

Development's 'downside': social and psychological pathology in countries undergoing social change*



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Abstract

Emphasis on the decline in mortality related to infectious disease, the improvement in child survival and the extension in longevity creates an optimistic view of the effects on health of social change. In contrast, attention to behavioural and social problems apparently stemming from current global social transformations leads to a more negative assessment. Specific historical processes shape local worlds of experience so as to yield complex patterns of social change with multiple outcomes. Study should be directed at the specific mediating social and moral processes that yield negative mental-health outcomes in order to develop international mental-health policy to guide prevention, and to control the dangerously destructive effects of specific social transformations, planned as well as unplanned.

In a recent paper, Roemer and Roemer (1990) assert that economic development has brought about substantial improvements in health status in the developing world. They attribute declines in infant mortality and increases in life expectancy to decolonization, industrialization, urbanization, increased gross domestic product, and gains in education and the status of women. They also cite technology transfer, international trade and the development of a system of national health as having important salutary effects on health. This optimistic voice is not uncommon among the chorus of development planners and international agencies.

Indeed, the idea of 'development', though considerably refined from the cruder, erstwhile notion of 'modernization' still presupposes the Enlightenment program of cumulative and progressive improvement under the rule of technical rationality. Change is projected as positive in economic and virtually all social categories. Poor countries are to become richer. Agricultural and industrial production is to increase, as is the production of consumer goods, houses and jobs. Life is to become longer, healthier and better. In his masterful history, *Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance*, Adas (1989) shows that such an idea of development through science and technology has been carried by generations of Western 'experts' to Asia and Africa. In the past decades, under the influence of the professional culture of international

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development agencies, indigenous modernizers have clothed their programs of reform in the same bright costume of optimism and progress.

Without casting doubt on the real gains cited, we wish to bring to light the 'downside' of development – the social and behavioural pathologies that afflict the peoples of developing (and developed) countries, some of which are main effects of the changes resulting from development schemes. Citing selected studies from the international literature, we aim to show also that these conditions are expressed in historically derived local terms, and that health and economic planners must respect, along with universal models, the local worlds of social experience in which health conditions are constructed. This view is presented from the conviction that it is crucial, for the health and welfare of people in developing countries, to re-define the prevalent definition and thus the present, often simplistic approach, of 'development'.

In addition to the changes cited by the Roemers, development schemes involve major societal changes including a shift from subsistence to money economies, major changes in employment with the importation of labour from rural to industrial centres, urbanization and the migration of displaced rural families to urban slums and periurban shanty towns, and the establishment of educational infrastructures and health-care networks. Established rural/village social networks and local power relations are disrupted. Migration may intensify ethnic conflict. Educational levels of children, and their exposure to 'Western' culture through formal education and technology, increase. Yet, women and children may also be abandoned. The development of commercial markets for new domestic and imported products, involving advertising and the inducement of lifestyle changes to increase consumption, changes health risks, health practices and the epidemiology of illness. Such major social transformations all too frequently include chaotic political changes.

Such changes will have a different impact on different population groups because of their distinctive historical trajectories. Local worlds may intensify or reduce exposure to noxious change. Age cohorts will be affected differently. Gender may amplify or reduce consequences for person, or even create entirely distinctive experiences. Predisposition to certain illnesses owing to social-class position or genetic endowment, and the availability of 'buffering' curative, palliative and rehabilitative factors, may lead to distinctive responses. Thus, the behavioural and social outcomes of development will be formed by interaction of local knowledge and practices (including cosmologies, idioms of distress, and health practices) and structural changes. Variation is to be expected in the epidemiology, clinical course and outcome of such behavioural pathologies as depression, suicide, anxiety, substance abuse, psychoses and psychosomatic conditions.

There are negative consequences of social change that paint a rather different picture than the usual one presented by development and international health experts. 'Social pathology' is a term worth rehabilitating to describe the often unexpectedly negative effects of such planned change on human conditions. One need not be a radical advocate of reverse development to recognize, across the differences in local worlds, a profoundly troubling global phenomenon that has not received the attention it warrants, especially in the health field.

