The Türkiye-Syria Earthquake: a response from the editors of the Turkish Journal of Pediatrics

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On February 6, 2023, two consecutive earthquakes near Kahramanmaraş, Türkiye sent shockwaves across hundreds of miles, forever altering the lives of millions across Türkiye and Syria. The countries were rocked by two earthquakes with magnitudes of 7.7 and 7.6 (Mw), separated by just nine hours, that were the region's strongest in nearly a century. It is estimated that more than a million people have been left homeless as more than 150,000 buildings collapsed or were rendered uninhabitable in Turkey alone as a result of the earthquakes. At the time of this writing, 21 days after the catastrophe, the official death toll has exceeded 40,000, with countless others injured, some of whom are still in critical condition.

earthquakes exposed multiple, sometimes fatal shortcomings in construction, infrastructure, emergency preparedness and emergency response. After the disaster, it immediately became evident that the lessons to be learned from numerous recent deadly earthquakes, most notably the 1999 Gölcük (Marmara) earthquake near İstanbul in the densely-populated northwestern Türkiye, had not been effectively implemented. Many lives were lost as a result of buildings reduced to rubble, including hospitals that collapsed or were damaged preventing access to health care. Damaged roads and airports hindered rescue efforts and the shipment of urgently-needed personnel and supplies. The importance of standardization, regulation and oversight of construction projects by competent authorities cannot be overstated.

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In the immediate aftermath of the earthquakes, the limitations of local response teams in terms of trained staff, adequate equipment and coordination became apparent. Mobilization from surrounding areas proved impossible due to disruptions in transportation and the devastation of an extremely large region, leaving many settlements to fend for themselves, especially in the first few days after the earthquakes, when rapid search and rescue was crucial.

The pediatric community rushed to the aid of those in need. Those who were already in the affected area were among the first responders, providing care in partially collapsed buildings, with limited or no equipment, sometimes without electricity and in bitter cold. While some pediatricians volunteered, and went to the affected area immediately, working outdoors with search and rescue teams, in hospitals or makeshift tents, others remained at their posts and awaited the arrival of patients. Hospitals across the nation have been working tirelessly to provide life-saving care.

The central organization of the medical response, which initially requested surgeons but not pediatricians or internists to the affected area, highlights a well-known flaw in the approach to trauma: the misconception that trauma is exclusively in the domain of surgery. While the heroic and tireless efforts and accomplishments of orthopedic trauma surgeons, neurosurgeons, cardiovascular surgeons, plastic surgeons, general surgeons, pediatric surgeons, among others, are invaluable, the medical complexities of patients and especially children with severe trauma and/or crush syndrome must not be underestimated. Early fluid therapy (even before extrication), treatment of electrolyte and acid-base imbalances, acute kidney injury, respiratory failure, shock, sepsis and other conditions demonstrated the significant contributions of general pediatricians, pediatric emergency physicians, pediatric intensivists, pediatric nephrologists and others, both in the field and in referral centers across the country. Despite the fact that pediatricians have long been aware of their crucial roles in trauma teams, a multidisciplinary, data- and guideline-driven "trauma team activation" approach to major trauma should also be implemented by health care policy makers.

Long-term consequences of this dire event will start unraveling in the coming weeks, months and years. This natural disaster has struck a region already afflicted by a refugee crisis. Those affected are in urgent need of shelter, clean water, food security and acute medical care. Children and adolescents are among the most vulnerable when it comes to disasters. Numerous children are at risk for communicable diseases (diarrhea. pneumonia, scabies etc.), acute malnutrition and the vicious cycle between the two. Some have become amputees, and will require life-long physical rehabilitation, mental health care and socioeconomic support. Numerous children are orphaned and have lost their homes, schools and support systems. The disruption of their daily lives in the long-term increases their risk for school dropouts, mental health problems, child marriages, adolescent pregnancy, abuse, and violence. The environmental pollution caused by the earthquakes is also expected to have a greater impact on children, including but not limited to asbestos exposure from demolished old buildings. Multiple renowned health centers in the region have been damaged by the earthquake, which are expected to affect health care services in the near future.

Children will also be exposed to the potential remote effects of a disaster of this magnitude. In addition to the loss of many lives, loved ones, and homes, thousands of families will be displaced due to the destruction of personal relationships, businesses, opportunities, plans, and aspirations. Migration from the region may

alter the social structure of the region for decades to come, and regions receiving migrants may experience difficulties accommodating them, including problems with housing, education, health care and social services. Parents, foster families, social workers, teachers, pediatricians, child psychologists and psychiatrists, physiotherapists and communities should work together to ensure the best possible health outcomes for these vulnerable children.

Currently, numerous pediatricians both in the field and in hospitals are working tirelessly to save severely injured children. International support from all around the globe arrived swiftly, and is greatly appreciated. As the editors of the Turkish Journal of Pediatrics, we extend our deepest condolences to the people of Türkiye and Syria, who have suffered immeasurable loss, grief, and sorrow and would like to thank all those who have worked and will continue to work for the health and safety of children in our nation.

We must emphasize that it is imperative for all authorities and policymakers to follow the path of reason and science, and heed the warnings and recommendations of the scientific and medical community in order to minimize the short- and long-term consequences of this disaster on children, and to take the necessary precautions to prevent such an earthquake from causing this much damage in the future.

Finally, we are calling on all pediatricians and other health care providers working with children to submit to the Turkish Journal of Pediatrics studies based on data from these earthquakes. Our journal will provide a platform for the dissemination of scientific data regarding child health in the aftermath of these earthquakes. We intend to expedite the review and publication of such manuscripts in order to facilitate rapid communication.

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