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Understanding the Coping Mechanisms and Community-Based Solutions for Older Adults during Heat Waves in Bangladesh

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ABSTRACT

Heat waves have emerged as a significant climate-related hazard in Bangladesh that poses threats to human life and the quality of life, particularly among older people, who are highly susceptible due to age-related biological and sociological reasons. This study seeks to discover coping strategies adopted by older people during heat waves and analyze the probable role of community-based interventions in reducing their risks. Focusing on Lalpur Upazila of Natore district, which is one of the most heat wave–prone regions of Bangladesh, the research is a qualitative study founded on case studies, key informant interviews (KIIs), and focus group discussions (FGDs). Primary and secondary data were collected to represent both lived experiences of people and institutional perceptions. Findings show that older people use varying coping mechanisms such as modifications in behavior, utilization of social and family networks, and implementation of traditional knowledge to survive heat stress. However, with no institutionalized responses in place, these coping mechanisms are not adequate. Community-based strategies such as local care networks, information dissemination programs, and localized support groups become a major tool to enhance resilience. The study argues for mainstreaming of such community-based initiatives into policy frameworks as a whole so that inclusive climate adaptation becomes a reality. Overall, the research emphasizes the urgent need for context-driven, community-based, and policy-enabled interventions for the safeguarding of the life and well-being of older individuals in Bangladesh amidst frequent heat waves.

Keywords: Climate Change, Heat Wave, Coping Mechanisms, Older Adults, Community-Based Solutions, Bangladesh

Introduction

In fact, Bangladesh has been identified as one of the most climate-vulnerable countries in the world because of its distinctive geographic location, attendant high levels of population density, associated social and economic inequalities, and low capacity to adapt to adverse impacts and effects. Among the various kinds of climate change impacts that affect the people of this particular global region, an emergent and presently even overlooked threat has been that of heat waves, whose growing frequency, duration, and magnitude have increasingly become pronounced in recent years. A heat wave refers to those durations when higher-than-usual temperatures are experienced, leading to extreme hazards to human health,

life, and well-being. In the specific case of environmental exposures presently affecting people living in the Republic of Bangladesh, those adverse impacts are largely connected to presently prominent global and regional changes associated with climate changes, whose recent analysis on the part of various meteorological experts has identified anomalous changes associated with elevated temperatures experienced respectively within their pre-season monsoon as well as their respective summers. In fact, for instance, within one specific recent year, the Republic of Bangladesh has been subjected to no less than 94 days associated with higher-than-usual temperatures, that is, 44 (Daily Janakanthar, 2025). The effects of heat waves in Bangladesh are severe and far-reaching, as it not only affects the economic production system of the country but also the healthcare system related to public health. A recent finding shows the increased rate of heat-related admissions, especially in the aforementioned vulnerable groups of people (Shamim, 2024). Adding to these climate factors, the major cities such as Dhaka, Chittagong, and others including Rajshahi are also being plagued by the Urban Heat Island phenomenon whereby the surroundings retain the heat and thus increase the vulnerability (Adnan, 2024). The elderly population of Bangladesh is rapidly turning out to be an increasingly large section of society. They face significant challenges during the occurrence of extreme weather conditions of heat. This has resulted from their reduced ability to regulate the level of heat in their bodies through their own mechanisms because of advanced age. They are further accompanied by comorbidities. It has been proven that during an heat episode of eight days in Bangladesh, two-thirds of the increased mortality was seen in the group above 65 years of age (Gawthrop, 2017). However, despite these ominous trends, studies focused squarely on the realities of adaptation among older populations in heat wave situations have, until now, remained largely nascent.

Vulnerability in older adults has been determined by their physiological vulnerability, in addition to socio-economic or infrastructural limitations. Many older persons in Bangladesh, for example, in slum or rural settings, lack access to cooling, healthcare, or social support services. National reporting has shown that over 17 million persons, including older persons, in major cities in the country experience extreme heat exposure, which has remained unaddressed due to lack of public awareness at the community level (Mahmud, 2023). Such vulnerabilities are further exacerbated by a lack of level of preparedness, for instance, studies on the readiness of informal sector employees in Dhaka reveal a lack of readiness in terms of heat-related disasters, which likely holds similar trends in the geriatric segment who have received even more remote attention in terms of policies (Shahrujjaman et. Al, 2025). With this background, it is important to note that for elderly people, adaptation to heat wave situations is highly dependent on individual adaptation strategies and community support systems. These individual adaptation strategies may include behavioral changes, for example, increasing fluid consumption, limiting strenuous exercise during heat wave periods, using shade, and accessing basic cooling techniques such as fans or shades. Although these adaptation techniques are basic and help a great deal in responding to heat wave situations, their effectiveness is hampered by systemic issues such as power outages, inadequate housing configurations, and lack of access to healthcare services, which affect disadvantaged elderly members of society. Studies on indoor heat exposure in vulnerable domestic settings reveal that high indoor temperatures are associated with increased reporting of acute symptoms, reflecting the weaknesses associated with individual adaptation options in the absence of systemic support in heat wave adaptation (Mcgirr, 2025).

