

Resource Document on Mental Health and Climate Change

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Climate change is recognized as one of the top threats to global health in the 21st century. Mental Health impacts of climate change are significant sources of stress for individuals and communities. The social and mental health consequences of extreme and slow-moving weather events are well documented, ranging from minimal stress and distress symptoms to clinical disorder, including depression, anxiety, post-traumatic stress, and suicidal thoughts (Arnberg et al., 2013; Fullerton et al., 2013; North et al., 2004). High risk coping behavior, such as alcohol use, has been associated with climate related weather events (Flory et al., 2009; Rohrbach et al., 2009). Intimate partner violence may increase as well, with women being particularly effected (Harville et al., 2011; Fisher, 2010). Suicidal thoughts and behavior have been shown to increase following extreme weather events (Kessler et al., 2008; Larrance et al., 2007). In addition, population displacement and migrations, breakdown of community infrastructure, food scarcity, loss of employment, and poor sense of social support and connectedness have serious consequences for mental health (Chan et al., 2015; Benight et al., 1999; Ursano et al., 2014).

The threat of climate change can be a significant psychological and emotional stressor. Individuals and communities are affected both by direct experience of local events attributed to climate change, and by exposure to information regarding climate change and its effects (Leiserowitz et al., 2013; Reser et al., 2014). Communication and media messages about climate change can affect perceptions of physical and societal risks and projected consequences that may subsequently affect the public's understanding, mental health climate and change-related behaviors (Schmidt et al., 2013; O'Neill and Nicholson-Cole, 2009). Climate change is experienced by some as a distant phenomenon without tangible impact on themselves or their loved ones and, for others, climate change may be seen as so powerful and overwhelming, the response is denial and avoidance (Smith & Joffe, 2013). A lack of understanding regarding climate change and its implications for human health can result in behaviors marked by passivity and continuation of actions that worsen climate change (Koh, 2016). The perception of risk regarding climate change, belief in the ability to effect change, and the etiology attributed to extreme weather events are important factors impacting the decisions people make regarding climate change-related behaviors (Spence et al., 2012).

Various populations are particularly vulnerable to the mental health effects of climate change and warrant special consideration. Among those at increased risk are children, elderly, the chronically ill including those with mental illnesses and mobility impairments, and women especially pregnant and post-partum women (Norris et al., 2002; Rahman, 2013; La Greca et al., 1996; Xiong et al., 2010; Bei et al., 2013; Somasundaram & van de Put, 2006). Those from lower socioeconomic status, including many minority populations and well as migrants, refugees and the homeless, are also disproportionately impacted by climate change as a result of disparities in infrastructure, health resources, and social and

economic mobility (Berry et al., 2010; Ramin et al., 2009; Fritze et al., 2008; Rhodes et al., 2010). These populations are at increased risk of developing psychiatric and psychological symptoms. Those working as first responders to climate-related natural disasters also experience significantly higher rates of adverse psychological effects (Benedek et al., 2007; Alexander & Klein, 2009). Individuals with pre-existing mental illness may be particularly vulnerable due to cognitive impairment associated with many psychiatric disorders as well as reduced motivation that may negatively impact self-care under stress (Berry et al., 2010; Sullivan et al., 2013). The effects of climate changes on mental health and well-being are not isolated but interact with other social and environmental stressors. The added burden of higher incidences of poverty, poor community infrastructure, sub-standard housing or homelessness, and coincidence of substance abuse all contribute to amplifying the risks for the mentally ill. Individuals taking psychotropic medications may experience diminished heat regulation and impaired fluid homeostasis, resulting in adverse medical events (Martin-Latry et al., 2007; Berko et al., 2014). Severe weather events can damage community support systems and the infrastructure that patients rely upon, leaving those most vulnerable even more isolated and alone, further diminishing their ability to cope (Galea et al., 2008).

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