Overall, two per cent or more of the population in developed and developing countries have severe psychiatric disease and the lifetime prevalence is roughly ten per cent (Carstairs 1983, Sethi 1985, World Health Organization 1987). Schizophrenia affects 0.7 per cent to 1.4 per cent of populations studied internationally (Sartorius 1986). The prevalence of childhood psychiatric disorders is at least ten per cent and mental retardation has been found to affect from 5.0 to 16.2 per 1000 in selected developing countries (Stein, Durkin et al. 1986). The above data suggest that, although the variability in the epidemiology and clinical expression of behavioural disorders is most obvious for the 'culture bound' syndromes, such as *amok* and *koro* (Carr 1978, Carr and Vitaliano 1985), it is also true for the

major mental illnesses. The rates for schizophrenia are highest in the industrialized and rapidly industrializing economies and lowest in peasant societies (Warner 1985).

The prevalence and course of schizophrenia, narrowly defined by a core set of symptoms, were found to vary with locale and economic development in the International Pilot Study of Schizophrenia, sponsored by the World Health Organization (Sartorius 1986, Higginbotham and Connor 1989). Indeed, the study suggests that long-term functional recovery is less likely in the developed countries (Kleinman 1988, Higginbotham and Connor 1989). Various reasons may account for this, including greater tolerance for symptoms, lower social expectations for those diagnosed with mental illness, more stable support networks among certain groups in developing countries (Kleinman, 1988) and the effect of institutionalization on patients with schizophrenia in Western post-industrial societies. We should expect, therefore, that as local conditions change with development, there will be changes in the social course and outcome of major mental illnesses, such as schizophrenia, resulting in greater disablement.

Major affective illness (depression and manic depressive illness) affects 5 per cent or more of the United States population (Goodwin and Guze 1989); the prevalence of depression among groups studied in non-industrial and industrializing countries varies from 0.15 per cent (Kleinman 1988) in certain parts of India to 22.6 per cent for women in Uganda (Orley and Wing 1979). Orley and Wing's finding that depression was more common among Ugandan women than among British women of the same age suggests that the political and social upheaval in that country was, not surprisingly, 'depressogenic'. Rates of conditions of psychosocial distress such as depression have increased substantially in the same rural, semi-urban and urban communities in Taiwan over three decades of intensive social change in one of the most rapidly industrializing societies (Lin et al. 1969, Yeh et al. 1987).

Anxiety conditions, like depression, present a substantial burden of morbidity in parts of the developing world. Hollifield (1990) found a 3.2 per cent community prevalence of panic disorder and generalized anxiety disorder in 4.9 per cent of the general population surveyed (using a version of the Diagnostic Interview Schedule) in Lesotho. Like Kleinman (1986) in China, Hollifield found much comorbidity between depression and anxiety conditions. Again, like depression, the evidence suggests that these forms of psychosocial distress and disease are increasing, although at varying rates.

The role of great, often catastrophic, life events (which are becoming commonplace in developing countries undergoing major political and economic transformations) in psychiatric illness is yet to be fully understood, but it is clear that the impact is substantial. Many studies have found that refugees, for example, suffer high rates of depression, anxiety disorders, post-traumatic stress disorder and brief reactive psychoses (Pederson 1949, Harding and Looney 1977, Beiser and Collomb 1981, Nguyen 1982a, Nguyen 1982b, Kinzie, Fredrickson et al. 1984, Lin 1986, Stein 1986, Sughandabhirom 1986, Westermeyer 1986a, Westermeyer 1986b, Mollica, Wyshak et al. 1987, Beiser 1988, Beiser, Turner et al. 1989, Kroll, Habenicht et al. 1989, Kinzie, Boehnlein et al. 1990, Weiss 1991). Even in disorders thought to be heavily genetically based, such as manic-depressive illness, environmental influences account for at least half of the aetiology (Reiss, Plomin et al. 1991). Bowlby (1988) has posited a developmental model for psychiatric illness to show how 'environmental' changes, including changes in the social environment, such as family and employment, interact with genetic disposition, prior experiences and coping strategies. Synergy is as clearly evident in the model as is variation. Brown and Harris (1978) have shown that susceptibility to depression in young mothers in Britain is related to life events and social support, including having a child under six years of age at home, and having lost her own mother before the age of eleven. The family and social disruption involved in Third-World development schemes clearly cannot be free of 'social cost'.