At the same time, community-based strategies appear to hold a great level of potential in enhancing resilience in the older community. Neighborhood check-ins, cooling sites in the shade or community facilities, or community-run water distribution programs, for example,

help to fill important service gaps during heat waves, particularly for socially isolated older persons who do not have relatives on whom to call in times of distress. In urban environments, community initiatives, typically organized by NGOs or community groups in urban contexts, help in awareness campaigns, basic first aid, or speedy communication about heat events, helping to fill service gaps in broader health system response strategies. These correspond with broader observations in studies on urban heat vulnerability, which emphasize the need for inclusive community-level strategies with potential in complementing top-down policies. However, grassroots measures in the Bangladeshi setting are hampered by various structural issues. There are limitations in terms of financial support, a lack of institutional connections between communities and the concerned government bodies, and the lack of planners' sensitivities regarding older people. In fact, the overall body of climate change adaptation policies in the national setting long ago gave higher importance to management measures of floods, cyclones, and cyclone-driven storm surges rather than to preparations specifically aimed at heat wave events, warned systems, or health measures. Hence, elderly people are generally lacking in activities associated with the reduction of disaster risks despite their visible vulnerability to heat-related hazards (Adnan et.al, 2024). Current literature also points to the gendered and geographical aspects of heat vulnerability in Bangladesh, suggesting that the problem remains compounded for older women, poorer families, as well as those who live in more vertically populated urban centers. In doing so, this literature underscores the need for studies that take a more contextual approach in their examination of climate adaptation, with a central focus on geriatric populations (Abrar et. Al, 2022). Heat waves in Bangladesh constitute a pressing public health issue, especially for elderly people who face increased risks to their health because of their physiological and socio-economic circumstances. Although coping strategies have become widespread, their efficiency is limited in many ways, giving rise to the need for effective support through efforts coordinated at a community level to not only shield elderly citizens against health risks associated with extreme heating but to involve them directly in efforts to develop adaptive measures for confronting climatic challenges.

Objective of the Study

The general objectives of the study to understand the coping mechanisms and community-based solutions that support older adults in Bangladesh during climate change-induced heat waves, with a view to enhancing their resilience and well-being.

1. To explore the coping mechanisms adopted by older adults during heat waves in Bangladesh.
2. To examine the role of community-based solutions in supporting older adults during extreme heat events.
3. To recommend community-driven strategies for enhancing the resilience of older adults against heat waves.

Methodology

This study employed a qualitative research approach to investigate the impact of climate change-induced heat waves on the older population in Bangladesh, focusing on both policy responses and community-based solutions. Lalpur Upazila in Natore District, a region frequently affected by extreme heat, was selected as the study site due to its vulnerability. Participants aged 60 years and above were purposively selected for in-depth engagement. Data were collected through 20 case studies (ten male and ten female older adults), four focus group discussions (each comprising 6–8 older participants), and four key informant interviews with local government officials, healthcare providers, local leaders and NGO representatives. Field observations were also conducted to understand the environmental and

social context. Thematic analysis was used to interpret the data, focusing on health risks, socio-economic challenges, coping mechanisms, and gaps in policy and institutional support. Ethical considerations were maintained throughout the study, with verbal consent obtained from all participants, ensuring confidentiality and compliance with university research ethics guidelines.

