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Challenges faced by internally displaced diabetes patients in managing their health during a conflict: a qualitative study

Shiri Shinan-Altman^{1*}

Abstract

Background This study examines the experiences of diabetic patients who were displaced during the Israel–Hamas conflict, highlighting the substantial challenges they face in managing their health under these circumstances.

Methods A qualitative-phenomenological approach was employed, focusing on the experiences of 14 individuals with diabetes who were displaced during the conflict. Data were collected through semi-structured interviews and subsequently subjected to content analysis.

Results Three central themes emerged: (1) “I left without clothes and medications”: Participants described the chaotic evacuation process and the difficulty in maintaining diabetes care without their supplies. (2) “Dual coping”: Participants struggled with managing their diabetes while adapting to new, temporary living conditions that disrupted their care routines. (3) Seeking inner resilience while drawing strength from external support: This theme reflected the importance of internal resilience and support from family, friends, and healthcare professionals in coping with health management and displacement challenges.

Conclusions The study underscores the significant challenges diabetes patients face during conflict evacuation, including disruptions in their routine care, heightened psychological stress, and the essential role of support systems. These findings underscore the need for emergency preparedness plans to ensure continuity of care for patients with chronic conditions during crises.

Keywords Diabetes, Displacement, Conflict, Health care challenges

Background

Population displacement is the organized relocation of people from areas at high risk due to imminent threats to their safety, such as natural disasters or severe security situations [1]. These individuals are compelled to leave their homes quickly to find safety from looming crises

[2]. Such displacements can lead to significant and long-lasting psychological effects, as those displaced often recount experiences filled with distress and trauma [3, 4]. Every year, millions worldwide find themselves internally displaced, their lives suddenly typified by uncertainty and upheaval. This sudden shift into unforeseen circumstances catches many off guard, leading to feelings of fear, anxiety, longing, frustration, and depression. Those uprooted must grapple with the turning-upside-down of various facets of their lives [5]. Research shows that trauma-related emotional dysregulation can exacerbate diabetes distress and disrupt glycemic control, making it

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harder for displaced individuals with diabetes to adhere to treatment regimens [6, 7]. For individuals with diabetes, these disruptions are linked to poor self-management behavior and deteriorating health outcomes, emphasizing the need for targeted support during crises [8]. This need for support becomes especially clear in real-world situations, such as the events of 7 October 2023, when the conflict between Israel and Hamas escalated, causing widespread damage and compelling citizens from both sides to flee their homes in search of safety [9, 10]. The ensuing security crisis led the Israeli government to implement a large-scale relocation protocol, relocating tens of thousands of people from affected areas to provisional shelters.

The experiences of internally displaced individuals can be examined through the lens of the “continuity principle” approach, in which the key components of continuity essential for effectively managing life during and after stressful circumstances are identified [11]. First, the emphasis of “cognitive continuity” is on rational thinking and the pursuit of knowledge to interpret experiences. Second, “interpersonal social continuity” refers to the value of relationships and consistent support from family and friends. Third, “job continuity” includes the stability offered by enduring professional and personal roles. Fourth, “historical continuity” pertains to the evolution of our self-concept, anchoring us amidst change. Catastrophic events such as conflicts disrupt these continuities, leading to uncertainty and fears of an unpredictable future [11]. The current study examines the displacement experience among a unique population of individuals with diabetes. These individuals face a dual challenge: navigating the complexities of displacement while continuing to manage their disease.

Diabetes, characterized by elevated blood glucose levels, is a prevalent metabolic disorder that has significant implications for public health. Data from Israel’s Ministry of Health revealed that in 2021, approximately 548,000 individuals aged 18 and above were diagnosed with diabetes, representing a prevalence rate of 9.8% among this age group [12]. Diabetes manifests in two primary forms: Type 1 (T1D), resulting from insulin deficiency due to pancreatic beta-cell destruction, and Type 2 (T2D), arising from tissue resistance to insulin effects [13]. Effective diabetes management involves pharmacological treatment, medical monitoring, physical activity, and adherence to a well-organized daily schedule of eating and nutrition [14]. Each treatment component is crucial in the patient’s maintenance of stable blood sugar levels and overall health, particularly given the severe health risks associated with unresponsive treatment in both types of diabetes [15]. Any disruption in the treatment regimen may have far-reaching consequences, especially during a crisis such as severe security situations [16].

