experienced physical violence, abuse and monetary extortion by a variety of persons, including their own parents. Different tailor-made interventions are needed for children who are at high-risk of being forced on to the streets; for those who have already entered the street but are still in regular contact with their families and for children who live on streets without contact with their families. The resilience of street children and their need for independence to survive under unforgiving and callous conditions should be recognized. Replacing non-formal education for street children with a flexible formal education curriculum that includes vocational training and "soft skills" may make them employable in mainstream society immediately after they complete their education.

KEYWORDS: Health profile, Homeless children, Socio-demographic profile, Street children.

INTRODUCTION

The term "street children" includes all children aged less than eighteen years, who live on the street with or without family, for whom "the street" has become home and/or their source of livelihood, who are inadequately protected or supervised, who have continuous contact with their families, who may have occasional family contacts, and children living in the street who are on their own (may be abandoned or not desirous of being with family).[1] According to the UNICEF, a "street child" is one "for whom the street (in the widest sense of the word, i.e., unoccupied dwellings, wasteland, etc.) more than their family has become their real home, a situation in which there is no protection, supervision, or direction from responsible adults".[2]

Sub-groups: There are two sub-groups of street children: the first group, called "on-the-street children" mostly sleep at home and work on the street and are in regular contact with their families. The second group, termed "of-the-street children", live on the streets and have no family contact because they have been orphaned, abandoned or have run away from home.[3] Most street children belong to the "on-the-street" category.[4-6]

Estimates of numbers: Though there are wide discrepancies in the global and country-level estimates of street children, larger numbers of street children are found in the developing countries[7] owing to factors that include population explosion, orphans due to the HIV epidemic and poverty-driven rural-urban migration.[8] Estimating the number of street children living in India is an intricate task due to recurrent changes in their places of residence and workplaces.[9] Street children are subjected to general abuse and neglect, health abuse, verbal abuse, physical abuse, psychological abuse and sexual abuse.[10] Older children and children with higher incomes are abused more than younger children and children with lower incomes.[10] Since street children are at high risk for abuse and exploitation, it is essential to

estimate their numbers in order to plan and implement interventional measures. As the disbursement of funds is usually linked to the estimated number of street children, their estimated numbers may be inflated.[11]

SOCIO-DEMOGRAPHIC PROFILE

Gender: The "of-the-street" boys, the most visible group on the street, are often significantly older than their female counterparts[11-15] and have spent more years on the street. Many "on-the-street" children are girls, who are in regular contact with their families.[12,16] Since boys from poverty-stricken families are more likely to be sent to the street to earn money and girls are generally kept at home to help with the household chores, it is postulated that "of-the-street" girls may have suffered more severe familial breakdown.[5, 17,18] As compared to boys, girls are less visible on the street because they may be more willing to stay in residential institutions or with relatives. Participation in the sex trade also makes girls less noticeable on the street.[5]

Family conditions: Children leave their homes to live on the street due to various reasons, such as, abuse by parents or step-parents,[5, 19-27] family dysfunction,[26, 28] domestic violence and discrimination or abandonment by step-parents,[5, 20-27] poverty,[19, 26, 28] parental death, peer pressure,[19, 21, 22] migrant status,[20, 26, 28] learning a trade and running away from a children's shelter.[21-23, 25, 27]

Occupation: Street children, including those below legal working age, generally sustained themselves by earning money by working as vendors, parking attendants, street performers, garbage collectors and rag pickers,[19] shoe shiners, sex workers, or petty thieves.[13, 14, 21, 22, 25, 27, 29] For some, begging was their sole source of income, though some resorted to begging for supplemental income.[19, 21, 22, 25, 27, 30] Under Indian law, children aged between 15 and 18 years can participate in non-hazardous income-generating activities, with legal restrictions on daily working hours and prohibition of night work. Subject to conditions and safety measures and provided that the school education of the child is not affected, a child (under 14 years) can assist his/her family in a non-hazardous family occupation/enterprise, after his/her school hours or during vacations or work as an artist in an audio-visual entertainment industry, advertisement, films, television serials or any such other entertainment or sports activities, except the circus.[31] The "on-the-street" children generally handed over their income to family, whereas the "of-the-street" children by and large spent their earnings on food, entertainment, or drugs.[17, 32-34]

