

Brief Report

Cite this article: Sert G, Gözderesi Y, Kesen Yurtcanlı Yurtcanlı CH, Barış M and Hıdıroğlu S (2024). Cancer Care After Türkiye-Syrian Earthquakes: A Qualitative Study. *Disaster Medicine and Public Health Preparedness*, 18, e141, 1–3
<https://doi.org/10.1017/dmp.2024.121>

Received: 07 August 2023
Revised: 02 December 2023
Accepted: 28 April 2024

Keywords:

Türkiye-Syrian Earthquake; natural disaster; Individuals Living with Cancer (ILC)

Corresponding author:

Gürkan Sert;
Email: drgurkansert@gmail.com

Cancer Care After Türkiye-Syrian Earthquakes: A Qualitative Study

Gürkan Sert¹ , Yakup Gözderesi Intern MD² ,
Cemre Hilal Kesen Yurtcanlı Yurtcanlı MD³ , Maide Barış¹  and
Seyhan Hıdıroğlu³ 

¹Marmara University, School of Medicine, Department of Medical History & Ethics, Istanbul, Türkiye; ²Marmara University, School of Medicine, Istanbul, Türkiye and ³Marmara University, School of Medicine, Public Health Department, Istanbul, Türkiye

Abstract

Objectives: In the field of cancer, many cancer patient associations (CPAs) have been established in Türkiye to support individuals living with cancer (ILCs) throughout the diagnosis and treatment processes. The presence of CPAs for ILCs became more significant after the major earthquakes in southeastern Türkiye in February 2023. The aim of this study is to identify the challenges of ILCs after the earthquakes from the perspective of CPA members.

Methods: This study employed a qualitative approach. The data collection method was in-depth interviews. Semi-structured, open-ended interviews were conducted with 15 volunteers who work with ILCs, selected through purposeful sampling. The data were analyzed by using inductive thematic analysis. This study was conducted between April and May 2023.

Results: Three main themes (problems of ILCs caused by earthquakes, access to health care, future concerns) and 11 subthemes were extracted through analyzing interviews.

Conclusion: ILCs experienced diverse difficulties after earthquakes. Members of CPAs observed that acute interventions to injured people and humanitarian aid activities had the first-place importance after the earthquake, while cancer-related care took the second place, anticipating devastating outcomes for the future of their care. CPAs should be supported by the public, local governments, and central government in their endeavors for ILCs.

People with chronic illnesses, especially individuals living with cancer (ILCs), are considered one of the most vulnerable groups after disasters, as they are at higher risk of mortality and morbidity in the face of disasters.² Moreover, it is demonstrated that disasters aggravate health outcomes for ILCs and cause great emotional and mental distress to them and to the people who care for them, including family members and health care staff.³ While we were trying to focus on the specific difficulties that cancer patients may experience following such a disaster, we contacted some members of cancer patient associations (CPAs) active across Türkiye and discussed their observations and came up with significant insights.

Methods

Research data were collected by in-depth interview method. Interviews are designed as semi-structured, open-ended questions. The study consists of CPAs that carry out various activities related to ILCs in Türkiye, and the sample is composed of CPAs that are accessible on the internet. Informed consent was obtained, and all participants were informed that they could refuse to participate or withdraw from the study at any time. The interviews were conducted online in Turkish and were recorded as video files. The content of the visual recordings and field notes were transcribed immediately after the interviews. Each interviewee was interviewed once between April and May 2023. An inductive thematic analysis method was used for data analysis. In the sessions where all researchers participated together, the data were coded with a common view, main and subthemes were determined. The consolidated criteria for reporting qualitative research, COREQ,⁴ was followed in the planning and execution of this study to ensure methodological integrity. Ethical approval was obtained from the Clinical Research Ethics Committee of the Marmara University School of Medicine in Türkiye (protocol code: 09.2023.573). Data collection, interview recordings, and presentation were given confidentially and made anonymous by using code numbers.

Results

Semi-structured interviews were held with 15 representatives from 8 different CPAs operating in 7 different cities in Türkiye. All participants were women.

The data analysis identified 3 themes and 11 subthemes.

1. Problems of ILCs Caused by Earthquakes

Basic vital problems: All participants underlined the importance of healthy and special diets in the cancer treatment process and food preparation meeting certain nutritional standards. Second, all participants stressed that hygiene conditions after the earthquakes were not ideal, and because the immune system of ILCs receiving cancer treatment decreases as a side effect of drugs, ILCs become more susceptible to infections in the region. They also stressed the risk of communicable diseases in public places and stated that there may be losses due to communicable diseases, not because of cancer.

I think biggest problems are hygiene and malnutrition...So, they fell faster. While a normal person can endure for 10 days and 15 days, their immune system collapsed in three days. If you are taking chemotherapy, if you are taking cancer medication, your leukocytes and neutrophils are already low. While everyone gets sick in 10 days, you get sick in 1-2 days, feel weak and exhausted.... And they got infected faster. (P9, F)

Housing/shelter issues: All participants stated that ILCs faced difficulties in sheltering after the earthquake. Moreover, many stated that ILCs had to migrate after the earthquake to continue their treatments, settling in temporary accommodation centers (guesthouses, dormitories, etc.) with the guidance of CPAs, local governments, and other institutions.

