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URBAN STRESS AND ITS EFFECTS ON
CHILDREN'S LIFESTYLES AND HEALTH
IN INDUSTRIALIZED COUNTRIES

Solvig Ekblad ^a

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^a Section of Stress Research, Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden.

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EXECUTIVE SUMMARY

Numerous studies have linked urban stress, defined as an incongruence between the individual and the urban environment, to deteriorations in children's physical health; its effects on their psychosocial health has, in contrast, received little attention. This paper examines research, carried out mainly in industrialized countries, on different aspects of this subject. It uses as a framework an ecological model for the study of urban stress, developed by Kagan and Levi (1975). The model identifies elements that interact in a cybernetic process to determine the objective and subjective quality of life of urban children and their families, in particular:

- *Urban population: structures and processes.* The process of urbanization is a major factor creating the socio-environmental context in which urban problems occur. Migration and the unfavourable patterns of dependency (that is, the ratio of the working-age population to the dependent population), demand and consumption create strains on the environment and urban dwellers alike. Social tension, racism and crime, especially in inner cities, are the most obvious consequences.

- *Environmental structures and processes not directly dependent on population and affecting children.* Many of today's cities are characterized by faltering economies and a deteriorating physical environment. Children are especially vulnerable to such potentially stressful factors as noise, pollution, overcrowding and lack of spaces for play. The absence of family stability, the reduction in the amount and quality of adult-child and child-child interaction, child abuse and neglect, and the family's declining socialization role are also potential stressors.

- *Physical and psychosocial stimuli.* Stimuli originating in physical and social situations influence the organism through the higher nervous processes. New and subtle forms of physical and emotional stimuli deprivation are now affecting children, including the negative effects of transnational migration, social and spatial differentiation and the unequal distribution of resources. Buffering factors, including social support, social networks and socio-cultural traditions, can contribute to the resilience of children under stress.

- *Psychobiological programme, vulnerability, resistance and predisposition.* Sex differences, constitutional and temperamental factors, and the family environment are variables that can make children more or less vulnerable to environmental influences. Studies have generally recognized the importance of bonding and a mother's education as buffering factors in stress-resilient children. It has also been shown that children can adapt to a single major negative experience, but that a combination of stressors increases their risk of impairment.

- *Mechanisms in pathogenic processes.* It is believed that environmental stress situations, including those related to urbanization, and rapid changes in social situations may elicit pathogenic physiological mechanisms that can lead to precursors of diseases and to the diseases themselves. The specific mechanisms by which urbanization determines the frequency, severity and distribution of disorders have yet to be ascertained.

- *Precursors of disease or discomfort.* Factors that can proceed to 'disease' in its widest sense include such phenomena as truancy and drop-out, unhealthy lifestyles (fat-rich diets, smoking, drinking, drug abuse and excessive consumerism of media) and juvenile crime.

- *Disease or impaired quality of life.* Traffic and other accidents, AIDS and adolescent suicides are extreme consequences of new urban lifestyles. In many urban areas, there have been increases in 'new morbidity', including dyslexia, behaviour problems, psychosomatic symptoms, anorexia nervosa and bulimia.

The paper ends by emphasizing the need for political commitment in order to revitalize and humanize cities, and to make them environments that enhance the physical, perceptual, emotional, social and cognitive growth of urban children. Intervention approaches should be holistic, encourage the participation of different social sectors, address the root causes of urban problems, increase reliance on and support of community initiatives, and emphasize the development of human resources.

I. INTRODUCTION

Urban children who are exposed to severe and chronic life stress form a major high-risk group in every society. Since the United Nations International Year of the Child in 1979, there has been a growing interest in the effects of urban stress on the physical health of children. Studies carried out in the field of internal medicine have repeatedly identified stress as one of the mechanisms suspected of leading to physical diseases. In contrast, little attention has been paid to the effects of urban stress on children's mental health and their psychosocial development.

According to H. Selye (1956), the term 'stress' denotes an outcome of incongruence between individuals and their environment. He further developed the concept (1974) to describe the total effect of external, malign influences on health. Stress is thus seen as a function of negative aspects of the environment (such as noise, overcrowding, toxic chemicals and air pollution) and social and behavioural factors (that is, the individual's lifestyle), although it is not always clear which aspects are related to cause and which to effect (Evans 1984).

The concept assumed that if the stress pattern of response to psychosocial stimuli and the psychophysiological discrepancy last long enough, they may become pathogenic. One environmental characteristic that has long been regarded as a psychosocial risk factor for mental morbidity is urban residence.

The child's genetically determined sensitivity (biopsychosocial level) to stress is very important. Whether or not a particular situation is conducive to stress is thought to depend on the child's age, sex, personality structure and emotional stability or vulnerability. The importance (salience) and controllability (congruence) of the environmental setting in which the stressors occur also play a determinant role. Social support and a social network are important buffering factors, as is required helpfulness (i.e. having someone to take care of, protect and help).

Stress may develop when the environment prevents a child from satisfying his or her needs. The 'poor fit' may be expressed as a threat to: (a) human needs, for instance to life, health and the quality of life; (b) self-esteem; (c) sense of belonging (when, for example, a child is separated from close relatives); or (d) self-realization (when the child is denied the opportunity to learn new things or acquire new skills). The common feature is that the child

has no influence or personal control over his or her situation. Eventually, the child will show one or more situation-related stress reactions (emotional, cognitive, behavioural or physiological). It has been shown that psychological stress may increase an individual's vulnerability to mental and physical illness (Caplan 1981).

Discussions about urban stress have invariably focused on ecological (natural) conditions and resources. There is evidence that the decline in the quality of air, water, soil, flora and fauna, particularly in large cities, has assumed virtually catastrophic proportions. The damage is so extensive that even the privileged will inevitably face deteriorations in the quality of life they lead. Moreover, in most of the North, concern for the natural environment has become a question of political survival for governments and political parties (Frick et al. 1986).

Little is known about children's adaptations to stressful life circumstances in different cultural and socio-economic contexts. There seems to be considerable agreement that urban stress will continue to have an increasingly negative effect on children during the next decades, but little consensus exists concerning its determinants. Many concepts, data and relationships in this area remain ambiguous. Information about forces that promote adaptation is needed to build preventive programmes for children at risk.

This paper, based on information collected by the Karolinska Institutet in Stockholm, Sweden, and on a review of literature, investigates the interrelationships between urban stress and health, especially the psychosocial health of urban children at risk in industrialized countries, with analogies drawn, when possible, to developing countries. It brings together ideas from many disciplines, so that decision makers, experts in various fields and the general public may have a broader view of the elements contributing to the problem. No attempt has been made to be exhaustive in any one discipline or to cover all aspects of this vast and complex field.

Research into urban stress and children's lifestyles and health has its theoretical shortcomings. First, depending on their primary field of competence, researchers may emphasize economic, medical, psychosocial, technological or ideological factors, paying only lip service to other perspectives. The outcome of policies to promote children's health may differ considerably according to the set of criteria chosen. While analytical approaches are essential initially, the final view must be holistic and ecological, synthesizing as many aspects as possible of the child-environment system.

Second, information on children's living conditions is, to a great extent, based on data that are only incidentally available. Third, one of the major challenges is to establish how material, emotional and social processes affect children's lives. The relationships between urbanization and health have been studied, but the reliability of research findings is often limited. Ecological and cultural validity may be at least as important as the reliability of measures, in as much as an assessment instrument that is valid and reliable in one cultural context may maintain its internal consistency (reliability) but fail to measure the construct that it is supposed to measure in another cultural context (Landers and Kagitcibasi 1990). In a review of methods for measuring health among Swedish children, Köhler and Jakobsson (1991) conclude that the instruments are imprecise; taken separately, they convey only a fragmentary picture of reality. The most common way to measure health is still to measure its opposite, that is, disease and death. The result is, for the most part, a one-sided, professionally biased picture. Fourthly, few studies have focused on the mental health of urban children. Reports on children's subjective perception of well-being and illness are needed to supplement the information already available, but this kind of in-depth research is rarely undertaken by researchers in the child development field.

According to Marsella (1990), major challenges to current research include: (a) the absence of multi-dimensional models and theories that enable the researcher to understand how macrosocial variables influence psychological and biological variables; (b) national, regional and cultural variations in urbanization and its consequences; (c) variations in research methods, definitions and categorizations of health; (d) problems in defining and classifying mental illness and social pathologies; and (e) failure to recognize and identify the positive aspects of urbanization, especially with regard to the opportunities for individual and/or group growth and development.

Different indicators and assessments of the quality of life of urban children are needed in order to shift from medical to social science models of health, from an emphasis on treatment to disease prevention and the promotion of health, and from the perspective of the individual to that of families and communities. Health is as much a social-behavioural issue as a medical one. An analogy can be drawn with recent developments in policy-oriented research, which has moved from a narrow focus on child survival issues to a wider concern for the quality of life of those children who manage to survive (Myers and Hertenberg 1987).

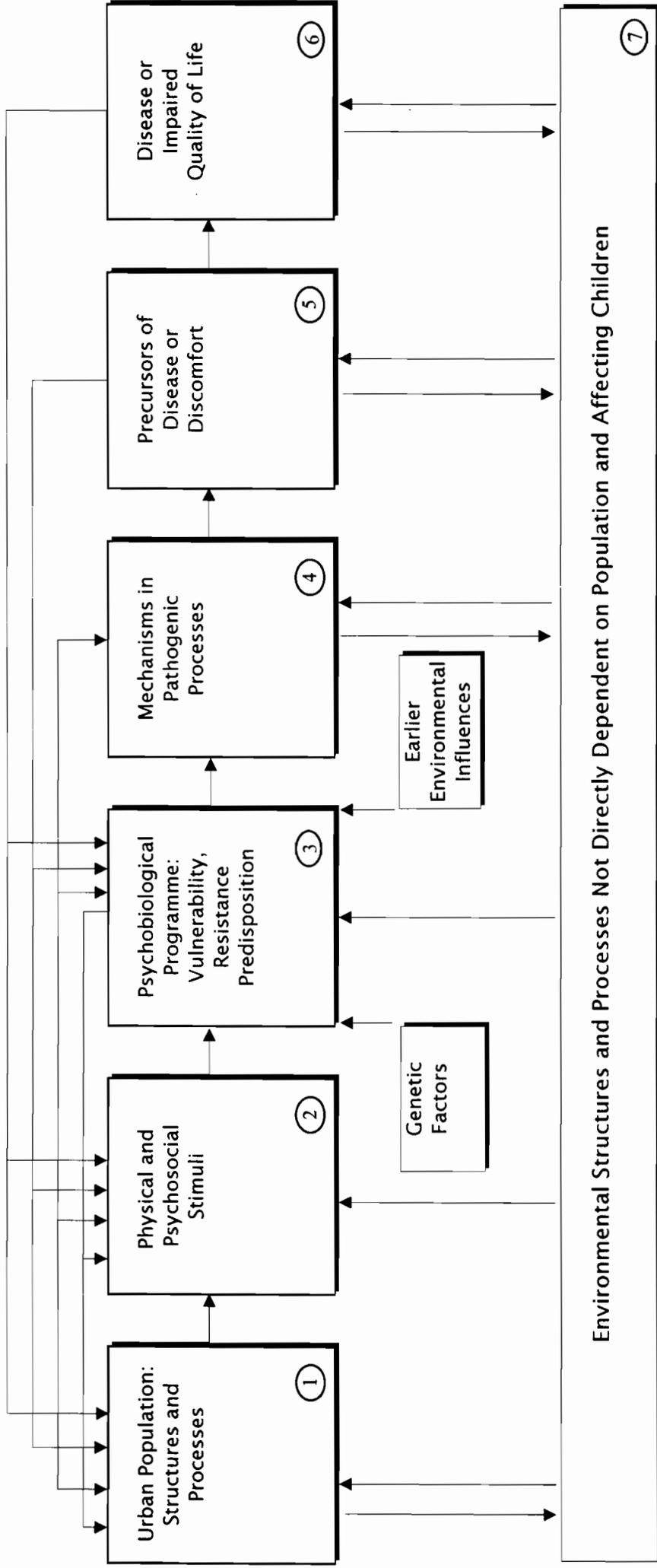
In this perspective, not only must aspects of the total development of urban children be measured, but also the capacity of the environment (for example, the physical environment, social network, environmental stimulation and child-caregiver interactions) to promote healthy psychosocial development. The critical challenge for researchers studying the interrelationships between urban stress and children's health is, thus, to understand and explain the complex relationships between urbanization, which is a variable at the macrosocial level, and other variables at different levels (microsocial, psychosocial or biosocial).

A theoretical ecological model (Kagan and Levi 1975) for the study of urban stress, lifestyles and children's health, elements which together determine the quality of life, is shown in Figure 1. This model is based on the premise that the process described above is a cybernetic process with continuous feedback, rather than a one-way flow. Disease, health and quality of life are viewed as functions of the interaction of different levels (macrosocial, microsocial, psychosocial and biopsychosocial) of stressors and resources on stress. Levels of stress, in turn, determine the parameters of disease, health and quality of life.

According to the literature, a number of basic assumptions underlie child development theory as it relates to the urban environment: (a) the child must be viewed as a whole person, with psychological as well as social and physical needs; (b) child development is a continual, ongoing process which proceeds through qualitatively different stages for each child in a unique and irregular way; (c) child development is multifaceted, involving interrelated and interacting processes; (d) development is characteristic of a dynamic and interactive process in which both the child and the environment reciprocally influence each other; and (e) specific self-righting reactions may be observed during the development process. Children can, in fact, show resiliency in the face of stress and can overcome early disadvantages. This framework makes it possible to begin the process of linking variables across levels in order to understand more fully the interrelationships between macrosocial, microsocial, psychosocial and biopsychosocial variables.

The structures and processes of the urban population (Box 1) give rise to a number of *physical and psychosocial stimuli* (Box 2), which act as determinants on individuals and groups. One example is the functional separation and social alienation increasingly found within and among city neighbourhoods as a result of social and spatial segregation, and the perceptions

Figure 1: ECOLOGICAL MODEL FOR THE STUDY OF URBAN STRESS



of the inhabitants of such neighbourhoods, including their often very limited identification with their own and other neighbourhoods. Persons exposed to these stimuli have individual characteristics (age, sex, physical and mental capacity, and so forth), which may be genetically determined or influenced by the environment. The resulting *psychobiological programme* (Box 3) determines the organism's propensity to react to various stimuli. The interaction of the stimuli and the psychobiological programme leads to the reactions displayed by the individual or the group. Some of these reactions may be non-specific in the sense that they are provoked by almost any stimuli and in almost any person; others are more specific. Reactions relating to various aspects of the quality of life comprise physiological *mechanisms in pathogenic processes* (Box 4). In a psychological rather than a medical frame of reference, these might be replaced by deprivation phenomena, including social differentiation, segmentalization, marginalization, segregation and spatial diffusion. These mechanisms may cause *precursors of disease or discomfort* (Box 5), or *disease or impaired quality of life* (Box 6).

The quality of life of an urban dweller has both objective and subjective components. Objective aspects include the individual's level of physical and mental health, standard of living, education, type of employment, economic conditions, housing standards and nutritional level. An impaired or threatened quality of life can be measured by the extent of the individual's psychosomatic disturbances and the social disintegration connected with long-term residence in a city or neighbourhood. Subjectively, quality of life is measured by the sum of the perceptions and experiences of individuals living or working in a city, or visiting it, and their judgements resulting from these perceptions and experiences. Objective and subjective aspects of the quality of life can be in agreement, but are not necessarily so. The subjective opinions of the inhabitants may also be distorted. *Environmental structures and processes not directly dependent on population* (Box 7), such as, for example, the economy, physical environment and the family, may interact to predispose this sequence of events or to counteract it.

This paper will examine the contents of each box and the relationships, if any, among them, using urban population, its structure and processes as a starting point and disease or impaired quality of life (caused by stressors) as a logical conclusion. Because of the complexity of the subject, this contribution should be viewed as a discussion paper, an early step in an important direction.

II. URBAN POPULATION: STRUCTURES AND PROCESSES

Demographic Trends and Urbanization

Urbanization is the process leading to a societal change characterized by the movement of people from rural to urban areas. As a result of this process, rural areas are depopulated, while urban areas become increasingly densely inhabited. For the purposes of this paper, the term will be defined as the process of increases in population and the consequences of its distribution, including societal differentiation, segmentalization, marginalization, segregation and spatial diffusion (Marsella 1990). These factors form the socio-environmental context in which urban problems may become the sources of mental, social and physical pathology.

Some general considerations about urban population and migration need to be made in order to understand the importance of urbanization. First, population density is not merely a question of space, since there are many underpopulated areas around the world and urban areas occupy only a very small portion of the total surface of the earth. Secondly, population growth is subject to physical limitations, including the availability of food and energy. Finally, just as economic growth is necessary for human development, human development is critical to economic growth.

