

The nature of appropriate interventions designed to enhance children's own coping strategies, such as social networks with street peers and resourcefulness in obtaining money, have also been discussed extensively. A compilation of studies across different continents and topics of research are found in Mermet (1997), Ennew and Milne (1997), and dedicated web sites.

5. Conclusion

Studies of street children and research on homelessness were first concerned with describing lifestyle situations in terms of the uses of public spaces and the links with family or institutions, hinging various categories of street life upon the constructs of home, family, and a proper childhood. Twenty years on, such research is concerned with identifying the subjective and cultural interpretations of homelessness (Desjarlais 1996), with considering explicitly the context of poverty and social exclusion (Mingione 1999), and with seeking to follow career paths and identify what transitions are possible from one situation to another. At the international level, advocacy for children is less focused on the 'street' as it is on abusive work situations, sexual exploitation, or criminality, and with promoting responses that are consistent with children's rights (Ennew 1995, Bartlett et al. 1999).

See also: Child Abuse; Childhood Sexual Abuse and Risk for Adult Psychopathology; Children and the Law; Children, Rights of: Cultural Concerns; Children, Value of; Early Childhood: Socioemotional Risks; Infant and Child Mortality in the Less Developed World; Poverty and Child Development; Street Children: Psychological Perspectives; War, Political Violence and their Psychological Effects on Children: Cultural Concerns

Bibliography

- Bartlett S, Hart R et al. 1999 *Cities for Children: Children's Rights, Poverty and Urban Management*. Earthscan, London
- Bassuk E L, Weinreb L F et al. 1997 Determinants of behavior in homeless and low-income housed preschool children. *Pediatrics* **100**: 92–100
- Boyden J 1990 Childhood and the policy makers: A comparative perspective on the globalization of childhood. In: James A, Prout A (eds.) *Constructing and Reconstructing Childhood: Contemporary Issues in the Sociological Study of Childhood*. Falmer Press, London, pp. 184–215
- Connolly M, Ennew J 1996 Introduction—Children out of place. *Childhood—A Global Journal of Child Research* **3**(2): 131–45
- Desjarlais R 1996 Some causes and cultures of homelessness. *American Anthropologist* **98**(2): 420–5
- Ennew J 1994 *Street and Working Children: A Guide to Planning*. Save the Children, London

- Ennew J 1995 Outside childhood: Street children's rights. In: Franklin B (ed.) *The Handbook of Children's Rights: Comparative Policy and Practice*. Routledge, London and New York
- Ennew J, Milne B 1997 *Methods of Research with Street and Working Children: An Annotated Bibliography*. Radda Barnen, Stockholm and Weden
- Felsman J K 1984 Abandoned children: A reconsideration. *Children Today* **13**: 13–8
- Glasser I, Bridgman R 1999 *Braving the Street: The Anthropology of Homelessness*. Berghahn, Oxford, UK
- Glauser B 1990 Street children: Deconstructing a construct. In: James A, Prout A (eds.) *Constructing and Reconstructing Childhood: Contemporary Issues in the Sociological Study of Childhood*. Falmer Press, London, pp. 138–56
- Hecht T 1998 *At Home in the Street: Street Children of Northeast Brazil*. Cambridge University Press, Cambridge, UK
- Hutson S, Liddiard M 1994 *Youth Homelessness—The Construction of a Social Issue*. Macmillan, London
- Mermet J 1997 *Bibliography on Street Children*. Henry Durant Institute, Geneva
- Mingione E 1999 The excluded and the homeless: The social construction of the fight against poverty in Europe. In: Mingione E (ed.) *Urban Poverty and the Underclass: A Reader*. Blackwell, Oxford, UK, pp. 83–104
- Panter-Brick C, Smith M 2000 *Abandoned Children*. Cambridge University Press, Cambridge, UK
- Williams C 1993 Who are 'street children'? A hierarchy of street use and appropriate responses. *Child Abuse & Neglect* **17**: 831–41
- Ziesemer C, Marcoux L et al. 1994 Homeless children: Are they different from other low-income children? *Social Work* **39**(6): 658–68

C. Panter-Brick

Street Children: Psychological Perspectives

The United Nations defined street children as 'any boy or girl ... for whom the street (in the widest sense of the word, including unoccupied dwellings, wasteland, etc.) has become his or her habitual abode and/or source of livelihood; and who is inadequately protected, supervised, or directed by responsible adults' (quoted in Lusk 1992 p. 294). The definition of street children plays a pivotal role in research and may be a source of disagreement about the results of studies (Koller and Hutz 1996). Children and adolescents who look like drifters (wear shabby, dirty clothing, beg for food or money, sell small objects, work, or wander without a purpose on the streets) can be found in large cities all over the world. The appearance of abandonment singles them out as belonging to the same group. However, their life histories, family character-

istics, street life experiences, and prognoses are very different (Dallape 1996). Some researchers define street children based on characteristics such as sleeping location, family ties, school attendance, leisure, survival activities, occupation on the street environment, etc. Such definitions can lead to broad categorizations as: *children of the streets or children in the streets* (e.g., Barker and Knaul 1991, Campos et al. 1994, Forster et al. 1992).

