

The Effects of Water Stress on Children's Psychological and Cognitive Development: Psychological and Medical Evidence

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Submitted by: Society for the Psychological Study of Social Issues

The Society for the Psychological Study of Social Issues (SPSSI) and co-sponsors thank the Commission on Population and Development for this opportunity to highlight the effects of water stress on children's psychological and cognitive development.

Access to safe water is fundamental to human rights. Psychological and medical evidence establishes that water stress caused by pollution, forced migration, and agricultural production contribute directly and indirectly to poor physical and mental health, beginning in childhood. The UN General Assembly recognizes the human right to water and sanitation as essential to the realization of all human rights, that water is a connector touching all aspects of society, and that water is required to achieve progress on the United Nation's 17 interrelated Sustainable Development Goals (SDGs) including poverty reduction (SDG 1) and promotion of health and wellbeing (SDG 3).

Children are harmed developmentally when experiencing water stress. Their immature metabolic pathways limit their ability to excrete toxic pollutants. Nearly 1,000 children die daily from water-related diarrheal diseases and are 12 times more likely to die of lung cancer and other respiratory ailments due to prenatal and early childhood exposure to arsenic in drinking water. Evidence from Bangladesh, China and the U.S. suggest that arsenic, lead, and other toxic chemicals depress children's growth and cognitive functioning, leading to long-term impacts on cognitive abilities and risks of developing mental illnesses such as bipolar and post-traumatic stress disorder as adults.

Water stress caused by pollution, droughts, floods, or man-made crises may force families to migrate, increasing susceptibility to illnesses and diseases. In this age of COVID-19, rates of illness and deaths in refugee camps will rise, in part due to inadequate access to clean water and sanitation. UNHCR estimates that children under the age of 18 comprise 52% of all displaced persons. With particular reference to OP11, SPSSI advises

*"... that children who are given the opportunity to grow and develop in a health environment **free of toxins and pollutants** that is responsive to their needs including breastfeeding, and that, at a young age, fosters and encourages healthy behaviour and lifestyles, including healthy dietary choices and regular physical activity, and promotes the maintenance of healthy weight, can greatly reduce the risk of non-communicable diseases, **and mental and cognitive deficits that begin in childhood and continue into** adulthood [based on 73/2, OP12]"*