According to estimates of the United Nations Population Fund for Activities in the Field of Population (mentioned in Queloz 1991, p. 31), less than 3 per cent of the world's population was living in urban areas at the beginning of the nineteenth century. This proportion increased to 14 per cent in 1920, 25 per cent in 1950 and 43 per cent in 1980. If present trends continue, about half of the world's population will be urban by the year 2000. There is explosive urban growth in almost all parts of the South. More than 85 countries have city populations doubling those of 10 years ago. Cities in the South are growing at 3.6 per cent per year compared with only 0.8 per cent in the North. Despite a slight slowdown evident in projected annual growth rates in the South for the 1990s – 3.5 per cent compared to 1.1 per cent in the North – the urban population of the South will be almost double that of the North by the end of the century (Sadik 1991, p. 4). South and East Asia have a lower concentration of population in cities of 100,000 or more inhabitants and 1 million or more inhabitants than aggregate figures in Africa and Latin America. There is general agreement

among researchers that the world's population will be increasingly concentrated in urban systems.

According to Deelstra and de Waart (1989), the number of urban dwellers in the South is expected to increase sixteenfold in the next 80 years, whereas in a comparable period (1870-1950), the urban population of Europe increased 'only' fivefold. Furthermore, there are increasingly strong relationships between urbanization in the South and in the North. Since the 1950s, migration from poorer countries towards richer cities in the North has been facilitated; furthermore, higher fertility rates among ethnic minorities means that they constitute an ever-growing proportion of the population of northern cities.

The current global annual population growth rate is approximately 0.5 per cent. The *dependency ratio* (that is, the ratio of the population under 15 and over 64 years of age, defined as dependent, to the population between 15 and 64 years of age, defined as working-age) is as high as 50 per cent.

It is often forgotten that the remarkable decline in ill health and mortality in Europe and North America in the late nineteenth and early twentieth centuries owes more to improvements in nutrition, water supply, sanitation and other aspects of housing and living conditions than to medical advances. Today, the under-five mortality rate continues to decrease, although less rapidly than in previous decades. Sweden has the lowest child mortality rates in the world (30.6 per 100,000 children in 1987). Congenital malformations, perinatal diseases, cancer and accidents could be further reduced, especially if social differences were eliminated. However, patterns of dependency, demand and consumption make urban systems, and especially very large cities in both the South and the North, unstable, fragile and highly vulnerable environmentally as well as socially.

Migration

Migration may be intercontinental, intracontinental, internal within one country, or local within a community. Its duration varies from short visits, to seasonal stays, to permanent relocations. *Acceleration, globalization and regionalization* are three trends that have been typical of international migratory movements since 1990. Acceleration, or the marked increase in migration, in Western Europe is due to the political changes taking place in the countries of Central and Eastern Europe and the continuing demographic and economic imbalances

between North and South. In the United States and to a lesser degree in Canada, permanent arrivals increased sharply in 1990, while they declined in Australia. Family migration is still the main source of new arrivals in these countries, especially in the United States. Acceleration in developing countries is exemplified by Mexico City where rural-to-urban migration (especially of young women) has led to annual population increases of 12 per cent; nearly one fourth of these young people are illiterate, unskilled and unemployed labourers (Garson 1992).

Little is known about the psychosocial functioning of migrant populations. Several concepts have been formulated in an attempt to understand the migratory process more fully (Table 1). One is *social drift*, or the tendency for people with particular characteristics to move to particular areas. Its opposite is *social residue*, or the tendency for people with particular characteristics to be left behind when the better-adjusted members of the population move (Ekblad 1990). Which of the two processes is more powerful may depend on whether migrants are primarily *pushed* (from impoverished, overpopulated rural areas to shanty towns, without much hope of improving their conditions) or *pulled* (as in industrialized societies in the North, where people move with realistic aspirations, acquiring better jobs and commodities in the urban setting).

New technologies requiring highly skilled labour (for example, the computer and information industries) are among the major pull factors now causing urban growth in the North. Young people are migrating out of old industrial areas to live and work in more favoured settlements. Consequently, many of the 'older' cities (that is, those which were industrialized first) are being forced to operate with shrinking budgets; their inhabitants are confronted with a multitude of social problems, including lack of jobs, high-cost housing and inadequate health care and education. Serious social tensions, racism and crime are the inevitable consequences of such a situation.

The number of migrants fleeing poverty, natural disasters, political oppression or environmental instability is growing at a time when the need for unskilled and semi-skilled workers is in decline in industrialized countries. Instability is exacerbated by the burden of dependency (Sadik 1991). Furthermore, since a high proportion of inner-city inhabitants are migrants, superficial observers tend to attribute disorders, such as growing crime rates, mainly to their presence. However, even though urban migrants and ethnic minorities naturally face new difficulties, their presence does not, in itself, explain such phenomena.

Table 1: MOTIVATIONS FOR MIGRATION

	Push Factors	Pull Factors
Physical	War Natural calamities: - earthquakes - droughts - famine - floods	Better climate
Economic	Under-employment Low standards of living Lack of social security Forced displacements	Industrialization Urbanization
Social	Family disagreements Housing difficulties Occupational difficulties	Better future prospects for children Attraction of relatives or friends in new area
Psychological	Personal conflict Escapism Restlessness Difficulties of adjustment to existing society Fear of persecution or war	Transcultural interests Sense of adventure
Religious	Religious intolerance	Religious freedom
Political	Discrimination Persecution	Political ambition
Professional	Inadequate pay Inadequate research facilities	Employment opportunities New technologies

Source: Zwingman and Pfister-Ammende, 1973.

Because of accelerating global urbanization, the old as well as new problems affecting children worldwide have become highly visible. The world has shrunk, and new health threats, whether AIDS, drug abuse, cholera, tuberculosis or malaria, have international effects. No community is an island any longer. In this crisis situation, new, technically feasible, ecologically sound, and economically, socially and politically viable approaches to urbanization are required (Celecia 1989).

III. ENVIRONMENTAL STRUCTURES AND PROCESSES NOT DIRECTLY DEPENDENT ON POPULATION AND AFFECTING CHILDREN

Economy and Physical Environment

A high national average income level is no guarantee against poverty, social tensions and human alienation. It has been estimated that 100 million people in the North still live below the poverty line. This figure soars to 200 million if Central and Eastern Europe are included. Many countries have had constant economic gains without equivalent social advances. The number of homeless families in both the United States and the United Kingdom, for instance, has doubled during the past decade despite steady economic growth. Other industrialized countries have had economic slowdowns and declines in child welfare since 1970. Often this has been the result of a shift from a welfare state that tended to take responsibility for its citizens towards policies encouraging the privatization of services. Responsibilities have been handed back to families and individuals after supposedly providing them appropriate contexts for individual economic achievement (Hardoy 1990).

Technological progress has given people in the North greater access to information and has facilitated communication: on average, there is one radio per person, and one television set and one telephone for every two people; the typical family owns a car; every third person purchases a daily newspaper; and there are six library books per person. Notwithstanding such advances, however, social and emotional isolation and alienation still exist in modern societies.

According to Deelstra and de Waart (1989), the principal difficulties and threats confronting urban dwellers in Europe and elsewhere include:

- (a) large numbers of cars and, as a result, traffic accidents; the lack of accessibility for pedestrians; polluted air, smog, noise and roadway inaccessibility;
- (b) erosion of the built environment, deterioration of old buildings; damage to city trees and greenery from acid rain, smog and fumes;
- (c) unhealthy indoor climates caused by fumes and moisture released from building materials or by inferior construction and installations;
- (d) pollution of soils and surface, drinking and swimming water;

- (e) unhealthy air in public spaces (partly resulting from the lack of shelter, inadequate vegetation and surface water, and the effects of wind on the surroundings);
- (f) intensive use of energy (cars, industry, power stations) causing the 'greenhouse effect' globally and warming of surface waters and urban 'heat islands' locally;
- (f) lack of space for children, the disabled and the elderly; lack of access to buildings for the handicapped; lack of affordable transport; lack of public meeting places; lack of living spaces for plants and animals; inadequate and unaffordable housing, especially for young people; lack of space for new industry and new initiatives in general;
- (g) crime and vandalism.

On the peripheries of cities, additional problems have been identified: the landscape has been scarred by excavations for the construction industry; water resources have dried up; wastes have been dumped or incinerated, often contaminating agricultural products with toxic fumes (as in the case of dioxane found in milk); and wildlife has fled to other areas. The density of settlements in the city is a function of the value of the land: the higher its value, the more intense its exploitation. In market economies, land prices naturally escalate in easily accessible areas. Weak economic activities and the poor are pushed to the periphery where land is less expensive. Work opportunities in the periphery are scarce and many people are forced to commute to the city for employment; many inner-city areas become 'alive' only during office hours.

One of the effects of these trends is urban sprawl – a few nodes of very dense settlement surrounded by housing areas characterized by low exploitation. The functional capacity of the city is dependent on spatial expansion and the development of transportation technology capable of covering an ever-widening geographical range (Levi and Andersson 1974). Because of their highly-developed transportation networks, Western Europe, North America and Japan produce far more pollutants than the rest of the world.

Noise, Pollution and Overcrowding

Today's urban environments are particularly stressful, leading to the development of stimulus overload or social overload. An important question is how children react to environmental problems. Recorded reactions range from simple irritation to existential

anxiety. Stressful factors that persist over time and from which there is very little escape are likely to have an influence on mental morbidity. Three factors especially prevalent in urban areas are noise, pollution and overcrowding.

1. *Noise* may be a chronic stress factor in neurotic reaction, especially in children with a constitutional sensitivity. There are marked cultural differences as to what is considered an acceptable noise level (similar to the perception of crowdedness, discussed below). Noise from technologically-advanced equipment may increase physiological stress reactions, not only as a concomitant to the distress reactions implicit in the very definition of noise, but also through stimulation of the auditory nerves and the hypothalamic-hypophyseal system.

Noise has taken on a new meaning today. Children have little knowledge of silence: music, the media, traffic, industry and different forms of communication create competing sounds. Children also need protection from new noise risks, such as the possibility of serious hearing impairment from earphone use. Children themselves are likely to be noisy, which may irritate parents, especially in confined spaces, often resulting in restrictions being imposed on play activities.

2. *Pollution* is another important chronic urban stress factor. Modern industrial societies, for all their scientific advancement and acuity, are also plagued by environmental contaminants. Outdoors, industrial emissions, vehicle exhausts and radiation pollute the air; toxic waste, a byproduct of industrial processes, contaminates rivers and streams. Indoors, chemicals from building materials, poor ventilation and cigarette smoke are the main causes of pollution. Increases over the last 40 years in allergies (especially pollen-induced allergies and asthma) and in cancer have been traced to the deteriorating environment, both outdoors and indoors. Pollution is so pervasive that it even affects children in the womb who are particularly vulnerable to certain pollutants commonly found in the urban environment (Omer 1990). The Baltic cities and Mexico are often cited as examples of places where the number of children born with disabilities due to pollution is on the rise.

Because of air pollution and insufficient green spaces, urban dwellers, adults and children alike, tend to spend more time indoors than outdoors, thereby increasing the risk of contracting respiratory infections and other communicable diseases. Research conducted in Sweden links the higher prevalence rates of asthma in large cities and in the colder regions

to these factors (Köhler and Jakobsson 1991). In Israel, studies have established that children living in highly polluted areas are more likely to be affected by respiratory diseases than children from cleaner areas (Goren 1989).

In urban areas in developing countries, lack of clean water can lead to inadequate hygiene and the transmission of water-borne diseases. Moreover, the high prices charged for drinking water diminishes the amount the urban poor have to spend on food, already a major expenditure, and so undermines their often precarious nutritional status (Cairncross 1990). Uncollected garbage is also a serious health (and fire) hazard for all inhabitants, but especially for children who live, work or play on the streets or in refuse-ridden areas. The poor environmental quality of the sites on which houses are built is another frequent health risk for many impoverished children.

Children are more exposed to environmental pollutants than adults. They inhale greater quantities of airborne pollutants relative to their weight because of their high activity levels during outdoor play. Their size and play habits bring them into greater contact with heavy pollutants, such as lead in the soil (Michelson 1988). Furthermore, young children lack the developmental ability to avoid certain common environmental dangers, such as cars.

The psychosocial effects of these hidden environmental contaminants have received very little scientific attention. Some studies sustain that individuals who are exposed to pollution have a reduced ability to deal with additional stress. Consequently, when exposure to pollution is compounded by a stressful life event (death, divorce or relocation, for example), poor mental health is more likely to result (Freeman 1988).

3. *Overcrowding* is a third chronic urban stress factor. Psychological and cultural factors influence an individual's concept of space. Crowding occurs when an individual feels that his or her space has been invaded. The nature of the resulting stress has not yet been adequately determined. Cassel (1971) suggests that crowding may be accompanied by disordered social relationships, although such adverse effects may be restricted to periods following social change, especially migration. Studies have established that children living in crowded conditions, without certain basic amenities, often in low-income municipal housing projects, have lower scores on scholastic attainment tests than children from similar social backgrounds without these housing difficulties. In crowded conditions, children are

more susceptible to household accidents, especially burns from boiling liquids, fires, stoves and kerosene heaters, as well as to respiratory disease, as already discussed.

Cultural means of handling crowded conditions are important to consider. For instance, Chinese families appear to tolerate levels of crowding that would cause serious stress in Western societies (Mitchell 1971, Andersson 1972). Chinese people in Hong Kong tolerate intense crowding from next of kin, but have clear-cut customs for assuring that each family member's space is properly respected. Different cultures dictate different social distances (for example, the Arabs maintain a much closer social distance than the Chinese do). The ideal housing environment must take these cultural differences into account (Kellett 1989).

Lack of Public Spaces for Playing and Meeting

Public spaces in a neighbourhood have important behavioural functions for social interaction and for public services. This is particularly true of public spaces that provide opportunities for children to meet and play together. The importance of play for the physical, perceptual, cognitive, social and emotional development of children is generally recognized. Urban environments that are both 'user-friendly' and challenging, that allow freedom of choice, that offer necessary as well as desirable opportunities, and that facilitate and encourage (rather than prevent or discourage) children's activities can play a critical role in different stages of children's development.

The different physical characteristics of a neighbourhood are thought to have a significant effect on children. Especially important are the type of dwellings, the density of the built-up environment, the quality and location of open spaces, the level of lighting within them, and the road network and its implications for safety and accessibility (Churchman 1991). Safety and accessibility are particularly relevant to younger children who are limited by their physical capabilities in the distances they can walk, the obstacles they can negotiate (such as stairs, wide streets and heavy doors) and the means of transportation they can use. Further, they are limited by their own and their parents' fears as to how far they may wander from the immediate vicinity of their home, and even whether they may play outside alone.

Play spaces that are especially attractive to children and that provide them with the different levels of challenge they need have distinct characteristics: they are near the children's home; safe in relation to traffic and other kinds of hazards; easily accessible; part of (or near to) a place of adult activity; in an unobstructed space; climatically comfortable (if indoors); and varied as far as topography and ground surfaces are concerned. Ideal play areas also reflect some concern for adults, whether they are acting as caretakers or may be affected by the children's activities (ibid.).

Because of space restrictions and poor city planning, play facilities in low-income urban areas are far from these ideals; they seldom provide needy children with opportunities for informal and spontaneous activities and sports. As a result, the emotional and cognitive development and creativity of children in such areas may be reduced. Moreover, outdoor facilities too often contain only fixed equipment, chosen and positioned by adults. This equipment is sometimes dangerous or unhealthy. At times, fees are charged for recreational activities, which precludes the participation of children from low-income families. Finally, these 'artificial' playing environments, like the 'artificial' living environments of recently-built housing developments, are without a past or a future, which makes it difficult for children to identify with them socially or culturally. These factors reinforce children's convictions that they cannot influence their environment.

Families

Human deprivation shows new faces in the North. As the social fabric unravels, individuals become alienated and distressed. Traditional patterns disappear. Even relationships among close kin are no longer necessarily a life-long commitment. The family is losing its role, and fragile new cohesive forces are taking its place.

In inner-city urban areas, children's emotional and behavioural problems are likely to be related to a variety of adverse factors, acting through the family. The combination of poverty, large family size and poor housing can result in patterns of parenting that severely impair child development. An increase in the number of stresses has led to rapidly rising levels of risk. Moreover, whether a child's behaviour constitutes 'psychopathology' depends on the attitudes, expectations and prevailing patterns of adaptation within the society where

the behaviour occurs. Four facets of these problems are highlighted in the following paragraphs.