Throughout the world, patients suffering emotional distress place a substantial burden of demand on systems of primary health care (Katon, Kleinman et al. 1982). One W.H.O.-sponsored study,

involving primary-care centres in Colombia, the Philippines, India and Sudan, found that 10.5 per cent to 20 per cent of 1624 primary-care patients had diagnosable anxiety or depressive conditions (Harding, d'Arrigo et al. 1983). One study in Lesotho found that 48 per cent of the primary-care patients met DSM III criteria for depression or anxiety conditions (Hollifield 1989, personal communication). Abiodun (1989) found that over 22 per cent of the patients presenting to Nigerian primary-care centres suffered from anxiety or depression significant enough to interfere with daily functioning.

Adult alcoholism and substance abuse represent a substantial cost to developing countries. Argondona (1988) found that over 20 per cent of rural and urban men in one region in Bolivia admitted to being intoxicated at least once a week, with 7 per cent of the urban men being addicted to alcohol. Coombs and Globetti (1986) report that, overall, 15 per cent to 20 per cent of adults in Latin America are 'alcoholics' or 'excessive drinkers'. Beer consumption in Papua New Guinea increased at least eight-fold from 1962 to 1980, and was accompanied by a 400 per cent increase in road-traffic fatalities and a notable increase in the death and serious injury rates from methanol consumption, blunt injury, and knife and bullet wounds (Marshall 1988). Alaskan natives have the world's highest rate of alcohol abuse and associated violence, with over 50 per cent of the adults in some areas drinking excessively, and this has been linked to their exposure to 'socio-cultural stress' (Kraus and Buffler 1979). The Chinese rates are much lower than those above, but they too are on the rise.

Illegal drug use has dramatically increased worldwide and is taking its toll on developing societies. Pakistan, as an extreme example, has as many as 1.5 million heroin addicts, whereas only small numbers were reported in the early 1970s (Aslam 1989a, Aslam 1989b, Gossop 1989). This represents the effect of the development of secondary markets in a transshipment society, owing to more effective interdiction in Europe and the United States. Twenty-four per cent of the children in one school sample in Brazil reported that they had used solvents in the past and close to one-in-twenty reported use within the past month. One of the factors predicting childhood solvent abuse was alcohol consumption among adult relatives (Carlini-Cotrim and Carlini 1988). Thus, not only is there pluralism of rates but in the forms of addiction as well.

These findings illustrate the interaction between social change, substance abuse and psychopathology. Urbanization, with increases in, or the mere fact of, disposable income, and quests for modern life-styles as depicted in advertising reflect the exploitation of new markets for manufacturers of illegal (and legal) drugs, cigarettes and alcohol. Alcoholism and drug abuse may provide periodic numbing to shut out the harsh realities of shanty-town existence or allow the violent release of resentment or desperation. In addition, the substantial government revenue derived from alcohol taxes may interfere with anti-alcohol public-health campaigns. The materially improved lives of the peasant growers of coca and of the marketeers, who are often politically influential, cannot be ignored in considering the forces pushing for substance abuse. Yet the differing experiences of, say, Colombia, Jamaica, Haiti, China and India, and of cities and regions therein, indicate that local worlds mediate the effects of transnational forces of social change in divergent ways.

