

CASE AND COMMENTARY: PEER-REVIEWED ARTICLE

How Should Organizations and Clinicians Help Marginalized Patients Manage Loneliness as a Harm of Climate Change?

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Abstract

This commentary on a case outlines 4 interventions that would help to prevent or mitigate illness and attendant loneliness affecting vulnerable patients during extreme weather events. It suggests that an individualistic approach to the collective problem of climate change is inadequate and that health professionals and health organizations should (1) transition from reactive climate change strategies to integrating disaster preparedness into daily operations and (2) advocate for changes in society that address harms and begin to mitigate the negative effects of climate change, especially on marginalized people.

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Case

Dr L is an internist at a hospital in an area that has experienced increasingly frequent and intense heat waves in recent years. During last summer's heat wave, Dr L and her team saw a tremendous increase in hospitalization among various populations, including the elderly, those with underlying cardiac and pulmonary conditions, and overweight individuals.

In late spring, it was forecasted that the upcoming summer would be one of the hottest on record. Hospital administration calls an interdepartmental meeting to plan for both preventative and therapeutic intervention. At the meeting, Dr C—a psychiatrist—notes that one of her patients, MM, was hospitalized during last year's heat wave. MM was diagnosed with schizophrenia 2 years ago and takes aripiprazole; however, he has no other underlying health conditions and takes no other medications. In her review of the literature, Dr C has found a series of case reports documenting that antipsychotic drugs are associated with nonpyrogenic hyperthermia.¹ Of note, after falling ill, MM became paralyzed with worry about “getting sick from heatstroke” and did not leave his apartment for the remainder of the summer.

Dr C discusses her concerns about the effects of loneliness on patients like MM with colleagues. Dr L realizes that, as summers only become hotter, her patients will likely be

affected by loneliness as they attempt to protect themselves from the heat. Dr L wonders what she and the hospital can do to prepare.

Commentary

This case is an example of how the **costs of climate change** are imposed on those least able to absorb them. I will focus my comments here on the consequences of extreme heat events since these are now commonplace in North America and Europe, although storms, flooding, and wildfires are also becoming increasingly common.² The patient, MM, is described as “paralyzed with worry” about heatstroke, consistent with the finding that heat stress is associated with anxiety.³ Since patients with schizophrenia generally have low incomes,⁴ and Dr C’s concern for MM’s loneliness suggests that he does not have much social support, we can infer that his resources are limited. As such, he seems to be controlling his environment in one of the few ways he can in order to lower his risk of heatstroke.

However, these short-term, individualized coping strategies may well cause MM to become both more socially isolated and lonelier. Someone is socially isolated who is objectively disconnected from social networks and lacks engagement with others.⁵ By contrast, someone is lonely who is distressed by the discrepancy between the kinds of relationships they want and the ones they have because the latter are insufficient in number, of poor quality, or both.⁴ Social isolation can therefore beget loneliness, and increased loneliness may cause deterioration of physical and mental health,⁶ as in MM’s case. He may experience significant additional harms since loneliness has been shown to exacerbate certain illnesses, such as metabolic syndrome, cardiovascular disease, cognitive impairment, and depression, as well as to contribute to early mortality.⁶

Why Individualist Approaches Fail

An initial response to Dr L’s question regarding “what she and the hospital can do to prepare” for the health consequences of extreme heat might be to initiate screening for both loneliness and physical vulnerability to heat events as part of routine history taking in order to identify individuals at risk of harm from their negative consequences. Once patients have been identified as at risk, health care clinicians could (1) make them aware of community resources, such as cooling centers; (2) put them in touch with social services, such as meal delivery or home care, which decrease social isolation by introducing third parties who can monitor their well-being⁵; (3) schedule more frequent follow-ups by phone or in person; and (4) educate them early and often about preventive measures and the circumstances under which they should seek help at a hospital. The hope is that these interventions would help patients mitigate or avoid the adverse health outcomes of both extreme heat events and attendant loneliness that may result from them.