Diabetes has emerged as a major concern among those who have been internally displaced, with factors such as dietary changes, social isolation, diminished access to healthcare, and trauma associated with violence contributing to the negative effects of this chronic condition [17]. Moreover, the stress, anxiety, and psychological impact of displacement exacerbate the ill effects of diabetes, highlighting the link between physical displacement and health deterioration [18]. Additionally, displacement contributes to psychosocial stress and a heightened state of vulnerability, both of which are linked to increased serum blood glucose levels. Post-traumatic stress disorder (PTSD) compounds these effects by altering the body’s production and secretion of pro-inflammatory cytokines and acute phase proteins, which can worsen T2D [19, 20].

Research on the impact of man-made disasters, particularly war and conflict, on diabetes management remains scarce despite the fact that such crises pose unique and severe challenges for patients managing this condition [21]. Therefore, the objective of the present study was to investigate the experiences of Israeli internally displaced diabetes patients in managing their health during a conflict. By delving into these aspects, this study seeks to contribute to a broader understanding of how traumatic experiences, such as displacement and managing chronic diseases under duress, affect individuals. This study is innovative in its focus on the personal experiences of displaced individuals with diabetes, exploring how they cope with the dual challenges of maintaining their health and navigating the uncertainties of displacement in the wake of disasters.

Methods

In the current study, we employed a qualitative-phenomenological approach [22], concentrating on the personal experiences of Israeli individuals with diabetes displaced during the events of the 7 October onslaught. This methodology was chosen due to its effectiveness in exploring lived experiences, allowing for a “deep dive” into participants’ emotions, thoughts, perspectives, and interpretations [23]. Participants were, accordingly, given the opportunity to convey their stories and assign meaning to their experiences, thereby enriching our understanding of the phenomenon under investigation [23, 24].

Participants and sample

The study employed purposive sampling and included 14 participants who met the following inclusion criteria: (1) diagnosed with T1D or T2D prior to the onset of the conflict; (2) aged 18 years or older; (3) internally displaced due to the conflict. Exclusion criteria were: (1) experienced suicidal ideation or depression; (2) had severe cognitive or communication impairments. The final sample

size was established based on the principle of theoretical saturation, meaning that the interviews were conducted until no new information emerged [25].

Data collection

The study received approval from the Ethics Committee of Bar Ilan University, aligning with the Declaration of Helsinki principles (Authorization No. 112309), before its initiation. To ensure participant confidentiality, pseudonyms were utilized. Recruitment was carried out by posting an invitation on social media platforms, such as WhatsApp groups tailored to internally displaced communities. Interested participants reached out via email, sharing their contact information. All participants received a detailed overview of the research objectives and, upon reviewing the consent form, provided their verbal informed consent. The interviews, conducted by two female social workers holding PhDs and possessing expertise in qualitative research, took place on Zoom from November 2023 through March 2024. Each participant was interviewed by one interviewer. Participation was entirely voluntary, with the interviewers committed to safeguarding the anonymity and confidentiality of the participants. Each interview session lasted approximately 45 min.

The aim of the in-depth semi-structured interviews [23, 24] was to delve into and analyze the participants' viewpoints and experiences. The interviews were steered by an interview guide, specifically crafted to highlight crucial topics while maintaining enough flexibility to foster an engaging dialogue between the interviewer and interviewee, thus enabling authentic self-expression. This interview guide was developed on the basis of a thorough literature review and the clinical experiences of two social workers familiar with the challenges faced by internally displaced families (see [Appendix](#) for the interview guide). Each interview was audio-recorded and then professionally transcribed.

Data analysis

In the context of this qualitative-phenomenological study, the underlying premise was the existence of a universal essence across human experiences. This essence, embodying the core insights of a phenomenon, is accessible through the comparative analysis of different individuals' experiences within a similar setting. Content analysis was the chosen method for dissecting the interviews, in order to spotlight and categorize essential themes and patterns. The analysis proceeded in stages: (1) *Initial review*: A thorough reading of all interviews was conducted to identify primary concerns, from which sub-categories were derived; (2) *Identifying connections*: The researchers, through their analysis, sought to identify connections among the initial findings, organizing them

into broader, secondary categories; (3) *Theme extraction*: The final analytical phase involved distilling the primary themes that embodied the study's central discoveries [24].