Studies of suicide in developing countries provide dramatic examples of the interaction of particular patterns of societal transformation, social stress and psychopathology. Micronesia, a group of islands that have undergone massive development since World War II, has seen an increase in suicide among adolescent and young adult men. While current rates are 75.4 per 100,000 for 15-19 year-olds, and 110.6 for 20-24 year-olds, the regional variation for subgroups varies from 70.6 in Palau to 206.6 per 100,000 in the region of Truk (Rubinstein 1987). This underscores the importance of local effects on the epidemiology of the disorder. It is also notable that the suicide rate for young men is 20-40 times that for young women in Micronesia. In a similar vein, Haynes (1987) has explored the high suicide rate among ethnic Indians in Fiji. She notes that historical forces led to this group's importation to Fiji

as indentured labourers and comments on the sacrilegious nature of their forced journey to the new country. Childless women aged 15-30 and elderly men are now at particular risk for suicide, perhaps reflecting contemporary social pressures; Haynes notes that, because of loosening family ties, institutional care for the elderly has recently been introduced. Paraquat, since being introduced as an agricultural chemical in 1972, has been used increasingly for suicide, an example of technological change interacting with psychopathology. In a similar vein, agricultural chemicals have been increasingly implicated as the cause of death in suicides in one town in Sri Lanka (Ganasveram, Subramaniam et al. 1984). Das (in press) in a single case study shows how a specific cultural, political and economic pattern of pressure among Sikh victims of Hindu violence in Delhi slums is conducive to suicide.

Homicide is the number-one cause of death in Colombia. Homicide rates are rising in many countries, often as a consequence of drug and alcohol abuse, especially in poor urban communities and among minority ethnic populations.

Epilepsy affects those in developing countries at three-to-ten times the rate of the developed world (World Health Organization 1987) because of birth trauma, perinatal infections and other examples of threats to child survival. In Botswana, as in other developing countries, Ben-Tovim (1987:116) found that the morbidity of epilepsy was compounded by lifestyle: 23 of 80 primary-care patients with grand-mal seizures had sustained at least one burn from falling into a cooking fire during a seizure. At least half of these burns were severely disfiguring or disabling.

Childhood behavioural disorders are of increasing concern in developing and developed countries alike. As noted above, the overall prevalence of childhood psychiatric disorder is estimated at 10 per cent or more (Earls 1988, Earls and Eisenberg 1990) and urban children exhibit disturbed behaviour at roughly twice the frequency as rural children (Offord 1987, Earls 1988, Rutter 1989). Aetiological factors in childhood mental disturbance are diverse and include genetic, perinatal, nutritional, family and social factors, all of which are locally determined. Different disorders will be due to a different balance of these factors. For example, Stein, Durkin et al. (1986) found the prevalence of serious mental retardation (functionally defined) in eight developing countries ranged from 16.5 per 1000 in Bangladesh to 5.0 per 1000 in the Philippines. The aetiologies of such disability were thought to vary locally due to age-specific fertility rates, environmental factors such as water quality and building materials, and maternal education, social status and habits, as well as other factors. The authors thought that in developing countries high perinatal mortality, with the loss of more children with serious birth defects, gave a greater role to post-natal environment and nutrition in the aetiology of retardation; while in developed countries low perinatal mortality gave a greater role to prenatal factors. It must be noted that the overall rate of retardation in developing countries is about 1.5-5 times the rate in the developed world (3.5 per 1000).

The behavioural effects of urbanization on children in Khartoum have been studied by Rahim and Cederblad (1984). Mothers reported more symptoms for more children in 1980 than they did in 1965, using the same instrument. The proportion of children that mothers reported as having no behavioural problems decreased from 63 per cent to 47 per cent. Interestingly, the greatest increase in symptoms was found in school-age boys (7-15 years) who, through school, were the cohort most exposed to rapidly changing social conditions.

Adolescents and young adults commit suicide in disproportionately high numbers throughout the world. As illuminated by Rubinstein (1987) in the case of Micronesia suicide among this group occurs at the nexus of changing social norms and family relations, increased access to alcohol (and recreational drugs) and increasingly lethal modes of transportation (cars and roads) and weaponry. The overall pattern can be discerned, even though localities vary greatly.