Children *of* the streets would be those who actually live on the street, all day and at night, who do not attend school, and do not have stable family ties. They fulfill their needs and are socialized on the streets. In contrast, children *in* the streets would be those who live with their families, may attend school, but spend all or part of their days on the streets, trying to earn money for themselves or their families (Hutz and Koller 1999). The relationship with the family has been considered as a key feature of the definition of street children. Felsman (1985) identified three groups of street children in Colombia: (a) orphaned or abandoned children, (b) runaways, and (c) children with family ties. Leisure and occupation on the streets were added to family ties in Martins' work (1996) to identify three different groups of street children in Brazil. He found a group of children with stable family ties who worked on the streets and went home every night. These children played in their neighborhood or on the streets where they worked and many attended school. A second group had unstable family ties. Although they lived on the streets, these children knew their families and, occasionally, went home to visit or even to stay for a while. Finally, there was a group of children who were on their own on the streets and who had lost all contact with their family.

Nevertheless, it is difficult and it may even be misleading, to define a child as belonging to a specific category. Hutz and Koller (1999) claimed that in their research they rarely found children who had completely lost contact with their family. They also identified many children who lived at home and worked on the streets, but occasionally slept on the street, and children who periodically left home and lived on the streets for weeks or months, and then went back home. The variability within these groups regarding the frequency of family contact, sleeping location, occupation on the streets, the destination for the money they earn, school attendance, and several other variables (including physical and sexual abuse, sexual activity, etc.) may be so large that the distinction between the *of the street group* and the *in the street group* may be meaningless or even misleading for research or intervention purposes. These authors suggested that it would be more appropriate to categorize street children as a function of the risks to which they are exposed (e.g., contact with gangs, use of drugs, dropping out of school, lack of proper parental guidance, prostitution, etc.) and the protective factors available to them (e.g., school atten-

dance, supportive social networks, contact with caring adults, etc.). Researchers could then determine how vulnerable children are to developmental risk and what appropriate actions could be taken in each specific case.

1. Developmental Implications

Children living on the streets are still children undergoing development, despite their life conditions. They experience risks and challenges that, at the same time, may jeopardize their development and promote the acquisition of strategies for dealing with life on the streets. There is some evidence that economical pressures and emotional disturbances in the family expose children to larger risks than do the conditions of the street (Hecht 1998, Hutz and Koller 1997, Matchinda 1999). Street children often face larger risks than children in general because they are exposed to negative physical, social, and emotional factors at home and still have to deal with the challenges of life on the streets. On the other hand, there is evidence that the conditions of life on the streets lead to the development of coping strategies that are adaptive and that may help to strengthen their cognitive and social skills.

2. Social Development

Street children are usually targets of social rejection and discrimination. They have to develop their social identity and sense of belonging to a society that views them either as victims, who deserve pitying, or as criminals who must be taken off the streets and locked in jail. On the one hand, they are seen as victims, because they do not have shelter, clothes, food, or adult protection, have to work on the streets instead of going to school, are sexually exploited, and so on. On the other hand, they are perceived also as transgressors because they often use drugs, commit robbery, make noise, and are grouped in threatening gangs. The adult environment is usually very hostile to street children. The police aggress them often, causing physical harm and humiliation. They are also harassed by street adults and gangs, which fight for space and better survival conditions.

An effective strategy to survive and develop in such a hostile environment is to belong to a group on the streets. Therefore, street children will often join gangs and develop different kinds of peer relationships that leads to the development of *emotional groups* (appropriate to spend the night and to have fun together) and *business groups* (organized to dodge street life risks and fulfill their survival needs). Another strategy consists of going to social institutions for food and shelter. However, such institutions often fail to help

them effectively, because they aim at taking the children off the streets, whereas the children seek them, because they perceive the institutions as part of street life, and not as a way out of it (Hecht 1998).

