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Research article

A call for global intervention: The pressing requirement to address the health emergency in Gaza health crisis

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ABSTRACT

The ongoing conflict in Gaza has resulted in unfortunate and tragic events. The escalation of the war, along with the massive shortage of essential medications and limited staff members, has worsened the already exhausted healthcare system and significantly impacted healthcare delivery and accessibility. An in-depth look into the current situation raises concerns about an urgent health catastrophe affecting the whole population. Various independent agencies have reported unprecedented increases in women's, maternal, and children's mortality and morbidity with the persistence of the conflict. Furthermore, poor sanitation and water accessibility have resulted in increased diarrheal and other infectious illnesses. Additionally, the psychological and mental implications of war are probably underemphasized and unrecognized, which would persist even after the conflict resolution. The academic community has a moral responsibility to conduct inquiries, impart knowledge, and provide training while also advocating for peace and humanitarian aid. Internationally recognized organizations, including the United Nations, have a pivotal role in delivering healthcare and essential humanitarian supplies to stabilize environmental and health consequences in Gaza, alleviate detrimental health issues, and prevent further deterioration.

Keywords: Crisis, Gaza, children, health, health crisis

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1. INTRODUCTION

The ongoing conflict in Gaza has had a tragic impact on health delivery and accessibility.^{1,2} The healthcare system, already strained, is now on the brink of collapse. Reports from the World Health Organization (WHO) reveal that more than two-thirds of its 36 hospitals in the Gaza Strip are not operational, while the remaining operational hospitals are overwhelmed with casualties and displaced individuals.³ Furthermore, transportation restrictions, infrastructure collapse, clean water shortages, and poor sanitation have made residents, especially children, vulnerable to infectious diseases.⁴ Since mid-October, documented occurrences of diarrhea among children under the age of 5 years have increased, as have incidences of scabies, lice, chicken pox, skin rashes, and respiratory infections.⁵ Diarrheal illnesses have increased more than 23 times compared with rates prior to the recent conflict.⁵ Medical organizations have issued alerts regarding the potential for outbreaks of various diseases under these circumstances.⁶ In addition, people are dying from unsanitary conditions and lack of food.⁷

The conflict's psychological toll has a direct impact on the population's mental and reproductive health. Particularly susceptible are women and children, with a notable rise in pregnancy-related complications and births.¹ Children in Gaza with pre-existing mental health concerns are now at a higher risk of acquiring long-term mental health problems such as posttraumatic stress disorder (PTSD) due to the recent conflict.8 Moreover, the shortage of fuel, lack of shelters, and prior airstrikes impacting medical transport have further endangered those with chronic medical conditions, limiting their access to care.9.10 Overall, the recent conflict has triggered a catastrophic humanitarian crisis in Gaza, necessitating immediate action to protect civilians, provide basic humanitarian needs, and prevent imminent health catastrophe.11 While the academic community must uphold its commitment to professionalism and impartiality, there exists a concomitant moral obligation to support and advocate for measures that prioritize the preservation of human life and the prevention of further human suffering. Drawing upon data from internationally recognized agencies, this review underscores the profound impact of the ongoing conflict on healthcare provision in the Gaza Strip and explores potential responses from the academic sector to this humanitarian emergency.

2. HEALTH PROBLEMS

2.1. Health Delivery and Accessibility

The ongoing conflict has significantly hampered access to healthcare. United Nations (UN) reports estimate that there are 350,000 people with chronic diseases, such as cancer and diabetes, and 50,000 pregnant women who are unable to receive critical care. 12 Furthermore, approximately 1,000 patients require kidney dialysis for survival, yet 80% of the dialysis machines are located in local hospitals that have been ordered to evacuate. Even prior to this conflict, the Gaza Strip faced a massive shortage of medications, which led the Ministry of Health to halt all elective surgical procedures in Gaza to conserve medicines and supplies for coping with the increased number of emergency surgeries for casualties.¹³ The Gaza Strip is facing a massive shortage of medications, jeopardizing the lives of many cancer and chronic kidney disease patients. Every day in the following month, approximately 160 pregnant women will give birth with inadequate access to emergency obstetric care and other health services. 14 The predicament worsens as even internationally supported facilities are affected. United Nations Relief and Works Agency for Palestine Refugees in the Near East reports that less than half of its health centers can provide primary care to patients in Palestine Refugees in the Near East. Furthermore, the fragmentation of the Palestinian territories, through the implementation of an exit medical permit system, has created physical barriers to movement, limiting the ability of Palestinians to leave Gaza to receive advanced care not available within the strip. The conflict has resulted in a 51% decrease in outside medical referrals in Gaza and an 8% decrease in referrals overall.