Accommodation was a very serious problem for cancer patients... Some of the patients diagnosed with cancer also needed special care. But they didn't even have tents (P5, F)

Financial issues: Most participants expressed that the financial issues experienced by ILCs after the disaster had a devastating impact on them. Financial difficulties hindered their access to treatment in other cities, as they needed money for migration or transportation to nearby cities where treatment was available. Unemployment and immigration were also cited as factors that exacerbated their economic problems.

The difficulties they face are primarily economic difficulties. They have no jobs, they have nothing. So, the man says "I closed my shop and came. Not a penny. I lost my wife; I lost my children. Nothing left" (P6, F)

Mental health issues: All participants spoke about the overwhelming feelings of hopelessness, desperation, and loneliness that affected ILCs. They highlighted that cancer, being an already challenging experience, requires a psychological struggle that has become even more significant after the earthquakes. It was also emphasized that ILCs, who already live with the fear of death, experienced an escalation of that fear due to the earthquakes' impact. Some participants mentioned the importance of psychological support. However, they noted that despite its significance, psychological well-being often fails to become a priority, as the ILCs struggle to meet their basic needs in the aftermath of the disaster.

They were psychologically devastated...In other words, a hopelessness... An anxiety... about the future, a fear of death... They felt very deeply. And they reflected that on us. They said they were very afraid of dying (P12, F)

Communication issues: All participants highlighted the problems they faced in their effort to communicate ILCs in the region. Moreover, they emphasized the importance of a central data network so that they can reach ILCs in case of natural disasters.

After the earthquake we need to reach them, not they reach us. So, something should be done about this... I think it is important that support activities are carried out over a network (P3, F)

2. Access to Healthcare

Access to health institutions: Some participants emphasized how difficult it became for ILCs to access to health care institutions because many hospitals were destroyed or damaged after the earthquakes, enforcing ILCs, those who did not migrate to other cities, to travel long distances for treatment. They talked about the difficulty of returning ILCs to their homes after chemotherapy with high side effects and how CPAs played a key role in directing earthquake survivor ILCs to other cities and hospitals to continue their treatment.

Loss of medical records: According to most participants, the collapse or severe damage of hospitals in the earthquake area resulted in the loss of medical records, so it was not possible to access the records of the treatment protocols that were not entered into the systems and carried out through written documents. In some cases, treatments were arranged from scratch. Moreover, some participants stressed that there were more significant difficulties in the regulation and determination of radiotherapy protocols rather than chemotherapy protocols due to loss of medical records. Some participants emphasized the importance of creating a central data network for ILCs so that their medical record will be accessible in case of natural disasters.

There were also patients who couldn't access their treatment records because the hospital was destroyed..., it is crucial to have these treatment records, including the duration and timing of the drugs used, stored in a central record system. Even if the hospitals are physically destroyed and inaccessible at that moment, having a central repository would prevent further time loss. Many patients couldn't reach their doctors because hospitals were destroyed, and they couldn't access the protocols for their treatment...Establishing a central databank would help us avoid wasting time figuring out which drug the patient takes, at what stage, etc. (P15, F).

Access to medicines and treatment: Some participants described the procedure of getting smart drugs as costly and lengthy, and after houses and hospitals were destroyed/damaged, lost medication reports caused significant delays in ILCs' access to their regular medicines.

Hospitals collapsed. In other words, those patients' chemotherapy, radiotherapy, chemotherapy agents, drugs can be stopped for a while, okay. You know, the body can tolerate them for a while...but sometimes there were patients who needed urgent treatment, and who needed to be kept in intensive care because of cancer and other diseases...(P5, F).

Moreover, because no chemotherapy and/or radiotherapy services were available in many regions affected by earthquake, CPAs provided support for directing ILCs to nearby hospitals and centers to provide treatment continuity.

"Which doctor to go? how to get appointment although not follow-up patient?" We are trying to help and guide them in these regards. Necessary information or appointments are made to communicate with the hospitals and ensure that the patients receive their treatment as soon as possible. Or, by meeting with the doctors at work, we inform them whether the patient's condition is special or not, and we support our patient to receive the treatment as soon as possible without delay (P12, F).

3. Future Concerns

Outcomes of screening unavailability: All participants stated there was a significant delay in cancer screening for early diagnosis, and this was because the health provisions in the region focused on primary wound care and acute treatment services rather than prevention activities. Therefore, it is predicted that there will be a

progression in the course of the disease for existing cases, as well as new cases that were not diagnosed earlier due to disrupted screening services. Some participants stated that they feel responsible in this regard and make an effort to bring early diagnostic opportunities to the forefront. One also mentioned that one of their mobile screening units is now in the region for basic cancer screening tests, but the number should be increased.

With mobile scanning devices, it is very comfortable to screen for both cervical cancer, breast cancer and colon cancer. Triple scanning is possible. Yes, it can be done with mobile screening units (P7, F).