1. *Lack of family stability.* Many countries in the North are experiencing rapid social transformations. From the mid-1960s onward, family structures and family life cycles began to become more diversified in the countries of the North. For instance, separation, divorce, cohabitation without formal marriage contracts and out-of-wedlock births have become more frequent. In most Western European nations, more than one third of all marriages end in separation or divorce. In 1987, the divorce rate per 100 marriages was 45.2 in Denmark, compared with 43.1 in Sweden, 41.5 in the United Kingdom, 35.0 in Hungary, 29.7 in Switzerland and, exceptionally, 6.5 in Italy (Saraceno 1992). Cohabitation without marriage and single-parent families are slowly becoming legally recognized and accepted as valid alternatives to traditional patterns.

There are conflicting views about family fragmentation. Out-of-wedlock births, divorce and adolescent single parenthood are generally seen as the negative consequences of poverty, drugs, consumer pressures, increased mobility and other outside forces; in a more positive light, they are regarded as evidence of the individual liberties guaranteed by modern democratic societies. Either way, trauma and disorders, disruption of children's lives and family impoverishment are often the result.

Because their family structure is often fragile, the urban poor have difficulties coping with unexpected events. Loss of employment or the illness or death of a productive household member can cause severe crises, mainly because these families have few, if any, options for adjusting to the emergency situation. Children living in families that are constantly at risk of disintegrating are at risk themselves of abandonment or neglect.

2. *Amount and quality of adult-child and child-child interaction.* Isolation has long been considered the lot of urban dwellers in the industrialized North. Urban children do not have natural social relations with the majority of people they come into contact with; consequently, they may develop feelings of insecurity and a reserved attitude towards strangers.

Several authors have convincingly demonstrated that an individual's perception of the urban environment depends to a large degree on the density of social relations in the area and that actual relations and neighbourhood contacts do not overlap. A detailed

understanding of the social meaning of a neighbourhood can only be achieved if information is gathered about the density and content of its social networks (Mackensen 1986).

Social disintegration is largely the result of the breakdown of the family. Broken families have been blamed for increases in juvenile law infringement (typically shop-lifting, burglary and car theft). Some families may be so impaired that they are incapable of raising their children with socially responsible attitudes. Parental attitudes may seem ambivalent or contradictory to the child, thus adding to his or her mental confusion. Hostility, introversion and an intense need for affection are symptoms of the insecurity that results. A sense of coherence and a strong commitment to the extended family can give meaning to the child's world. Reliance on the kin network may make stressful life situations more manageable.

3. *Child abuse and neglect.* The threshold for child abuse and neglect may generally differ among cultures; even within one culture, studies have found cultural differences among parents and teachers, for example, or between urban and rural areas (Weisz et al. 1991). However, a problem universally recognized as being particularly serious and prevalent, especially in urban societies both North and South, is child abuse and neglect resulting from parental pathology. Children who are neglected by mentally-ill parents are considered to be at 'high risk' of emotional and behavioural disorders. Furthermore, many impoverished women live in a state of chronic depression; for some, child neglect is secondary to self-neglect. Negative parental behaviour aggravates whatever disadvantages the child may have taken on as part of his or her genetic endowment (Hasan 1977).

Child neglect culminates during adolescence. Teenage drop-outs have a high probability of being unemployed for a number of years. Some studies sustain that long-term unemployment can lead to a deterioration in the psychological health of these youths. They may lose interest in paid work, preferring to live by expedients (Warr et al. 1985). Some drift into vandalism and petty crime. They often have children early, frequently beginning the cycle of abuse and neglect once again.

4. *The family's declining socialization role.* The family has the primary responsibility for the nurturing and protection of children from infancy to adolescence. While many studies have been undertaken in the North to gauge the effects on children of the reduction of the family's

socialization functions, uncertainty of parental roles, divorce, pseudo-permissiveness and the increasing lack of limitations, the mechanisms involved remain unclear (Ekblad 1984).

Part-time day care for young children in groups outside their homes has become common in cities in Northern countries. Historically, supplementary care was almost routine in many cultures for the very rich, who could afford to pay for such services, as well as for the poor, who were forced to improvise child care to enable mothers to supplement household budgets. What is relatively new, however, is the extent to which such care is now needed by all families, not just the very privileged and the poor. While day-care services formerly had only a child-minding function, they have increasingly assumed responsibility for the enhancement of the child's cognitive, emotional and social development (WHO 1990b).

Greater attention needs to be given to the effects of urban stress on children, both at national and international levels, in the South and in the North, particularly in view of a number of emerging issues: (a) the increasing number of women entering the labour force worldwide; (b) the social consequences of child neglect (school drop-out, juvenile delinquency, teenage pregnancies, drug dependence); (c) the inadequate public financing of education; and (d) the need to educate parents about child survival and development.

IV. PHYSICAL AND PSYCHOSOCIAL STIMULI

Some General Considerations

Physical and psychosocial stressors are stimuli suspected of causing disease. They originate in physical and social situations (that is, in the environment), and affect the organism through the higher nervous processes (Kagan and Levi 1975). It is well known that *physical* stimuli in the environment are closely related to certain diseases. Exposure to, manipulation of or avoidance of these stimuli increases, decreases or removes the chances of becoming ill, or reverses ill health when it occurs.

The role of extrinsic, *psychosocial* stimuli is less clear. It is thought that such phenomena as stigmatization, the effects of poverty, role disturbance (for example, one-parent families, single children without parents) and high fertility are of aetiological significance in

mental disorders. There is, however, little agreement in the literature on the importance of individual factors. In spite of some reported statistical associations, Freeman (1988) suggests that the significance of such stimuli remains to be established.

The child is exposed to psychosocial stimuli in a wide variety of urban situations. Certain classes of situations and stimuli are suspected of exerting a negative influence on various indices of the quality of life. Such stimuli arise from excesses as well as from insufficiencies in the environment. Lifestyles may be partially, but not entirely, conditioned by environmental factors. The determinants of urban stress, moreover, are connected with the child's values, self-concept, coping skills and lifestyle (for example, exposure to media, substance abuse and antisocial behaviour).

'New Poverty'

Major social changes have combined to create 'new poverty': new and subtle forms of both physical and emotional stimuli deprivation affecting children, including the erosion of the family support system, social and spatial differentiation, negative effects of transnational migration, the drug culture, intensive mass media exposure, environmental deterioration and AIDS (Hardoy 1990).

Some of the principal problems connected to 'new poverty' are:

- (a) *The spread of communicable disease.* The high infection rate in inner-city areas is the result of a combination of crowding, low immunization rates and poor sanitation.
- (b) *Frequent pregnancies.* Poor families tend to have high fertility rates, with close spacing of children. This results in rapid population growth that inner-city areas cannot contain.
- (c) *Psychological stress.* The breakdown of the extended family and the absence of the support it gave puts greater stress on both parents and children. Moreover, the situation is aggravated in low-income households because both parents usually need to work to survive. Children are often neglected, which may lead to high truancy rates, or even prostitution and drug dependence.
- (d) *Social stress,* especially social and spatial segregation, is likely to be most severe for newly-arrived migrants and other individuals who must adjust to major lifestyle changes, as well as for individuals who lack a reasonably secure financial, legal or

physical base. Deprivation may also be regionalized, depending on the services available to combat and prevent disease and its consequences (Jacobi 1990).

1. *Migration.* Some social scientists believe that the stress and high rates of pathology among migrants living in inner-city areas can be explained by the concept of *social disorganization* (Levine et al. 1962). In moving to a new area, migrants not only experience separation from family and friends, but also the loss of familiar objects such as buildings, neighbourhoods and other physical elements of the previous environment. During the transition period, this social disorganization, involving a reduction in the migrant's mastery over his or her psychosocial environment, leads to a sense of loss of control.

Rural-to-urban migration has undermined the extended family and kinship systems, which previously provided continuity and security for young children. It has brought millions of families to large cities in the hope of obtaining better jobs, education and health care. Straining to adjust to life in inner-city ghettos, rural families experience cultural conflicts and insecurity. Children are often forced to work, sometimes in extremely stressful situations.

Impoverished migrant families frequently find themselves thrust into a cash economy fuelled by consumerism. They may lack experience in budgeting their scarce family income. They may also be unfamiliar with the variety of new foods on display, and have no one to turn to for advice on how to obtain the best value for their money. These families are particularly susceptible to the power of advertising.

Often only part of the family migrates to the city, especially initially. Children are frequently left behind with relatives; sometimes they are separated from their parents for years. Spouses too may be separated for long periods, which often leads to an increase in sexual promiscuity, one of the principal causes of the spread of AIDS.

2. *Social and spatial differentiation.* The process of urbanization as well as urban renewal projects disrupt traditional family, work and social patterns, causing important changes in values, family structure and community experience. These changes, in turn, interfere with some of the individual's essential psychosocial and health needs (Ekblad and Werne 1989). Aspects of the problem include segregation of living and working functions; segregation of populations; types of housing tenancy; and the availability of recreational, leisure, cultural and school facilities.

A home is a fundamental unit in society: it is a place for comfort and leisure, for the socialization of the young, for security, contemplation, sleep, eating and personal hygiene and for nurturing the family. Living in poor housing and crowded conditions influences an individual's self-evaluation and motivation. Reviewed studies show that families that improve their housing feel they have improved their situation and status (Ekblad 1991). Adverse family experiences in childhood have been linked to a higher probability of housing disadvantage in adult life, an indication of how self-perpetuating and persistent ecological patterns of social pathology are in cities throughout the world (Quinton 1988).

High-rise buildings, intended to alleviate crowded conditions and provide affordable housing to the poor, have created new problems. Children living in small high-rise apartments tend to experience social isolation, feelings of aloneness and disconnection or alienation from positive people, places or things. They may develop different coping mechanisms in response to these negative feelings: some children may act in an independent, self-reliant and autonomous way, while others may become more dependent, relying heavily on external support and interpersonal relationships.

Children living in small, often cramped, apartments may have limited experiences and motor activity during their early years; these deprivations possibly lessen their potential for intellectual development. It is more difficult for them to play outdoors or at other children's homes. They are often afraid to go out to play alone, particularly as there is often no playground nearby; they worry about being trapped in lifts (which in housing developments tend to be poorly maintained and subject to power failures); they may be frightened of getting lost in the maze of identical exteriors; they may feel anxious because they can neither communicate with nor see their parents who are many storeys away (Björklid 1982). One study in Beijing, Peoples Republic of China, showed that the higher the floor on which children live, the shorter the duration of their outings. This situation may cause children to become isolated and reduce their ability to make friends (Ekblad et al. 1991). In addition, a recent study in Japan has found that children in high-rise housing show a delayed independence in fundamental daily practices compared with children living in ground-level houses. This could be ascribed to excessive mother/child attachment as a result of fewer outings (Oda et al. 1989). Spatial restrictions have also been linked to deteriorating parent/child relationships.

3. *Unequal distribution of resources.* Some social scientists believe that poverty is a major cause of stress. The unequal distribution of resources has led to an ever-widening gap between the rich and the poor in terms of income, education, access to information, transportation and housing, among other variables. The poor are segregated socially and physically in particular areas of our cities. Children in inner-city ghettos experience poverty, hardship and exclusion alongside affluence and a better quality of life; this contrast increases their feelings of marginalization and isolation. Homelessness, once thought to be a phenomenon exclusive to the developing world, is now present in New York, London and other major cities of the industrialized North.

Young, single-parent families and ethnic minorities are especially vulnerable to poverty. In many countries, poverty is correlated with low levels of education, higher incidence of malnutrition, and lack of social security. Poverty in urban areas is particularly evidenced by the population's lack of access to land for housing, transportation, health services, education and recreation facilities. The debt crisis and the consequent decline in incomes of the urban poor have contributed to increases in juvenile delinquency, street children, accidents and drug abuse (UNICEF 1991).

Manciaux (1981) found that economically disadvantaged children in Europe tend to come from large families. Higher risks are attached to both pregnancy and birth. Furthermore, children are more likely to have developmental difficulties; they tend to become ill and are hospitalized more frequently; and they are more often placed in institutions or foster care than other children. Many are 'born to fail': they are, in other words, extremely likely to experience academic failures and subsequent unemployment. They may receive inadequate attention and care, and both they and their families have limited access to health services. In fact, although urban families are more likely than rural families to live near health, education and other services, they do not necessarily have access to them, especially when costs are involved.

Data on urban malaise have thus led researchers to conclude that the characteristics and resources of families are more influential than environmental characteristics in determining rates of psychosocial problems. Thus, while living in cities, and especially in high rises, has definite disadvantages, the problems that some children experience seem to be more directly related to their family's history, its circumstances and the stage of its development cycle than to the environment. Also important are the processes which cause

populations with particular characteristics to inhabit certain areas. The built environment does, however, have an additional interactive effect on child development, parenting and family functioning (Quinton 1988).

Buffering Factors: Social Support, Social Network and Socio-cultural Traditions

Urban environments and lifestyles can play an important role in supporting *self-realization*, a principal human dimension. Urban dwellers may also become attached to their surroundings and form a sound sense of responsibility for the city's development. Human resources are essential for the sustainable development of urban life and economy. Particularly when material resources are scarce, cities must be managed efficiently and greater concern must be shown for the effects global changes have on cities. Social cohesion and interaction may prevent or reduce crime and vandalism, contributing to the creation of safe surroundings and supportive neighbourhoods. Thus, *social interaction* is another human dimension that may help to satisfy the individual's need for contact, and stimulate learning, education and development.

It is developmentally important for both children and adults to be able to experience *natural life cycles*, not only the birth, life and death of the human species, but also the continuous sequence of changes undergone by plants, animals, the seasons and other forms of nature. Individuals, and especially children, who live close to natural elements may develop a caring attitude towards the environment; this attitude in turn will stimulate them to adopt responsible lifestyles.

The everyday economic activities of the city (shops, markets and small workshops) bring children into contact with business and industry, and provide them with an important opportunity to learn about the whole production-distribution-consumption chain. Economic activities also facilitate contact between people, thus stimulating exchanges of experiences, values and ideas. Moreover, these activities ensure greater safety and reduced vandalism in public places through increased social control.

Researchers generally recognize a number of variables as being important predictors in childhood for later success (socio-economic status, kinship networks, cultural orientation, moral values, personal locus of control and disciplinary practices), but they have not yet

reached agreement on which antecedent conditions predispose families to adopt effective rather than ineffective coping strategies. Good family relationships and family harmony can contribute to the resilience of children in situations of urban stress. Other caregivers besides parents, such as grandparents or other relatives, can act as buffers and provide additional support to both parents and children. However, urbanization and mobility has meant that the extended family, while not extinct, is much less available for ongoing and reliable support.

Studies undertaken during the last decade have shown that very strong support can be activated in a well-functioning social network (Orth-Gomer 1988). In a review of the literature on urbanization and its effects on children's mental health, Cederblad (1990) found that in periods of urbanization and rapid social transition, persisting socio-cultural traditions and lifestyles are protective factors. In addition, the quality of relationships with friends and neighbours is more significant than the number of such relationships.

Other studies have shown that social networks are actually an essential aspect of the quality of life. People tend to get sick less often, and if sick, to recover earlier, if they are part of a social network. The absence of social networks has been linked to the particularly high demand for medical and psychiatric care in new, low-income housing developments. Lonely and socially isolated individuals are inclined to feel they need care. Similarly, their perception of the city is more likely to be affected by their social relations than by the physical environment itself (Cullberg et al. 1981). The loss or absence of familiar networks of social support has also been related to coronary disease, pregnancy disorders, accidents, suicides, psychiatric hospital commitment, school truancy, ulcers and failure to recover from certain types of cancer (Pilisuk and Froland 1978). Such findings suggest the general immunological value that may be obtained from the nurturing of social support networks.

Few studies have focused on the frequency, density and extension of social networks in urban areas. One myth that has been dispelled is that dwellings can be constructed in such a way as to encourage social contact and the formation of local networks. More important than the actual physical environment are the residents' convictions that they can influence their social network (Hjärne 1985). Social relations in urban neighbourhoods, especially in the North, tend to be defensive rather than supportive; the main objective is often for neighbours to 'get along' and to avoid interfering in each other's activities (Mackensen 1986).

In a cross-national comparison, Höllinger and Haller (1990) tested the assumption that kinship ties are weakening in modern societies, while non-kinship bonds are gaining importance. This assumption was especially valid in the United States and Australia; less valid in the United Kingdom, Germany and Austria; and not valid at all in Italy and Hungary where very close kinship ties are still maintained. The authors argued that these differences depend not only on the level of economic development, but also on definite socio-cultural characteristics: namely, traditions dating back to preindustrial times of close kinship ties in Southern and Eastern Europe and weaker kinship ties in Northern Europe; higher geographic mobility in the United States and Australia; and the individualistic lifestyle prevailing in Anglo-Saxon nations. Despite reduced face-to-face contacts, however, primary groups generally maintain their function of providing social support: close relatives and friends were named as the most important sources of practical and emotional help in every national sample. Professional assistance would still appear to be of minor importance.

