



Impact of Climate Change on Mental Health of People

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Abstract

The main aim of this paper is to discuss the impact of climate change on the mental health of people. The study has focused on identifying different evidences from the available evidences from the literature and identifies that how climate change impacts the mental health of people and what are some common mental health disorders that can occur due to the traumatic experience of climate change natural disaster events. The research informs that mental health of individuals is significantly affected by direct or indirect effect of climate change events, which are required to be addressed effectively.

Keywords: *Climate change, mental health, climate change and mental health, natural disasters, psychological distress, climate and nature.*

Introduction

According to many existing evidences, it has been understood that climate change has significant negative effect of the human health^[1]. Climate change has become a global challenge for the authorities all over the world. The increasing temperature of the earth, due to the increasing rate of burning fossil fuels, which in turn increases the release of carbon dioxide is considered as the climate change problem. The problem of climate change is not only affecting the physical health of the people, but also affecting the mental health of people. Burning of the fossil fuels results in causing the heat trapping toxins that are released in the air, which have significant impact on the health.

It has also been identified that the temperature of the earth has been increased by 1.5°F in the last century and some of the recent years have been recorded as warmest. The climate change also has impact on the changing weather pattern and such weather-related changes result in increasing the occurrence of storms, floods, heat waves droughts, wildfires and increasing level of sea. The far-reaching impact of climate change can be seen in environment, agriculture, social and economic lives of people ultimately resulting in affecting the health and well-being of people around the world, including the mental health of people. Therefore, this research will discuss the impact of climate change on mental health of people and how such negative impact of climate change can be controlled.

Climate Change and its Impact on Health

Climate change has been defined as “*relatively stable changes in the meteorological parameters like precipitation and temperature over a period of time in a given region*”^[2]. A report prepared by Watts et al (2017) informs that “The human symptoms of climate change are unequivocal and potentially irreversible—affecting the health of populations around the world today” (p. 582)^[3]. The scholars have now considered that climate change is not just the looming threat in the current scenario, but it has become a destructive reality. WHO has also informed that there will be an increase of around 250,000 excess deaths per year between the years 2030-2050 because of the changing climate and challenges that it is posing^[4]. The climate change impacts can be seen in the form of increasing morbidity and mortality related to increasing heat, increasing prevalence of the vector-borne diseases (such as malaria, dengue fever etc.), increasing morbidity and mortality due to the extreme weather events (such as hurricanes, floods and droughts) and air pollution resulting in increasing prevalence of respiratory diseases and cancers^[5].

However, one of a significant problem and lesser known or often overlooked impact of the climate change includes the deteriorating mental health. The problem of mental health can be understood as the problem of mental illness, occurrence of mental disorders and other mental health problems (including depression, anxiety and post-traumatic stress disorder). Mental health of an individual, does not only mean the absence of mental illness, but it is also associated with the mental wellness, and a state of well-being that can help an individual to possess psychological well-being and ability to cope with life stressors^[6]. Mental health of an individual encompasses the behavioural, emotional, social and psychological well-being of an individual. It also informs about the ability of the people to cope with problems and stressors and how they are able to function within their personal and community spheres^[7].

Impact of Climate Change on Mental Health

Mental illness has a significant adverse impact of the well-being, behaviour and emotional health of the individuals. This can also interfere with the quality of life of the individuals and can increase the economic and healthcare burden^[8]. This can be understood with the example that extreme heat or the extreme storm can lead to depression, anxiety, anger and also violence. Although, due to such extreme changes, every individual is at the risk of developing mental illness, but not all individuals are affected equally. The main impact of the climate change is specifically seen on the most vulnerable groups, such as children, elderly people and women. Also, some of the other groups on higher risk of developing mental disorder are those with existing mental health problems, tribal people, farmers, and people who have close link with land^[9].

The increasing research on the effect of climate changes on the mental health of people has informed that increasing extreme weather events, which are more complex, frequent and intense can lead to triggering, major depressive disorder (MDD), post-traumatic stress disorder (PTSD), anxiety, depression, grief, survival guilt, trauma, recovery fatigue, increased level of substance abuse and suicidal ideation^[10]. The study conducted by Ellis et al (2017) has also identified that increasing climate changes, such as the problems associated with the increasing sea level, increasing temperature, and problems of episodic drought can result in disrupting the water and food resources, can make people homeless causing displacement, can bring changes in agriculture conditions and can weaken the infrastructure, which can significantly increase the financial burden and emotional burden on individuals, families and communities. The issues associated with climate change can also lead to aggression and violence^[11].

