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Flood-Induced Gendered Health Vulnerabilities and Adaptive Capacities in South Punjab, Pakistan

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ABSTRACT

This study aims to explore the flood-affected people's experiences of healthcare services as a consequence of floods, how disasters disrupt women's mobility, and gender-specific health issues. This study seeks to explore how gender roles, access to healthcare, limited mobility, and care obligations influence health consequences and contribute to different vulnerabilities in flood-affected areas. A qualitative research approach and phenomenological research design were used. The participants were recruited from the Rajanpur District of Punjab, Pakistan. Thirty flood-affected individuals (fifteen females and fifteen males) were purposively selected for in-depth interviews, and thematic analysis was performed for analysis. Results show that there was a high level of gender inequality in the access to healthcare services and provision of reproductive health, as well as psychosocial well-being. Women reported feeling burdened by their caregiving responsibilities, experiencing a lack of privacy in shelters, and facing limitations in accessing medical help. Indigenous adaptive resilience did nevertheless occur in the form of community-based women's networks and informal care systems. The study concludes that promoting gender-sensitive disaster health planning may help to reinforce inclusive adaptive capacities and enable equal health interventions in flood-affected areas. .

Keywords: *Floods, Gender, Inequalities, Healthcare, Diseases.*

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Introduction

In the recent decades, floods have escalated both in frequency and strength, triggered in great part by the outrageous effects of climate change and bearing an unfair proportion of the brunt of them on populations in low- and medium-income countries (Intergovernmental Panel on Climate Change [IPCC], 2022). In such settings, women have greater health vulnerabilities before and after floods, which is a factor influenced by already existing gender disparities, limited medical facilities, and socio-cultural confinements (Neumayer & Plumper, 2007; van Daalen et al., 2022). The gendered experiences of health in the face of flooding should not simply be seen as a product of differences in biology but as the result of broader social, economic, and institutional marginalization. The cross-cut of poverty, caste, class, and gender prepares the ground for different levels of health vulnerabilities and adaptive capacities (Sultana, 2010). These patterns of gendered health vulnerabilities and adaptive processes are crucial for policymakers to design inclusive disaster risk reduction (DRR) and climate resilience programs.

Women face a broad range of health risks in times of flooding disaster, including reproductive health issues, escalated risks of waterborne disease, and psychosocial stress and trauma (Safajou et al., 2024). Pregnant and lactating women, adolescent girls, and elderly women are bare to increased health risks caused by interruption of maternal health care services, inadequate supply of menstrual hygiene products, and restricted mobility (van Daalen et al., 2022). Post-disaster environments further amplify gender differential health outcomes for reasons such as sexual violence in shelters, food scarcity, and loss of livelihood, directly impacting the mental and physical well-being of women (Memon, 2020; Wisner et al., 2012). In patriarchal societies such as Pakistan, vulnerabilities are exacerbated by societal gender norms that restrain women's access to public healthcare services and involvement in community decision-making. Research in South Asia shows that during disasters, the health needs of women are often ignored because disaster relief efforts typically use one-size-fits-all solutions instead of addressing specific needs for women. Such gender-blind policy and implementation obstruct the quest for equitable disaster response and recovery, particularly in flood-prone contexts where limited healthcare access is already an issue.