Coping Strategies of Older people during heat Wave

Heat waves are becoming an extremely serious global threat due to climate change. Bangladesh is a tropical country, and therefore heat waves are quite common there, particularly between April and June. Heat waves disproportionately impact older people since they are more susceptible to the resulting health and environmental issues. Heat waves bring about numerous societal, economic, physical, and psychological issues for older people. This section looks at coping strategies employed by Bangladesh's older citizens, and it is carried out with focus on family support systems, community initiatives, and culture**.**

Indigenous and Conventional Strategies for Coping

Bangladeshi elderly tend to fall back on traditional and local coping strategies to counteract the effects of heat waves, depending on local materials and indigenous knowledge to counteract the effects of extremely high temperatures. Elderly individuals can get used to heat stress, stay hydrated, and preserve their health in extreme heat by using these time-tested traditional coping strategies. Deep tube wells are amongst the most common methods of use of ancient processes to obtain fresh water. With the onset of hot weather conditions when water issues become a crucial matter, nearly all elderly, especially in countryside, resort to deep tube wells, which normally exist near water bodies or river courses, in order to fetch a constant output of water. This localized water supply is crucial to the prevention of dehydration, which has been a catastrophic health problem during periods of extreme heat, since it is a constant source of drinking water and water for household use like cooking and showering. In addressing the effect of climate-related concerns, measures that are initiated at the community level are important, as evidenced by the utilization of these deep tube wells. Aside from conserving water, elderly people also use traditional ways of water purification to guarantee that the water consumed is safe. Bangladeshis frequently boil water, particularly in rural areas where waterborne illness is common. Given that extreme heat can support bacteria and disease formation in water supplies, boiling water allows elderly people to minimize the risk of unsafe water and protect their health. During heat waves, when contaminated sources of water and unhygienic conditions exacerbate the danger of waterborne illness like cholera and diarrhea, boiling water is especially useful practice. Another widespread method for dealing with heat waves includes personal means of cooling, a lot of them being water-based. Older people tend to use water to cool their bodies by soaking cloths in cold water to apply on their skin, splashing themselves, or showering a few times a day. With these cooling processes, you can escape the burning heat temporarily and maintain your body temperature at a comfortable level. Also, older adults prefer to avoid direct sunlight by seeking shelter in cooler or shaded spots, e.g., beneath big trees or in naturally cooler rooms. Older adults are highly susceptible to heat illnesses like heat exhaustion and heatstroke, and therefore these personal cooling strategies are essential.

These traditional and indigenous coping methods demonstrate the ingenuity and resilience of Bangladesh's elderly population. Although these strategies provide short-term relief, they don't solve the bigger issues provoked by climate change and rising temperatures. To provide the older persons with an adequate amount of resources and support to cope with heat waves as well as other climate stresses, there is increasing need for cohesive approaches that link traditional knowledge to contemporary climate adaptation practices.

Family Assistance of Older People to Cope with Heat Wave

Family support plays an essential role in helping older people manage the practical, emotional, and physical stress resulting from heat waves in Bangladesh. Older people tend to rely on their younger family members to give them both direct and indirect assistance in a bid to minimize the negative impacts of extreme heat, as they have less physical power and are more vulnerable to heat-related illnesses. Involvement of family members ensures that the old are given the care they deserve to be safe, healthy, and comfortable amidst such hectic weather conditions.

Helping with day-to-day activities and manual work is likely the greatest way family members help aging persons. Due to heat strokes, elderly persons frequently struggle to do cooking, housework, bringing water into the house, or even walk, so the younger members of their family assist in these operations. This ensures older persons don't get too much heat or workload, which will only make them weaker. Those members of the family who perform these domestic tasks allow their older relatives to rest and prevent physical exertion, which is especially crucial during heat waves when there is a higher risk of heat exhaustion or heatstroke. During periods of prolonged heat, family members also have a significant role in arranging for rest and sleep. Heat waves tend to cause sleep disturbances, especially when load shedding or power outages prevent fans or air conditioners from functioning. The hot weather may worsen sleep disturbances among older people who may already be suffering from sleeplessness or other discomforts induced by age. The family members try to provide more comfortable sleeping conditions in such situations by employing manual fans, placing mattresses in cold parts of the house, or cooling down the bodies of their relatives with water. Such comforts make rest for elderly people easier for them to achieve and maintain their general well-being and health.

During heat waves, families are also responsible for aiding elderly individuals in providing healthcare aid. Older individuals often require healthcare due to the increased risk that they are faced with when facing heat-related maladies like dehydration, respiratory disorders, and heat exhaustion. As long as their usual coping abilities are not good enough to maintain the level of care needed for aging family members, families then have an integral role. They can help relocate the elderly to hospitals or other health facilities so that the heat-related diseases can be provided with immediate medical care. Families also tend to offer reassurance and psychological and emotional support under such adverse conditions, which helps reduce the strain, anxiety, or bereavement caused by exposure to abnormally high temperatures for an extended period.