However, this initial response is unsatisfactory, for several reasons. First, this response takes climate vulnerability and loneliness to be individual health problems, when clearly MM’s situation is also an issue of health equity. To be sure, everyone is affected by “ecological determinants of health,”^{7,8} including “oxygen, water, food, materials for shelter, energy, and a stable climate capable of sustaining life.”⁷ These ecological necessities are being devastated by climate change, which is having negative effects on the health of people everywhere. However, “the impacts of climate change have a disproportionate effect on women, Black, Indigenous, and low-income communities.”⁹ This type of differential vulnerability can be characterized as a product of compounding risks (eg, conflicts, natural disasters, pandemics) and intersecting axes of social

differences (eg, gender, racial, and socioeconomic inequalities), which coexist and aggravate one another.¹⁰ Neither the harms of individual health problems nor their unequal distribution in society can be prevented by simply treating the most vulnerable patients when they present for treatment. At that point, the damage has already been done. As Lantz et al argue, focusing on this one-on-one interaction confuses “upstream socioeconomic structural drivers of population health levels and patterns with individual patient social circumstances and needs.”¹¹

Second, this approach places unfair burdens on already struggling patients, requiring them to manage their situation mainly on their own. At-risk patients attempting to access needed resources may experience obstacles, such as lack of transportation, immobility, limited English proficiency, stigma, and financial constraints. In short, patients may not have the energy or coping capacity to execute the recommendations. As a result, they may not be able to mitigate the effects of extreme heat events on their quality of life, which amounts to them paying unfair costs for the consequences of climate change. In essence, vulnerable patients are being forced to use their limited resources to unjustly pay the costs of climate change so that others can continue to reap the benefits flowing from industries and consumption levels that damage the planet.

Third, cases such as this one only arise because action has not been taken at the collective level, where large-scale problems can be addressed through policies, institutions, and infrastructure. As Panagiota and Anguelovski point out, climate-related risk and adaptation are “deeply political questions.”¹⁰ When the choice is made to defer collective action, the downstream effect is to put patients and health care professionals in situations in which their choices are limited and the options open to them cannot address the underlying causes of ill health.

Although **individualistic approaches to systemic problems** routinely fail or have, at best, limited effectiveness,¹¹ they persist. For instance, our basic utilities are not currently managed in a way that addresses the challenges of climate change. This failure is demonstrated by recent events in California, where temperatures reached their highest ever in September 2022.¹² The primary institutional response to this heat wave was to ask individual users to reduce electricity usage during peak times or travel to cooling centers.¹³ This response came over 2 years after the rolling blackouts California experienced in August 2020,¹⁴ when it was clear that energy supply was inadequate and that the loss of power posed a threat to the well-being of residents. At that time, it was the responsibility of the Public Utilities Commission, the state Energy Commission, and the Independent System Operator to take action to increase capacity in ways that would comprehensively protect the grid, but they did not.¹⁴ In addition, provision of reliable electricity in California is not expected to improve until at least 2027, since these governing bodies are unable to improve infrastructure quickly.¹⁴ Yet, at the same time that people were suffering from the effects of inadequate access to electricity, the Pacific Gas and Electric Company (one of California’s major electricity suppliers) reported core earnings of \$475 million in the first quarter of 2022, compared with \$120 million the previous year.¹⁵ Energy corporations have effectively externalized the cost of improving infrastructure and, in the process, have shifted the responsibility for maintaining access to electricity to individual users. The discomfort, illness, and death that extreme heat creates are costs paid by vulnerable individuals so that corporations can continue to profit. This example demonstrates how the destructive logic of late-stage capitalism drives climate change and worsens population health.

In the United States, we have consistently permitted collective concerns to be treated as individual problems to be solved by individual behavior changes or with private resources. It is hardly surprising, then, that these **political choices** have exacerbated health and other inequalities. Our climate policies to date have been entirely “productivity and consumption focused” and have taken virtually no account of the long-term health and well-being of citizens.⁹

Physicians Must Advocate for a Collective Approach

It is not plausible to manage MM’s risk of heatstroke and loneliness by deploying more individual health care interventions. The interventions listed above—creating awareness of and connecting to social services, follow-ups, and patient education—are suboptimal because even if they succeed, MM’s quality of life will probably still be reduced by the effects of extreme heat events. Nevertheless, these interventions are at least within the control of Dr L and her hospital administration, so they may be worth pursuing alongside other measures.

