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Climate Change, Poverty, Psychological Distress, and Suicide

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Climate change refers to a broad spectrum of environmental alterations—including heatwaves, wildfires, floods, tropical storms, and hurricanes—that impose profound adverse effects on the lives of people across the globe. The World Health Organization estimates that currently 3.6 billion people live in areas highly vulnerable to climate change. Between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths annually due to malnutrition, malaria, diarrhea, and heat stress. Furthermore, underprivileged regions in low- and middle-income countries will have the least capacity to cope (1).

While the impact of climate change on physical health worldwide has been extensively studied, its psychological consequences have received less attention (2–4). Unfortunately, much like climate change itself, its psychological impacts are more pronounced in low- and middle-income countries—which already face numerous challenges in meeting the mental health care needs of their covered populations—than in high-income nations. The economic burden and psychological stressors resulting from climate change are greater for disadvantaged populations than for affluent ones, as they typically reside in areas with a higher probability of severe climate events (5).

For instance, consider impoverished fishermen living along riverbanks and coastal shores who are at elevated risk of floods, tsunamis, and other climate-related hazards, or other poor individuals who build their homes on inexpensive land, using low-cost materials that are increasingly vulnerable to such hazards. Moreover, the poor generally live day-to-day and lack the capacity to store money, water, food, and medicine for critical days ahead. Due to a lack of access to mass media and early warning systems, they often fail to receive timely alerts regarding natural disasters associated with climate change; even when alerted, they are frequently unable to evacuate the affected area in time due to a lack of transportation (5).

Among all mental health indicators, rates of suicidal behavior are of paramount importance. Suicidal behavior typically encompasses suicidal ideation, planning, suicide attempts, and ultimately completed suicide, which are influenced by a multitude of biological, economic, social, and environmental factors (6). For example, it has been demonstrated that for every 1°C increase in temperature, suicide rates can increase by up to 0.7% (7). Furthermore, it has been estimated that droughts and extreme heatwaves may have contributed to the suicide of nearly 60,000 individuals in India over the past 30 years (8).

The relationship between climate change and suicidal behavior is highly complex and warrants extensive further research. Nevertheless, the existing evidence indicates that during severe climate events, low- and middle-income

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countries (as well as high-income countries among their impoverished populations) must maintain adequate preparedness to address and mitigate surges in suicidal behaviors.

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