Studies carried out in Greek cities have determined that mental health problems have become more common, mainly as a result of the extremely rapid rate of urbanization, the alienation experienced by recent migrants, and the tendency of children to reject their social and cultural heritage and to assert their sense of individualism. Greek children were traditionally taught to treat strangers with suspicion and reject anyone who was not part of their closely-knit extended family; today, radical changes in the extended family have greatly reduced its ability to function as a source of family reinforcement (Ierodiakonou 1988).

V. PSYCHOBIOLOGICAL PROGRAMME: VULNERABILITY, RESISTANCE AND PREDISPOSITION

Some General Considerations

Each child has his or her unique personality and resources, which, according to recent psychological research, are set in motion from the moment of birth. Adults often underestimate the influence their care has on the physical and psychological well-being of children. A prerequisite for positive personality development is the existence, on a continuous basis, of a significant adult who cares, loves and gives security. Children are particularly

innocent, vulnerable and dependent. Yet too often today they are pushed to become adults, influenced by social forces ranging from family disruption to the media. The lack of appropriate child-rearing practices, including discontinuity of caregivers, can cause health, and especially psychosocial health, problems. Fortunately, children are also resilient, curious, active and full of hope.

Urban children who live in especially deprived conditions are a high-risk group. Their fundamental rights are being violated: their rights to health, to appropriate care and, as stated in Article 27 of the United Nations Convention on the Rights of the Child, to a standard of living "adequate for the child's physical, mental, spiritual, moral and social development". The lives of many urban children contradict the ideals of social justice that democratic nations are struggling to achieve. Microsocial stress states (deriving from inadequate education, status inconsistency, separation from the family, or other factors) are more prevalent among children in cities than in rural areas. On a macrosocial level, interventions aimed at reducing the stress states of urban children should include the reinforcement of families as an important component, since it is within families that children are able to fulfil their need for a sense of belonging and security (Table 2).

Major life events, such as migration with its inherent uprooting and resettlement, force the child to adapt. The greater the number and intensity of changes in a child's life over a

Table 2: POSITIVE AND NEGATIVE CONSEQUENCES OF STRESSFUL EVENTS AT DIFFERENT LEVELS OF ANALYSIS.

Level of Analysis	Negative Stressful Event	Positive Stressful Event
Biopsychosocial	Decrements in neuroendocrine functioning, nutrition and immunocompetence	Increments in neuroendocrine functioning, nutrition and immunocompetence
Psychosocial	Negative values, negative self-concept, learned helplessness, negative effects of coping skills	Creativity, increased coping skills, positive feelings of well-being, helpfulness
Microsocial	Stigmatization, increased divorce rate, family violence, vandalism, social disintegration	Increased interpersonal cooperation and social identity, sense of coherence due to adversity
Macrosocial	Poverty	Innovative programmes

Source: Ekblad (revised from Marsella 1990).

period of time, the higher is the risk of diminished health status. Stress research has tended to focus on the negative short-term impact of stressful events and, to a lesser degree, on the positive psychological and physical health outcomes resulting from desirable environmental changes. Few studies have emphasized that environmental changes initially perceived as negative can be linked to longer-term benefits for individuals and groups. Greater understanding needs to be achieved on the different levels of social and personal resources (macrosocial, microsocial, psychosocial and biopsychosocial) that can mitigate stress and help children transform stress into opportunities (see Table 2).

Personality Disposition and Family Environment – The Network

The assumption that children's physical development reflects the society they live in (Tanner 1986) is a truism that applies mainly to countries with prevailing poverty and inequality. In Sweden and other affluent welfare states, it is now difficult to find significant physical differences among children according to socio-economic class. Height at maturity and age of menarche, for example, are not differentiated by class, and only slight differences can be found in birth weights. Children of lower socio-economic extraction, however, are overrepresented among overweight schoolchildren (Köhler and Jakobsson 1991). Furthermore, a study by Nordström et al. (1993) on social differences in Swedish infant mortality by cause of death, 1983 to 1986, found that the increased risk of sudden infant death syndrome among infants to mothers with low education levels was substantially related to differences in maternal age, parity and smoking habits. This research group interpreted the relatively minor importance of maternal education on infant survival as a consequence of a generally high standard of living; the advanced level of medical, technical and economic developments; and the nationwide, free prenatal and child health care system.

There is strong evidence that juvenile psychiatric disorders are related to family pathologies. Feelings of alienation, anonymity, stimulus overload and deprivation as well as value, role or identity conflicts can impede children's psychosocial development and even their cognitive, sensory and motor development, contributing in turn to mental disorders and social pathologies that may take years to treat.

Specific individual circumstances, group features and area-based (environmental) living conditions may be distinguished in children with similar psychiatric disorders.

Moreover, constitutional and temperamental factors as well as sex differences may make children more or less vulnerable to exogenous environmental influences. Often these sex and other differences may serve to buffer or protect children in adverse circumstances. It is, in fact, important to bear in mind that *the vast majority of children (at least 70-80 per cent) living in negative family conditions are well-adjusted.*

Sex disparities start early in life. During infancy and early childhood, girls cope better than boys in difficult conditions. Boys are more physically vulnerable at birth, rendering them more prone to malnutrition, infection and mortality. They also seem to be more vulnerable than girls to the negative effects of family discord, and have difficulties in handling aggressive impulses in an appropriate way (McChesney, referred to in Neiman 1988).

During pre-adolescence (10 to 12 years), however, there appears to be a reversal in this vulnerability tendency. Boys perform better scholastically, while girls are more likely to experience major problems relating to dependency (Werner and Smith 1982). Resilient girls may benefit from experiences that encourage greater autonomy and independence; resilient boys may fare better in homes that are fairly well-structured, uncrowded and lacking family discord. The father's presence in the household is a critical factor in the development of resilience in boys. Resilient children seem to be drawn to role models whose attributes complement their sex: girls tend to choose independent and autonomous individuals as role models, while boys are drawn to nurturing and caring models. This cross-role identification may help children cope with their respective development tasks.

Studies conducted in industrialized countries of the North and subsequently validated by wider cross-cultural research have found that paternal absence in early childhood has predominantly negative consequences on the sex-typing of young boys. It has also been concluded that males are more likely than females to achieve a sense of identity, a positive self-concept, and pleasure through 'doing', that is through occupational achievements and efficacious action. Females seem to rely to a greater extent on other means, especially affiliation and socio-emotional activity, to develop their identity and self-esteem (Maton 1990).

Gender differences in help-seeking behaviour have been highlighted in several studies, again including some cross-cultural research. In a comparative analysis of coping styles, researchers noted that: (a) females are more likely than males to rely on social networks or

to seek help in extrafamilial settings; and (b) they are more active than males only when seeking support, whereas their overall coping style tends to be more passive, even defensive, which is consistent with female role stereotypes.

It has been reported that temperamentally easy children of both sexes develop consistency, positive moods and flexibility in their responses to the environment (Thomas and Chess 1977). Moreover, if they live in difficult families, they manage more often than other children to avoid negative interactions (Rutter 1978, 1979). Temperamentally difficult children, in contrast, quite often become the target of overwhelmed or depressed parents; they are also twice as likely as other children to be the object of parental criticism (Rutter 1981). It would appear that, of all factors, the perception parents have of their child's characteristics has the most influence on their interactions with the child. Resilient children are better able to elicit attention and appropriate care from their environment.

The positive aspects of urban stress situations are equally as important as the negative aspects. Each child seems to have his or her own individual psychological response to urban environmental stress. Some children – known as 'dandelion children' or 'asphalt flowers' – are remarkably resilient, managing not only to survive, but even to flourish, in unfavourable conditions (Garmezy 1983). In some cases, early exposure to stress may actually contribute to enhanced psychosocial functioning in later life. Studies have also shown that negative environmental change can have positive effects. For instance, suicide rates and admissions to psychiatric hospitals often decrease during times of war (Antonovsky 1979, 1987). A small but growing body of literature (mainly from developmental and ego psychology and risk research) attempts to address this topic.

An in-depth study of a sample of former prisoners of Nazi concentration camps conducted by Antonovsky (1979, 1987) found that the foundations of health lie in the individual's inner resources and, above all, *sense of coherence*. Particularly important are a sense of meaningfulness outside his or her own existence; the ability to comprehend current adversity; experience in managing different situations; and the conviction of having interior and external resources with which to cope with stress situations.

Antonovsky's conclusions were substantiated by a longitudinal study, which tracked a sample of high-risk Hawaiians from birth to the age of 32 years. It concluded that the majority of individuals are unable to overcome early experiences of major life stress; some may even become criminals, prostitutes or alcoholics. Only about 10 per cent achieve

complete adjustment, becoming competent, independent and well-balanced adults. These 'vulnerable but invincible' individuals generally have friends; they have a feeling of mastery or independent power; they think and act independently; and they invariably score well on creativity tests (Werner 1989, Werner and Smith 1982). Table 3 presents a useful summary compiled by Dahlin and Cederblad (1986) of current research findings on the buffering

Table 3: BUFFERING FACTORS IN STRESS-RESILIENT CHILDREN

PERSONALITY DISPOSITION OF THE CHILD	FAMILY ENVIRONMENT AND NETWORK
Social openness	Clearly defined and firm boundaries within the family
Good coping competence	Compensating experiences outside the family, such as a positive school environment or an adult with whom the child has a positive relation, i.e. a 'significant other'
Good self-confidence	
Autonomy	
Ability to develop attachments to others	The child's perception of reality and the degree of distance he or she feels towards his or her own environment; the child's perception of the family is more important than the family's behaviour or the child's relationship to the environment
Intelligence	
Cooperativeness	
Stress-resiliency	
Creativity	The degree of pathology within the family and the extent of its influence on the child
Required helpfulness	To be the only child during the first four years of the child's life is a protective factor if the quality of the relationship between the parent and the child is positive; the first seven months of a child's life are very important for the development of basic trust
Good impulse control	
Ability to make use of the environment	
Temperament: an open, kind and well-balanced child will easily elicit positive feedback from the environment, develop good personal relations and acquire self-confidence and a feeling of social competence	Children need challenges in order to be stress-resilient, but there must be a good fit or balance between the child's ability and demands made on the child
Age: children up to 3 years of age are less stress-resilient	Benign neglect Scope and degree of available possibilities
Gender: boys seem to be less resilient than girls to family problems involving the parents' relationship	

Source: Dahlin and Cederblad, 1986.

factors present in stress-resilient children. The authors identify the child's personality disposition together with family environment and network as the two main variables involved.

Other studies, using different methodologies, populations and definitions of risk factors, have isolated similar protective factors, including: positive early child temperament (for instance, social responsiveness and adaptability); supportive family milieu; sound relationship with at least one parent; and the availability of meaningful support from extended family and other adults (Garmezy 1983). Rutter (1979) assumed that children can readily adapt to a single major negative experience (such as the death of a parent), but that there may be a potentiating effect when two or more stressors combine (for instance, death of one parent and drug abuse by the other), resulting in a higher risk of impairment than would be seen if the stressors were considered separately.

These research efforts have added importantly to the understanding of child resilience; they also offer a general orientation which can serve as a basis for gaining more detailed knowledge of the specific circumstances that favour resilient or adaptive outcomes under stressful life conditions (Wyman et al. 1991). Further research is needed, particularly to investigate the interactions which may occur among different protective factors and in order to develop a comprehensive model to explain how these separate protective factors can contribute to stress-resilience in the disadvantaged urban child.

Bonding

Close physical contact fosters bonding between a mother and a newborn infant. According to Mussen (1983), bonding is strongest when the infant is the first born or at-risk (for instance, premature or ill), or when the mother is especially young or from a disadvantaged population group. Early bonding affects the incidence and duration of breastfeeding, the amount of affectionate touching, the sensitivity of the mother's signals, and the amount of eye contact. Biological and social elements are interwoven from the beginning of the parent-child relationship.

Studies have shown that resilient infants have few congenital defects, though they may have survived some moderate stress, such as low birth weight, at birth. Their resilience may be due to bonding, facilitated by special care; conversely, they may have survived

because they were constitutionally resilient. Adequate social development requires strong and secure bonding. It is extremely difficult for a child over the age of three or four years to develop a selective, secure bond for the first time (Rutter 1978).

Mother's Education

A mother's education is the single most important factor in keeping her family small and her children alive. Women with schooling tend to marry later, delay pregnancy, practise family planning, reject harmful traditional practices related to childbirth, adopt healthy feeding habits, recognize the need for domestic hygiene and immunization, and use available health services in times of sickness (Ekblad 1991).

According to UNESCO, approximately 105 million children in the 6-11 age group did not attend school in 1985. Of these, over 70 per cent lived in the poorest developing countries in the South. If current trends continue, the number of out-of-school children will have reached approximately 200 million by 2000, nearly double the 1985 figure (Sadik 1991).

In many countries, female primary school enrolment rates are less than 50 per cent. Schooling for adolescent girls, for instance, often ends if they become pregnant. However, gender disparities are lessening; in 1986, 56 per cent of secondary-school age girls were attending school in Latin America, 39 per cent in the Arab States, 33 per cent in Asia and 21 per cent in Africa (ibid.). In industrialized countries, full-time compulsory education is provided by governments for an average of nine years. On average, 6 per cent of gross national product is spent on education and 11 per cent of gross domestic product is allocated for social welfare expenditures. Nonetheless, almost four persons in ten lack any upper secondary school education (UNDP 1991, p. 25).

A national commitment to education is closely related to the elimination of social differentiation and the reduction of birth rates, as noted by Wahren (1990, p. 12):

The countries which have been most successful in lowering national birth rates have many features in common. They have given high priority to institution-building and to the development of human resources. They have invested in social services, including health and education, paying special attention to the status of women, female employment and improving maternal and child health care. They have given strong support to family planning information as well as to high quality contraceptive services. Many of these countries have explicitly tried to provide for growth with equity in order to eliminate poverty.

VI. MECHANISMS IN PATHOGENIC PROCESSES

As we have seen, a general concept of psychosocially-mediated ill health views a wide range of environmental stress situations, including those related to urbanization, as potentially provoking a relatively small number of pathogenic physiological mechanisms, which in turn may lead to precursors of a large variety of diseases and eventually to the diseases themselves. Further, pathogenic mechanisms are likely to be elicited when an individual experiences an unfamiliar social situation or has no recourse to natural or cultural protection. This may explain why the process of urbanization or migration, with the accompanying rapid changes in child-rearing practices, sex roles, family life, working conditions and other fundamental activities, may be a latent health hazard, regardless of whether such changes are beneficial or not.

A certain degree of urban stress is advantageous, while lesser or greater amounts may be harmful. The optimal amount obviously varies among children since the potential of the environment to decrease the quality of life is a function of the degree of *incongruence between the abilities and needs of children or groups of children* on the one hand, and the *demands and opportunities of the environment* on the other. Equally important is the degree of incongruence between children's expectations and the reality they perceive.

A 'good' living environment does not guarantee that a social network will be established. The living environment, however, should provide the individual with the opportunity and the requisite conditions to establish and maintain constructive social relations (not only contact with neighbours, but also interaction with relatives and friends). A recent longitudinal study in Sweden concludes that men who have grown up in large urban areas have twice the risk of developing schizophrenia than their rural counterparts (reported by Atterstam 1992). The specific mechanisms by which urbanization determines the frequency, severity and distribution of mental disorders, however, are still not understood.

Marsella (1990) has written an excellent summary of the historical and ideological context that led to research linking urbanization to mental disorder. Even in its early stages, research in this field acknowledged the important role played by socio-economic variables as determinants of mental disorder. Particular attention was also focused on social stress (social and spatial differentiation, isolation, disorganization and disintegration), migration,

poverty and homelessness. Early longitudinal community studies (psychiatric epidemiology) gave scientific credibility to the study of the social causation of mental disorders.

Furthermore, a conscious awareness of social and spatial differentiation, feelings of deprivation and marginalization, a sense of social rejection and injustice, in particular, appear to increase the vulnerability of urban children, both North and South, to psychological disorders (O'Conghaile 1989). Sweden and other countries in the North have moved away from poverty, undernourishment and disease towards a 'utopian' era of material prosperity. The other side of the coin, however, shows an increasing burden of existential problems. Thus, according to Borgenhammar (1990), poverty diseases in these countries are a worry of the past, prosperity diseases the plague of the present, and low-trust diseases the concern of the future. Children of migrants in countries of the North face special problems of marginalization (Blanc and Chiozzi 1992). In the South, feelings of social rejection and marginalization among urban poor children are frequent (Hardoy 1990). All of these socially-mediated elements play an important role in the complex mechanisms that lead, upon exposure to certain physical and psychosocial stimuli, to pathogenic processes. In turn, they may lead to precursors of disease and eventually to actual evidence of an impaired quality of life and disease.