Floods promote the transmission of epidemic diseases such as cholera, typhoid, dengue, and skin diseases, which have gender-specific health effects; women are particularly vulnerable due to their more frequent caregiving responsibilities and increased interaction with contaminated water (Nahar & Pillai, 2025). Women and girls commonly are responsible for fetching water and cleaning and taking care of sick family members in the household, tasks that increase their exposure to water and vector-borne diseases in the wake of a flood. "*Disruptions to reproductive healthcare services, such* as *gynecological and Postpartum care, family planning, and emergency obstetric care tend to reduce maternal and infant mortality.* According to the United Nations Population Fund (UNFPA), estimates are around 650,000; the women in the flood-affected regions need maternal health services to achieve a safe pregnancy and delivery. At least 73,000 women were expected to deliver in one month; hence the need to access skilled birth attendant services, holistic newborn care, and other resources (UNFPA, 2022). In spite of the significant challenges that are associated with flood events, empirical evidence indicates that women exhibit a considerable display of adjustment abilities in such an environment. The adaptive capacity, which combines the ability to predict, respond to, and recover from shocks, is neither universal nor equally distributed, but it is regulated by access to resources, level of study, social networks, and degree of agency (Cutter et al., 2010). In the flood-affected communities, women have been demonstrating resilience through the mobilization of social capital, the establishment of women's disaster response committees, and the systematic use of indigenous knowledge to protect themselves and their livelihoods (Sultana, 2014). As informal caregivers and social organizers, women become the most important actors in the process of post-disaster recovery, but their efforts go largely unrecognized and unvalued.

Gendered adaptive capacities also include additional sources of income and involvement in microfinance programs as well as creating

informal network-based support to access healthcare services and resource allocation (Drolet et al., 2015). In addition, the implementation of gender-sensitive early warning systems and women's need-based health interventions, including mobile maternal clinics and gender-segregated camps, has demonstrated some effectiveness in reducing health hazards (Enarson & Pease, 2016). However, such efforts are still limited and non-institutionalized in the national disaster management system. The need to move beyond gender-sensitive and gender-responsive approaches in disaster risk management, which transform gender roles and challenge the underlying causes of gendered vulnerabilities while building women's adaptive capacities through participation, empowerment, and equitable access to health services, is increasingly discussed in the literature (Yavinsky et al., 2015). Mainstreaming gender in health and disaster policy, as well as disaster response and flood response plans, is imperative to keep health systems sensitive to the varying needs of women and men. Such mainstreaming implies gathering sex-disaggregated health statistics, incorporation of the voices of women in the decision-making process, and considering intersectionality of gender and other social determinants of health, among them age, disability, and socio-economic status (Bradshaw, 2013).

This study explores the experiences of flood-induced gendered health vulnerabilities and adaptive capacities in South Punjab, Pakistan. This study aims to gather participants' experiences regarding health issues caused by disasters that disrupt access to both general and gender-specific healthcare services.

Research Methodology

In this study, we took a qualitative research approach to understand the gendered health susceptibility and adaptive capacity toward the flood disaster in the district of Rajanpur, South Punjab. A phenomenological research design was chosen to explore the lived experiences and perceptions of people living in flood-affected areas (Creswell & Poth, 2018; Van Manen, 2016). Thirty participants from both sexes (fifteen males and fifteen females) were purposively recruited through a gatekeeper to include the most flood-affected. Data collection was done until saturation was achieved, and after this, there was no more development of new themes (Guest et al., 2013). A semi-structured interview guide was used to conduct in-depth interviews (Kallio et al., 2016). Interviews were carried out in local languages, audio recorded with participants' consent, and also included participant observation to incorporate non-verbal communication and contextual details (Patton, 2015). All interviews were transcribed at the word level to ensure accuracy and transparency. In this paper, all participants were assigned pseudonyms to protect their identities and maintain anonymity (Liamputtong, 2010). The thematic analysis method of Braun and Clarke (2006) was applied to analyze the data. This approach enabled the researcher to explore gendered vulnerabilities and adaptive capacities of flood-affected individuals (Nowell et al., 2017).

Data Analysis

This paper aims to examine the gendered health vulnerabilities and adaptive capacities in flood disasters, highlighting how the crisis exacerbates pre-existing health inequalities. Among marginalized groups, there was restricted access for women, children, old individuals, and others to healthcare, safe water, sanitation, and hygiene (WASH) services. Floods increase the transmission of both waterborne and vector-borne diseases, and mental health concerns such as trauma and fear tend to go unattended, particularly in females. The neglect of gender-specific health requirements, such as reproductive and maternal health, persists. Findings indicate an urgent need for comprehensive interventions that address both gendered health vulnerabilities and adaptive capacities in flood-affected areas, taking into account the psychosocial recovery and physical health of communities.