Education: Most had ceased schooling at primary levels,[12, 14, 35-39] while many girls may have been denied the opportunity to go to school.[35] Children "of-the-street" had lower education levels than their "on-the-street" counterparts.[12, 17, 27, 30, 34, 35, 37, 39] The common reasons for dropping out of school were poverty-induced need to work, lack of interest and migration.[34, 40]

HEALTH PROFILE

Nutrition-related problems: Several studies[12, 27, 32, 33, 38, 41, 42] have reported lower body mass index among street children. The children "of-the-street" were probably more biologically robust since they had significantly more skin fold thickness[21] and better height, weight and body mass index, as compared to their "on-the-street" counterparts.[19, 21, 43] A series of studies[44-46] comparing "on-the-street" with "of-the-street" children and rural children and urban, middle-class schoolchildren found that "of-the-street" children had better weight, height, and other nutritional parameters than "on-the-street" and rural children. It has been hypothesized that "of-the-street" children may be a hardy sub-group with better access to nutritional sources, when compared with "on-the-street" and rural children and thus "urban homelessness may represent a suitable response to poverty".[46]

Infections and infestations: As compared to their child shelter-dwelling and slum-dwelling counterparts, the "of-the-street" children were found to have significantly higher prevalence of injuries,[19, 47] respiratory tract infections,[19, 47] eye and ear morbidities, diarrhoea, worm infestations, dental caries, cervical and inguinal lymphadenitis, tuberculosis, leprosy, genital lesions,[19] disease symptoms,[21] skin diseases (scabies, pyoderma, fungal infections),[19,47] pediculosis[48] and enteroparasitic infestations.[21, 49]

Sexually transmitted infections: Some street children were sexually active from early adolescence, a majority had multiple partners and few used condoms.[50] The self-reported average age of sexual initiation ranged from 10 to 16 years across several studies.[14, 16, 49, 51, 52] A higher proportion of the "of-the-street" children were sexually active, when compared with their "on-the-street" counterparts.[49, 52-55] The reported sexually transmitted infections included hepatitis B,[49, 52] hepatitis C,[36, 56, 57] HIV,[53] and syphilis.[13, 30, 36] Sleeping on the streets, drug use, older age, female gender, and involvement in "survival sex" (sex in exchange for money, drugs, shelter, or protection) were among the risk factors for acquiring sexually transmitted infections.[49, 52, 58]

Mental health: Street children experienced feelings of hopelessness and depressive symptoms.[54, 59-61] Female gender, history of physical or sexual abuse and "survival sex" were among the risk factors for suicidal behaviour.[25, 62] Higher suicide rates have been reported among the "of-the-street" children as compared to their "on-the-street" counterparts.[40, 54, 59, 60]

Injuries and violence: Work-related injuries included scratches, cuts and lacerations, burns, sprains, and amputations. Risk of work-related injury was linked to longer work hours, working as a street performer, male gender, and older age.[63] Street children commonly reported experiencing physical violence, verbal abuse,

and monetary extortion by peers and adults, including parents, other relatives, law enforcement personnel, and sex work clients.[22, 23, 25, 27, 29, 35, 37, 61, 64, 65] Experiencing sexual abuse by peers and adults was common among street children.[22, 25, 27, 30, 33, 35, 61, 65, 66] Wide-ranging rates of "survival sex" among street children have been reported by several studies.[14, 29, 49, 51, 55] Reporting "survival sex" was more frequent among girls as compared to boys[58] and more likely among "of-the-street" children compared with their "on-the-street" counterparts.[59]