Trustworthiness

To ensure the trustworthiness of the findings, multiple methods were employed, including the verbatim transcription of interview data, the execution of in-depth interviews to thoroughly grasp participants' experiences, and the adherence to credibility criteria (e.g., providing participant data in a detailed and rich manner). Initially, the interviews were transcribed word-for-word, allowing for a return to the original narratives whenever necessary. Selected quotes, which encapsulated a significant portion of the interview content, were translated from Hebrew to English. Each translation underwent verification by two native English speakers, including a professional translator, to ensure accuracy and fidelity.

Results

Participants ranged in age from 36 to 79 years (mean=55.75, SD=13.07, median=57). The sample included four men (29%) and 10 women (31%). Most of the participants were married (85%) and had an average of 3.69 children (SD=1.9). Participants had a mean of 14.23 years of education (SD=2.42). Regarding diabetes type, 43% had T1D and 57% had T2D. Median duration of diabetes was 13 years, and 57% of the participants were insulin-dependent. Mean years since diabetes diagnosis was 14.5 (SD=9.1). Mean times of making an appointment at a clinic in the month prior to the study was 3.83 (SD=3.66). Nine (64%) participants cancelled an appointment at a healthcare facility as a result of the conflict.

On the basis of an analysis of the interviews, three central themes emerged: 1) *"I left without clothes and medications": Coping with trauma during evacuation and the loss of essential needs*. This theme pertained to the urgent escape of the interviewees from their homes without basic clothing and medication supplies; 2) *"Dual coping"*: Compliance with diabetes treatment alongside adaptation to a new reality. This theme pertained to the simultaneous challenges of managing diabetes and adjusting to a new reality amidst conflict, with a focus on the impact of stress on health management, disruptions in routine care, and the difficulty of accessing healthcare when displaced; 3) *Seeking inner resilience while drawing strength from external support*: Navigating personal and social resources. This theme pertained to the leveraging of internal resilience and external support from loved ones to navigate conflict, illness, and evacuation, with an emphasis on optimism, self-control, and community assistance as key coping mechanisms. The main categories and subcategories are illustrated in [Table 1](#).

Table 1 Classification of main categories and subcategories

Main categories	Subcategories
<i>Theme 1: "I left without clothes and medications": Coping with trauma during evacuation and the loss of essential needs</i>	<i>Urgent escape:</i> The urgent need to flee danger led to leaving behind essentials such as clothing and medications. <i>Health management in crisis:</i> The chaos of evacuation disrupted the management of chronic conditions, as necessary medications were forgotten.
<i>Theme 2: "Dual coping": Compliance with diabetes treatment alongside adaptation to a new reality</i>	<i>Lifestyle adjustments:</i> Evacuees faced challenges in managing diabetes due to changes in diet and activity levels in their new living conditions. <i>Healthcare access:</i> Evacuees encountered difficulties and eventual successes in accessing healthcare in unfamiliar environments.
<i>Theme 3: Seeking inner resilience while drawing strength from external support: Navigating personal and social resources</i>	<i>Internal resilience:</i> Personal optimism and health management efforts helped evacuees cope with adversity. <i>External support:</i> Support from family, friends, and professionals played a crucial role in overcoming challenges when coping with diabetes and evacuation during war.

Theme 1: "I left without clothes and medications": Coping with trauma during evacuation and the loss of essential needs

Urgent escape Participants described the sudden onset of the conflict, characterized by the sounds of sirens and the experience of direct threat, which elicited feelings of helplessness and distress, and fear of the immediate danger in what was once a familiar and safe environment.

We fled to the safe room while hearing the sound of the sirens.... It became clear that our home was no longer safe, forcing us to immediately vacate our community for safer grounds. The trauma of these events is beyond words. (female participant, 48 years old)

Participants described how nearby threats and imminent danger led to heightened anxiety and a sense of urgency to find safety. Panic was amplified through communications (e.g., via WhatsApp texts) with family members, elevating the level of stress even further as individuals tried to ensure the safety of their loved ones, including children, in a chaotic environment.

