

## Review Article

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# Climate change: its impact on mental health and women and children's well-being

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## ABSTRACT

Amid every crisis, women and children are considered the most vulnerable segments of the population. As such factions potentially get affected in every natural calamity. According to WHO, it has been evaluated that climate change will unravel all the achievements made in global public health over the past 50 years, sending 100 million people into poverty and killing 250,000 others annually. Although these figures are daunting, the ability to act robustly and effectively is indeed not out of capacity. Hence, it is pertinent to reforming and re-orienting health systems and bring robust strategies into action to mitigate the challenges posed by climate challenges in the present century. The world cannot afford the continuous agony of millions of masses and witnessing innocent people falling prey to several diseases and conditions that can lead them to face lifelong implications.

**Keywords:** Climate change, Mental health, Human race, Malnutrition, WHO, PTSD

## INTRODUCTION

The 21<sup>st</sup> century is grappling with a myriad of challenges. Among those challenges, natural disasters and calamities pose a severe peril to human lives and limbs around the world. Chaotic weather conditions and unpredictable rainfalls have made the human population vulnerable across the globe.<sup>1</sup> It leads to increased morbidity and mortality among the destitute segments, specifically among women and children. The perturbation of climatic turmoil halts the growth of both the former and the latter. Children are deprived of the basic necessities that they need to grow at the desired level, while women are left in dilapidating conditions due to which they face several health impediments. Further, the uncertain climate conditions do not only potentially deteriorate the health conditions of the mother and child, rather they also

potentially impair their quality and overall standard of life.<sup>2</sup> According to WHO, it is estimated that burgeoning numbers of more than two billion population have been affected due to the ferocity of floods during the duration of last two decades. It is also reported that around 47% of natural disasters which have occurred are mainly related to floods.<sup>3</sup> Similarly, climate changes equally affect the health of women and children. Inability to adapt to such untoward weather situations, women and children bear the heavy brunt of it. As a result, children get exposed to various infections and diseases and suffer from malnutrition owing to inadequate provision of diet and nutrients. Further, contaminated water and an unclean environment have a daunting effect on their overall hygiene and well-being. Due to this, they undergo life-long repercussions. Acute diarrhea conditions, cognitive deficiency, fragility, and other gastrointestinal illnesses advance during such appalling weather conditions among

them. Such weather conditions are detrimental, as the effects of greenhouse gas emissions are evident and consequently, the earth is warming. Indeed, it is concerning that warming trend is no longer accelerating at a snail's pace, rather it is growing with considerable momentum. Further, it has the potential to be continued for several years if apt measures are not taken.

### **CLIMATIC CALAMITIES AS A STAGGERING CHALLENGE FOR HUMAN RACE**

Considering the fact, that even if nations across the globe do adhere to the 2015 Paris Accord, the global temperature will keep on rising by  $1.5^{\circ}\text{C}$ .<sup>4</sup> In addition, there is also significant evidence to bank on the fact that there will be a rise in climatic upheavals owing to ongoing climatic chaos. Having said that, extreme weather conditions such as heavy rains, escalated ultraviolet radiation, ocean acidification and a monumental rise in sea levels can be witnessed. Such very conditions have immense potential to cause extreme heatwaves, food scarcity, crippling livestock and jeopardize agricultural capacity.<sup>5</sup> Hence, the ultimate depravity of biodiversity and the ecosystem would result in growing innumerable pests and vector-borne afflictions and will result in detrimental health outcomes.<sup>6</sup> The severity and wrath of climatic challenge and floods is not only limited to undermining health conditions, in fact, they also impede human progress and prosperity and bereft them of the ability to thrive in life and do better. It is reported that floods and other climatic chaos have resulted in around 300,000 human casualties and a massive loss of USD 1.7 trillion in terms of financial loss worldwide.<sup>7</sup> Moreover, it is evident that the 21<sup>st</sup> century thus far has witnessed a higher number of floods as compared to the previous one, owing to which 600 billion USD have been lost globally amid 2900 flood calamities. These huge numbers of floods have impacted the lives of around 2.8 billion people all around the world.<sup>7</sup> Women and children are considered the most vulnerable segments during natural disasters. In most situations, this very fragment is often found at the receiving end. The untoward and uncertain weather conditions often bring plenty of challenges for them to cope with. Every time such a situation arises, an excessive amount of challenges also appear. Access to healthcare facilities is denied, and amid the non-availability of adequate health facilities, several health impediments are faced by them. Such as the children undergo several health complications, as they suffer from diarrhea and other digestive-related issues. On top of it, contaminated water also contributes as the most important determinant of malnutrition among them.<sup>8</sup> The sudden abruptness in weather conditions and climate changes cause various changes. Similarly, the way the children get exposed to various viruses and diseases, the women also face a plethora of health-related barriers that halt their well-being.

