

Editorial

Poverty and Mental Health of Children and Adolescents

Pratap Sharan, MD, PhD

Address for Correspondence: Professor Pratap Sharan, Department of Psychiatry, All India Institute of Medical Sciences, New Delhi-110029. Email: pratapsharan@gmail.com

The bidirectional relationship between poor mental health and the experience of poverty and deprivation has been established in adults.¹ Poverty can lead to distress or act as a risk factor for mental illnesses like anxiety and depression. On the other hand, mental disorders also cause an enormous financial burden on individuals, their families and society. Owing to the vulnerable and dependent position of children and adolescents, social determinants are likely to play a still greater role in their development and mental health.

There are multiple approaches to measuring poverty. Gordon et al used the measures of deprivation of basic needs, availability of services, and infrastructure to estimate poverty; and reported that 37% of children lived in absolute poverty in developing countries, more so in rural areas.² On the other hand, Grantham-McGregor et al used the percentage of people having an income of less than US\$1 per day, adjusted for purchasing power parity by country, and reported that 22% of children under 5 years in developing countries live in absolute poverty.³ India accounts for nearly 30% of the disadvantaged children in the developing world.³ Other studies have used lack of employment, and housing difficulties or area-level deprivation as indicators of poverty.^{1,4} Also, it is important to understand that the duration and developmental timing of poverty can have an impact on children's and adolescents' development and mental health.⁵

Poverty is a composite indicator of multiple psychosocial risks. Poverty is associated with lack of opportunities (e.g. education, employment), reduced access to resources and a greater likelihood of experiencing stressors. It is also associated with inadequate food and housing, poor sanitation and hygiene, lower levels of family (e.g. poor maternal education, large family size, increased maternal stress and depression, inadequate stimulation in the home, inadequate or harsh parenting) and community support, problem drinking, and greater exposure to crime, violence and abuse. Poverty also leads to stigma, social isolation or exclusion, and shame and humiliation.^{1,6} Hence, poverty may contribute to excess risk of poor health through multiple mechanisms.

Poverty and development

Children's development is affected by psychosocial and biological factors and by genetic inheritance. The first few years of life are particularly important because early under-nutrition, iron-deficiency, environmental toxins, stress, and poor stimulation and social interaction can potentially affect brain structure and function, and have lasting cognitive and emotional effects. Variations in the quality of maternal care can produce lasting changes in stress reactivity, anxiety, and memory function in children. However, despite the vulnerability of the brain to early insults, remarkable recovery is often possible with interventions, and generally the earlier the interventions the greater the benefit.³

There are few studies on wealth and development in preschool children. An association between poverty and child development has been recorded starting from infancy,³ even in India.⁷ In 3668 Indian children under 6 years, paternal occupation was associated with developmental milestones.⁸ Rose-Jacobs et al reported a relationship between household food security status and developmental risk (expressive and receptive language, fine and gross motor, behaviour, social/emotional, self-help, and school, global/cognitive and other concerns) in preschool children; after controlling for child (gender, age, low birth weight, weight-for-age z score, and history of previous hospitalizations), as well as caregiver variables (age, country of birth, education, employment, and depressive symptoms).⁶

Nationally representative studies from many countries have demonstrated a relationship between household wealth and school enrolment, early dropout, grades attained, and achievement.³ Gaps in mean attained grades between the richest and poorest children were particularly large in western and central Africa and south Asia,³ reaching as high as ten grades in India.⁹ Rural children were worse off in most studies.⁹ Grantham-McGregor et al reported that for every 10% increase in the prevalence of poverty there was a decrease of 6.4% of children entering the final grade of primary school in an analysis of data from 64 developing countries.³ A few longitudinal studies have also demonstrated an association between wealth at birth and later (up to adulthood) educational and cognitive attainment.³

Risk factors related to poverty frequently occur together, and the developmental deficits increase with the number of risk factors. For example, the impact of poor development on school achievement is exacerbated by inadequate schools and poor family support (due to economic stress, and little knowledge and appreciation of the benefits of education).³

Disadvantaged children in developing countries who do not reach their developmental potential are less likely to be productive adults. A review of studies from 51 countries showed that, on average, each year of schooling increased wages by 9.7%.¹⁰ Assuming that every year of schooling increases adult yearly income by 9%, Grantham-McGregor estimate that the loss in adult income from living in poverty alone is 5.9%.³ In countries like India, national development could be substantially affected due to large numbers of children affected, and due to intergenerational transmission of poverty (through high fertility and poor care for children).