Substance abuse: The average age of initiation into substance use was 10 to 13 years, with earlier initiation reported among "of-the-street" children.[34, 49, 64, 67, 68] Older age, male gender, duration of life on the street, depression, child abuse, out-of-school status, lack of family contact, survival sex, multiple sex partners, perceiving oneself to be HIV positive and having an HIV-positive friend are among the factors linked to substance abuse.[12, 25, 29, 34, 49, 52, 64, 65, 68] The self-reported reasons for substance abuse included peer pressure, emotional problems, curiosity, pleasure-seeking; to cope with street life, sexual abuse, violence and/or survival sex; to curb hunger, keep warm, induce or prevent sleep; or for entertainment[23, 25, 34, 40, 55, 67, 68] Self-reporting of substance use was significantly more likely with "of-the-street" children than their "on-the-street" counterparts.[30, 34, 49, 52, 54, 59, 67] Tobacco and cannabis products, inhalants and alcohol were commonly used.[15, 16, 40, 49, 52, 55, 68] In the middle-income countries, intravenous drug use was more common among males and among "of-the-street" children.[15, 16, 49, 52, 53, 65] In the developing countries, inhalants (shoemaker's glue, paint thinner, correction fluid) are easily procured and may cost less than a meal and are used for suppressing appetite.[23, 25] Toluene, the main ingredient in most inhalants, gets metabolized to hippuric acid, which is excreted via urine and therefore, urinary hippuric acid can be used for detecting inhalant use.[69]

Health care seeking behaviour: The time lag for initiation of treatment after onset of symptoms was between 2 and 11 days.[19] Many "of-the-street" children preferred self-medication.[13, 32] The barriers in seeking health care were long waiting time, financial constraints, self-perceived negative attitude of health care providers, distrust in quality of health care and lack of time to seek care because of the possibility of loss of income.[13, 47]

BEHAVIOURAL RISK FACTORS

Shelters: Night shelters for "of-the-street" children include abandoned dwellings, pavements, railway platforms, below road flyovers, sky walks and places of worship.[19]

Personal hygiene: When compared with their child shelter-dwelling and slum-dwelling counterparts, the "of-the-street children" had significantly lower frequency of bathing, use of soap, brushing teeth, washing clothes and use of detergent for washing clothes.[19]

Lifestyle: The common modes of entertainment and relaxation for "of-the-street children" include gambling, watching movies, and substance use (various tobacco and cannabis products, alcohol, inhalants).[7, 70, 71] Eleven criteria have been identified for diagnosis of substance abuse.[72] Multiple substance abuse and tobacco use were commonly due to peer pressure and depression.[19] Young age, lack of contact with family, orphan children, and night stay at public places are among risk factors associated with substance use.[30]

CHALLENGES

Focus of interventions: Street children comprise a vulnerable, neglected and under-served group who need a range of social services, education and health care. Many organizations are providing various facilities including non-formal education, day care centres and open shelters for providing food, shelter, and a place of safety. All interventions should focus on empowerment, self-determination and ensuring social justice.[73]

Dignity: Dignity is the inherent entitlement of a person to be valued and respected. Empowerment-based interventions recognize the strength and resilience of street children and confer them the respect that society has denied them.[74] This socially marginalized group intensely guards its independence that street life has inculcated in them.[75] When working with street children, it is essential to communicate respect, which is reinforced by offering voluntary participation in various interventional measures.

Approaches: Previous approaches by governments focussed on mandatory institutionalization of street children in reformatories and other such residential facilities, which have not yielded much success.[73] Though institutionalization approach has diminished to a large extent in recent times because research studies have set aside the myth that street children are delinquents, this approach is still in existence.[76] The street is the only place that street children consider as their "home". Compulsory removal from the place these children consider as their "home", followed by detention in institutions, has been minimally successful. Conversely, it is also not a sensible approach to leave children exposed to the perils of living on the street without protection from officialdom and their own families, from violence by other street children and from street gangs who may recruit them into criminal activities or sex trade. Street life also deprives them of their right to education, healthcare and to belong to mainstream society. In countries where begging is illegal, street children can be jailed for striving to survive by begging.