Emotional support from family members also helps older adults deal with the psychological effects of heat waves, including social isolation, anxiety, and fear. Family members are usually the main source of comfort and companionship for the elderly who live alone or who do not have a large social network. During heat waves, when imposed isolation can make the elderly feel more lonely and disconnected from society, this emotional support becomes even crucial.

In summary, family support helps elderly individuals conquer the challenges caused by heat waves. Family members are tasked with ensuring elderly individuals can endure harsh heat conditions alive by offering from routine help in daily tasks to psychological support and medical attention. The adverse effects of heat waves may be reduced by ensuring intergenerational coordination and improved household support systems, especially in the event of increased climate change inducing the intensity and frequency of occurrence.

Adapting to Infrastructure and Environmental Constraints

Heat waves in Bangladesh routinely lead to power failure, and elderly people and their households have initiated creative solutions to deal with such infrastructural problems. These strategies for coping are aimed at using resources at hand and modifying daily patterns of activity to reduce the effects of overwhelming heat, especially under circumstances in which cooling devices like fans and air conditioners cannot be used because of a power failure. The utilization of alternative forms of cooling is among the major adaptation techniques for power loss. In the event of an electricity outage, older adults and their families tend to use natural ventilation techniques to allow for airflow and cool indoor spaces. For instance, to allow cooler air to flow through living rooms, beds are moved strategically next to windows or to areas where cross-ventilation is possible. At times, as it is cooler outside, older persons choose to sleep on porches or in shaded areas during the night. In addition, as they provide instant heat relief, hand fans are still a popular personal cooling tool. In spite of infrastructural limitations, these low-technology, easily accessible measures illustrate how resourceful older people and their families can be in reducing heat exposure.

Intentional reduction of physical activity during the day's hottest period is another adaptive response to heat waves. Elderly individuals intentionally limit outdoor and physical activity to prevent fatigue and overheating because they understand the dangers of overexertion in excessive heat. By reducing the amount of time spent exposed to hot weather, this behavioral change works to lower the risk of heat-related illnesses like heatstroke and dehydration. Older people are better equipped to handle the physical strain of extreme heat by modifying their behavior according to cooler times of the day, such as late nights or early mornings. As Bangladeshi aging populations struggle with the compounded challenge presented by climatic and infrastructural conditions during heat waves, these adaptive measures are a testament to their resilience and resourcefulness. However, infrastructural development and institutional support are fast becoming necessary to protect the safety and well-being of vulnerable groups, and more specifically, the elderly, as climate change continues to intensify the frequency and intensity of heat waves.

Coping Strategies for Mental Health

Heat waves can seriously worsen mental illnesses in the elderly, including depression and anxiety. Older individuals tend to utilize a set of coping strategies to deal with these problems, with strong reliance on emotional support from family members and neighbors.

Families play a fundamental role in ensuring that older people receive emotional support from them during periods of excessive heat. Encouraging family members can be beneficial in eliminating the mental anxiety and concern which often go hand in hand with episodes of extreme heat. This support is particularly vital for elderly persons who have experienced health complications from previous heat waves or those who have witnessed others experiencing heat-related illnesses. Older people are comforted by the knowledge that they are not alone in overcoming these obstacles, which diminishes the feelings of isolation and anxiety during a challenging time.

Heat waves can contribute to mental distress due to social isolation, particularly for individuals who are living on their own. To alleviate this, families and societies invite older citizens to engage in low-level social interaction like storytelling, talking, or reunions in more comfortable places during heat waves. Such interactions during heat waves make older people feel less lonely and less anxious by generating a sense of attachment and an avenue for venting.

Older persons in Bangladesh utilize varied coping mechanisms to deal with the psychological and physical strain caused by heat waves. These include hydrating and cooling themselves using traditional, indigenous coping strategies and depending on family and community support networks. These coping mechanisms are required to reduce the short-term impacts of heat waves but also reflect the degree to which older people are dependent on external support systems. Targeted intervention is needed that aims to build the resilience of older people as heat waves become more frequent and intense with climate change. Reducing the vulnerability of the elderly to heat-related illnesses includes strengthening community-level cooling mechanisms, improving access to medical care, and improving water infrastructure.