VII. PRECURSORS OF DISEASE OR DISCOMFORT

Some General Considerations

'Information diseases' could serve as a metaphor for this period of history. Miscommunication within the individual, or between the individual and the outside world, caused by stress or social isolation, influences the internal autonomic information system. Miscommunication in the immune system plays a part in allergies as well as in cancer and an increasing number of other diseases related to immunodeficiency (van der Kamp 1989). Relating the concept of miscommunication to urbanization, Levi and Andersson (1974, p. 21) concluded,

Associations between psychosocial factors and changes that are likely to be precursors of disease are established or suspected under certain conditions. It is probable that

these precursors arise in real urban life situations as a result of psychosocial factors and that they can proceed to disease.

Precursors of 'disease' in the widest sense of the word include such phenomena as truancy and drop-out as well as unhealthy lifestyles.

Utilization of health care facilities is one of the yardsticks traditionally employed to measure the health situation of a population. However, such utilization is influenced by many factors, not only including the patient's health status, economic circumstances, education, confidence in the system and distance from care facilities, but also the availability of care, cultural traditions relating to care, and the density and age structure of the population (Smedby 1983). Numerous studies have concluded that the availability of medical resources is the main explanation for differences in hospitalization rates.

Truancy and Drop-out

Compulsory school represents a vacuum between childhood and adulthood for some adolescents. Mature physically but immature socially, they may exert their independence in different ways. Some children drop out of school, but are often unable to find a job, precisely because they have not completed their studies. This situation may give rise to frustrations and psychological problems.

Schools have been accused of being breeding grounds for bullying, delinquency, vandalism, gang behaviour, violence, substance abuse, racism, suicide and other problems (Rutter et al. 1979). Steps need to be taken by schools in the form of broad psychological, social and familial intervention programmes that go far beyond their traditional academic concerns. Thus, environmentally sustainable human development will greatly depend on the level of commitment made to education in the decades ahead (UNICEF 1991).

In contrast, school may be a haven for resilient children, giving them important access to new experiences, knowledge, hobbies, interests as well as extracurricular and after-school activities. Some schools provide meals, a factor considered to be important in keeping impoverished children in school. Studies of immigrant children demonstrate this dichotomy (Beiser 1990). In a province-wide survey in Ontario, the rates of psychiatric disorders and poor school performance were no higher among immigrant and non-immigrant children. Another study, comparing the frequency of psychiatric disorders among samples of 8- to

11-year-old Greek, Turkish and German schoolchildren in West Berlin, found that Turkish children had the highest rates and Greek children the lowest, with the indigenous sample falling in between. These results, inconclusive as they are, highlight how much more needs to be learned about the mechanisms children use to cope with different urban environments.

Unhealthy Lifestyles

Living in cities means adopting an urban lifestyle. For the well-off, this often involves abandoning traditional, sound dietary habits, assuming a more sedentary way of life, drinking more alcohol 'socially', smoking and leading a stressful life as they are caught up in the whirlwind of economic achievements and upward mobility. On an intellectual and emotional level, an urban lifestyle may be associated with increased self-reflection, concern for the environment, fear of nuclear war and even depression.

The fast-food culture is invading the world, heralded by the advertising industry and the media. Local food, which fulfils all nutritional requirements, is increasingly being spurned in favour of fat- or sugar-rich foods. However, it takes time for the body to adapt to new foods, and unforeseen costs are involved. Many urban children in the North and increasingly in the South do not know what a fish looks like or what ingredients go into the food they eat; they only see the product, not the source or the process.

Table 4 reports some principal results for selected countries of a study carried out in 11 countries (King and Coles 1992). Extremely large numbers of Polish and Scottish youth of all three age groups eat candy and chocolate bars, while students in Norway eat the least. Similarly, consumption of sugared soft drinks is high, particularly among young people in Scotland, Wales and Canada. In all countries, more boys than girls drink soft drinks daily. It was also found that more girls tend to eat a combination of high-fibre foods every day, though there is a decrease by age 15 in the numbers of young people consuming these foods daily in all countries. While there was considerable difficulty in comparatively analysing fat content in young people's diets, it appears that very few students in the countries surveyed eat excessive amounts of fatty foods daily, with the exception, perhaps, of Scotland, especially boys (7-9 per cent). At the same time, with only few exceptions do more than half of the students surveyed exercise outside school hours four or more times a week.

Overall, the results of the study show that the proportion of overweight children and adults with high cholesterol levels is rising both in the North and among the middle classes of the South. Many people alive today are likely to die, and some prematurely, of circulatory and respiratory diseases that are closely linked to sedentary lifestyles, fat-rich diets, alcohol consumption and cigarette smoking.

Lifestyles, however, must be viewed in context. Low-income housing and conditions of poverty are clearly implicated in the creation of a plethora of environmental health stressors, both North and South (WHO 1987). Countless children living in low-income, high-density urban settlements are exposed daily to dangers that hamper their growth and development, a reality which has led experts to question whether the world's cities will be at all liveable in the future.

When maximal vulnerability is combined with maximal exposure to environmental stressors (including noise, pollution, overcrowdedness, nutritional deficiencies and low hygienic standards), there is an increased risk of a decline in health and well-being. Traumatic events giving rise to the posttraumatic stress disorder (PTSD), for example, have been found to be common among young adults in the highly industrialized city of Detroit (Breslau et al. 1991). Risk factors implicated in individual responses to environmental challenges and in the development of a variety of psychiatric disorders included: (a) lifestyle factors, such as low education levels, early behavioural problems and early separation from parents; (b) personal disposition factors, including extroversion, neuroticism and pre-existing anxiety; and (c) family history of instability, deviance, anxiety, psychiatric disorders or substance abuse. Vulnerability to PTSD was also shown to be greater in women than in men.

Abuse of tobacco, alcohol, drugs, solvents and other substances as coping mechanisms is sometimes attributed to aspects of urban living (Shiffman 1985), as are a number of problems of a public health nature, including mental illness, accidents and new disease patterns such as AIDS.

A study conducted on a sample of 1,588 seventh- and twelfth-graders to measure adolescent health behaviour found that greater involvement in health-maintaining behaviour was associated with less involvement in marijuana use, excessive drinking, delinquency and other problem or non-conventional behaviours. It was also linked with higher church attendance and greater participation in school activities and other socially approved or conventional activities (Donovan et al. 1991).

Substance abuse among street children, particularly in the South but also increasing in the North, is often a survival strategy against the cold or against hunger and loneliness. Adolescents smoke marijuana or coca paste (a crude and inexpensive form of cocaine), or sniff inhalants such as glue, gasoline or other volatile substances to achieve a momentary escape from the state of abandonment, violence, persecution, rejection or exploitation in which they live. The strain of striving to cope on their own results in a deep sense of insecurity and emotional conflict, leaving these children especially vulnerable to forms of behaviour labelled as anti-social by society. Statistics will again be given below for selected countries from the study undertaken by King and Coles (1992) of 11-, 13- and 15-year-olds from 11 countries (King and Coles 1992) (see Table 4). However, very few comparative studies have been undertaken.

1. *Smoking.* It is believed that urban living may be a factor leading children to smoke, especially children in at-risk groups. In several countries, as also reported elsewhere, more girls than boys smoke by the ages of 13 and 15. In Sweden, after a decline during the 1970s and early 1980s in the percentage of ninth-grade smokers, rates have subsequently remained fairly stable. The latest survey, however, showed a resurgence in the percentage of smokers in both the sixth and ninth grades, with a prevalence of girls in the higher grade. Snuff-taking, on the other hand, is more common among boys, with the result that, in total figures, boys are higher tobacco consumers (30 per cent) than girls (23 per cent).

2. *Alcohol.* Initial experimentation with alcohol usually occurs during adolescence, which is when patterns of consumption also begin to be established. A study conducted in urban schools found that substance use (cigarette smoking and alcohol use) was positively related to stress in early adolescence. Moreover, the study found that behavioural coping, cognitive coping, adult social support and relaxation were coping mechanisms inversely related to substance use, whereas peer support, distraction coping and aggressive coping were positively related (Wills 1986).

A cross-national study was carried out by the World Health Organization in Chile, Norway, Swaziland and Australia to assess the effectiveness of a peer-education approach in delaying the onset of drinking and promoting moderation in drinking habits. With a target group of 13- to 14-year-olds, the study found that a peer-education approach generally

Table 4: USE OF TOBACCO, ALCOHOL AND OTHER DRUGS, EXERCISE AND LEISURE-TIME ACTIVITIES, NUTRITION, DIET AND DENTAL CARE AMONG STUDENTS IN SELECTED COUNTRIES BY 11, 13 AND 15 YEAR OLDS

(Percentages)

	Austria		Canada		Finland		Hungary		Norway		Poland		Scotland		Sweden		Wales		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
<u>Smoking</u> ¹																			
age 11	3	1	7	5	6	3	10	5	3	1	10	3	4	1	5	2	5	3	
age 13	11	9	14	14	22	21	21	20	9	3	15	1	12	11	10	9	12	11	
age 15	29	29	22	26	37	32	39	39	29	29	31	3	20	23	24	29	19	16	
<u>Alcohol</u> ²																			
age 11	6	1	8	4	7	3	5	1	-	-	3	0	9	6	6	3	16	7	
age 13	17	11	14	7	9	7	6	2	-	-	5	1	17	13	17	8	20	16	
age 15	37	24	33	18	12	4	20	7	-	-	10	3	32	18	37	26	47	35	
<u>Exercise</u> ³																			
age 11	71	53	70	52	49	34	45	23	39	18	63	45	57	37	41	21	67	45	
age 13	70	40	71	48	43	24	45	26	40	22	53	30	55	32	40	22	67	39	
age 15	59	28	62	36	37	17	39	18	42	22	42	21	57	23	38	18	61	31	
<u>Watching TV</u> ⁴																			
age 11	29	28	35	38	44	43	44	47	36	27	39	39	-	-	38	45	37	35	
age 13	37	35	44	34	51	40	51	57	44	41	41	43	-	-	40	47	42	44	
age 15	39	45	39	35	54	47	53	50	36	31	46	38	-	-	40	32	46	47	
<u>Candy and chocolate bars</u> ⁵																			
age 11	27	22	28	25	23	17	37	34	12	9	54	55	62	59	20	14	38	42	
age 13	37	34	30	22	30	27	38	35	15	13	58	60	69	69	32	32	46	45	
age 15	38	37	28	22	31	30	33	33	22	17	48	49	63	53	27	18	45	44	

	Austria		Canada		Finland		Hungary		Norway		Poland		Scotland		Sweden		Wales		
	M	F	M	M	F	M	F	M	M	F	M	M	F	M	M	F	M	F	
<u>Soft drinks with sugar⁶</u>																			
age 11	27	22	47	38	15	7	37	27	12	4	30	25	59	53	16	8	51	50	
age 13	33	32	56	54	18	8	44	33	9	6	29	19	70	59	19	8	55	44	
age 15	45	34	63	52	21	7	50	35	22	9	30	19	69	55	23	12	56	45	
<u>Dental care⁷</u>																			
age 11	65	61	51	68	21	43	34	52	-	-	37	74	52	67	77	84	52	66	
age 13	64	66	52	76	24	60	39	75	-	-	32	50	51	71	79	87	50	73	
age 15	57	81	54	79	22	58	44	78	-	-	30	56	49	78	77	93	57	80	

Source: Alan J.C. King and Beverly Coles (1992).

¹ Percentage of students who say they smoke at least occasionally

² Percentage of students who drink alcoholic beverages at least every week

³ Percentage of students who exercise outside school hours four or more times a week

⁴ Percentage of students who watch television 2-3 hours per day

⁵ Percentage of students who eat candy or chocolate bars once a day or more

⁶ Percentage of students who drink soft drinks once a day or more

⁷ Percentage of students who brush their teeth more than once a day

resulted in more significant changes in attitudes and behavioural intentions in the desired direction than did teacher-led instruction following the same curriculum (WHO 1990a).

Studies on male adolescent alcoholism (Bohman 1978, for Sweden) have found that sons of alcoholics are three to four times more likely than sons of non-alcoholics to become alcoholic themselves, regardless of whether they are raised by their biological parents or by non-alcoholic adoptive parents. Criticism of such studies has focused on the diagnostic criteria used for alcoholism and the reliability of information available for making diagnoses. Moreover, it has also been sustained that poor self-esteem and maladjustment are best predicted by general family disharmony and inadequate parental care rather than by family structure (Farrell and Strang 1991).

According to recent findings in the North, children of alcoholics have an increased risk of substance abuse, delinquency, low academic achievement, truancy and drop-out (von Knorring 1991, Gross and McCaul 1990). It has been estimated that one out of every eight children in many European countries and in North America have alcoholic parents (MacDonald and Blume 1986). There is some evidence that daughters of alcoholics may not be so prone to problems as the sons of alcoholics. Furthermore, children of alcoholic fathers tend to suffer less damage than children whose mothers have alcohol problems (Werner 1986).

Although parental alcoholism may not lead directly to juvenile delinquency, it may increase the risk if other family stressors are present. Coping patterns and mechanisms, which could explain why some youngsters remain relatively unaffected while others develop severe psychological problems, have not been studied as extensively as the stressors themselves. One longitudinal study, which observed children of alcoholics from birth to 18 years of age, concluded that the children who seemed to cope well (the majority, in fact) showed an affectionate temperament in infancy, received more attention during their first year of life from their primary caregiver than children with serious coping problems, and never experienced prolonged separation from their caregiver. In addition, they had at least average intelligence, a positive self-concept and a more internalized locus of control (ibid.).

The Swedish National Board of Education monitors the drinking, drug-taking and smoking habits of the school population through regular classroom questionnaires addressed to a representative sample of ninth-graders (whose average age is 15 years) and, in alternate years, sixth-graders. One fifth of the ninth-graders never drink alcohol. There is less gender

differentiation in adolescent drinking habits now than there was at the beginning of the 1970s: girls drink more or less as frequently as boys, although boys drink more on each occasion. About 30 per cent of the sample admitted to getting drunk every time, or almost every time, they drank alcohol, while 23 per cent of the boys and 16 per cent of the girls were defined as "heavy drinkers one or more times a month" (Köhler and Jakobsson 1991). In Table 4, the proportion of young people consuming alcoholic beverages at least every week is relatively small for students at age 11, but increases substantially by the age of 15. At this age, almost half of the boys in Wales drink regularly, about one quarter of 15 year-old girls in Canada and Scotland also drink regularly, and this figure rises to 35 per cent for girls in Wales. These results indicate that in these countries, drinking habits are being established at quite early ages, far below the legal age limit.

3. *Drug Abuse.* Increasingly, children and adolescents are involved in drug abuse. In many countries, the age of initiation into substance use has declined gradually over the past decade. Children as young as eight and nine years of age have been reported to consume cocaine in inner-city areas of New York and Washington, D.C. In a study of 1,100 junior high school students living in urban areas of the United Kingdom, 'gang' and 'drug-culture' self-images were found to be positively associated with self-reported drug use, while an 'educational' self-image was negatively associated with drug involvement (Dembo et al. 1979). Labouvie (1986) found that adolescents with strained social relationships and a heightened sense of powerlessness and helplessness may rely more heavily on substance use as a means of emotional self-regulation. Substance abuse requires little effort and ability, promises instant effects, and provides a sense of control.

Studies of the pathways leading to successful heroin abstinence have underscored significant gender differences in responses to treatment. Young men were only marginally more likely to abstain from heroin after treatment than before, while young women were significantly more likely to abstain as a result of treatment (Brunswick and Messeri 1986).

Many studies have focused on the influence of peers in delinquency and drug use. But what about the loners, that is, adolescents who are not part of the peer culture? In a study on drug use, delinquency and lifestyle correlates of 'loners' and 'socials', Tolone and Tieman (1990) analysed data collected over a nine-year period (1976-84) relating to high school seniors across the United States. The lack of peer influence on the loners seems to

contribute to lower levels of delinquency and drug use, and to more conventional lifestyle activities than is found among the socials.

4. *Exercise.* Mechanization and automation have obviated the need for hard physical work, leaving people with extra time, all too often spent sitting in front of a television set. This has caused a progressive decline in total energy expenditure from physical activity (Sinha 1991). It is well known that people who exercise and take part in physical activity throughout their lives enjoy better physical and mental health. In Table 4, one constant across most of the countries is the decreased participation by age 15, especially for girls, in exercise activities. Sweden and Norway are exceptions; their numbers either remain relatively stable or increase slightly. In almost all countries, however, although the proportion of 15 year-olds who exercise four or more times a week drops, the proportion of students that exercise four or more hours per week either increases or is similar to the other two age groups. This may indicate that by the age of 15 students may be becoming more aware of the benefits of exercise, as well as enjoying the social aspects of sports and physical activity.

5. *Media Consumerism.* Unstructured leisure time has rapidly increased for children as a result of shorter schooldays and decreased homework. The regular school programme leaves plenty of free time in the afternoons, evenings and weekends. Parents today, more than in the past, tend to use the new entertainment technologies as 'baby-sitters' for their children.