Asbestos exposure: Asbestos emitted during debris removal activities in the earthquake area has become a major concern among participants. They view asbestos as a significant public health problem due to its toxic effects on the lungs and its potential to contribute to cancer development. To address this issue, participants reported taking proactive measures by sending FFP2 masks for distribution to all field workers and citizens involved in the debris removal process to avoid potential asbestos exposure.

Asbestos came to our minds as of the second week. Because asbestos was a serious problem. In such cases of debris, we immediately started an asbestos-related information work for both search and rescue workers and the local community (P5, F).

Similarity with the pandemic: Many participants emphasized that the number of potential cancer cases in the future will likely increase, similar to the pandemic. This rise is attributed to the disruption of cancer screenings and routine medical check-ups, as well as limitations in accessing ongoing treatments in the affected region.

Especially for early detection, this will be just like the pandemic. In this pain, people will not consider going to the doctor, and therefore they will lose the opportunity for early diagnosis within a few months (P10, F).

There was a 20% to 30% increase in cancer cases in a pandemic, people couldn't leave because of fear. Unfortunately, this earthquake will cause something like this in that region (P13, F).

Discussion

Disasters negatively affect all citizens but mostly individuals with chronic diseases, especially ILCs. Our study identified various problems ILCs face, through experiences of CPA members, following recent earthquakes in Türkiye, such as damage to health care institutions, problems in communication and drug supply chain, and loss of medical records, immigration to other cities, disruption in access to treatment and medicine, and suspending control examinations, similar to the findings of other studies.¹⁻³ Therefore, it is vital that special precautions for ILCs should be considered and implemented in disaster management as the time they cannot access health care will result in increased mortality and morbidity rates,² as emphasized by “Sendai Framework for Disaster Risk Reduction: 2015–2030”.⁵

Our study points out that cancer care may become secondary to the acute health care following a massive natural disaster, affecting ILCs adversely. Continuity of care is essential for ILCs as the evidence suggests that treatment delay in cancer can deteriorate the prognosis and survival outcome of patients.^{1-3,6} Therefore, establishing treatment provisions for ILCs on a temporary basis could be considered as an emergency response, because ILCs in treatment do not have time for health care infrastructures to be restored.^{7,8}

Some participants in our study also mentioned the need for a database emphasizing the post-disaster communication problems. Back-up communication methods can be organized between ILCs

and their oncologists, as well as different hospitals in the region to provide coordination. Institutional websites with frequently updated lists of ILCs and contact information of oncological health-care providers and/or services to be accessed during disasters could also be considered, as suggested by numerous studies.^{2,3}

Conclusion

The earthquake's effects on medical services, including cancer screenings and treatment, have raised concerns among participants. The potential increase in undiagnosed cases and the progression of existing diseases have become a significant worry for the future. Thus, ensuring timely and continued access to cancer treatment is vital for their well-being and survival. This creates significant challenges for health care systems worldwide, highlighting the need for better preparedness and understanding of post-disaster health situations.

Limitations

This study was carried out under extraordinary circumstances for both study participants and researchers, in terms of not only the emotional and psychological impacts of the earthquakes but also the necessity of continuing care for ILCs who were affected by earthquakes and spread across Türkiye; despair was witnessed and experienced by everyone involved.

Acknowledgements. The authors thank the participants for taking part in this study.

Author contributions. Preliminary research and planning: GS; Literature review: GS, YG, MB; Methodological design: YG, GS, SH, CHKY; Data collection: YG, CHKY; Data analysis: All authors; Draft and revision of the manuscript: GS, MB.

Competing interest. None.

References

- Ozaki A, Nomura S, Leppold C, et al. Breast cancer patient delay in Fukushima, Japan following the 2011 triple disaster: a long-term retrospective study. *BMC Cancer*. 2017;17(1):1–13. doi:10.1186/s12885-017-3412-4
- Verna L, Cortellini A, Giusti R, et al. Cancer care after natural disaster: different countries, similar problems. *J Glob Oncol*. 2019;5:1–2. doi: 10.1200/JGO.19.00155.
- Man RXG, Lack DA, Wyatt CE, et al. The effect of natural disasters on cancer care: a systematic review. *The Lancet Oncology*. 2018;19(9):e482–e499. doi: 10.1016/S1470-2045(18)30412-1
- Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int. J. Qual. Health Care*. 2007;19:349–357. doi:10.1093/intqhc/mzm042
- European Medicines Agency, Stakeholders and Communications Division. Sendai Framework for Disaster Risk Reduction 2015–2030. Published June 2014. Accessed June 15, 2023. <https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>
- Zendehdel K & Safari R. Cancer care during the natural disasters, the lessons learned from Kermanshah Earthquake in 2017. *Basic & Clinical Cancer Research*. 2017;9(3):1–2.
- Prohaska TR & Peters KE. Impact of natural disasters on health outcomes and cancer among older adults. *The Gerontologist*. 2019;59(Supplement_1): S50–S56. doi:10.1200/GO.22.00374
- Verna L, Porzio G, Napoleoni L, et al. Caring for cancer patients after the Italian earthquakes: a proposal from the field. *Disaster Med Public Health Prep*. 2017;11(1):4–6. doi:10.1017/dmp.2016.182