Childhood behavioural disorder may serve as a barometer of the impact of social change. Children are often at the forefront of groups exposed to new cultures, social expectations and industrialization. They are the target of advertising and education and are often the recipients of medical aid to developing countries. If the axiom, well accepted in Western child psychiatry, that children's behaviour reflects their emotional well-being holds internationally, disordered childhood behaviour might prove a valuable indicator of destructive changes in development schemes.

Psychiatric disorder at the other end of the age spectrum, among the elderly is also a substantial burden to industrializing societies, and may prove a sensitive indicator of the social changes accompanying economic development. It is estimated that close to three-quarters of the world's elderly will be in developing countries by the year 2020 (Litvak 1988), and the prevalence of dementia is five-to-eight per cent of those over age 65 (World Health Organization 1986). The World Health Organization (1987), and Eisenberg (1988) have called for more thorough epidemiologic study of the elderly. This cohort of elderly, particularly in certain of the developing countries that have undergone major social transformation, will have lived through multiple periods of particular kinds of major social change that may put them at even greater risk for depression and other psychiatric disorder. For example, a 65-year-old woman in the Philippines will have lived through the colonial period, the brutal Japanese occupation, the period of resistance and liberation, independence, post-independence economic and political disruption, and, depending on which locality she lives in, a variety of development projects. All of these are locally mediated so that some persons (the poor, the marginal, the minorities, the stigmatized) are placed under great pressure, while others (usually the well-do, the powerful, the well connected) are relatively protected. Similar histories can be told by elderly individuals in China, Cambodia, Vietnam, Ethiopia, Mozambique, Afghanistan and many other States, but the details differ greatly in form as much as in content. Such politically created social pressures, that are far beyond the experiences of most Western observers, investigators, and relief workers, have been shown to have serious psychiatric and psychological consequences (Kleinman 1986).

While the prevalence and burden of mental-health problems among the elderly will increase, the traditional capacity to care for the elderly in non-Western societies will probably be attenuated by local patterns of change in family structure, employment, housing and location. With the high prevalence of suicide in Fiji among elderly men (Haynes 1987), changing social roles have led to the practice of institutionalizing the infirm and destitute elderly who are now killing themselves at increasing rates. But this is not the only avenue of change: rather, there is a pluralism of potential outcomes.

What conclusion should be drawn from these findings? Psychological and social distress appear to be increasing worldwide as a direct effect of certain social changes, including those that are 'planned' in international-development projects. That these problems are shared by industrialized and industrializing societies is particularly ominous, because it suggests that advanced economic and technological status does not offer effective ways of preventing or repairing these forms of pathology. It becomes especially important to determine which social changes are conducive to these negative effects, and under which modifying conditions. Previously, research on health transitions has not specified the specific processes of change that lead to what we have called 'the downside of development'. Are these processes similar across otherwise dissimilar local worlds? This remains a topic of great significance for the next phase of research.

Yet, caution should be applied before accepting the idea of a universal process of negative social change. We are not persuaded that any such universal pattern exists. Rather, there are local realities with specific, historically shaped patterns of health change: some improvements, some continuities, some negative effects. To understand the outcomes, their sources and the mediating processes, we believe that the focus of analysis must be local worlds of experience in regions and cities, not the

aggregated level of the nation state or the continent. We further believe, based on our reading of the relevant literature and on our field experiences, that the dynamics of health and social change in these local worlds can be, and often are, rather distinctive (see Kunitz in press). Nonetheless, the sheer scale and magnitude of behavioural and social problems suggests that the current phase of political and economic development carries with it powerful negative influences on human conditions along with the positively valued ones, which are better understood. If we had addressed ethnic conflict and refugeehood in our essay, then the conclusions would also extend to other political processes of change. In future, it will be necessary to encourage studies that examine both sides of health transitions and also complement the search for comparative patterns with the interpretation of locally specific conditions.

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