Adolescence is viewed as a critical period for the development of self-concept, for the search for identity, and for the individual's integration into society (Erikson 1968). Since these processes are based heavily on social interaction, leisure and youth activities constitute a central context for testing, accepting and forming new identities. Concern has been expressed about what the young are *not doing* and the opportunities for socialization that they are losing while occupied by television programmes (Schneller 1988). Television has become a permanent household fixture in the North. Moreover, families spend less time watching television together, since there is an increasing tendency for households to have more than one television set. To a large extent, parents determine how children use television and the influence it has on them. Adults are often as 'TV-dependent' as children, and, despite professed ambivalence, sometimes let their children watch 'adult' programmes and allow

them unlimited viewing hours. Table 4, however, shows substantial cross-national diversity with regard to the proportion of children who watch two or more hours of television per day.

Many children become television addicts because they are maladjusted, not vice versa. However, there are important indications that television can worsen psychological problems already present in a child, and can even tip the balance in favour of delinquency for children who have already experimented with illegal activities. However, it can be argued that if these children were not absorbing their 'dangerous' ideas from television, they would be getting them from films, comics, magazines or perhaps even from their parents themselves.

A slight but verifiable association exists between media violence and aggression, but it is difficult to assume a cause-and-effect relationship (Snyder 1991). Variables that can affect the relationship between media and violence include the spectator's belief in the reality of the media presentation, predisposition toward violence, aggressive family environment and identification with aggressive media characters. The way the consequences of aggressive behaviour are portrayed is also relevant.

Television violence may teach new ways of expressing aggression, and is also known to have a *disinhibitory effect* on aggression in general. This means that a child who is exposed to violent models may be less inclined to halt or inhibit aggressive actions when given the opportunity. One study found that the children rated as most aggressive by their classmates were those who viewed the most violent television programmes (Herbert 1989).

Another important consideration, according to Rosengren and Windhall (1972), is that if a child's social situation offers few real-life opportunities for relationships and therefore fails to satisfy his or her personal and social needs, there is a great likelihood that the mass media will substitute, or at least supplement human interaction. Moreover, some studies have linked decreases in reading ability with excessive television consumption (Sandén 1983).

It should also be noted, however, that television can be a positive influence. It has been shown that socially acceptable behaviour, such as altruism, control of aggressive impulses, sympathy, delay of gratification, reparation for misconduct and resisting temptation, has increased among children following exposure to certain television programmes (Snyder 1991).

Juvenile Crime

Crime rates are higher in large cities than in smaller communities, with rates tending to escalate when urban populations exceed 500,000 (Wedmore and Freeman 1985). Both the fear and consequences of crime tend to increase levels of anxiety and depression in large urban populations and are thus a cause of environmental stress (Freeman 1988).

As mentioned in preceding sections, many adverse factors in inner-city areas can be related to stress and growing levels of risk. However, the link between crime and urbanization is tenuous. Japan, for example, has a low crime rate despite the fact that it is a highly industrialized and urban society (Clifford 1976). Underlying this lack of association may be the Japanese social system within which most individuals feel some responsibility for the conduct of others in their neighbourhood, social group or place of work, and are themselves greatly influenced by the need for approval from these groups. Another relevant point is that vandalism, so typical of the dilapidated inner-city areas of most Northern countries, is an almost unknown phenomenon in Japan. This may relate to the education that Japanese children receive from an early age which emphasizes order and cleanliness, two qualities that are also the basic components of their national identity.

Although it is possible to construct living spaces that are adequate for the needs of the residents and are therefore valued, cities can only be protected from vandalism if residents respect one another. Social harmony and consideration for the environment are strongly connected. The key questions are: What is the meaning of the environment for the children and their parents who live, work or play there? Why is a specific environment either highly valued and protected, or treated with neglect and aggression?

The rapid expansion of drug trafficking in urban areas is yet another major cause of youth criminality in poor neighbourhoods. Adolescent boys living in *favelas* (Brazilian slums) or in housing developments in Western European cities often join highly organized local gangs (Valladares 1989). Street violence is a major health issue in many areas and accounts for a substantial proportion of injuries and medical emergencies. Alleviation of poverty and improvements in the urban environment would not solve these problems, but could well reduce them.

VIII. DISEASE OR IMPAIRED QUALITY OF LIFE

Child Mortality

During the past three decades, life expectancy has risen globally from 53 to 66 years, and from 69 to 75 years in the industrial countries of the North. Worldwide, the poor consistently have shorter lives. In Western Europe, sharp declines in birth rates have resulted in declining proportions of children in the overall population. Access to clean water and primary health care is the norm. Virtually all births are attended by health personnel and the maternal mortality rate stands at 24 per 100,000 live births. On average, 8.3 per cent of gross national product is spent on health care and two thirds of the population is covered by public health insurance. Regional differences do remain, as may be seen in Eastern European countries where poverty, inequality, unemployment and environmental degradation have increased as a result of the current political transition. While the opening up of the political and economic systems of the countries of Central and Eastern Europe has generated considerable hope for political freedom, economic prosperity and better living conditions throughout the region, this opportunity has also created structural problems, including child poverty (partly as a result of the pattern of social and economic development followed during the last 40 years). For instance, between 1978 and 1987, the share of urban poor among the overall poor increased from 48 to 70.7 per cent in Poland, and from 24.4 to 47.1 per cent in former Yugoslavia. In Hungary, there has been a marked shift towards an over-representation of young urban families with children in the population of the lowest income decile and among those living below the subsistence minimum (Sipos 1991). Furthermore, the Central and Eastern European countries slid several places in the overall ranking of countries by level of infant mortality rate (IMR) between 1960 and 1989. With the exception of former Yugoslavia, all Central and Eastern European countries stagnated or lost rank among the 131 nations both in terms of IMR and U5MR (under-five mortality rate) during this period. The most dramatic negative change was recorded for the former Soviet Union which dropped 21-22 places on the IMR list and 22 on the U5MR list and for Czechoslovakia which lost 13-15 places in IMR and 13 places in U5MR (ibid.).

Within the general context of marked improvements in mortality and morbidity, there has been an upsurge in the North of urban diseases of a more subtle nature. New health

problems, such as anorexia nervosa, bulimia, cancer, allergies and baffling nervous and physical complaints, are increasingly impairing the health of urban dwellers and may ultimately be as damaging or life-threatening as those which have been eradicated.

1. *Accidents.* According to a recent study of child (0-19) mortality in Sweden, infants accounted for more than one half of children's deaths, the 1-14 age group for approximately one fourth, and adolescents in the 15-19 age group for the remaining fourth (Köhler and Jakobsson 1991). During the past ten years, these figures have remained virtually constant.

Despite a sharp decline in the accident rate and a growing tendency for resulting injuries to be less serious, accidents are still the most frequent cause of child mortality and morbidity in Sweden. Accident victims account for an estimated 10 per cent of utilization of care services by children. Schoolchildren, particularly in the 13-15 age group, are the most accident-prone. A large proportion of accidents involving children in this age group occur at school, often in connection with sporting activities. However, traffic represents the largest danger, and this is true even though, on an international scale, Sweden has low traffic and other accident rates for children. These comparatively low rates have been attributed to an early and consistent commitment to preventive measures, undertaken jointly by different sectors of the community (ibid.).

Urban areas rarely provide a safe haven for children; inadequate play facilities and open areas mean that they too seldom have somewhere to play but on the streets. In developing countries in the South, traffic fatality rates are 20 times higher than in industrialized countries. Many accidents involving children are caused by poor road systems. The collapse of buildings is another frequent cause of accidents.

2. *AIDS.* AIDS and the entire spectrum of diseases associated with HIV infection have rapidly emerged as major global public health problems. On a broad social level, the enormous cost of caring for AIDS patients threatens to divert resources away from other health programmes; on an individual level, HIV infection has fast become the source of increasing stress and neurological problems worldwide. The serious psychological and emotional effects of AIDS on the family unit are often complicated by the social stigma and discrimination associated with this disease (Heagarty 1990). In addition, the majority of women and children with AIDS are poor, which means that problems of housing and food

as well as of access to medical care or social services are particularly pressing. Perhaps one of the most poignant tragedies in the South is represented by 'AIDS orphans', children branded with the stigma of their parents' death. Often extended families may not be available or willing to assume responsibility for these children.

3. *Suicide*. The desperation that may lead a young person to suicide does not derive so much from the problems of divorced parents or families besieged by multiple problems as it does from the pain bottled up within emotionally isolated families. Children who commit suicide are frequently lonely, depressed and lacking the support of significant adults. Very often a severe depression underlies a young person's attempt to end his or her life (Beskow, 1993). The psychological problems of youth in the North are complex and oppressive, often relating in still perplexing ways to new lifestyles.

There are signs that growing numbers of urban children experience a deep sense of helplessness. Their desire to feel wanted and important to society may be crushed by failing in some way to live up to their or others' expectations. This sense of failure can have devastating effects. An interesting parallel can again be drawn with Japan where adolescent suicide rates are high, in large part because adolescents find it difficult to accept failure. In developing countries in the South, high suicide rates have been found in urban areas characterized by overcrowding, a large proportion of people living alone, and a high frequency of alcoholism, drug dependence and criminality (Hasan 1977). Boys are generally considered much more at risk than girls of self-annihilating behaviour and, indeed, male suicide rates are considerably higher.

A British study comparing suicide trends over the periods 1941-50 and 1971-80 noted a marked increase in the suicide rates of 15 to 19 year-old boys and of 10 to 14 year-old girls (Hultén and Wasserman 1992). While the suicide rate in Norway in the past was very low, it has witnessed a fivefold increase for the 15-24 age group over the past two decades, placing it on a par with Sweden and Denmark. A Finnish survey showed a particularly high incidence of suicide among boys in the 15-19 age group. A study of Swedish suicide trends between 1974 and 1986 found that: (a) very few children under the age of 10 years committed suicide; (b) suicide rates (including both verified and suspected suicides) in the 10-29 age group did not change during the period, and were particularly high for males over 15 years; (c) after road accidents and cancer, suicide was the most common cause of death for boys

and young men in this age group; and (d) girls and young women tended to use more violent suicide methods in the 1980s than was the case in the 1970s (ibid.).

Another study associates suicide attempts among urban adolescent girls with a lack of social support, parental separation, less active and affectionate relationships with mother figures and increased undesirable life events. One useful direction for future research efforts would be to undertake a comparative analysis of these results with a study of a rural sample in order to identify specific urban dynamics relating to suicide (King et al. 1990).

New Child Morbidity

As mentioned in the Introduction to this paper, urban residence has long been considered a risk factor in mental morbidity. Potentially stressful factors at play for an extended period and from which there is little chance of escape are likely to have a bearing on mental morbidity.

Research carried out in industrialized countries in the North have emphasized that children, especially boys, living in urban areas are two to three times more likely to have behavioural problems than those in rural areas (Ekblad et al. 1991). A New Zealand study found that adolescents from larger population centres reported more stress from major life events than did control groups in less populated areas. Adolescents who had changed residence frequently were particularly at risk of mental health problems (McGee et al. 1991).

In the North, there is growing concern for what has been termed 'new morbidity', a new concept related to rather old problems. This umbrella term includes various complaints: developmental dysfunctions caused by psychosocial conditions, dyslexia (reading and writing difficulties), behavioural problems and psychosomatic symptoms. Children with disorders of this nature usually have a particularly difficult and complex family background.

Table 5 presents some results of a survey carried out in selected countries to examine significant behavioural aspects of three different age groups. It shows that more girls than boys have headaches, stomach aches and backaches and that they feel depressed, display irritability and feel nervous more often. In addition, more girls than boys overall take medication to ease the symptoms of these ailments. The degree to which young people experience these complaints and take medication for them appears to be linked to cultural definitions of disease. For example, Scotland, Wales and Canada, three countries with many

common cultural influences, tend to show similar trends in the reporting of cultural ailments. The study also found that young people who take serious risks with their health in one area typically, though not always, also take risks in others. This study affirms, as in other studies, the association between smoking, drinking, poor diet and infrequent physical activity. It also ascertained that health-risk behaviours are more likely to be found in young people who feel alienated from school because of low levels of achievement and among those who experience difficulties in relationships with their parents.

Psychiatric morbidity among Swedish children ranges between 5 and 25 per cent, rates that have remained unvaried for the past 25 years. Figures are lowest for rural areas and highest for urban areas. Child morbidity is more prevalent among boys, and in socially disadvantaged families characterized by low education levels, unstable employment, elevated mental and somatic morbidity, financial difficulties and poor housing. These Swedish child-psychiatric morbidity figures are in line with statistics from other countries in the North: Norway, 19.6 per cent; Canada, 18 per cent; New Zealand, 17.6 per cent; and Denmark, 16 per cent (Köhler and Jakobsson 1991). Another Swedish study suggests that one in ten 18 year-olds today has major mental, learning, social or family problems. Once again, most of these children come from families with low socio-economic status, and with living conditions that the welfare state has not managed to improve. Differences between the risk group and the control group were found to be already apparent by the age of ten (Sundelin and Thunström 1989).

Rutter (1981) concludes that it is not possible to pinpoint the mechanisms (or urban processes) which make living in an inner-city area rather than a rural area more deleterious to families, and through families to children. The critical factors, according to Rutter, are not poverty, low social status, overall population density, urbanization or industrialization, since these factors may also be present in areas with low morbidity rates. Although higher proportions of socially alienated and mentally disturbed people do tend to be found in inner cities, additional factors seem to be relevant in the development of mental disorders in children. Rutter concluded that it was possibly the overall stress of life in that setting that made children vulnerable to psychiatric disorders. In another study, Rutter and Quinton (1977) found that inner-city disorders were mediated through the home and the school; broader ecological influences bore relatively little importance.

Table 5: PHYSICAL AILMENTS AND MEDICATION OF 11, 13 AND 15 YEAR OLDS FROM SELECTED COUNTRIES

(Percentages)

	Austria		Canada		Finland		Hungary		Norway		Poland		Scotland		Sweden		Wales		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
<u>Headache</u> ¹																			
age 11	6	14	15	18	1	3	3	2	8	10	7	13	13	19	12	17	21	23	
age 13	6	14	12	25	1	3	2	5	6	12	6	13	16	22	10	15	13	24	
age 15	5	15	11	29	1	3	3	5	6	16	4	19	15	28	7	21	11	30	
<u>Stomach ache</u> ²																			
age 11	4	8	9	14	1	1	-	-	6	11	4	11	8	16	6	12	9	17	
age 13	3	8	5	17	1	1	-	-	3	11	4	11	7	16	4	11	5	16	
age 15	2	5	6	17	0	1	-	-	2	9	2	11	3	15	3	11	5	16	
<u>Backache</u> ³																			
age 11	3	3	8	8	1	2	4	5	3	4	2	3	4	5	-	-	5	8	
age 13	5	8	12	14	1	1	4	8	5	10	2	4	6	8	-	-	6	9	
age 15	8	8	12	16	2	3	6	14	10	13	2	5	9	10	-	-	8	13	
<u>Feeling low (depressed)</u> ⁴																			
age 11	3	5	10	11	2	3	12	14	4	8	2	6	11	13	-	-	10	13	
age 13	1	5	8	18	3	3	10	22	4	10	3	7	12	18	-	-	9	16	
age 15	2	4	9	22	4	4	18	33	5	10	4	14	10	24	-	-	9	22	
<u>Bad temper</u> ⁵																			
age 11	11	11	23	16	7	8	9	10	10	15	11	14	20	24	15	14	21	25	
age 13	8	10	21	22	6	7	14	17	12	20	13	20	26	26	13	19	19	27	
age 15	11	12	20	23	4	8	19	31	11	17	12	26	22	28	13	20	17	26	

	Austria		Canada		Finland		Hungary		Norway		Poland		Scotland		Sweden		Wales	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
<u>Feeling nervous</u> ⁶	9	14	14	15	6	4	15	19	3	6	17	24	13	15	6	11	10	16
	8	11	11	19	4	3	19	27	2	6	18	30	11	18	6	6	8	12
	10	11	13	21	4	4	24	42	2	4	20	40	11	17	6	10	8	15
<u>Difficulty getting to sleep</u> ⁷	10	17	15	18	9	6	9	10	10	12	10	11	19	24	16	15	14	18
	11	14	14	17	4	6	7	13	6	10	7	8	15	15	11	10	11	15
	11	11	13	20	5	5	9	16	6	11	5	11	11	19	12	13	10	18
<u>Feeling dizzy</u> ⁸	3	6	6	7	1	3	4	7	4	4	2	5	8	10	5	5	8	9
	4	10	7	12	1	3	3	10	2	6	3	4	10	10	3	7	7	9
	4	8	6	10	4	3	4	13	4	6	2	6	8	9	5	8	6	9

Source: Alan J.C. King and Beverly Coles (1992).