POSSIBLE INTERVENTIONS

Need for interventions: Many of street children become law offenders, criminals, drug abusers and exploiters of

other children after experiencing violence-prone and dehumanizing existence on the street. Consequently, a nation's human capital for the future is wasted if interventional measures are not planned and implemented. It is a myth that street children opted for their lifestyle because they were enticed by the allure of the freedom and adventure.[73] The current opinion is that a variety of factors, including domestic abuse and material deprivation, "push" a child on to the street, whereas the opportunity to earn money "pulls" a child into street life.

Rationale for interventions: Children who live in absolute poverty but have not yet entered street life comprise the target population for primary prevention (Table), which will help reduce the influence of factors that "push" and "pull" a child into street life. For this group of children, development of micro-enterprise would be a short-term activity with focus on increasing the income of street children rather than a long-term effort for developing skills to earn income as an adult.[73] Children who work on the street but are in regular contact with their families comprise the target group for secondary prevention (Table), which aims at safe passage of the child into adulthood and to prevent illegal activity as a source of income and a routine. Most "of-the-street" children have little or no family contacts because they have been orphaned, abandoned or have run away from home and are involved in illegal activities to earn income. Currently, residential rehabilitative care (Table) is recommended for this group of children, though the success rate of this approach is insignificant.[73] The residential rehabilitation approach has met with disapprovals because – [a] most of these programmes remove the children from the community and therefore, successful re-integration tends to be low;[77] [b] it is resource-intensive; [c] the level of confidence in this approach is dwindling;[73] and [d] the core problems of drug addiction and anti-social activities are not focussed upon. Consequently, by the time these street children are admitted to these centres, it is already too late to change their habits and lifestyle, unless they are under constant supervision.[77] Moreover, the residential rehabilitation approach is based on western, middle-class values, which is not suitable for children who live on the streets.[78, 79] "Open Shelters" are temporary centres, which provide street children with essential requirements of food, shelter, health care, flexi-time education and vocational training of good quality, including a secure place where children can safely keep their belongings and earnings. The objective of residential rehabilitative care for "of-the-street" children is to set in motion the process of weaning them away from socially-deviant behaviours and also to provide counselling and life-skill education.

Table: Possible interventions.

Type of intervention	Target population	Possible interventions[73]
Primary prevention	Children who live in absolute poverty but have not yet entered street life	Improving domestic conditions Improving families' income generation Providing day care Providing recreational activities Improving or constructing water-proof homes Supplying potable water Providing free or subsidized food Providing free or subsidized education Measures for overall community development
Secondary prevention	Children who work on the street but are in regular contact with their families (children "on-the-street")	Development of micro-enterprises to increase income Awareness programmes (using street plays, videos, discussions) on health problems Education on various risks (drug use, sexually transmitted infections, violent behaviour) associated with street life
Tertiary prevention	Children who live on the street and have little or no contact with their families (children "of-the-street")	Residential rehabilitative care that encourages peer group participation and creative activities (performing arts, computers, indoor and outdoor games) and provides counselling and life skill education.

CONCLUSION

For children who are currently living with their families but are at high-risk of being forced on the streets, preventive efforts ought to concentrate on improving income levels and housing of impoverished families, curbing parental abuse, and providing educational and health care facilities. For "on-the-street" children, who are in regular contact with their families, efforts should focus on establishing more facilities for providing food, health care and shelter, providing avenues for legal income, and educating on the hazards of promiscuity and substance abuse. The "of-the-street" children, who have little or no contact with their families, are difficult to manage but they need rehabilitative services that are customised to their needs. Consequent to the conditions faced by them, street children are involved in high risk behaviours, which, in combination with the exposures linked to poor shelter and destitution, adversely affect

their growth and development and also cause infections and mental illnesses. It is vital to realize the resilience of street children and their need for independence to survive under unforgiving and insensitive conditions. In order to ensure that street children become productive adults in mainstream society, it is crucial to replace non-formal education for street children with a flexible formal education curriculum that includes vocational training and "soft skills" so that they are employable immediately after they complete their education.