2.2. Infectious Disease

The ongoing conflict in Gaza has indeed created the optimal environment for the dissemination of infectious diseases. The WHO raised alarms during the earlier months of the war due to the heightened risk of infectious disease transmission, particularly among displaced Palestinians. Overcrowding and severe water and sanitation crises have led to an unprecedented incidence of diarrheal illness, with most cases reported in children younger than 5 years. Additionally, several respiratory and dermatological infections, such as scabies and lice, have been reported at an unparalleled rate. A retrospective examination of the history of conflicts provides well-established evidence of substantial

outbreaks. For example, Yemen's cholera epidemic during the 2014 civil war represents the largest cholera epidemic in contemporary history. Similar tragic outbreaks have been documented in Syria, Somalia, Pakistan, and various other regions.⁵ Furthermore, the disruption of vaccination programs serves as a harbinger for the alarming resurgence of historic illnesses, such as diphtheria, yellow fever, measles, and Chikungunya, among others.^{15,16}

2.3. Reproductive Health

The impact of the ongoing conflict in Palestine has been particularly devastating for women, who have borne a disproportionate burden of the violence and its aftermath.¹⁷ According to a report by the UN, over 10,000 women have tragically lost their lives, with an alarming average of more than 60 women becoming casualties each day. Additionally, the continued Israeli bombardment has left approximately 19,000 children orphaned, further exacerbating the humanitarian crisis.¹⁸ This dire situation has led the UN to characterize the conflict as "a war on women," highlighting the severe implications for essential women's services. Survivors of the violence are not only facing immediate physical danger but also grappling with severe challenges such as hunger, displacement, and limited access to basic hygiene resources, including sanitary pads. ¹⁹ The impact is particularly acute for women of reproductive age in Gaza, where more than half a million reside. With an estimated 690,000 menstruating females, the demand for sanitary pads far exceeds the available supply, creating significant health risks.¹⁹ Doctors Without Borders/Médecins Sans Frontières has further emphasized the plight of pregnant women in Gaza, with the WHO reporting more than 50,000 pregnancies. The strain on maternal and fetal health is unprecedented, compounded by the lack of adequate medical facilities. The desperation is palpable, with women resorting to giving birth in makeshift tents due to the overwhelming demand on medical facilities. These facilities, already stretched beyond capacity, often cannot provide adequate postnatal care, forcing women to return to shelters, which are sometimes nothing more than uninhabitable tents, mere hours after undergoing cesarean deliveries. The coherence and clarity of these interconnected issues underscore the urgent need for humanitarian intervention and support in Palestine.20

2.4. Mental Health

The conflict-ridden environment of Gaza has significantly impacted the mental health of its citizens. Reports indicate that nearly half of Gaza's population is suffering from cognitive and behavioral health issues. According to a 2011 review, Palestinian children exhibit significant rates of PTSD, with figures ranging from 23% to 70% across various studies.²¹ This high prevalence has made mental health a pressing concern for public health.²² While there is a higher trend of various psychological and psychiatric disorders among children and younger adults, the ramifications can extend longer, often culminating in enduring debilitation. The ongoing conflict has resulted in the mass destruction of multiple hospitals in the Gaza Strip, including the only psychiatric hospital at the Nasser Medical Complex in Khan Younis.²³ The decimation of these critical healthcare infrastructures potentially regresses mental healthcare advancements by several years, thereby exacerbating an already dire situation.

2.5. Water and Sanitation

Gaza is facing a severe water and sanitation crisis, characterized by the contamination of the sea with sewage and the alarming statistic that less than 4% of its freshwater is deemed safe for drinking. Consequently, Gaza is trapped in a dual water crisis, not only is there a critical shortage of potable water, but the absence of adequate wastewater sanitation poses extreme public health hazards. Moreover, this water crisis in Gaza is not a recent development but predates the current war, underscoring the urgent need for substantial funding to establish sanitation facilities to provide clean water. Historically, even before the conflict, the West Bank and Gaza citizens' daily water allowance was 80 L, 20 L below the WHO's recommended standard. Gaza's water supply is severely strained due to a polluted aquifer and limited desalination plants, resulting in 97% of the water deemed unsuitable for human consumption. Additionally, the blockade significantly hinders the essential development of water and sanitation infrastructure, compelling people to resort to salty water and contaminated seawater, with adverse effects felt mostly by children.