- ¹ Percentage of students who have had headaches "often" in the last six months
- ² Percentage of students who have had stomach aches "often" in the last six months
- ³ Percentage of students who have had backaches "often" in the last six months
- ⁴ Percentage of students who have felt depressed "often" in the last six months
- ⁵ Percentage of students who have been bad tempered "often" in the last six months
- ⁶ Percentage of students who have felt nervous "often" in the last six months
- ⁷ Percentage of students who have had difficulty sleeping "often" in the last six months
- ⁸ Percentage of students who have felt dizzy "often" in the last six months

Children and young people in industrialized countries in the North are increasingly affected by eating disorders, which in extreme cases can lead to anorexia nervosa (abstinence from food) or its opposite, bulimia (excessive eating) or both. Although exact figures are not known, these disorders may in some cases prove fatal. The majority of children affected are girls, and there are no apparent distinctions on the basis of social class among sufferers. Most researchers agree that diverse factors may underlie the development of anorexia nervosa and that no single basic cause can account for all cases. These disorders may be related to cultural norms and ideas (Hellmark and Sachs 1993) and are increasingly seen as a problem in the North.

A population-based study of Swedish urban teenagers conducted by Råstam (1990) concluded that anorexia nervosa is a severe psychiatric disorder common to middle adolescence (15 to 18 age group); the problem was found to be associated with depressive symptoms, but not preceded by them. A survey of adolescents up to 18 years of age in Göteborg, a southern city of Sweden, found that 1.1 per cent of girls and 0.1 per cent of boys were affected. Premorbid obsessive-compulsive problems were extremely common among young sufferers. Intrinsic factors appeared to be important in the pathogenetic chain of events, whereas problems relating to family interaction, generally suspected of being significant in the development of this disorder, were found to be less common among families of sufferers than in other families (*ibid.*).

Children affected by bulimia eat too often and too much, and their diet consists mainly of fat-rich foods, especially sweets, potato chips and other snack foods. No studies are available as yet to determine whether urban children are more affected than non-urban children by bulimia. It is estimated that between 2 and 3 per cent of young Swedish girls suffer from this disorder (Ottosson 1988).

Very little research has been carried out to date on the extent to which new forms of morbidity, beyond those relating to pollution and the physical or psychological environment which have already been discussed, are emerging among young urban dwellers in the South. Given the rapid patterns of urbanization, it is likely that developmental and food disorders are also becoming increasingly present there at certain socio-economic levels.

IX. CONCLUSIONS

Monitoring Intervention Strategies

The public has become more aware of the limitations of current intervention strategies intended to lessen the effects of urban stress on children. For the most part, they are ad hoc responses rather than preventive approaches which address the root causes of these problems. More knowledge is needed about how children perceive their situations and about the positive adjustment many make to adverse situations. A new humanistic perspective of urban living and quality of life is also needed. Because of the seriousness and extent of the problems affecting children and families today, innovative social policies and programmes that go beyond bureaucratic solutions must be found (Table 6).

More emphasis should be placed on local, people-oriented development that preserves and strengthens the supports available to children and thereby improves their quality of life. Intervention strategies must not only help the poor to organize themselves, but also educate the rich and the powerful. Projects should not be seen as models, as each project has relevance to a specific district, city and nation. Therefore, more than as illustrations of what has actually been done, projects should serve to show how, and by whom, new solutions are sought.

Policies must be reoriented and policy makers trained in new approaches. Instead of seeking remedies for children when they are already in trouble, policy makers must guide at-risk families and communities and help them to raise healthy children. Often social, economic and urban planning policies are at the root of urban environmental problems: they reinforce disparities and inequalities among different segments of the population, involve high energy consumption and contribute to pollution.

Healthy behaviour should be encouraged. One concrete example could be for municipalities to build up extensive bicycle path networks, which would greatly enhance the possibility of regular exercise for both children and adults. Obvious environmental benefits would also ensue, including reduced air pollution and noise levels. However, before 'unhealthy' behaviour can be effectively discouraged, improved understanding is needed of what children, adolescents and the significant adults in their lives see as 'healthy' behaviour.

Table 6: A NEW HUMANISTIC PERSPECTIVE

Actual Solutions	Innovative and Holistic Solutions
Are fragmented	Should be integrated, i.e. interdisciplinary, intersectorial evaluation of actions
Are imposed from above	Should be participatory, resulting from the interaction of decision makers, planners, caregivers and the population
Are focused on symptoms	Should be focused on causes
Have an exaggerated reliance on experts	Should have more respect for traditional skills and experience, more reliance on people's organizations, and more involvement at the grass-roots level
Have as priorities investment in buildings and equipment	Should have as priorities the development of human resources

Source: Levi and Ekblad, 1990.

For some years, Uddenberg (1993) has regularly surveyed a representative sample of 17-18 year-old Swedish students on their health ideal. The results show that these students consider being healthy as the most important value in their life. Their concept of health appears to be more related to possibilities than to the absence of disease; it is more psychosocial than purely physical. In short, health is seen as a means to acquire a good life, rather than an aim in itself. Interestingly, no differences were found in responses between students living in rural and urban areas.

The World Health Organization has carried out pilot projects in a number of countries to explore the concepts adolescents have of healthy behaviour and to devise ways of encouraging healthy behaviour and deterring health risks among young people. Strategies for the promotion of individual and public health have been developed in the following areas: physical activity and fitness; nutrition; tobacco, alcohol and other drugs including inhalants; family planning; mental health; and self-destructive and antisocial behaviour. Educational programmes based on accurate information about healthy lifestyles are necessary, but so too are opportunities for young people to develop the skills needed for positive relationships with peers and parents. Perhaps most important of all, it is vital that schools become more supportive of young people's academic, social and recreational needs and

devote increased attention to discouraging the formation of marginalized groups who are excluded from participating fully (King and Coles 1992).

Development, environment and population are three inseparable elements. Developmental policies have a clear impact on the economic prosperity and vitality of the city. Environmental problems make cities less habitable. As a result, the physical and psychosocial health of individuals may be impaired; the extent of the damage depends on the type, degree and duration of exposure together with several protective and promoting characteristics, such as the individual's social competence, coping skills and access to – and utilization of – social support.

The urban poor can help themselves and each other to make their homes and surroundings safer and healthier for their children. Indeed, many families make heroic efforts to do this. Often, however, these efforts are thwarted by lack of knowledge about appropriate health behaviours as well as about appropriate actions they could take to improve some of the environmental conditions that hinder their efforts. The right information in the hands of individuals, families and communities could significantly increase child survival and promote child health.

Revitalizing the City

At present, urban renewal policies often lead to rent increases, forcing low-income and marginal groups to migrate to less desirable areas. As a result of these population shifts, the urban structure becomes more monofunctional and urban living more monotonous. A more physically cohesive and socially supportive urban environment may generate grass-roots initiatives.

The solution from a psychological point of view is to humanize both old and new cities. Structures must be provided that are functional and self-sufficient. Neighbourhoods, for example, should have easy access to parks, schools and youth clubs so that children have sufficient opportunities to develop personal relations. According to Deelstra and de Waart (1989), a revitalized city would be characterized as follows:

- Good cities are liveable places where people like to grow old, where children can live and learn, where nature is present in its simple and complex forms, and where many activities take place contemporaneously, that is, where there is a multiple use of space.

- Good cities are safe; pedestrians and bicycles are given priority, women, children and the handicapped can get around easily.
- Good cities are healthy; they have clean air and water, and buildings are pleasant to stay in, materials are durable and give 'patina' to the city.
- Good cities combine centralized infrastructure with decentralized systems; management of water, material and energy flows is optimal and attuned to natural life-cycles.
- Good cities offer valuable experiences; activities and movement are visible, enhancing the emotional, behavioural and cognitive growth of urban dwellers and facilitating their involvement in the life of the city and its environment.
- Good cities have a past and a future, identifiable in their constructed forms as well as in social and cultural lifestyles.

Political Commitment

The United Nations Convention on the Rights of the Child defines the survival, development, protection and participation rights of children; it sets standards for their health, education and protection against economic exploitation, physical or sexual abuse, and the degradations of war. As nations begin to enact the Convention's provisions into national law, and as the media and public become more concerned about its implementation, the Convention may gradually become the standard below which any civilized nation, rich or poor, will be ashamed to fall (United Nations, 1989, 1990). A heightened political commitment is needed if the Convention's goals are to be attained.

To meet these goals in urban areas, healthy cities must be developed. While it is true that more knowledge is needed, this is not the critical constraint to the development of healthy cities. Rather, the critical requirements are political will, accurate integration of knowledge, appropriate resources, suitable institutional structures and processes, and feasible strategies to involve people at the grass-roots level and to support their efforts to improve their own situations. The willingness of health authorities to collaborate in a humanistic approach towards improving the environment – and their competence to do so – is similarly a critical requirement. Moreover, national governments will need to build up the capacity and competence of local governments to ensure improvements in the housing and living

environment, including basic service provision. Finally, past experience has shown that children's problems can best be solved within their community, meaning that successful strategies to improve the quality of life for children must be firmly grounded in community initiatives and community support.

BIBLIOGRAPHY

- Andersson, E.N., Jr. (1972), "Some Chinese Methods of Dealing with Crowding". *Urban Anthropology*, no. 1, pp. 141-150.
- Antonovsky, A. (1987), *Unraveling the Mystery of Health. How People Manage Stress and Stay Well*. London: Jossey-Bass Publishers.
- _____ (1979), *Health, Stress and Coping*. San Francisco, London: Jossey-Bass Publishers.
- Atterstam, I. (1992), "Större schizofremirisk for stadsbarn". *Svenska Dagbladet*, p. 5.
- Beiser R. (1990), "Migration: Opportunity or Mental Health Risk". *Triangle*, no. 29 (2/3), pp. 83-90.
- Beskow, J. (1993), "Självmondsbeteende kan vara konstruktivt". *Socialmedicinsk tidskrift*, pp. 132-135.
- Björklid, P. (1982), *Children's Outdoor Environment*. Stockholm: Stockholm Institute of Education. Department of Education Research. Studies in Education and Psychology, p. 11.
- Blanc, C.S. and P. Chiozzi (1992), "Children of Migrants and Ethnic Minorities: An Overview and Conceptual Framework". *Innocenti Occasional Papers, Urban Child Series*, no. 5. Florence: UNICEF International Child Development Centre.
- Blanc, C.S. with Contributors (1994), *Urban Children in Distress: Global Predicaments and Innovative Strategies*. New York: Gordon and Breach.
- Bohman, M. (1978), "Some Genetic Aspects of Alcoholism and Criminality". *Archives of General Psychiatry*, no. 35, pp. 269-276.
- Borgenhammar, E. (1990), "Quality of Management in the Health Care System". *Quality Assurance in Health Care*, no. 2(3-4), pp. 297-307.
- Breslau, N., C.D. Glenn, P. Andreski and E. Peterson (1991), "Traumatic Events and Posttraumatic Stress Disorder in an Urban Population of Young Adults". *Archives of General Psychiatry*, no. 48 (March), pp. 216-222.
- Brunswick, A.F. and P.A. Messeri (1986), "Pathways to Heroin Abstinence: A Longitudinal Study of Urban Black Youth". *Advances in Alcohol and Substance Abuse*, no. 5(3), pp. 111-135.
- Cairncross, S. (1990), "Water Supply and the Urban Poor", in J.E. Hardoy, S. Cairncross and D. Satterthwaite (eds), *The Poor Die Young. Housing and Health in the Third World Cities*. London: Earthscan Publications Limited, pp. 109-126.

- Caplan, G. (1981), "Mastery of Stress. Psychological Aspects". *American Journal of Psychiatry*, no. 4, pp. 413-420.
- Cassel, J.C. (1971), "Health Consequences of Population Density and Crowding", in U.S. National Academy of Science (ed.), *Rapid Population Growth*, vol. 1. Baltimore: Johns Hopkins University Press.
- Cederblad, M. (1990), "Rapid Social Transition, Stress and Mental Health in Developing Countries", in E. Nordberg and D. Finer (eds), *Society, Environment and Health in Low-Income Countries*, Karolinska Institutet, Department of International Health Care Research, pp. 43-54.
- Celecia, J. (1989), "Unesco and Science: From Ideals and Ideas to Actions", in T. Deelstra, H.M. van Emden, W.H. de Hoop and R.H.G. Jongman (eds), *The Resourceful City: Management Approaches to Efficient Cities Fit to Live In: Proceedings of the MAB-11 Workshop, September 13-16, 1989*. Amsterdam: Royal Netherlands Academy of Arts and Sciences, pp. 3-12.
- Churchman, A. (1991), "A Differentiated Perspective on Urban Quality of Life: Children, Women and the Elderly". Paper presented at the International Pluridisciplinary UNESCO-MAB Symposium on Perception and Evaluation of Urban Environment Quality: Towards Integrated Approaches in the European Context. Rome, Italy, November 1991.
- Clifford, W. (1976), *Crime Control in Japan*. Lexington: Lexington Books.
- Connell, H.M., L. Irvine, and J. Rodney (1982), "The Prevalence of Psychiatric Disorder in Rural School Children". *Australian and New Zealand Journal of Psychiatry*, no. 16, pp. 43-46.
- Cullberg, J., C.G. Stefansson and E. Wennerström (1981), "Psychiatry in Young Low Status Dwelling Areas". *Psychiatry and Social Science*, no. 1(2), pp. 117-123.
- Dahlin, L. and M. Cederblad (1986), "Salutogenes - faktorer som befrämjar psykisk hälsa hos individer som växt upp i högriskmiljö för psykisk och social störning". *Psykisk Hälsa*, no. 1, pp. 14-19.
- Deelstra, T. and J.P. de Waart (1989), "The Concept of Resourceful Cities Fit to Live In: Outline of Problems, Points of Discussion", in T. Deelstra, H.M. van Emden, W.H. de Hod R.H.G. Jongman (eds), *The Resourceful City: Management Approaches to Efficient Cities Fit to Live In: Proceedings of the Mab-11 Workshop, September 13-16, 1989*. Amsterdam: Royal Netherlands Academy of Arts and Sciences, pp. 13-20.
- Dembo, R., L. Pilaro, W. Burgos, D.C. Des Jarlais and J. Schmeidler (1979), "Self-Concept and Drug Involvement among Urban Junior High School Youths". *International Journal of the Addictions*, no. 14(8), pp. 1125-1144.

- Donovan, J.E., R. Jessor and F.M. Costa (1991), "Adolescent Health Behavior and Conventionality-Unconventionality: An Extension of Problem-behavior Theory". *Health Psychology*, no.10(1), pp. 52-61.
- Ekblad, S. (1991), "Stressors and Resources among Children and Mothers in Latin America. An Overview of their Living Conditions and Quality of Life in Urban Slum Areas, and Recommendations for Interventions and Research". Paper prepared for the Swedish NGO, Star of Hope International for the workshop-seminar, "The Urban Environment, Life Conditions, and Human Needs in Latin America: Their Dynamics and Health and Psychosocial Implications - A Call for Action", Montevideo, Uruguay, November 12-15, 1990.
- _____ (1990), "Family Stress and Mental Health during Rapid Urbanization", in E. Nordberg and D. Finer (eds), *Society, Environment and Health in Low-income Countries*. Stockholm: Karolinska Institute, pp. 113-127.
- _____ (1984), "Children's Thoughts and Attitudes in China and Sweden: Impacts of a Restrictive Versus a Permissive Environment". *Acta Psychiatrica Scandinavica*, no. 70, 578-590.
- Ekblad, S., Chen Changhui, Li Shuran, Huang Yueqin, Li Ge, Li Yongton, Zhang Weixi, Liu Mian, Xu Liang, Wang Qin, Shan Shuwen, Ran Wei, Zhang Suzhen (1991). *Stressors, Chinese City Dwellings and Quality of Life*. Swedish Council for Building Research, Document 12.
- Ekblad, S. and F. Werne (1989), "Health and Well-being in European Cities: An Appraisal and Outlook on Possible Future Developments". Contribution to the MAB-11 workshop "The Resourceful City: Management Approaches to Efficient Cities Fit to Live In", September 13-16, 1989, Amsterdam, The Netherlands.
- Erikson, E.H. (1968), *Identity: Youth and Crisis*. New York: Norton.
- Evans, G.W. (ed.) (1984), *Environmental Stress*. Cambridge: Cambridge University Press.
- Farrell, M. and J. Strang (1991), "Substance Use and Misuse in Childhood and Adolescence", *The Journal of Child Psychology and Psychiatry and Allied Disciplines*, no. 32(1), pp. 109-128.
- Freeman, H.L. (1988), "Psychiatric Aspects of Environmental Stress". *International Journal of Mental Health*, no. 17(3), pp. 13-23.
- Frick, D., H-W. Hoefert, H. Legewie, R. Mackensen and K. Silbereisen (eds) (1986), *The Quality Of Urban Life: Social, Psychological and Physical Conditions*. Berlin and New York: Walter de Gruyter.
- Garson, J-P. (1992), "International Migration: Facts, Figures, Policies". *The OECD Observer* June/July: 176: 18-24.