Access to Healthcare Services

For the flood-affected communities, accessing healthcare was especially problematic during and post-flood disasters. Both men and women faced disruptions due to damaged infrastructure and limited availability of medical supplies, as well as gender-specific barriers. The lived reality reveals gaps in emergency response and long-term healthcare support, highlighting the complex interplay of physical, social, and cultural factors that affect access to healthcare services.

Floodwaters not only damaged roads but also destroyed clinics, rendering healthcare unavailable. Participants described having to travel long distances or being unable to access health facilities because the roads were blocked. Some men discussed their efforts to find alternate routes to reach medical camps, while women voiced concerns about safety and restrictions on their mobility. A male participant stated, *"The main roads were underwater after the flood. I had to carry my injured brother in floodwater and mud; it takes time to reach the medical camp for healthcare services"* (Waseem, M, 40).

In the absence of formal medical care, neighbors and local volunteers were increasingly providing essential assistance for healthcare needs. A female participant shared, "*Our neighbors supported medications and treated wounds when the clinics were closed. It was us against everything else, and we pulled together; we depended on each other to survive during the flood disaster"* (Fara, F, 39). Most of the people in the flooded areas stressed the inadequacy of medical assistance and sanitation facilities that heightened health risks, especially for women and children. The participants highlighted the need for gender-responsive health care and food security during floods in light of specific vulnerabilities.

A female participant emotionally expressed:

There was no medication during the flood to cure my child's fever. There was no doctor at the clinic due to the flood disaster. The medical camps were not established and functional to provide health aid services. We felt completely helpless to watch her suffer (Zohra Bibi, F, 47).

Both men and women stressed the importance of gender-centric emergency health care planning that takes into consideration mobile clinics, women's health workers, and safe transport going in and out for women. A female participant stated, *"The government needs to deploy lady doctors and paramedic staff to attend women in camps who were unable to travel and go on their own far due to flood and cultural constraints"* (Alia, F, 32). Availability of health care at the time of the flood and after the flood was highly affected by physical damage and socio-cultural factors. Disparities arise from gendered restrictions on mobility and resource scarcity, emphasising the pressing need for gender-responsive disaster health planning and community-based support networks.

Water, Sanitation, and Hygiene (WASH)

In flood-affected areas, availing safe drinking water, adequate sanitation facilities, and hygiene was extremely difficult. It was not only poor health that was at risk when the most fundamental infrastructure failed: the impact disproportionately fell on women and children because of gendered roles in caregiving and the collection of water for domestic use. Insecurities related to WASH lead to health concerns, raise psychosocial stress, and generate vulnerabilities on a gender basis.

To understand the effect of flood disasters on daily hygiene, a female participant shared:

There was no clean water after the flood. I washed the dishes with dirty water and used the same water for cooking. My children suffered from diarrhea, and I was powerless to do anything but watch them cry, as we had no access to medication or clean water. We relied on government and NGOs' relief support (Shazia, F, 32).

The participant's statement illustrates how hygienic practices deteriorated after the flood. The emotional strain was intensified by the inability to protect children's health, providing a window into the emotional strain of caregiving facing a crisis. It illustrates the connections between lack of WASH and motherhood, with immediate consequences for emotional well-being and child health.

Male and female participants emphasize the absence of bathroom facilities: *"Everybody began going into the fields due to the unavailability of toilets. It was difficult, especially for women and children. Our women waited until dark; it was not safe"* (Bushra, F, 26). On the other hand, a male participant stressed that, *"I observed my sister feel uncomfortable and cry due to lack of privacy, but she had no other option"* (Raza, M, 25). The participants highlight the loss of their privacy and dignity, giving way to fear and anxiety, especially for women. It also increases the risk of sexual violence due to lack of secure sanitation facilities. Men's perceptions on the gendered impact of the security risk and the psychological burden for women, which consolidates the issue of sanitation as a health and gender issue.

