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Leveraging Advanced Technologies to Support Fasting During Disasters

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Dear Editor

In recent years, the role of advanced technologies in various fields has expanded dramatically, offering innovative solutions to longstanding challenges (1). One area where these technologies hold significant potential is in supporting individuals who observe fasting during disasters (2). Disasters, which have been increasing in frequency and intensity globally, often lead to disrupted food and water availability, forcing many individuals into involuntary fasting. In such circumstances, people may also engage in intentional fasting for religious, cultural, or health reasons, further complicating their nutritional needs during emergencies (3). These scenarios highlight the importance of addressing not only fasting practices but also broader nutritional issues, including food availability, water sustainability, and associated health hazards, in the context of disasters. This letter aims to discuss how advanced technologies, such as telemedicine and mobile applications, can provide crucial support to those who fast in these critical times, ensuring their well-being and adherence to fasting practices.

The Role of Advanced Technologies

Telemedicine

Telemedicine has revolutionized healthcare delivery by providing remote consultations and medical advice (4). For individuals observing fasting during disasters, telemedicine can offer immediate access to healthcare professionals who can provide guidance on managing fasting in the context of their health conditions and the current emergency (2, 4). This ensures that individuals receive timely and personalized medical advice without the need for physical visits to healthcare facilities, which may be inaccessible or overwhelmed during disasters (1). Additionally, telemedicine platforms can address nutritional hazards faced during disasters, such as dehydration and malnutrition, by offering tailored advice for maintaining health despite food and water limitations.

Mobile Applications

Mobile applications designed for health monitoring and management can be invaluable tools for those fasting during disasters (4). These apps can offer features such as reminders for hydration and medication, tracking of vital signs, and access to educational resources on maintaining health while fasting (1). Importantly, these applications can also integrate real-time updates on food and water availability in disaster-stricken areas, enabling users to plan their nutritional intake accordingly and mitigate sustainability challenges. Additionally, apps can provide real-time updates on the disaster situation, helping individuals make informed decisions about their fasting practices (4).

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Wearable Devices

Wearable devices, such as smartwatches and fitness trackers, can monitor various health parameters, including heart rate, blood pressure, and hydration levels (4). For individuals fasting during disasters, these devices can provide crucial insights into their health status, alerting them to potential issues that may require medical attention (2). This proactive approach to health monitoring can prevent complications and ensure that fasting practices do not compromise individuals' well-being (4). Wearables can also play a role in detecting early warning signs of nutritional deficiencies or dehydration, which are common risks in disaster settings.

Communication Platforms

Advanced communication platforms, including social media and instant messaging services, can facilitate the dissemination of important information related to fasting and health during disasters (5). Healthcare professionals and community leaders can use these platforms to share guidelines, tips, and updates, ensuring that individuals have access to accurate and relevant information (2). For example, these platforms can be used to circulate information about safe water sources, available food supplies, and precautions to minimize nutritional risks during disasters.This can help alleviate anxiety and confusion, promoting a sense of community and support (4).

Virtual Support Groups

Virtual support groups can provide a platform for individuals fasting during disasters to connect with others who are experiencing similar challenges (5). These groups can offer emotional support, share practical advice, and create a sense of solidarity (2). Advanced technologies enable the creation and management of these groups, making it easier for individuals to find and join communities that align with their needs (1). Furthermore, these groups can serve as forums to discuss the complexities of fasting during disasters, offering tailored advice for managing both intentional and forced fasting due to food scarcity.

Conclusion

Incorporating the discussed advanced technologies into disaster preparedness and response frameworks is crucial for addressing the multifaceted challenges of fasting and nutritional needs during emergencies. This includes considering the prevalence of disasters, forced fasting due to limited food and water availability, and the sustainability of nutritional practices. By utilizing tools like telemedicine, mobile apps, and communication platforms, individuals can better manage their health, adhere to fasting practices, and mitigate the risks associated with nutritional hazards.

These technologies, when combined with public health initiatives, can play a pivotal role in ensuring the well-being of vulnerable populations during disasters. I strongly encourage further research and policy initiatives to integrate such technologies into disaster management strategies.

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