In a rush to the safe room, I injured my leg, intensifying my stress, which of course exacerbates my diabetes... I was worried about finding a hiding spot for my entire family, including my grandchildren, who were stressed, panicked, and crying. The fear was palpable. Once it seemed quiet outside, we quickly got into the car, all of us in tears, bewildered by the chaos enveloping us. (male participant, 61 years old)

As a result of the stress, anxiety, and panic, and the necessity of quickly escaping the dangers all around them, they fled without taking what they needed. Some of them took basic equipment but only for the first few days, as they had been given no information about what they should take with them.

I was in such a panic that I didn't think about what I should take with me. In the end I took a small bag. I put some underwear, two shirts, and two skirts in it... I thought I would be here maybe two or three

days and then I would return home... But I've now been here for two months [in a hotel] with no end in sight. We have no idea when we will return home. (female participant, 42 years old)

Health management in crisis Not only did the interviewees not take their basic personal belongings with them, some neglected to take their diabetes medication as well. The medicines and insulin were left at home, even though for some, it was precisely during this sudden evacuation that their diabetes indicators soared, and they felt unwell.

We just ran away... I left without clothes and medications, without anything having to do with the disease. It was like I didn't have diabetes. Nothing like this has ever happened to me... I depend on it; without it I can't survive. But this time I felt that I had to survive a different kind of threat, the existential threat we were facing... I didn't think about the diabetes. I thought about how I was running away with my family; there was an immediate threat to our lives. It's strange because as a result of all the stress of the situation, my diabetes was clearly not under control, but I couldn't deal with it. (female participant, 71 years old)

Theme 2: "Dual coping": compliance with diabetes treatment alongside adaptation to a new reality

Lifestyle adjustments: Study participants discussed the two situations with which they needed to cope in the wake of their being evacuated: They had to manage the transition to their new living environment, and they had to simultaneously manage their diabetes (all of which was taking place in the context of an ongoing conflict). They reported daily experiences of stress, pressure, and anxiety. These emotional states directly impacted the clinical indicators of their diabetes.

Life here in the hotel is one that's been imposed on us. It's not a hotel experience in the way one is used

to, an experience of joy and freedom and vacation... it's a hotel populated by frightened people, people with fears... we don't know what will happen to us tomorrow... and during all of this I am feeling pressure, and don't know how to control my diabetes... I am so anxious that I can't take care of myself. (male participant, 60 years old)

As stated, several interviewees left their homes without their diabetes monitoring/treatment equipment due to the urgent nature of the evacuation. The psychological impact of the situation, characterized by stress, anxiety, and worry, hindered their ability to attend to their medical needs, including procuring the necessary equipment, even a month after relocating.

Having spent a month and a half here, I'm uncertain about my diabetes management—whether it's under control or not. I left my glucose meter behind at home. But the thought of leaving the hotel, fasting, and undergoing tests feels overwhelming. Despite knowing how important it is to monitor my condition, I find myself unable to muster the mental energy to do so. (male participant, 46 years old)

In addition, relocating required the participants to make major adjustments to their daily routines, and such adjustments significantly impacted their diets and exercise regimens. Individuals who had previously been engaged in social activities, and had been occupied throughout the day with various tasks, transitioned to a lifestyle characterized by very little activity. Mostly they found themselves spending a lot of time sitting in hotel lobbies.

In the town where we come from, we regularly participated in activities. We would go out to clubs, movies, plays, do sports, meet for walks with friends. We were active, we were hardly ever at home. Here, in the hotel, there is no activity, nothing, we eat and sleep all day. I don't even need to clean because they clean our room. Most of the day we're bored, sitting in the lobby. no activity. obviously this affects diabetes. (female participant, 55 years old)

Participants also discussed how their diets were affected by relocating to a hotel. Although they received three meals a day, during which a variety of foods were offered, they expressed concerns about the hotel's food being predominantly fried, including items known to worsen diabetes indicators.

The provision of three meals a day is convenient as it eliminates the need for grocery shopping and cooking. However, the hotel's diet leans heavily toward fried foods and white bread, which are bad for diabetes management. Additionally, the chef here has a penchant for using too much sugar in his dishes, which is not ideal for my dietary needs. Previously,

my diabetes was borderline, but it has significantly worsened since my stay here. Despite consuming healthier options like hard-boiled eggs and salads, my blood sugar levels have spiked alarmingly to two hundred forty or two hundred fifty, causing me a lot of distress and concern. (female participant, 79 years old)

Healthcare access Access to healthcare emerged as another significant hurdle for the participants. Many were evacuated from small communities where health services were easily accessible on foot, and they often knew their doctors personally. Upon being evacuated to larger cities, finding a nearby clinic for ongoing care and treatment proved challenging. As a result, some participants chose to forego seeking medical attention, despite feeling unwell.