REFERENCES

1. De Benitez ST. State of the world's street children: Research. London: Consortium for Street Children, 2011.
2. UNICEF Executive Board. Exploitation of working children and street children. U.N. Doc. E/ICEF/1986/CRP.1983. New York, NY: UNICEF. 1986.
3. Woan J, Lin J, Auerswald C. The health status of street children and youth in low- and middle-income countries: A systematic review of the literature. J Adolesc Health, 2013; 53(3): 314-321.
4. Jones GA, Herrera E, Thomas de Benítez S. Tears, trauma and suicide: Everyday violence among street youth in Puebla, Mexico. Bull Latin Am Res., 2007; 26(4): 462-479.
5. Raffaelli M, Koller SH, Reppold CT, Kuschick MB, Krum FMB, Bandeira DR, et al. Gender differences in Brazilian street youth's family circumstances and experiences on the street. Child Abuse Negl., 2000; 24(11): 1431-1441.
6. Hutz CS, Koller SH. Methodological and ethical issues in research with street children. New Dir Child Adolesc Dev., 1999; 85: 59-70.
7. Mathur M. Socialisation of street children in India: A socio-economic profile. Psychol Dev Soc J., 2009; 21(2): 2299-2325.
8. UNICEF. The state of the world's children 2012: Excluded and invisible: United Nations Publications Report No.: 9280639161. New York, NY: UNICEF, 2012.
9. Patel S. Street children, hotel boys and children of pavement dwellers and construction workers in Bombay - How they meet their daily needs. Environ Urban, 1990; 2(2): 9-26.
10. Mathur M, Rathore P, Mathur M. Incidence, type and intensity of abuse in street children in India. Child Abuse Negl., 2009; 33(12): 907-913.
11. Gurgel RQ, da Fonseca JDC, Neyra-Castaneda D, Gill GV, Cuevas LE. Capture-recapture to estimate the number of street children in a city in Brazil. Arch Dis Childhood, 2004; 89: 222-224.
12. Wittig MC, Wright JD, Kaminsky DC. Substance use among street children in Honduras. Subst Use Misuse, 1997; 32(7-8): 805-827.
13. Anarfi JK. Vulnerability to sexually transmitted disease: Street children in Accra. Health Transit Rev., 1997; 7(Suppl): 281-306.
14. Anarfi JK, Antwi P. Street youth in Accra city: Sexual networking in a high-risk environment and its implications for the spread of HIV/AIDS. Health Trans Rev., 1995; 5(Suppl): 131-154.
15. Raffaelli M, Siqueira E, Payne-Merritt A, Campos R, Ude W, Greco M, et al. HIV-related knowledge and risk behaviors of street youth in Belo-Horizonte, Brazil. AIDS Educ Prev., 1995; 7(4): 287-297.
16. de Carvalho FT, Neiva-Silva L, Ramos MC, Evans J, Koller SH, Piccinini CA, et al. Sexual and drug use risk behaviors among children and youth in street circumstances in Porto Alegre, Brazil. AIDS Behav, 2006; 10(4 Suppl): S57-S66.
17. Abdelgalil S, Gurgel RG, Theobald S, Cuevas LE. Household and family characteristics of street children in Aracaju, Brazil. Arch Dis Child., 2004; 89: 817-820.
18. Aptekar L, Ciano-Federoff LM. Street children in Nairobi: gender differences in mental health. New Dir Child Adolesc Dev., 1999; 85: 35-46.
19. Malgaonkar AA, Kartikeyan S. Cross-sectional comparative study of socio-demographic and health profile of children in a NGO-run open house and street children in a metropolitan city. Int J Res Med Sci., 2016; 4(12): 5224-5230.
20. Sharma S, Lal R. Volatile substance misuse among street children in India: A preliminary report. Subst Use Misuse, 2011; 46(Suppl 1): 46-49.
21. Greksa LP, Rie N, Ragiqul Islam ABM, Maki U, Omori K. Growth and health status of street children in Dhaka, Bangladesh. Am J Hum Biol, 2007; 19(1): 51-60.
22. Hosny G, Moloukhia TM, Abd Elsalam G, Abd Elatif F. Environmental behavioural modification programme for street children in Alexandria, Egypt. East Mediterr Health J., 2007; 13(6): 1438-1448.
23. Seth R, Kotwal A, Ganguly KK. Street and working children of Delhi, India, misusing toluene: an ethnographic exploration. Subst Use Misuse, 2005; 40(11): 1659-1679.
24. Grundling J, Grundling I. The concrete particulars of the everyday realities of street children. Human Relations, 2005; 58(2): 173-190.
25. Huang CC, Barreda P, Mendoza V, Guzman L, Gilbert P. A comparative analysis of abandoned street children and formerly abandoned street children in La Paz, Bolivia. Arch Dis Child., 2004; 89(9): 821-826.
26. De Moura SL. The social construction of street children: Configuration and Implications. Br J Soc Work, 2002; 32(3): 353-367.
27. Salem EM, El-Latif FA. Sociodemographic characteristics of street children in Alexandria. East Mediterranean Health J., 2002; 8(1): 64-73.
28. Pratibha, Mathur A, Ansu. Difficulties and Problems of Street Children. Int J Sci Res., 2016; 5(2): 1859-1861.
29. Sherman SS, Plitt S, ul Hassan S, Cheng Y, Zafar ST. Drug use, street survival, and risk behaviors