3. Emotional Development

Aptekar (1989, 1996) stated that street children are mentally healthier than their siblings who stayed at home. Koller and Hutz (1996) observed that these children have the ability to reorganize their lives on the streets, in spite of their risky conditions and their life histories. Most of them left home because their parents failed to provide a safe, nurturing, and affective environment. Many children also report sexual or physical abuse, drug use at home, and economic exploitation as reasons for leaving home (Raffaelli et al. 1995).

Some evidence presented by DeSouza and collaborators (DeSouza et al. 1995) indicated that street children were not in greater psychological distress than children of a low social economic status who lived with their families. Koller et al. (1996) investigated subjective wellbeing of street children and of children who lived in deep poverty and their findings also did not show significant differences between these groups.

4. Physical Development

Life on the streets represents a constant source of risk to children and adolescents. Their safety and survival demand energy and coping strategies to confront the daily risks. Conflicts between gangs, police harassment, and adult street dwellers physical abuse are some examples of daily violence that street children have to deal with successfully to stay safe. Cold weather, lack of food and shelter, traffic accidents, untreated injuries and illnesses, exposure to drugs and unprotected sexual activities are also important risks to their health and physical integrity (Donald and Swart-Kruger 1994, Hecht 1998).

Street children must develop adaptive strategies to survive and stay safe in spite of those risks. As previously mentioned, they form groups (emotional and business groups) that protect them from street violence and help them to survive. Also, often they find shelter and food in institutions that have rules that must be obeyed. They learn to cope with such rules, even when they do not agree with them, but their behavior becomes opportunistic and often ingenious (Donald and Swart-Kruger 1994).

5. Cognitive Development

Most street children, even those who go to school, are illiterate and have negative school experiences. Their

attention span, memory, and cognitive development in general may be affected by malnutrition, drug use and intoxication, untreated illnesses, and accidental injuries. Often, they have difficulty adapting to the formal school system because it requires discipline, attention to specific tasks and schedules, planning ahead, and other routines with which they cannot deal effectively. Language, critical thinking, and intelligence also develop more slowly and may present significant deficits because street children interact mostly with their peers and have very little contact with adults. In fact, some researchers have noted that street children find it rewarding to talk to adults who will listen and speak with them in a friendly manner (Hutz and Koller 1999). Middle-class children, as a rule, are exposed daily to caring adults who talk to them, tell them stories, listen to their tales, and spend time interacting with them. Street children do not have this experience.

Spatial skills and very well developed visual and auditory discrimination, for example, are required to detect, avoid, and escape street risks. Carraher et al. (1985) noted that street children who worked at the market were very capable of dealing with money and doing sophisticated calculations to figure out the price or value of products (although they failed when presented with standard school math problems). Aptekar (1989) also referred to what he calls *street knowledge* as an important skill for social interaction.

6. Conclusion

Children living on the streets are a social problem in many countries, a problem that has to be fought by all means available. To fight this social ill requires that individuals and groups in society take the social and political responsibility to develop effective prevention and intervention projects. Children on the streets are vulnerable to risks but they manage to develop 'coping strategies' that often make them resilient (Hutz et al. 1996). They behave as children when they play or interact with peers on the streets. But, they must also act as adults when they have to provide for their subsistence and safety. In spite of their circumstances, street children are still developing persons that require appropriate health care, education, a nurturing home, safety, and human rights in order to grow with dignity and to become adjusted and productive citizens.

See also: Childhood: Anthropological Aspects; Children, Rights of: Cultural Concerns; Infant and Child Mortality: Central and Eastern Europe; Infant and Child Mortality in Industrialized Countries; Infant and Child Mortality in the Less Developed World; Mental Health Programs: Children and Adolescents; Poverty and Child Development; Socialization in Infancy and Childhood; Street Children: Cultural Concerns; Violence and Effects on Children; War,

Political Violence and their Psychological Effects on Children: Cultural Concerns