I'm not acquainted with this big city and I'm not an independent woman in my day-to-day life... the village I come from is small, and the doctor who treats me knows me personally... I'm lost here... I have anxiety about the whole situation, so are we going to add to that my getting lost [on my way to an appointment]? No, I don't want that, so I gave up on going to the clinic here even though I've been dizzy for a week. (female participant, 47 years old)

That said, participants who did reach out to health services in the cities to which they had been evacuated reported receiving exceptional care. Healthcare providers offered a warm reception and made great efforts to assist them, promptly scheduling doctor appointments and finding appropriate medications. This positive experience led participants to feel that the city residents went above and beyond to aid them, seeming to recognize the challenging circumstances faced by those displaced from their homes.

Every pharmacist I went to and asked for equipment went above and beyond. they searched several pharmacies for the medicine I needed... they understood that I was in need, that I was coping with two challenges at once, the illness and the evacuation, and they tried to alleviate and reduce my feeling of helplessness... (male participant, 47 years old).

Theme 3: Seeking inner resilience while drawing strength from external support: Navigating personal and social resources

Internal resilience: Participants described the factors that helped them contend with the challenges they suddenly faced: conflict, illness, and internal displacement. The

participants described how optimism helped them take care of themselves and those around them, helped them hold on to the thought that the situation they were in was temporary, and helped them believe that one day they would return to their previous lives.

What keeps me going is my optimism. I am an optimistic person by nature and in the end, I know things will work out... I remind myself and my family that the difficult situation we are in is a temporary situation... eventually everything will return to normal and will balance out, including my diabetes. (female participant, 36 years old)

Participants also identified the maintenance of a sense of control as a crucial internal resource. To gain greater control, particularly over their health, they proactively managed their illness, which helped counter feelings of being overwhelmed and helpless. This sense of agency was primarily regained through conducting regular health check-ups and working diligently to maintain a healthy diet. Achieving this level of control brought them a great deal of relief and improved their overall well-being.

The main thing for me is managing my diabetes; I refuse to let it control me. However, there have been moments, especially recently, when I've felt it gaining the upper hand, affecting my well-being. That realization was a turning point for me. I resolved to take charge, even with all the challenges—initiating regular monitoring and committing to a healthy diet. This approach, particularly during such uncertain times, has given me a sense of relief and control over my condition. (female participant, 49 years old)

External support Another coping resource that participants mentioned was the support they received from family and friends. In the process of evacuating at-risk areas, entire families and communities were relocated to the same hotel. This arrangement allowed both nuclear and extended family members to be in close proximity, providing mutual support as they adapted to their new circumstances. Within this communal space, participants found solace and strength.

One of the special things here is that they put our whole community together in a hotel. We all experienced the same kind of trauma and understand each other and help each other. I see my children and siblings on a daily basis and it helps a lot. Sitting in the lobby, talking, remembering what happened to us and trying to think ahead together about what will be. We try to rely on inner resilience but at the same

time we get support from others. (female participant, 48 years old)

The shared residency in the hotel environment played a crucial role in terms of some of the participants' diabetes management. Family members and close friends, who were well acquainted with each other's needs, took care of those who were ill or experiencing mental distress.

The family and friends here at the hotel are the ones who constantly remind me to take care of myself, not to forget my medication, especially because they know I'm stressed. In general, we help each other as much as possible, especially the sick and those who are in a difficult mental state. (male participant, 61 years old)

Mental health professionals also served as a crucial coping resource for participants. Teams comprising psychologists, social workers, and other specialists arrived at the evacuation sites, offering essential emotional support to the evacuees. These experts displayed particular sensitivity toward individuals with illnesses who required additional medical attention, ensuring they received the necessary care within the healthcare system.