among street children in Lahore, Pakistan. J Urban Health, 2005; 82(3 Suppl 4): iv113-124.
30. Bal B, Mitra R, Mallick AH, Chakraborti S, Sarkar K. Nontobacco substance use, sexual abuse, HIV, and sexually transmitted infection among street children in Kolkata, India. Subst Use Misuse, 2010; 45(10): 1668-1682.
31. Ministry of Labour and Employment. Section 3. The Child Labour (Prohibition & Regulation) Act, 1986 (last amended in 2016). New Delhi: Government of India, 2016.
32. Thapa K, Ghatane S, Rimal SP. Health problems among the street children of Dharan municipality. Kathmandu Univ Med J (KUMJ)., 2009; 7(27): 272-279.
33. Türkmen M, Okyay P, Ata O, Okuyanoğlu S. A descriptive study on street children living in a southern city of Turkey. Turk J Pediatr, 2004; 46(2): 131-136.
34. Forster LMK, Tannhauser M, Barros HMT. Drug use among street children in southern Brazil. Drug Alcohol Depend, 1996; 43(1-2): 57-62.
35. Ikechebelu JI, Udigwe GO, Ezechukwu CC, Ndinechi AG, Joe-Ikechebelu NN. Sexual abuse among juvenile female street hawkers in Anambra State, Nigeria. Afr J Reprod Health, 2008; 12(2): 111-119.
36. Vahdani P, Hosseini-Moghaddam SM, Gachkar L, Sharafi K. Prevalence of hepatitis B, hepatitis C, human immunodeficiency virus, and syphilis among street children residing in southern Tehran, Iran. Arch Iran Med., 2006; 9(2): 153-155.
37. Agnihotri P. Street boys of Delhi: A study of their family and demographic characteristics. Indian J Med Sci., 2001; 55(10): 543-548.
38. D'Abreu RC, Mullis AK, Cook LR. The resiliency of street children in Brazil. Adolescence, 1999; 34(136): 745-751.
39. Beyene Y, Berhane Y. Characteristics of street children in Nazareth, Ethiopia. East Afr Med J., 1997; 74(2): 85-88.
40. Noto AR, Nappo SA, Galduróz JC, Mattei R, Carlini EA. Use of drugs among street children in Brazil. J Psychoactive Drugs, 1997; 29(2): 185-192.
41. Ali M, Shahab S, Ushijima H, de Muynck A. Street children in Pakistan: A situational analysis of social conditions and nutritional status. Soc Sci Med., 2004; 59(8): 1707-1717.
42. Gross R, Landfried B, Herman S. Height and weight as a reflection of the nutritional situation of school-aged children working and living in the streets of Jakarta. Soc Sci Med., 1996; 43(4): 453-458.
43. Ayaya SO, Esamai FO. Health problems of street children in Eldoret, Kenya. East Afr Med J., 2001; 78(12): 624-629.
44. Worthman CM, Panter-Brick C. Homeless street children in Nepal: use of allostatic load to assess the burden of childhood adversity. Dev Psychopathol, 2008; 20(1): 233-255.