A male participant stated:

Unfortunately, people have to share contaminated floodwater, which is tainted by toilet and sanitary waste. Some people got skin rashes, and children were coughing. Even we and our animals drank water from the same place. We knew it was hazardous, but there was no other option (Zeeshan, M, 34).

The statement emphasizes involuntary reliance on unhealthy water sites, risking an epidemic outbreak of disease. Due to lack of water resources and alternative ways to compel the use of contaminated water. During the disaster, people and animals drank water from the same place because they were helpless. It was more important to survive than to be safe.

About gendered roles in the collection of water, a female participant reported:

I used to walk daily for two kilometers to fetch clean water from a hand pump. Due to the rush of people, I had to stand in the lane and wait for my turn to collect water. It was my responsibility, and my husband made sure to arrange food as traditional roles. I carried water on my head and shoulders, even though I was suffering with illness (Nazia, F, 28).

In the context of a disaster, the burden of water collection and other responsibilities is gendered. Women continue to care for others even when physically suffering. Despite health concerns, they continue to fight for clean water. Men were responsible for arranging food for their family as breadwinners. Moreover, with no shared responsibilities during a crisis, the daily gendered division of work becomes an even more painful reality.

Waterborne and Vector-borne Diseases

Floods cause stagnant water, disturbed sanitation, and contaminated water, producing fertile ground for water- and vector-borne diseases. Underdeveloped health systems, poverty, and gender inequalities strongly determined the consequences in flood-affected areas. Diseases like cholera, typhoid, malaria, and dengue were widespread there, discouraging the community welfare.

An interviewee described the unmanageable level of illness in the days after the flood; a female participant said, *"My children began to have diarrhea and vomiting. The water was contaminated, and there were no other safe drinking options available. I had to take my son to the medical camp to get medicine. He had been sick for several days, according to Shazia, a 32-year-old female participant.* In this statement, the participants express their concerns about health issues caused by polluted water sources. Poor access to clean water and health-care facilities adds to the stress of parents and the vulnerability of their children. It also underscores how women, as caregivers, often carry both the emotional and logistical pains of family illness in flood-affected regions. A male participant shared his family's use of home remedies in the absence of doctors: *"My sister was very ill, and I was praying every night. We did not have medicines. My mother prepared a home remedy for diarrhea by mixing mint, salt, and water*. (Bilal, M, 32) This quote reflects dependence on traditional information and faith-based adaptation in the absence of formal medical care.

A male participant shared:

We slept without nets; mosquitoes were everywhere after the flood disaster. My brother got dengue fever. The absence of a blood testing facility in the medical camp contributed to the situation. The doctor gave him some basic medicines on the basis of symptoms. With the Grace of ALLAH, my brother started recovering after one week (Raza, M, 25).

This statement emphasizes the increase in vector-borne diseases such as dengue as a result of stagnant flood water. It also reflects the blind trust in local medical treatment and health care because of ineffective services. Men were positioned as family protectors, with examples being worries about siblings and attempts to guarantee health care access.

A male participant explained his anxiety and stated:

Every second person got sick in camps due to malaria, diarrhea, and fever. My mother came sick. I remain awake at night, monitoring my mother to ensure her well-being. We felt our mother could not survive due to lack of medical facilities (Waseem, M, 45).

These words reflect the terror and impotence felt

at the time of large post-flood epidemics of diseases. The metaphor of "death walking among us" was indicative of psychological trauma, and the absence of appropriate health facilities amplifies the vulnerability. The male's attentiveness reflects responsibility in the absence of health support. Health crises triggered by flooding intensify structural vulnerabilities and gendered health inequities. Men's protectiveness, women's nurturing roles, and collective fears all play a significant role. The participants describe how outbreaks of disease stretch resources and family duties. Dealing with waterborne and vector-borne diseases necessitates medical care alongside gender-sensitive disaster planning and health support systems.

Psychological Impacts

Flood disasters bring with them not only destruction of physical and economic infrastructure but also significant influence on the mental health and psychological well-being of affected individuals and communities. The flood-affected survivors suffer from long-term traumas, anxiety, and emotional distress, which have a great impact on the post-disaster recovery. Emotional reflections, which repeatedly arose in the interviews, were feelings of helplessness, fear of reoccurrence, reactions to the trauma, and a sense of abandonment. These observations emphasize the urgent requirement of incorporating psychosocial support into disaster response systems in Pakistan.