Padhy et al (2015) had conducted the analysis of the impact of the extreme climate change on the mental health of people and identified that increasing temperature have significant link with

increasing problem of aggressive behaviour^[12]. The temperature increase can significantly affect the psychological behaviour of individuals resulting in causing aggression and suicides, such as Carleton (2017) informs that high temperature that damages the crops has increased the suicide rate in India^[13]. Increasing temperature can also reduce the emotional well-being of the people and cause depression and aggression that could further result in increasing the rate of crimes^[14]. Some of the other research studies have also informed that increasing heat waves can be associated with mental and behavioural disorders among population. Such as a study conducted in Australia informs that increasing heat waves has resulted in increasing admissions for mental health problems in conjunction with other physical disorders such as renal disease and cardiovascular diseases^[15]. Extreme heat waves can also give rise physical as well as psychological exhaustion. A study conducted in Thailand has also shown similar results, which informs that occupational health stress has been associated with the increased level of mental disorders and psychological distress among the workers^[16]. The major reason of the climate change on the emotional and mental health of the people is that extreme weather conditions such as floods, hurricanes and storms can cause trauma, as the individual or families may have to face extreme destruction and loss of family members that can further can give rise of disabling emotional health. Whether climate change is experienced directly or indirectly, it can cause mental disorders such as depression and anxiety and can reduce the quality of life and well-being of people. Extreme destructive events can also cause uncertainty regarding future and such uncertainty could be a significant source of stress and psychological distress. People can be directly affected by the climate change, as hearing about the negative experience of other people related to climate change or destructive natural disasters can cause fear, anxiety and can cause mental vulnerability^[17].

One significant example of destruction caused by a climate change event is Hurricane Katrina, which resulted in causing significant destruction and displacement and deaths. A large number of people were affected by this natural disaster. Some of the residents were trapped on the roofs of their houses and waited for the rescue^[18]. People, who were able to survive, had to undergo trauma of seeing their family members and friends dying on streets due to flood water. In this event 2,000 people died and more than one million people were displaced. This overwhelming burden caused by Katrina resulted in many mental stressors. The psychological trauma was caused among the survivors due to trauma, disconnection and experience of an extreme event^[19]. The survivors of such natural disaster had to face significant mental and emotional health problems, behavioural issues, PTSD, disrupted social ties and pain of loss. The psychological and mental scars caused by Katrina are still prevalent among the affected population^[20]. Such evidences inform that climate change can significantly affect the mental, emotional and behavioural health of people, which could significantly increase the healthcare burden.

Recommendations for Addressing Mental Health Problems

The major challenge that has been identified in the impact of climate change on the mental and emotional health of people, is a topic that has been under researched, therefore, it is significant that the occurrence of mental health problems among the people experiencing extreme climate change events is studied and researched. Firstly, it is significant to understand that mental health problems are the significant consequences of the changing climate and the individual, families and communities are deeply being affected by such health problems. Therefore, the first recommendation is to identify the mental health issues among the population who have experienced or experiencing the mental health issues related to the climate changes occurring in

the world. Second recommendation could be associated with the government or the institutional preparations, such as the government and the emergency management institutions can prepare in advance for the complex and frequent natural disasters and climate change events, so that people in the case of emergency could be saved, protected, provided with food, water, place to live and must prepare the medication and health facilities^[21]. It is also important for enhancing the capabilities of the healthcare system and communities for improving the diagnosis of the mental disorder soon the initial stage and preventing the underdiagnosis of the mental health problems as the effect of climate change. The mitigation of the greenhouse gases is also significant, which can be achieved by reducing the reliance on fossil fuels with increasing the use of alternate power sources. Countering the challenges posed by climate change also requires sectorial and international collaboration for reducing the greenhouse gas emission^[22].

Conclusion

Climate change in the recent decades have resulted in many environment, social and economic problems all over the world. The problem of climate change has resulted in the occurrence of many health problems, including physical as well as mental health problems. This research presents a comprehensive review of the literature and informs that climate change has resulted in increasing temperature, occurrence of natural disasters more frequently and increasing mental health problems. Impact of climate change on mental health of people is a topic that requires more research, as it has substantial impact on emotional and behavioural well-being of people, as well as cause significant social and financial burden on society. This research informs about various mental health disorders and illness that affect the people who have experienced the extreme weather events. Some of the common mental disorder are PTSD, depression, anxiety, trauma, etc. The research concludes the mental

health of an individual is very significant for living a good life and also for maintaining the quality of life. Therefore, addressing the problems of mental disorders and addressing the issues resulting in climate change are significantly important, as climate change can result in psychological distress. Therefore, increasing the access to mental health services and working towards reducing the use of fossil fuels can significantly help in addressing this problem.

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