There is a social worker here who regularly comes to the hotel and talks to anyone who is interested. She provides support and listens, and it helps a lot. She was also sensitive to the fact that I wasn't managing to control my diabetes that well and immediately referred me to nearby health services for further treatment. It was very meaningful to me. (female participant, 61 years old)

Discussion

The goal of this study was to explore the experiences of individuals with diabetes who were internally displaced during a conflict, focusing on the challenges they encountered in managing their health amidst the tumult of conflict and displacement. The study findings illuminated the profound and multifaceted challenges faced by these individuals. Such challenges are not only medical in nature; they are intertwined with the psychological and logistical upheavals induced by conflict.

The first theme illustrates the challenges that these individuals faced during the swift and tumultuous evacuation from their homes and communities. Not only were they physically displaced, they also underwent profound psychological distress and disruptions in their healthcare management. The common narrative of fleeing one's home without essential medications underscores a critical oversight in disaster preparedness plans,

particularly for those with chronic conditions [26]. Such situations exacerbate the vulnerability of individuals who have diabetes, as the abrupt loss of access to necessary medications and the stress of displacement can lead to dangerous fluctuations in blood sugar levels [15]. The participants' accounts echo findings in the broader literature regarding the psychological impact of displacement resulting from conflict, where increased anxiety and a profound sense of vulnerability are prevalent, complicating the management of chronic diseases [27, 28].

The second theme revolved around the struggle with “dual coping” – namely, the intersection between the participants' need to manage their diabetes and the challenges of adapting to a new, albeit temporary, living environment. In this intersection one can see the unique stressors that disrupt established routines crucial for effective diabetes management. A key aspect of managing chronic conditions such as diabetes involves maintaining a consistent routine in terms of medication, diet, and physical activity [29]. However, the sudden evacuation and transition to living in a hotel disrupted these routines significantly. As reported by the interviewees, the shift from an active lifestyle to a more sedentary one, coupled with changes in diet, directly contributed to poorer diabetes management outcomes. These findings align with Lazarus and Folkman's [30] theory of stress and coping – namely, the stress of adapting to a new environment overwhelmed some of the participants' coping resources, leading to their inability to maintain their diabetes care protocols. In addition, the emotional turmoil, including feelings of anxiety and a lack of control, further complicated their ability to manage their disease. Studies have illustrated that such psychological barriers can impair the cognitive and emotional resources necessary for effective disease management [17]. In the current study, it seems that the constant worry about the future and the ongoing stress about their current living conditions directly impacted the participants' physiological well-being, demonstrating the link between mental health and physical health in chronic disease management [16]. Furthermore, the difficulties in accessing healthcare in a new city exacerbated the participants' challenges. A lack of familiarity with a new healthcare landscape combined with the personal distress of being in an unknown environment can deter individuals from seeking necessary medical care [31]. This barrier not only affects immediate diabetes management but also poses long-term health risks [32, 33].

As illustrated by the third theme, navigating the complex terrain of managing a chronic illness under duress, such as during conflict and internal displacement, involves a dynamic interplay between internal resilience and external support systems. Participants emphasized the crucial role of optimism as a protective psychological

mechanism that mitigated the adverse effects of stress and trauma. Such optimism has been found to not only help one maintain a hopeful perspective about the future but can actively influence physical health outcomes [34, 35], particularly in the management of chronic diseases such as diabetes [36]. Research has supported the idea that optimism enhances coping strategies and reduces the negative psychological impact of stress [37], suggesting a significant link between a positive outlook and better health management outcomes.

Maintaining a sense of control was also highlighted in the current study as another significant aspect of internal resilience. Efforts to reclaim control over one's health through regular check-ups and a healthy diet reflect a proactive approach to self-management [38]. Such strategies resonate with theories that associate greater personal control and self-regulation with better health outcomes. Deci and Ryan's self-determination theory [39] suggests that autonomy and competence, which are fostered by self-regulation and personal control, are essential for optimal functioning and wellness. By taking charge of their condition, participants in the current study countered feelings of helplessness – a crucial element for maintaining both mental and physical health during uncertain times.

The critical role of external support in coping with displacement and illness was also highlighted by the current study participants. The proximity of extended family and the entire community within the hotel setting created a supportive environment that enhanced participants' ability to manage their health. Studies have indicated that a support network can lead to better health outcomes and lower levels of depression and anxiety, underscoring the importance of social connections in health management [40]. Additionally, the support extended by healthcare professionals, including psychologists and social workers, introduced an additional layer of external coping resources. These professionals not only offered emotional support but also ensured that participants' medical needs were addressed promptly.