Comprehensive Suggestions to Minimize the Impact of Climate Change-Induced Heat waves on Older People

Heat waves are a natural calamity that has a disproportional impact on vulnerable groups, especially the aged. Climate change endangers the physical, social, and psychological lives of the elderly in Bangladesh and adds to these susceptibilities. The majority of the elderly claim that they do not get adequate support from local government bodies, irrespective of the intensity of these issues. Within the context of climate change, this chapter synthesizes the suggestions made by older individuals for reducing heat wave effects. It also offers insightful information on possible, policy-based adaptation and mitigation strategies by which they can be rendered less vulnerable to heat waves in the future.

Establishment of a Heat Wave Alerting System

One of the main issues brought up by elderly citizens is the absence of an effective warning system for heat waves. To increase preparedness, they stress the importance of maintaining an effective early warning system that can alert individuals in advance of the approaching heat waves. Seniors would be able to take the appropriate preventive steps prior to the intensity of the heat peaking because of such a system.

There must be a reliable heat wave warning system that sends important information via radio, television, text messaging, and local public announcements. This way, older individuals especially those who reside in rural or far-flung areas would be aware of impending heat waves and would be able to guard themselves from prolonged exposure to the sun during the hottest time of the day.

Moreover, the alerts must be localized and specific to regions, keeping in mind the special requirements of the elderly. Precautionary measures for protecting oneself from heat, such as remaining under the shade or in cool places, hydrating excessively by drinking water, and abstaining from hard labor, must be included in such local alerts. Older individuals would be better equipped to defend themselves during periods of intense heat if such localized notices were made available.

Public Awareness and Educational Campaigns

To ensure public consciousness of heat wave problems and give advice on coping with hot weather, the elderly advocate for awareness-generating activities like conferences, seminars, and public awareness campaigns. Such activities are imperative in raising the consciousness of communities more vulnerable populations like the elderly in particular regarding the risks associated with excessive exposure to heat and steps to be adopted in preventing its consequences. Awareness is key to ensuring older groups' safety and well-being since heat waves are becoming more intense and more frequent due to climate change.

Local authorities and non-governmental organizations (NGOs) should organize community-based workshops and seminars that specifically address the health risks of heat waves. These forums would be interactive sessions where experts provide information on contemporary and traditional coping mechanisms. Communities would also have a clear understanding of why temperatures are rising through debates on climate change and its long-term effects on the weather. Engaging older adults in such forums can also offer insights into long-term coping strategies that have been employed over generations. Such forums expose older adults to information on how to stay safe during heat-waves, for example, how to recognize early warning signs of heat illnesses and modify daily routines to minimize exposure.

Public information campaigns should be adapted to the needs of older citizens through providing straightforward advice. Essential prevention measures, such as drinking water, keeping homes at a low temperature, and avoiding heavy physical activity during hot times of the day, need to be highlighted in educational material like posters, leaflets, and web pages. Home visits by volunteer workers who offer direct assistance and demonstrations of heat management skills are another option for community participation activities. Moreover, information would be easily understandable and accessible to older persons, especially those with lower literacy levels, if local language and culturally appropriate messages were used.

These campaigns may be expanded to the general public using media like television, social media, and radio. The information can be given in a more realistic and interactive way by emphasizing real circumstances, professional opinion, and emergency response procedures in special TV or radio programs. In order to create a spirit of shared responsibility and care, public messages can stress visiting the elderly neighbors and relatives during heat waves. The preparedness for heat waves by Bangladesh can significantly be improved with large-scale awareness-raising campaigns. Public awareness regarding the risks of excessive heat and appropriate safety precautions, particularly among elderly people, will enable them to take proactive measures, which in turn will minimize deaths and diseases resulting from severe heart attacks.

Providing Health Campaigns and Medical Support

Older people are especially susceptible to heatstroke, dehydration, and exacerbation of pre-existing conditions during heat waves. They advocate targeted medical treatment and public health campaigns for heat illness prevention in the face of this increased vulnerability. During the heat wave period, the government and healthcare providers should engage in outreach efforts where older people receive free or significantly reduced health screening and treatment. By eliminating the need to travel long distances to health facilities, mobile clinics can be established to provide elderly citizens in rural areas with necessary medical care.

Moreover, since heat increases chronic health conditions like cardiovascular and respiratory illnesses, older people suggest maintaining access to needed drugs during heat waves. The dangers of heat-related health complications would be reduced by making these drugs accessible.