Studies that have reported on the relationship between the duration and developmental timing of poverty to children's development mention that chronically poor families provided lower quality child rearing environments and children in these families showed lower cognitive performance and more behaviour problems than did other children.⁵

Poverty and behavioural-emotional problems

Cross-sectional studies show that children from low income families appear to have higher levels of depression and conduct symptoms. A drop in household income is also associated with an increase in depression and anti-social behaviour, while a move out of poverty and an improvement in household income results in improved child mental health.¹¹ Adolescents who experience poverty are also more likely to engage in drug and alcohol use at earlier ages, initiate sexual activity earlier, and have increased mental health problems. Economic strain has been linked to externalized behaviors in boys and internalized behaviours in girls.^{12,13}

Longitudinal studies with assessments starting at birth have demonstrated that children from poorer families had worse emotional development at four years of age,¹⁴ and increased risk of substance dependence in adulthood.¹⁵

Little is known about intergenerational mechanisms that might shape child health disparities. Scaramella et al followed up 154 3-generation families over a 12-year period and found that exposure to poverty during adolescence in the first generation predicted an earlier age of parenthood in the second generation.¹⁶ Younger second generation parents were observed to be harsher during interactions with their own 2-year-old children (third generation), and harsh parenting predicted increases in the third generation children's externalizing problems from age 2 to age 3. Finally, the third generation children's externalizing behavior measured at age 3 predicted increases in harsh parenting from ages 3 to 4, suggesting that third generation children's behavior may exacerbate the longitudinal effects of socioeconomic disadvantage.¹⁶ Social disparities in women's health conditions may also play a mediating role between poverty in one generation and mental health conditions in the second generation. Kahn et al found that lower income (lifetime but not current) and lower maternal education were associated with increased child behavioural problems.¹⁷ Adjustment for maternal smoking, depressive symptoms, and alcohol use attenuated the associations between socioeconomic status and child behaviour problems. These maternal health conditions often occurred together, persisted over time (e.g. before, during, and after pregnancy), and were associated with the mother's own childhood socioeconomic status and pre-pregnancy health. The maternal mental health conditions may lie in the pathway between financial strain and harsh parenting.¹⁷

Children's neighborhood of residence may be associated with their mental health above and beyond individual- and family-level attributes.¹⁸ Xue et al analyzed data from the Project on Human Development in Chicago Neighborhoods, a multilevel, longitudinal study of a representative sample of children aged 5 to 11 years recruited from 80 neighborhoods.⁴ The percentages of children above the clinical threshold were 21.5%, 18.3%, and 11.5% in neighborhoods of low, medium, and high socioeconomic status, respectively. A substantial proportion of variance in children's total internalizing scores was attributable to between-neighborhood differences. Concentrated disadvantage was associated with more mental health problems and a higher number of children in the clinical range, after accounting for family demographic characteristics, maternal depression, and earlier child mental health scores. Neighborhood collective efficacy and organizational participation were associated with better mental health, after accounting for neighborhood concentrated disadvantage. It appeared that collective efficacy may affect children's mental health, at least in part through residents' use of community resources. However, maternal depression and employment remained significant correlates of children's internalizing problems even when considering neighborhood circumstances. These 2 maternal attributes are likely important factors that prevent the creation and maintenance of collective efficacy and lead to lack of participation in community organizations.⁴

Policy implications

It is evident that developmental problems and mental illhealth of children and adolescents have major implications in terms of loss of potential for the affected individuals, their families and the society/nation. The first UN Millennium Development Goal is to eradicate extreme

poverty and hunger, and the second is to ensure that all children complete primary schooling. Improving child development and mental health can help in reaching these goals; just as efforts to alleviate poverty and ensure school education could aid in tackling developmental and mental health concerns. However, appropriate integrated programmes that target both social as well as developmental and mental health concerns of children and adolescents would have to be mounted to achieve these ends.

Despite intentions to reduce known disparities in child and adolescent mental health, national programs explicitly designed to reduce them are lacking. National programmes should explicitly prioritize the reduction of disparities in health, including mental health. Steps should be outlined for recruiting disadvantaged children and adolescents in programmes and interventions meant to improve their development and mental health.

There is increasing evidence that early interventions can help prevent the loss of potential in affected children and improvements can happen rapidly. Providing nutritional and developmental interventions to young children and their families might actually decrease the need for later, more-extensive interventions for developmentally or behaviorally impaired children and adolescents. Linking families with children at risk for developmental and mental health problems to supplemental nutrition programs, early intervention programmes, and mental health services, could be an important intervention in this regard.

Improved public health programs and services for disadvantaged women across the lifecourse may not only address their own urgent health needs, but reduce social disparities in the health and well-being of their children. Effective interventions for many women health issues like depression and substance use exist. However, the traditional maternal health focus on these issues in pregnancy and the immediate postnatal period may not provide sufficient opportunity to seriously alter the health of disadvantaged women. Pediatricians and other child health clinicians have relatively frequent contact with mothers and should assist in connecting or reconnecting mothers to a source of comprehensive and continuous adult primary care that integrates mental health care.

Most intervention programs target individual-and family-level risk factors for children's mental health; however, interventions for at-risk children should also focus on neighbourhood characteristics. Promoting collective action and community building among residents and investing in community resources may provide optimal communities in which to foster enhanced child and adolescent development and mental health.

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Professor Pratap Sharan, Department of Psychiatry, All India Institute of Medical Sciences, New Delhi.