Viewed through the “continuity principle” approach [11], the study's findings reveal significant disruptions in the participants' cognitive and interpersonal continuities. The sudden evacuation from homes/communities disrupted their cognitive continuity, removing them from structured health management and familiar environments, and forcing them into survival mode without necessary preparations or medications. That said, the relocation to hotels allowed them to maintain some of their interpersonal continuity, as proximity to family and friends provided them with essential emotional support and practical assistance with their diabetes management. The findings of this study underscore the negative effects

of disrupted continuities on health management during crises.

This study has several limitations that should be taken into consideration. The small sample size and the inclusion of both types of diabetes without objective data may limit generalizability. However, given the exploratory nature of this research, the primary focus was to gain a deep understanding of the lived experiences of displaced individuals with diabetes during a conflict. Qualitative research, by design, often prioritizes depth over breadth [27], allowing for a more detailed exploration of subjective experiences. Theoretical saturation was achieved within the sample, offering rich insights into the shared challenges of managing diabetes during crises, such as disrupted routines and healthcare access. Although the etiologies of T1D and T2D differ, the psychological and logistical challenges faced by displaced individuals are similar across both groups, justifying their inclusion. Future research could benefit from larger and more differentiated samples to further validate and expand upon these findings. In addition, the reliance on self-reported data could have introduced a recall bias; thus, future research would benefit from using objective data collection methods such as continuous glucose monitoring to provide more accurate insights. Finally, this study took place in a high-income setting with access to healthcare, food, and shelter, which may not reflect the experiences of displaced populations in low-resource or conflict zones where such support is limited. Future research should explore displacement in these settings to better understand the unique challenges faced by populations with fewer resources, including the impact on chronic illness management and access to essential care. However, this study highlights how even in well-resourced environments, displacement severely disrupts health management and routine care, offering critical insights into the universal challenges of managing chronic illnesses during crises.

In conclusion, this study illuminates the profound challenges faced by individuals with chronic illnesses, such as diabetes, during conflict and displacement, and highlights the physical and psychological burdens that intensify health challenges in crisis situations. The findings emphasize the critical need for comprehensive emergency preparedness plans tailored specifically to the needs of those with chronic conditions. Healthcare providers and policymakers are encouraged to develop robust mechanisms for the swift deployment of essential medical resources, including medications and monitoring equipment, to areas of displacement. Emergency responder training must include protocols for identifying and prioritizing at-risk individuals with chronic health issues. Furthermore, forging partnerships between displaced communities, local health services, and

non-governmental organizations is essential to enhance care accessibility and support. These collaborative efforts should focus on establishing temporary yet effective healthcare infrastructures capable of operating under various crisis conditions. By adopting these strategies, the negative health impacts on vulnerable populations can be lessened, and their resilience against ongoing and future challenges can be bolstered.

Appendix: Interview guide

*Tell me about your evacuation experience from your residence during the war. What were the circumstances that led to the evacuation?

*How do you feel about the evacuation?

*How did the evacuation from your residence affect your ability to manage your diabetes?

*Do you face any challenges in accessing medications, equipment, or health services?

*How did the evacuation affect your general health condition?

*Describe any specific health concerns that are related to your diabetes as a result of the evacuation?

*How has the evacuation affected your relationships with family and friends?

*What emotional challenges or stress factors pertaining to your diabetes are you facing during this period?

*Describe your access to health services, including diabetes care, during this period. What has helped you receive treatment? What barriers do you have in receiving medical treatment?

*What coping strategies have you developed to deal with the challenges of managing diabetes in the current period?

*What concerns you in the current period? What could help you cope in the current period?

*Looking back, how do you think the evacuation experience affected your approach to diabetes management?

*Is there anything else you would like to share?

Author contributions

I confirm that I, as the sole author, contributed to the conception, design, data acquisition, analysis, and interpretation of the research. I drafted and revised the manuscript, approved the final version, and take responsibility for the content.

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Data availability

The data that support the findings of this study are available from the authors upon reasonable request.

Declarations

Competing interests

The authors declare no competing interests.

Ethics approval and consent to participate

The Ethics Committee of Bar Ilan University approved the study (Authorization No. 112309). Verbal informed consent was obtained from all individual participants included in the study.

Consent for publication

Verbal informed consent for publication was obtained from the participants for the inclusion of their anonymized information in this article.

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