A female participant shared a painful evacuation:

I would not stop yelling when floodwater came into our house due to heavy monsoon rains. I took my children and ran barefoot. I am still suffering with that trauma. Even today, *'when I listen to the rain, my chest tenses.'* I have been unable to sleep well since that night. It feels like I am still in a flood (Shazia, F, 32).

Survivors of floods endure long-lasting psychological damage. The participant's constant worry and sleeping disturbance were consistent with post-traumatic stress. The memories of the flood, triggered by rain, illustrate how disasters continue to affect survivors' minds long after the physical event has ended.

A male participant shared his mental health after losing his job:

The flood disaster had badly affected our livelihood. The flood disaster damaged my yields and filled my agricultural land with water. I had no other source of income, which made me helpless and unable to do anything for my family. I went into depression and stopped speaking with others (Hassan, M, 40).

The statement shows depressive symptoms such as withdrawal, worthlessness, and helplessness. Losing an economic resource was more than losing material wealth; it was an attack on identity and purpose, especially for men who were to provide for families. The psychological cost of devastating financial loss in disaster contexts cannot be overstated.

A female participant expressed a psychological condition:

We didn't know if we were going to live. With every passing instance time, I thought, *'Maybe this was our last night.'* I hugged my kids and prayed. I'm still scared when I think about those days. It's as if my brain refuses to let it go (Fatima, F, 35).

This narrative highlights the acute stress caused by the disaster and the persistent fear that follows it. The fear of powerlessness and disease experienced during the disaster was leading to hypervigilance and anxiety. The survivor's mention of memory subjugation reflects the symptoms frequently connected with trauma and psychological damage. A male participant emotionally shared, *"I lost my friend in the flood night while helping other people. I can't believe or forget his death. I can't stop my tears whenever I contemplate my friend"* (Zeeshan, M, 34). The emotional shock and grief were overwhelming. The disaster resulted in not only material loss but also the death of a kind and humble person. Floods disrupt the continuity of life and leave emotional gaps. His statement shows how natural disasters also break down individuals and social bonds.

Gender-specific Health Issues

Flood disasters interrupt access to medical care, exacerbate illness, and create new health hazards. Health vulnerabilities and adaptive capacities are dependent on gender roles. Women were particularly vulnerable due to their reproductive health, mobility constraints, and caregiving workloads, while men often refuse to discuss

emotional stress and delay seeking medical help because of societal behavioral norms. This study explores the role of gendered expectations and social roles in shaping health experiences during and after flooding. The interviews of flood-affected people reveal severe gender inequities in health status and access to health services.

A female participant discussed menstruation and suffering from shyness and said:

There was no sanitary place, and I got my period. I stayed silent. I couldn't even get dressed properly. There were so many men around and no privacy. I got rashes and infections, but I didn't say anything. We were ashamed to even talk about it (Bushra, F, 26).

A female participant explained personal hygiene in the following way:

My hygiene was not satisfactory. I did not bathe for over ten days. There was no place to change clothes. I felt dirty and ashamed. My menstrual cycle started, and I had no supplies to manage it. I tore my old clothes to use as makeshift sanitary supplies. It was embarrassing (Iqra, F, 29).

Another female participant said:

I was in camp, and periods came. I felt awkward; it was difficult as a female to manage this situation. Thank God, I got some sanitary pads in a relief package distributed by NGOs. It's personal, but I am sharing, '*I washed and reused these pads.'* I know it's not good practice for my health. But I have no other options (Fiza, F, 23).

The participants break the gendered silence within the discourse on protection regarding menstrual hygiene in times of disaster. Women suffer more than men from inadequate facilities, resulting in physical discomfort and emotional trauma. The adoption of unsafe materials and methods highlights the risk of infections. It also points out how society often ignores female bodily needs when planning and responding to disasters.