### **CLIMATE CHANGE AND NATURAL DISASTERS: ITS DETERIORATING IMPACT ON MENTAL HEALTH**

Though global climate uncertainty has embroiled the world at large, however, low middle income and Asia-Pacific regions continue to face the heavy brunt of it as the evidence demonstrates that temperatures are rising approximately two times faster in Asian localities as compared to the rest of the globe.<sup>9</sup> The repercussions of climatic severity have been numerous, which keep human life and limb endangered. Weather uncertainties heavily halt food security, proliferate infectious diseases, upsurge environmental chaos, and cause mental health misery to the wide range of the populace.<sup>10</sup> The psychological trauma of an individual having gone from adverse weather conditions is fraught with distress and lifelong tribulation. Inadequate social support and merger resources further exacerbate this upheaval. To put it further, several weather patterns and climatic incidents are reported to have a daunting impact on human psychological health conditions.<sup>11</sup> Among those patterns, variation in the precipitation process leads to a steep rise in the occurrence of floods, while sub-standard air quality, repeated heatwaves, and continued shifting in rain patterns persist as the major climatic challenge to a wide range of populations. Further, such weather calamities cause numerous mental health problems. As there is a highlighted association between poor mental health outcomes with exposure to flooding.<sup>12</sup> The affected undergo post-traumatic stress disorder (PTSD), and consistent perturbation, which keeps an individual overall being in a dire state of angst.<sup>13</sup> Similarly, among weather changes, rising sea levels may also lead the masses to unwanted and forced migration, which significantly contributes to mental health dilemmas associated to overcrowding, mushrooming of deprived and penurious segments, and a sense of loss from the place.<sup>14</sup> Having said that, since the third-world countries are already besieged by weak macroeconomic indicators, therefore the already dwindling socio-economic indicators of its inhabitants remain at the lowest ebb. Further, the absence of apt and comprehensive mental health services amplifies the suffering of people already engulfed with poverty, insecurity, and a frail health system.<sup>15</sup>

### **POTENTIAL IMPEDIMENTS OF CLIMATE CHANGE**

Furtherance in heat exposure is more likely to intensify ahead with global temperatures. Hence, the changes in temperature advancement also indicate evidence of developing aggressive behavior among individuals.<sup>16</sup> In the same way, the growing revelation also signifies an exponential escalation in crime rates amid hot weather conditions, which ultimately claims a link between aggression in human behavior and temperatures.<sup>17</sup> Literature underscores that traumatic events pertaining to the climatic ordeal do not only plummet humans at greater risk of developing PTSD instead it also inflates

severe stress reaction and persistent adjustment disorder among affecters. Additionally, those who live in rural segments are more likely to depict signs of depression than those who are settled in massive metropolitans. In a similar manner, there are studies that suggest a striking relationship between expanded temperatures in the workplace and increased psychological distress.<sup>18</sup> One of the other studies highlights that based on measuring some disaster-related variables, 64.9% of women were diagnosed with depression in some rural settings. While 36.9% reported developing mood disorders in the post-disaster scenario. It is also argued in one of the pieces of literature that changes related to climate have led to an increase in drug consumption and alcohol use in Asian regions.<sup>19</sup> Further, adulteration in the food supply and changes in the essential nutritional food items contribute to psychiatric ailment. Apart from this, climate uncertainty also benefits people of employment, compels the masses to move, deteriorates social cohesion, and shrinks community resources, which all combinedly contribute to a rise in mental health consequences.<sup>20</sup> Thus, it is imperative that global health authorities must come forward and take proactive measures to cope with uncertain climate-related incidents. The exponential loss of human life is alarming due to climate-related incidents. Therefore, prioritizing strategic action and compliance to mitigate the challenges faced by women and children during natural calamities like floods is a need of the hour for those who reign in the corridors of power.

### Recommendations

Climate change should be made a priority in each domain of development and political agenda. Formulation and implementation of waste management strategy should be given considerable importance. It is evident that mountain communities struggle to find any nook and cranny for the disposal of waste. Thus, it is mostly thrown in the rivers or ignited in the open air which ultimately contributes to the black carbon deposition on glaciers and escalates their melting. With that being said, an appropriate waste disposal system can help mitigate air pollution and associated health risks with disasters. Strengthening health care systems to avert the health crises among general populace in any given climatic incidents should be considered a topmost importance.

### CONCLUSION

Undoubtedly, in the present time, climatic upheaval is the major predicament of human race. Thus, understanding the magnitude and the gravity of this arising plight to the populace should be of paramount importance. The loss of huge heaps of resources and uncountable lives due to catastrophic climate-related incidents, reverberates the misery of millions who have been subjected to numerous diseases and crises and find themselves on the verge of collapse. Thus, it is imperative that global health authorities should come forward, stand tall and form resilient health care system and formulate sound policies

coupled with synergistic approach to help wide range of populations to quell this adversity.

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