Amid these challenges, the sanitation crisis in Gaza is escalating fueled by the scarcity of clean water and the daily discharge of millions of liters of sewage onto the coastal water; this dire situation is further exacerbated by the shutdown of Gaza's wastewater treatment plants resulting in the direct

release of untreated sewage into the sea and the accumulation of solid waste in some areas, thereby posing a significant public health threat.²⁷

3. RESPONSE TO THE CRISIS

The international community is urged to unite in solidarity in response to the urgent humanitarian violent occurring in Gaza.²⁸ While the Palestinian Health Authority is compelled to increase funding for mental health services and tackle environmental and health impacts, such measures are currently unfeasible due to Israeli restrictions. Compounding this, airstrikes have damaged water facilities, depriving an already deprived nation of essential clean water. This has led to a rise in infectious diseases and unsanitary living conditions.²⁹ Therefore, there is an immediate need for humanitarian aid to alleviate these critical health problems. The role of the academic community, along with the UN, is paramount in addressing and mitigating these issues. The healthcare system needs urgent reform to adapt to the ongoing conflict, trauma, and economic distress, which contribute to high rates of mental health issues, especially among children and adolescents. Health authorities should allocate more resources to mental health, as the aftermath of violence hinders prioritizing reform in conflict-affected areas.²² However, Gaza's mental health system has made modest progress by focusing on community-based treatments and incorporating mental health into primary care.

4. DUTIES OF ACADEMIC SOCIETY

The current conflict in Gaza has profoundly influenced education and academic centers around the globe. Multiple higher education institutions in Gaza have been destroyed. In a review by the Nature News team,³⁰ reported massive destruction of colleges, scholar arrests, and censorship, extending to include the West Bank. On the international level, protests have spread to major educational campuses, with students from diverse backgrounds and cultures demonstrating to express their concerns, frustration, and resentment.³¹ While it is necessary for the academic community to uphold ethical principles and maintain an unbiased stance toward political issues, there is a moral obligation for every academician to stand against humanitarian threats. Concerns should be stated and voiced out. In addition, academic administrators should aim to provide a safe environment for students to express their thoughts without fear of rampant consequences in their education and future careers. Furthermore, collaborative efforts should be endorsed and supported. While training and educational support for healthcare professionals is crucial, a volunteering campaign allowing healthcare providers around the globe to participate in healthcare delivery for the Gaza Strip is essential. It is also important to assist in raising awareness of the Gaza health situation among academics and the general public, leading to increased advocacy for the rights and needs of the afflicted population.

The academic community can foster collaboration between local and international institutions, organizations, and specialists. These collaborations can promote the exchange of information, resources, and best practices and establish cooperative research projects and initiatives to mitigate Gaza's health issues. By working together, the academic community may help discover more effective and long-term solutions to Gaza's health challenges.³²

5. THE ROLE OF THE UN

The UN is urged to advocate lifting the blockade to facilitate the entry of medicines, food, water, and fuel into Gaza for immediate relief in humanitarian crises.³³ Furthermore, the UN is urged to spearhead the coordination of international efforts to support the health system in Gaza, alongside rigorous monitoring of human rights. Collaboration with both local and international non-governmental organizations and other UN agencies is essential to orchestrate a coordinated and impactful humanitarian response. Leveraging its diplomatic influence, the UN has a pivotal role in advocating for policy changes that promise to improve the health situation in Gaza.^{34,35} The UN can significantly contribute to addressing the ongoing health crisis in Gaza by promoting peace-building initiatives and advocating for a lasting resolution, coupled with its provision to monitor and report on health indicators, provide technical assistance, and support the development of evidence-based health policies, will not only raise awareness but also guide targeted interventions and enhance healthcare professionals' skills. Additionally, the UN's commitment to capacity-building support is crucial for the sustainable improvement of healthcare services in Gaza.³⁶

6. CONCLUSION

The ongoing conflict in Gaza has inflicted immense suffering on its population, with devastating consequences for healthcare access, infectious disease control, reproductive health, mental well-

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being, and water and sanitation infrastructure. Urgent international humanitarian aid is needed to address these critical health issues, alongside efforts to lift the blockade and promote peace-building initiatives. The academic community and the UN play pivotal roles in advocating for policy changes, coordinating relief efforts, and supporting capacity-building initiatives to mitigate the health crisis in Gaza.

Conflict of interest

The authors report no conflicts of interest in this work.

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