During flood disasters, women faced menstrual challenges. Inadequate menstrual hygiene, privacy, and social stigma make even basic self-care impossible. Gendered norms, shyness, and silence about reproductive health led to infections and brought emotional distress, ultimately neglecting the special needs of women in disasters. Another female highlighted the limitations of maternal care and stated:

I was pregnant and became anemic due to lack of food. My premature labor pains began, but there was no female doctor available at that time. Midwives and an elder lady helped me to deliver a baby. As it was a premature delivery, the lungs of the baby were not fully developed. He needed a medical emergency for survival, but the medical camp had only basic services. Due to the absence of medical facilities, my newborn could not survive (Saba, F, 29).

A woman highlights the reproductive health concerns and unavailability of female paramedic staff in disaster situations. Lack of access to food and maternal health services increases risks for pregnant women. Women's health vulnerabilities increase during and after disasters, where women's biological contribution places them at greater risk. A female participant said:

I got a urinary tract infection (UTI) from the stagnant floodwater. I had severe abdominal pain, burning during urination, and felt achy. I felt shy to share with anyone. I visited the medical camp with my mother for medicine, but there was no medicine available for UTI (Rachel, F, 28).

The woman expressed her shyness about sharing her health concerns, even with her mother, and highlighted the lack of available medicine in the medical camp. Lack of mobility hindered women's ability to reach health care services. The gender roles and expectations for men and women play a vital role in addressing the health concerns in flood-affected areas. Reproductive need and caring roles also meant women carried heavy loads. We require a health care system that is sensitive to gender differences.

Discussion

In this paper, researchers explored the gendered health vulnerabilities in flood-affected areas and how these structural inequalities, risks to the environment, and social-cultural limitations combine to put women at a disadvantage. The analysis provides evidence of the complexities to which women were exposed due to the risks to their health both during and post floods in District Rajanpur, Punjab, Pakistan. Limited access to medical services, low-quality nutrition, inadequate sanitation and water, increased exposure to water and vector-borne diseases,

psychological distress, and gender-specific health issues led to a high level of healthcare disparity (Fatema, 2020). In such flood instances, access to healthcare was highly gendered, primarily due to limited mobility and cultural limitations for women. *"Women in the flood-affected areas faced challenges in accessing medical care because the patriarchal culture restricts their ability to reach health services that are located far from relief camps"* (Waqas et al., 2020). In this way, the lack of formal health services has prompted the usage of informal community networks and neighbors as health providers, which undermines their health outcomes (Ellen et al., 2001). The absence of gender-sensitive health care providers and female health workers in these contexts presents another significant barrier for women seeking timely medical care (Sultana, 2022). The lack of maternal and reproductive health provision in relief shelters also aggravates the growth of complications during pregnancy, miscarriage, and unsafe birth (UN Women, 2019).

The risk of water and sanitation-related vulnerabilities associated with flood emergencies has a *'gendered footprint'* that disproportionately affects women. Clogged latrines and damaged infrastructure leave women in flooded regions with *"no choice but to defecate in the open,"* which can be done publicly with *"no privacy and dignity"* while making them more vulnerable to harassment and health risks (UNICEF, 2025). The situation was made worse by the absence of *"feminine hygiene and no separate bathing places and the use of unclean water sources,"* which makes personal hygiene highly challenging (Solomon, 2019). Water collection as a daily chore, normally performed by women before the disaster, becomes physically demanding and risky in the aftermath of disasters, when water sources are polluted or far away (Azad et al., 2013). This practice increases the chances of development of urinary tract infections, skin diseases, and reproductive tract infections in women (Ashraf et al., 2024; Azhar et al., 2023). "*Many women faced waterborne and vector-borne diseases due to stagnant floodwater."* Floods, in particular, provide a fertile breeding ground for the spread of waterborne and vector-borne diseases like diarrhea, cholera, dengue, and malaria (Saeed & Piracha, 2016). Diarrhea and vomiting were more frequent among women in our study area, and these were often managed in the household using traditional remedies, as participants did not have access to healthcare services or diagnostic tests, including blood testing (Bhutto et al., 2024). Moreover, a low level of knowledge about the transmission of the disease and insufficient health care seeking prevent them from accessing those who also makes women more vulnerable to long-term illness and complications. In addition, floodwaters create breeding sites for mosquitoes, with little consideration given to the needs of the gender-specific, preventive tools like insect repellents or bed nets, which were hardly distributed (Vohra et al., 2023). *"We were not only sick ourselves but also cared for other sick family members."* These situations present a double burden on women, such as collecting water and wood as fuel for cooking and taking on the caregiver role to look after other family members (Azad et al., 2013).