A better strategy for hospitals and health care systems is to shift from a reactive to a proactive strategy for disaster preparedness. The shortages of medicines, medical equipment, and personal protective equipment experienced throughout the pandemic have demonstrated that we cannot respond successfully to disasters by redeploying the human and economic resources ordinarily available in health care systems.² Depending on the nature of the emergency, more and different human resources, medicines, and equipment are needed for an adequate response. For instance, the primary health effects of floods are orthopedic injuries, lacerations, and hypothermia, with a subsequent surge in waterborne infectious diseases.¹⁶ The health effects of extreme heat are heatstroke, heat exhaustion, severe dehydration, and acute cerebrovascular accidents.¹⁶ Extreme heat can also exacerbate chronic pulmonary conditions, cardiac conditions, kidney disorders, and psychiatric illness.¹⁷ Clearly, the expertise, staff, equipment, and medicines required to handle each type of disaster will be very different, and additional resources will be needed over and above those typically available.

In order to manage the varied effects of climate events, we must integrate disaster preparedness into the fabric of health care institutions. To do so will require admitting that disasters are now the norm rather than the exception. Climate events are now an ongoing concern that require certain material conditions for health care professionals to perform their function. One reason that health care systems must take disaster preparedness and climate adaptation seriously is to protect patients like MM, who may not be in a position to protect themselves.

What should be avoided is the overmedicalization of the harmful consequences of climate change events. For instance, it is not enough to improve treatment and prevention of loneliness, heatstroke, and other conditions that are prevalent in disasters. Treating climate events simply as sources of health problems puts too much responsibility on only one system and ignores the fact that multiple social and institutional systems require massive transformation in order to keep people well. The energy shortage in California discussed earlier is one such example. Another is that lower crop yields due to extreme heat, droughts, and fire damage to agricultural land is threatening the global food supply.² A third example is the scarcity of potable water and the destruction of sewerage systems caused by floods in western Europe in 2021.² Strategies for climate adaptation require a reimagining of vital systems in a way that

takes account of their interdependence rather than putting the onus on health care institutions to be responsible for the well-being of society.

However, the necessary changes to health care institutions and society more generally will not happen on their own. The health care professions must use their collective voice and influence to advocate for them. It has long been recognized that physicians have a responsibility to serve the public good.¹⁸ For instance, the American Medical Association states that physicians have an ethical obligation to “advocate for social, economic, educational, and political changes that ameliorate suffering and contribute to human well-being” and to “educate the public and polity about present and future threats to the health of humanity.”¹⁹ In the case of climate change, it is urgent that these commitments be put into practice.

How then, might these obligations be fulfilled? Earnest et al define advocacy as “action taken by a physician to promote those social, economic, educational, and political changes that ameliorate the suffering and threats to human health and well-being that he or she identifies through his or her professional work and expertise.”²⁰ By virtue of their social status, expertise, and hands-on experience with suffering patients, physicians often have access to policy makers, local and national leaders, and concerned citizen groups.²⁰ In addition, physicians operating within health care systems can influence how they are managed. Physicians should use their influence to speak in favor of societal changes that would address harms and begin to mitigate the negative effects of climate change, especially on marginalized people. They should emphasize that, without broader social changes designed to protect people from the harms of extreme climate events, the long-term viability of the health care system as a whole is in jeopardy. They should also make clear that these changes must include support for forms of care and connectedness outside of health care systems. Care work is valuable and necessary for a functioning society, and policies designed to protect people from loneliness and isolation should reflect its value and aim at equalizing its distribution.⁹

Closer to home, **physicians have a responsibility** to act as change agents within their institutions to plan and allocate resources such that they can practice effectively during extreme climate events. They also have a responsibility to push back against the narrative that all social problems relating to health are properly handled by professionals situated within health care delivery systems. Individualistic strategies only reinforce that narrative, when what is needed are preventive social and public health interventions aimed at fair, effective adaptation for all.

Dr L and her hospital can undertake individual interventions that might somewhat help marginalized patients at risk for climate-related illness and increased loneliness, but they must also advocate for caregiving, connection, and large-scale strategic adaptation to be incorporated in society as a whole for patients such as MM to be adequately protected.

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Editor's Note

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