45. Panter-Brick C, Lunn PG, Baker R, Todd A. Elevated acute-phase protein in stunted Nepali children reporting low morbidity: Different rural and urban profiles. Br J Nutr., 2001; 85(1): 125-131.
46. Panter-Brick C, Todd A, Baker R. Growth status of homeless Nepali boys: do they differ from rural and urban controls? Soc Sci Med., 1996; 43(4): 441-451.
47. Ali M, de Muynck A. Illness incidence and health seeking behaviour among street children in Rawalpindi and Islamabad, Pakistan – A qualitative study. Child Care Health Dev., 2005; 31(5): 525-532.
48. Poudel SK, Barker SC. Infestation of people with lice in Kathmandu and Pokhara, Nepal. Med Vet Entomol, 2004; 18(2): 212-213.
49. Pinto JA, Ruff AJ, Paiva JV, Antunes CM, Adams IK, Halsey NA, et al. HIV risk behavior and medical status of underprivileged youths in Belo-Horizonte, Brazil. J Adolesc Health, 1994; 15(2): 179-185.
50. Stojadinović A, Batrnek-Antonic D, Perinović M, Rončević N. Sexual behavior of street children. Medcinski Pregled, 2015; 68(7-8): 245-250.
51. Owoaje ET, Uchendu OC. Sexual risk behaviour of street youths in south west Nigeria. East Afr J Public Health, 2009; 6(3): 274-279.
52. Porto SO, Cardoso DD, Queiróz DA, Rosa H, Andrade AL, Zicker F, et al. Prevalence and risk factors for HBV infection among street youth in central Brazil. J Adolesc Health, 1994; 15(7): 577-581.
53. Hillis SD, Zapata L, Robbins CL, Kissin DM, Skipalska H, Yorick R, et al. HIV seroprevalence among orphaned and homeless youth: no place like home. AIDS., 2012; 26(1): 105-110.
54. Kerfoot M, Koshyl V, Roganov O, Mikhailichenko K, Gorbova I, Pottage D. The health and well-being of neglected, abused and exploited children: the Kyiv Street Children Project. Child Abuse Negl., 2007; 31(1): 27-37.
55. Campos R, Raffaelli M, Ude W, Greco M, Ruff A, Rolf J, et al. Social networks and daily activities of street youth in Belo Horizonte, Brazil. Street Youth Study Group. Child Dev., 1994; 65(2 Spec No): 319-330.
56. Fallah F, Karimi A, Eslami G, Tabatabaii S, Goudarzi H, Radmanesh R, et al. The homeless youth and their exposure to hepatitis B and hepatitis C among in Tehran, Iran. Gene Ther Mol Biol, 2008; 12: 95-100.
57. Martins RM, Porto SO, Vanderborght BO, Rouzere CD, Queiroz DA, Cardoso DD, et al. Short report: prevalence of hepatitis C viral antibody among Brazilian children, adolescents, and street youths. Am J Trop Med Hyg., 1995; 53(6): 654-655.
58. Shakarishvili A, Dubovskaya LK, Zohrabyan LS, St Lawrence JS, Aral SO, Dugasheva LG, et al; LIBRA Project Investigation Team. Sex work, drug use, HIV infection, and spread of sexually transmitted infections in Moscow, Russian Federation. Lancet, 2005; 366(9479): 57-60.