The psychosocial consequences of floods were devastating and highly gendered. According to women of Rajanpur, *"sudden and unprecedented evacuation causes severe mental trauma"* when they were evacuated in a hurry without proper support (Ahmad et al., 2025). The psychological strain was also enhanced by emotional shock and grief over the *"death of loved ones, friends, and neighbors," which further* amplified their suffering (Abid et al., 2019). The stigma surrounding mental health and the lack of access to psychosocial services exacerbated these problems in rural settings. Flood disasters exacerbate the already ignored phenomenon of gender-sensitive health. Women menstruate under distressing circumstances without any access to sanitary products, clean water, and private toilets, thereby exposing them to infections as well as discomfort (Caruso et al., 2017; Joshi et al., 2011). Relief planning hardly ever integrates menstrual hygiene management, a vital priority. Furthermore, women in the study discussed *"the reluctance to talk about their reproductive and menstrual health due to cultural taboos and societal shyness,"* thus hindering them from seeking care; such hesitation could be a contributing factor in unmet needs (Tufail et al., 2023). Pregnant and lactating women, in particular, were at an *increased risk of mortality because of the lack of maternal care*, inadequate nutrition, and stress-related problems during

floods (WHO, 2023). *"Governments need to provide gender-specific health care and relief packages for women and girls, such as dignity relief kits that include essential items like slippers, sanitary napkins (pads), trash bags, diapers, underwear, feminine wipes, hand sanitizer, toothbrushes and toothpaste, combs, whistles, and torches. To ensure safe birth during disasters, the package includes a razor blade. The items include a blanket, sterile gloves, a plastic draping sheet, a clamp, hand sanitizing wipes, and an instruction card with pictures for safe delivery."* According to UNFPA (2023), humanitarian response *'Dignity Kits'* are delivered within 48 hours; they may contain 10 key essential items with infographics for easy understanding of the use of hygiene items. It also has a wider variety of products to offer, which allows tailoring the kits to the needs of a particular location.

Conclusion

Flood-related health issues for women and marginalized groups in South Punjab, Pakistan, show deep-rooted inequalities that continue to cause suffering. Limited access to health services, a lack of reproductive and maternal care, restricted mobility due to cultural norms, and the absence of gender-responsive health care infrastructure have all contributed to enhancing women's health vulnerabilities during and after floods. A physical and emotional burden on women, coupled with social requirements that see women as the main caregivers, adds to the problems that females face and limits their access to health services as soon as possible. Gender analysis becomes an integrated part of flood preparedness and recovery strategies to support sustainable and inclusive outcomes. Moreover, the absence of gender-disaggregated information in disaster health preparedness planning and resource allocation leads to poor planning and resource utilization. However, the fact that communities vary in their adaptive capacities compounds these difficulties. In ways often overlooked, women's indigenous knowledge, community health systems, and informal care structures contribute significantly to resilience. These adaptations were mainly reactive and lacked institutional mechanisms. Adaptive capacities require gender-sensitive health policies, inclusive disaster preparedness planning, and active women's involvement in decision-making. Incorporating gender equity in disaster health frameworks is not only important for effective humanitarian response but also for longer-term resilience. The idea to switch to transformative adaptation plans is critical to protecting vulnerable groups and realizing equitable health outcomes in flood-affected areas of Pakistan.

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Conflict of Interest

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