The reasons for aggravating dehydration and enabling the emergence of water-borne diseases under national circumstances involve the absence of water and existence of high contamination during heat waves. Following senior citizens, the government at a national level needs to make more initiatives towards the supply of clean drinking water along with the reduction of contamination. This may include the supply of community-level water tanks

to achieve clean drinking water access, ensuring clean tube wells, as well as fitting water purification tablets or filters into houses.

Furthermore, since heat waves exacerbate respiratory and other diseases, it is essential to reduce air and water pollution. Elderly people emphasize the need for introducing stricter laws to reduce industrial emissions and enhance waste disposal. Municipal governments can reduce the negative effects of heat waves on health and assist vulnerable groups, especially the elderly, better by dealing with these environmental issues.

Reducing Power Outages in Heat waves

The impact of regular power outages, also known as "load-shedding," during heat waves is most severe for older persons, who rely on air conditioning or fans to cool themselves. For comfort and good health, there has to be a steady supply of energy during heat waves at their worst. The government must spend money to upgrade the nation's electrical grid to make power outages fewer and farther between, especially during crises, according to elderly individuals. To function during heat waves, medical devices like oxygen concentrators and medicine storage refrigerators require a consistent source of power as well as cooling of elderly patients.

Furthermore, access to alternative energy technologies is a preferable choice in situations where a reliable power source cannot be assured. Solar-powered fans or coolers could bring relief in regions where the power grid is unstable, lessening the negative effects of power outages on older adults. By providing some comfort and autonomy to older adults, these technologies would allow them to better endure the hardships of heat waves.

Enhancing Family and Community Support Systems

Heat waves in Bangladesh pose extreme hardships to the aging population, who mainly depend on family and community resources to get through these tough times. Strengthening of these support systems is paramount to minimizing the exposure of older persons to extreme heat stress events. During hot weather, older persons call on the younger generations to be actively involved in assisting their aging parents by encouraging the culture of family-based care. Programs that stress the need to keep a watch on the health and welfare of elderly persons and alert the families to their particular needs during heat waves may be a part of this.

Constructing neighborhood-level cooling centers is also thought to be an efficient way of offering relief during the hottest time of the day. To make sure that older individuals can find shelter from the heat, drink plenty of water, and get any assistance they require, these centers should be equipped with the basic necessities. The establishment of these spaces and the encouragement of family and community support can go a long way in increasing the resilience of the aging population to better deal with the negative impacts of heat waves.

Conclusion

This study explored the coping mechanisms adopted by older adults during heat waves in Bangladesh and examined the role of community-based solutions in reducing heat-related vulnerabilities. The findings reveal that older adults rely primarily on informal and low-cost coping strategies, such as reducing physical activity, increasing water intake, seeking shade or ventilation, and adjusting daily routines. However, these individual-level strategies are often insufficient due to age-related health conditions, limited financial capacity, social isolation, and inadequate access to cooling facilities. As a result, older adults particularly

those living alone, in poverty, or in densely populated urban and climate-exposed rural areas remain highly vulnerable during extreme heat events. The study highlights the critical importance of community-based support systems in enhancing resilience among older populations. Informal networks, including family members, neighbors, and local volunteers, play a significant role in providing timely assistance, such as checking on older persons, sharing water and food, and facilitating access to healthcare. Community institutions such as mosques, community centers, and local NGOs also emerge as vital spaces for awareness dissemination, temporary cooling shelters, and collective action during heat waves. These locally grounded responses are especially effective because they are culturally appropriate, trust-based, and responsive to local needs. Despite their potential, community-based initiatives face structural challenges, including limited resources, weak coordination with government agencies, and the absence of age-sensitive disaster preparedness planning. The lack of targeted public health messaging and early warning systems tailored to older adults further exacerbates heat-related risks. This underscores the need for stronger integration between formal policy frameworks and grassroots community efforts. In conclusion, addressing heat wave vulnerability among older adults in Bangladesh requires a multi-layered approach that combines individual coping strategies with robust community-based solutions and supportive public policies. Strengthening local networks, investing in community infrastructure, promoting heat-health awareness, and incorporating older adults' needs into climate adaptation and disaster management policies are essential steps toward building inclusive climate resilience. By recognizing older adults not only as vulnerable recipients but also as active participants in community resilience, Bangladesh can move toward more sustainable and equitable responses to increasing heat wave risks.

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