- Garmezy, N. (1983), "Stressors of Childhood", in N. Garmezy and M. Rutter (eds), *Stress, Coping, and Development in Children*. New York: McGraw-Hill.
- Goren, A.I. (1989), "Environmental Health in Towns in Israel: Tools for Improvement". Contribution to the MAB-11 Workshop, "The Resourceful City: Management Approaches to Efficient Cities to Live In", September 13-16, 1989, Amsterdam, Netherlands.
- Gross, J., and A. McCaul (1990), "A Comparison of Drug Use and Adjustment in Urban Adolescent Children of Substance Abusers". *The International Journal of the Addictions*, no. 25(4A), pp. 495-511.
- Hardoy, J.E. (1990), "Children and Families in Urban Poverty". *Innocenti Update*, no. 6. Florence: UNICEF International Child Development Centre.
- Hasan, K.Z. (1977), "Effects on Child Mental Health of Psychosocial Change in Developing Countries". *International Journal of Mental Health*, no. 6(3), pp. 49-57.
- Hellmark, B. and L. Sachs (1993), "Den talande kroppen. Ett antropologiskt perspektiv på anorexi and bulimi". *Socialmedicinskt tidskrift*, pp. 118-131.
- Heagarty, M.C. (1990), "Psychological and Social Consequences". *World Health*, November-December, pp. 18-19.
- Herbert, M. (1989), *Discipline: A Positive Guide for Parents*. Oxford: Basil Blackwell Ltd.
- Hjärne, L. (1985), "Att bygga för gemenskap, en myt eller...? En kunskapsöversikt om sociala nätverk i boendemiljön", in *Forskare om samhälle, välfärd och boende*, no. BFR T5, pp. 135-157.
- Höllinger, F. and M. Haller (1990), "Kinship and Social Networks in Modern Societies: A Cross-cultural Comparison among Seven Nations". *European Sociological Review*, no. 6(2), pp. 103-124.
- Hultén, A. and D. Wasserman (1992), "Suicide among Young People Aged 10-29 in Sweden". *Scandinavian Journal of Social Medicine*, no. 2, pp. 65-72.
- Ierodiakonou, C.S. (1988), "Adolescents' Mental Health and the Greek Family: Preventive Aspects". *Journal of Adolescence*, no. 11, pp. 11-29.
- Jacobi, P. (1990), "Habitat and Health in the Municipality of Sao Paulo". *Environment and Urbanization*, no. 2, pp. 33-45.
- Kagan, A.R. and L. Levi (1975), "Health and Environment - Psychosocial Stimuli: A Review", in L. Levi (ed.), *Society, Stress and Disease - Childhood and Adolescence*. London: Oxford University Press, pp. 241-260.
- Kellett, J. (1989), "Health and Housing". *Journal of Psychosomatic Research*, no. 3, pp. 255-268.

- King, A.J.C. and Coles, B. (1992), *The Health of Canada's Youth. Views and Behaviours of 11-, 13- and 15-year olds from 11 countries*. The Canadian Minister of National Health and Welfare, Canada.
- King, C.A., A. Raskin, C. Gdowski, M. Butkus and L. Opiari (1990), "Psychosocial Factors Associated with Urban Adolescent Female Suicide Attempts". *Journal of American Academy of Child and Adolescent Psychiatry*, no. 29(2), pp. 289-294.
- Köhler, L and G. Jakobsson (1991), *Children's Health in Sweden: An Overview for the 1991 Public Health Report*. Stockholm: Swedish National Board of Health and Welfare.
- Labouvie, E.W. (1986), "Alcohol and Marihuana Use in Relation to Adolescent Stress". *International Journal of the Addictions* , no. 21(3), pp. 333-345.
- Landers, C. and C. Kagitcibasi (1990), *Measuring the Psychosocial Development of Young Children*, Summary report of the Innocenti technical workshop, "Measuring the Psychosocial Development of Young Children, 7-10 May 1990, UNICEF International Child Development Centre, Florence, Italy.
- Levi, L. and L. Andersson (1974), *Population, Environment and Quality of Life*. A contribution to the United Nations World Population Conference. Royal Ministry for Foreign Affairs. Stockholm: Göteborgs Offsettryckeri AB.
- Levi, L. and S. Ekblad (1990), "Urban Environment, Life Conditions and Human Needs in Latin America". Paper prepared for the conference "Urban Environment, Life Conditions and Human Needs in Latin America: Their Dynamics and Psychosocial and Health Implications. A Call for Action", Montevideo, Uruguay, November 12-15, 1990.
- Levine, R.V., K. Miyake and M. Lee (1962), *Autobiography of a Mexican Family*. Penguin Books in Association with Secker & Warburg.
- MacDonald, D.R. and S.B. Blume (1986), "Children of Alcoholics". *American Journal of Diseases of Children*, no. 140, pp. 750-754.
- Mackensen, R. (1986), "Introduction Part B: Social Networks", in D. Frick, H-W Hoefert, H. Legewie, R. Mackensen and R.K. Silbereisen (eds), *The Quality of Urban Life: Social, Psychological and Physical Conditions*, Berlin and New York: Walter de Gruyter, pp. 49-54.
- Manciaux, M. (1981), "Children of Disadvantaged Families - Contemporary Studies in Western Europe: The Relevance to Developing Countries". Paper prepared as a background document for the "Symposium on Development and the Reduction of Inequalities in Different Socio-cultural Contexts regarding Children and Family Life-styles", organized jointly by UNESCO, Paris and University of Qatar, held in Doha, Qatar from 9-12 May, 1981.

- Marsella, A.J. (1990), "Urbanization and Mental Disorders: An Overview of Theory and Research, and Recommendations for Interventions and Research". Paper dated November 26, 1990, prepared under the auspices of the Psychosocial Program of the World Health Organization, Geneva, Switzerland.
- Maton, K.I. (1990), "Meaningful Involvement in Instrumental Activity and Well-being: Studies of Older Adolescents and At Risk Urban Teenagers". *American Journal of Community Psychology*, no. 18(2), pp. 297-320.
- McGee, R., W. Stanton and M. Feehan (1991), "Big Cities, Small Towns and Adolescent Mental Health in New Zealand". *Australian and New Zealand Journal of Psychiatry*, no. 25(3), pp. 338-342.
- Michelson, W. (1988), *Consulting with Children for Urban Planning and Management*, Collected Reports, Volume 2 of the International Experts' meeting on ecological approaches to urban planning sponsored by UNESCO-MAB and UNEP in cooperation with the USSR Commission for UNESCO and the USSR Commission for UNEP, 24-30 September, 1984 Suzdal, former USSR. Moscow: Centre of International Projects of the USSR State Committee for Science and Technology.
- Mitchell, R.E. (1971), "Some Social Implications of High Density Housing". *American Sociological Review*, no. 36, pp. 18-29.
- Mussen, P.H. (ed.) (1983), *Handbook of Child Psychology* (4th ed.). New York: John Wiley and Sons.
- Myers, R.G. and R. Hertenberg (1987), "The Eleven Who Survive: Toward a Reexamination of Early Childhood Development Program Options and Costs". *The World Bank Report*, no. 69.
- Neiman, L. (1988), "A Critical Review of Resiliency Literature and its Relevance to Homeless Children". *Children's Environmental Quarterly*, no. 1, pp. 17-25.
- Nordström, M.L., Cnattingius, S. and Haglund, B. (1993), "Social Differences in Swedish Infant Mortality by Cause of Death, 1983 to 1986". *American Journal of Public Health*, vol. 83, no. 1, pp. 26-30.
- O'Conghaile, W. (1989), "The Improvement of Living Conditions in Urban Areas". Contribution to the MAB-11 workshop, "The Resourceful City: Management Approaches to Efficient Cities Fit to Live In", September 13-16, 1989, Amsterdam, The Netherlands.
- Oda, M., K. Taniguchi, Wen Mei-Ling and M. Higurashi (1989), "Effects of High-rise Living on Physical and Mental Development of Children". *Journal of Human Ecology*, no. 18, pp. 231-235.
- Omer, M.B.A. (1990), "Child Health in the Spontaneous Settlements around Khartoum". *Environment and Urbanization*, no. 2, pp. 65-70.

- Orth-Gomer, K. (1988), *Sociala relationer och samlevnad. Betydelsen för bibehållande av psykisk hälsa*. Stockholm. PM 28, pp. 44-58.
- Ottosson, J.O. (1988), *Psykiatri*. (3rd. ed.). Stockholm: Almqvist & Wiksell, Nordstedts Foilag.
- Pilisuk, M., and C. Froland (1978), "Kinship, Social Networks, Social Support and Health". *Social Science & Medicine*, no. 12B, pp. 273-280.
- Queloz, N. (1991), "Introduction: Urban Process and its Role in Strengthening Social Disadvantages, Inequalities and Exclusion", in W.L.L. Parry-Jones and N. Queloz, *Mental Health and Deviance in Inner Cities*. University of Naples, World Health Organization/Division of Mental Health and United Nations Interregional Crime and Justice, pp. 31-36.
- Quinton, D. (1988), "Urbanism and Child Mental Health. *Journal of Child Psychology and Psychiatry*, no. 29, pages 11-20.
- Rosengren, K.E. and S. Windhall (1972), "Mass Media Consumption as a Functional Alternative", in D. McQuail (ed.), *Sociology of Mass Communication*. Harmondsworth: Penguin.
- Rutter, M.L. (1981), "The City and the Child". *American Journal of Orthopsychiatry*, no. 51, pp. 610-625.
- _____ (1979), *Changing Youth in a Changing Society*. London: Nuffield Provincial Hospitals Trust.
- _____ (1978), "Early Sources of Security and Competence", in J. Brunner and A. Garton (eds), *Human Growth and Development*. New York: Oxford University Press.
- Rutter, M.L., B. Maughan, P. Mortimore, J. Ouston and A. Smith (1979), *Fifteen Thousand Hours: Secondary Schools and their Effects on Children*. London: Open Books; Cambridge, Mass.: Harvard University Press.
- Rutter, M.L. and D. Quinton (1977), "Psychiatric Disorder - Ecological Factors and Concepts of Causation", in H. McGurk (ed.), *Ecological Factors in Human Development*. Amsterdam: North Holland.
- Råstam, M. (1990), *Anorexia Nervosa in Swedish Urban Teenagers*. Dissertation, University of Göteborg, Sweden.
- Sadik, N. (1991), *The State of World Population 1990*. New York: United Nations Population Fund.
- Sandén, T. (1983), *TV och läsförståelse*. Faculty of Education, Åbo Akademi, Finland. Report no. 13.

- Saraceno, C. (1992), "Trends in the Structure and Stability of the Family from 1950 to the Present: The Impact on Child Welfare". *Innocenti Occasional Papers, Economic Policy Series*, no. 27. Florence: UNICEF International Child Development Centre.
- Schneller, R. (1988), "Video Watching and its Societal Functions for Small-town Adolescents in Israel". *Youth and Society*, no.19(4), pp. 441-459.
- Selye, H. (1956), *The Stress of Life*. New York: McGraw Hill
- _____(1974), *Stress without Distress*. Philadelphia: Lippincott.
- Shiffman, S. (1985), *Coping and Substance Use*. City in Florida: Academic Press.
- Sinha, D.P. (1991), "Diet in the Cities". *World Health*, July-August 1991, pp. 28-29.
- Sipos, S. (1991), "Current and Structural Problems Affecting Children in Central and Eastern Europe", in G.A. Cornia and S. Sipos (eds), *Children and the Transition to the Market Economy. Safety Nets and Social Policies in Central and Eastern Europe*. United Kingdom: Avebury, Gower Publishing Group.
- Smedby, B. (1983), "Hur kan uppgifter om vårdkonsumtion belysa barns hälsa?" *Socialmedicinsk tidskrift*, no. 60, pp. 229-233.
- Sundelin, C., and M. Thunström (1989), *Barnhälsoprofil - En analys av hälsoläget bland barn och ungdom 0-19 år i Uppsala län*. Rapportserie. Samhällsmedicinska sektionen, landstingets kansli i Uppsala län.
- Snyder, S. (1991), "Movies and Juvenile Delinquency: An Overview". *Adolescence*, no. 26 (101), Spring, pp. 121-132.
- Tanner, J.M. (1986), "Growth as a Mirror of the Conditions of Society: Secular Trends and Class Distinctions", in A. Demirjian and M. Brault Dubuc (eds), *Human Growth: A Multidisciplinary Review*. London and Philadelphia: Taylor and Francis.
- Thomas, A. and S. Chess (1977), *Temperament and Development*. New York: Brunner-Mazel.
- Tolone, W. and C.R. Tieman (1990), "Drugs, Delinquency and 'Nerds': Are Loners Deviant?". *Journal of Education*, 20 February, pp. 153-62.
- Uddenberg, N. (1993), "Hälsans diktatur? - varför vill svenska ungdomar vara friska?". *Socialmedicinsk tidskrift*, 2-3, pp. 103-106.
- UNICEF (1991), *The State of the World's Children 1990*. New York: Oxford University Press.
- UNDP (1991), *Human Development Report*. New York, Oxford, Oxford University Press for the United Nations Development Programme.

- United Nations (1990), *World Declaration on the Survival, Protection and Development of Children and Plan of Action for Implementing the World Declaration on the Survival, Protection and Development of Children in the 1990s*, 30 September, 1990, New York: United Nations.
- _____ (1989), *Adoption of a Convention on the Rights of the Child*. No.A/44/736, 1989. New York: United Nations.
- Wahren, C. (1990), "Population-Environment-Development: An Inseparable Troika". Paper prepared for the Swedish Medical Association's Conference, "Population - Who's in Control?", Stockholm, November 1, 1990.
- Valladares, L. (1989), "Family and Child Labour in the Favela". Paper presented at the International Symposium on Third World Urbanization, Swedish Council for Research in Humanities and Social Sciences, Stockholm, June, 1989.
- van der Kamp, J. (1989), "Human Ecology as a Resource for a Healthy Human Ecosystem". Contribution to the MAB-11 workshop "The Resourceful City: Management Approaches to Efficient Cities Fit to Live In", September 13-26, 1989, Amsterdam, The Netherlands.
- von Knorring, A-L (1991), "Annotation: Children of Alcoholics". *Journal of Child Psychology and Psychiatry*, no. 32(3), pp. 411-421.
- Warr, P., M. Banks, PH. och Ullah (1985), "The Experience of Unemployment among Black and White Urban Teenagers". *British Journal of Psychology*, no.76, pp. 75-87.
- Wedmore, K. and H.L. Freeman (1985), "Social Pathology and Urban Overgrowth", in H.L. Freeman (ed.), *Mental Health and the Environment*, London: Churchill Livingstone, pp. 293-326.
- Weisz, J.R., S. Suwanlert, W. Chaiyasit, B. Weiss and E.W. Jackson (1991), "Adult Attitudes toward Over- and Under-Controlled Child Problems: Urban and Rural Parents and Teachers from Thailand and the United States. *Journal of Child Psychology and Psychiatry*, no. 32(4), pp. 645-654.
- Werner, E. (1989), "High-risk Children in Young Adulthood: A Longitudinal Study from Birth to 32 Years". *American Journal of Orthopsychiatry*, no. 59, pp. 72-81.
- _____ (1986), "Resilient Offspring of Alcoholics: A Longitudinal Study from Birth to Age 18". *Journal of Studies of Alcohol*, no. 47, pp. 34-40.
- Werner, E. and Smith, R. (1982), *Vulnerable but Invincible: A Study of Resilient Children and Youth*. New York: McGraw-Hill.
- Wills, T.A. (1986), "Stress and Coping in Early Adolescence: Relationships to Substance Use in Urban School Samples". *Health Psychology*, no. 5(6), pp. 503-529.

WHO (1990a), *WHO's Activities in the Field of Child and Adolescent Mental Health and Psychosocial Development*. Geneva: World Health Organization.

WHO (1990b), *Child Care Facility Schedule (with User's Manual)*. Geneva: World Health Organization, Division of Mental Health.

_____ (1988), *Urbanization and its Implications for Child Health: Potential for Action*. Geneva: World Health Organization.

_____ (1987), "Child Survival In or Near Cities: Interventions for a Healthier Environment", prepared under the joint sponsorship of the United Nations Environment Programme and WHO, October 1987. Mimeo.

Wyman, P.A., E.L. Cowen, W.C. Work and G.R. Parker (1991), "Developmental and Family Milieu Correlates of Resilience in Urban Children Who Have Experienced Major Life Stress". *American Journal of Community Psychology*, no. 19(3), pp. 405-426.

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International Child Development Centre

Piazza S.S. Annunziata, 12

50122 Florence, Italy

Tel. 3955-234-5258 · Fax 3955-244817

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