Bibliography

- Aptekar L 1989 Colombian street children: Gamines or chupagueros. *Adolescence* **24**: 783–94
- Aptekar L 1996 Crianças de rua nos países em desenvolvimento: Uma revisão de suas condições [Street children of developing countries: A review of their conditions]. *Psicologia Reflexão e Crítica* **9**: 153–85
- Barker G, Knaul F 1991 *Exploited Entrepreneurs: Street and Working Children in Developing Countries*. Working Paper 1, Childhope, New York
- Campos R, Raffaelli M, Ude W, Greco M, Ruff A, Rolf J, Antunes C M, Halsey N, Greco D 1994 Social networks and daily activities of street youth in Belo Horizonte, Brazil. *Child Development* **65**: 319–30
- Carraher T N, Carraher D, Schliemann A 1985 Mathematics in the streets and in the schools. *British Journal of Developmental Psychology* **3**: 21–9
- Dallape F 1996 Urban children: A challenge and an opportunity. *Childhood* **3**: 283–94
- DeSouza E, Koller S H, Hutz C S, Forster L M 1995 Preventing depression among Brazilian street children. *InterAmerican Journal of Psychology* **29**: 261–5
- Donald D, Swart-Kruger J 1994 The South-African street child: Developmental implications. *South-African Journal of Psychology* **24**: 169–74
- Felsman J K 1985 Abandoned children reconsidered: Prevention, social policy, and the trouble with sympathy. *ERIC Document* ED268457
- Forster L M, Barros H T, Tannhauser S L, Tannhauser M 1992 Meninos de rua: Relação entre abuso de drogas e atividades ilícitas [Street children: The relationship between drug use and illicit activities]. *Revista ABP-APAL* **14**: 115–20
- Hecht T 1998 *At Home in the Street*. Cambridge University Press, Cambridge, UK
- Hutz C S, Koller S H 1997 Questões sobre o desenvolvimento de crianças em situação de rua [Issues regarding the development of street children]. *Estudos de Psicologia* **2**: 175–97
- Hutz C S, Koller S H 1999 Methodological issues in the study of street children. In: Raffaelli M, Larson R (Volume eds.) Damon W (Series ed.) *Homeless and Working Street Youth Around the World: Exploring Developmental Issues*. *New Directions in Child Development*. Jossey Bass, San Francisco, Vol 85, pp. 59–70
- Hutz C S, Koller S H, Bandeira D R 1996 Resiliência e vulnerabilidade em crianças em situação de risco [Resilience and vulnerability in children at risk]. *Coletâneas da ANPEPP* **1**(12): 79–86
- Koller S H, Hutz C S 1996 Meninos e meninas em situação de rua: Dinâmica, diversidade e definição [Boys and girls on the streets: Dynamics, diversity, and definition]. *Coletâneas da ANPEPP* **1**(12): 11–34
- Koller S H, Hutz C S, Silva M 1996 June. Subjective well-being of Brazilian street children. Paper presented at XXVI International Congress of Psychology, Montreal, Canada
- Lusk M 1992 Street children of Rio de Janeiro. *International Social Work* **35**: 293–305
- Martins R A 1996 Censo de crianças e adolescentes em situação de rua em São José do Rio Preto [A census of street children and adolescents in São José do Rio Preto, Brazil]. *Psicologia Reflexão e Crítica* **9**(1): 101–22

Matchinda B 1999 The impact of home background on the decision of children to run away: The case of Yaounde city street children in Cameroon. *Child Abuse and Neglect* **23**: 245–55

Raffaelli M, Siqueira E, Payne-Merrit A, Campos R, Ude W, Greco M, Greco D, Ruff A, Halsey N (The Street Youth Study Group) 1995 HIV-related knowledge and risk behaviors of street youth in Belo Horizonte, Brazil. *AIDS Education and Prevention* **7**(4): 287–97

S. H. Koller and C. S. Hutz

Stress and Cardiac Response

The origin of the concept of stress in health-related disciplines is closely linked to the idea that organisms react physiologically to the presence of danger or threat. This reactivity has a protective function since it provides the logistic and instrumental basis for adaptive behaviors such as fight or flight. However, if maintained for long periods, this protective or defensive reactivity may become a health risk, compromising the normal functioning of the organs involved. For many scientists the excessive physiological reactivity associated with stress is the main mechanism linking stress to illness.

1. Cardiac Response

The heart is a vital organ that reacts rapidly to physical and psychological demands. This reactivity is controlled by the central nervous system through neural and humoral pathways.

1.1 Neural Pathways

The neural pathway to the heart involves the two branches of the autonomic nervous system: the sympathetic and the parasympathetic. When the sympathetic nerves are activated, the heart rate accelerates and the heart contraction becomes stronger, resulting in a greater blood volume discharge and greater blood pressure in the vessels. When the parasympathetic nerves are activated, the heart rate decelerates, reducing the blood volume discharge and the blood pressure. The two branches can act reciprocally (one activated and the other inhibited), working in the same direction (increasing or decreasing the heart activity), or nonreciprocally (both activated or inhibited simultaneously), competing against each other for the final cardiac outcome.

1.2 Humoral Pathways

The humoral pathway involves the neural activation of the endocrine system, resulting in the secretion by