Leveraging mHealth Structure to Improve Care Delivery in the Remote Regions of Pakistan: Call to Action

Sir,

We are writing to bring to the attention of readers towards an important matter that can be leveraged to strengthen Pakistan's health system. The telecommunication authority in Pakistan is a growing industry that has 189 million cellular users as of 2021, with a teledensity of 85.94% nation.[1] Pakistan is soon to roll out 5G – the global internet service – by 2023, reaching many rural and underdeveloped regions. Multiple digital health startups, including *Ailaaj* (Personalised Health), *Marham* (Digital Health platform), and *Dawaai* (Online Pharmacy), have all secured over a million dollars in funding.[2] With these advancements, can Pakistan advance its mobile-based healthcare services to improve access to care, particularly in remote regions of the country? The possibility is certainly there. Pakistan was reported to be the first country to launch a cost-free telemedicine service *via* WhatsApp during the COVID-19 pandemic.[3] The country's health systems are gradually moving to establish electronic records and adapting to the change. If leveraged correctly, it can be helpful in settings with minimal to no healthcare services, including rural areas.

After ensuring internet availability, the first step would be the public's acceptance and adaptability of seeing the doctor remotely. Alongside one-to-one tele-consults that can be done from the patient's home, a center, powered by integrated telemedicine services, basic testing, vaccination, obstetric and gynecological care, pediatric evaluation, and disease surveillance can be established. These centers can have a trained nursing staff from a local community and be monitored remotely by the physicians. A second tier of leveraging telehealth is in emergency care. A set of local responders can be trained to manage a certain degree of emergency when receiving an alert through their phone. A more straightforward system of engaging local responders has effectively managed crises in Bangladesh.[4] A third tier could be using drone technology in delivering vaccines and necessary medications in the remote regions, on rough terrains, and especially in the harsh winter climates in northern areas of the country.

At the same time, there are numerous challenges that the country will have to surpass in implementing telemedicine. First, a survey of 224 doctors in Karachi in 2018 found that conferences or workshops to learn about telemedicine are nearly non-existent.[5] In addition to a lack of familiarity with the medical community, the government is yet to develop a comprehensive regulatory framework to guide the appropriate use of remote care.[6] As of 2016, no telemedicine legislation was in place.[7] This is changing: recently, the Telemedicine and Telehealth Bill of 2021 was unanimously approved in October 2021, which seeks to "facilitate, enhance, and improve access to healthcare through distant health platforms and ease the shortage of healthcare professionals."[2] Despite some challenges, the country has adapted to newer technologies in the past, and the unexpected pandemic has led to a new paradigm in health provisions in Pakistan. The mHealth will enhance the care delivered and potentially control the cost of care, which is essential for the country.

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