59. Merrill RM, Njord L, Njord R, Read C, Pachano JDR. The effect of family influence on indicators associated with street life among Filipino street children. Vulnerable Child Youth Stud., 2010; 5(2): 142-150.
60. Techakasem P, Kolkijkovin V. Runaway youths and correlating factors, study in Thailand. J Med Assoc Thai., 2006; 89(2): 212-216.
61. Seager JR, Tamasane T. Health and well-being of the homeless in South African cities and towns. Develop S Africa, 2010; 27(1): 63-83.
62. Hadland SE, Wood E, Dong H, Marshall BD, Kerr T, Montaner JS, et al. Suicide Attempts and Childhood Maltreatment among Street Youth: A prospective cohort study. Pediatrics, 2015; 136(3): 440-449.
63. Pinzon-Rondon AM, Koblinsky SA, Hofferth SL, Pinzon-Florez CE, Briceno L. Work-related injuries among child street-laborers in Latin America: Prevalence and predictors. Rev Panam Salud Publica, 2009; 26(3): 235-243.
64. Pagare D, Meena GS, Singh MM, Sahu R. Risk factors of substance use among street children from Delhi. Indian Pediatr, 2004; 41(3): 221-225.
65. Nada KH, Suliman el DA. Violence, abuse, alcohol and drug use, and sexual behaviors in street children of Greater Cairo and Alexandria, Egypt. AIDS., 2010; 24(Suppl 2): S39-S44.
66. Tiwari P. Life on streets. Indian J Pediatr, 2007; 74: 283-286.
67. Njord L, Merrill RM, Njord R, Lindsay R, Pachano JD. Drug use among street children and non--street children in the Philippines. Asia Pac J Public Health, 2010; 22(2): 203-211.
68. Morakinyo J, Odejide AO. A community based study of patterns of psychoactive substance use among street children in a local government area of Nigeria. Drug Alcohol Depend, 2003; 71(2): 109-116.
69. Thiesen FV, Noto AR, Barros HM. Laboratory diagnosis of toluene-based inhalants abuse. Clin Toxicol (Phila)., 2007; 45(5): 557-562.
70. Tucker JS, Shadel WG, Golinelli D, Ewing B. Alternative tobacco product use and smoking cessation among homeless youth in Los Angeles county. Nicotine Tob Res., 2014; 16(11): 1522-1526.
71. Embleton L, Mwangi A, Vreeman R, Ayuku D, Braitstein P. The epidemiology of substance use among street children in resource-constrained settings: A systematic review and meta-analysis. Addiction, 2013; 108(10): 1722-1733.
72. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th Ed. Arlington, VA: American Psychiatric Publishing, 2013.
73. Dybicz P. Interventions for street children: An analysis of current best practices. Int Soc Work., 2005; 48(6): 763-771.
74. Aptekar L. The street children of Colombia: How families define the nature of childhood. International Journal of Sociology of the Family, 1988; 18(2): 283-295.
75. Visano L. The socialization of street children: The development and transformation of identities. Sociol Stud Child Dev., 1990; 3: 139-161.
76. Munene JC, Nambi J. Understanding and helping street children in Uganda. Community Development Journal, 1996; 31(4): 343-350.
77. Lewis HP. Also God's Children? - Encounters with street kids. 5th Ed. Cape Town: Ihilihili Press, 2010.
78. Bar-On A. Street children: A new liberation movement? In: A. Rwomire (Ed.) African Women and Children: Crisis and Response. Westport, CT: Praeger Publishers, 2001: 185-204.
79. Aptekar L. Conflict in the neighborhood: Street and working children in the public space. Childhood, 1997; 4(4): 477-490.