Chapter 70
Mobile Health Literacy to Improve Health Outcomes in Low-Middle Income Countries

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ABSTRACT

Despite improvements in health indicators over time, such as decreased mortality and morbidity, significant challenges remain with regard to the quality in the delivery of healthcare in low and middle-income countries (LMIC's), especially in rural and remote regions of developing countries. In the effort to find feasible solutions to these issues, a lot of importance is given to the information and communication technologies (ICTs) The author reviews the evidence of the role mobile phones facilitating health literacy to contribute to improved health outcomes in the LMIC's. This was done by exploring the results of ten projects. The author examines the extent to which the use of mobile phones could help improve health outcomes in two specific ways: in improving health literacy and promoting health and well-being, thus increasing life expectancy in LMIC's. Analysis of the papers indicates that there is important evidence of mobile phones boosting increased access, promoting education and increased health literacy leads to the better health status of the population.

INTRODUCTION

The world is developing at a very fast pace in the 21st century. The face of healthcare is changing! Digital technologies are changing the way in which the healthcare industry approaches the provision of care. By redefining the way services are provided and combining the use of technology and data analytics it has become possible to manage the health of patients and populations proactively (Bolton, Hausman, & Keisling, 2011). We can now get patients to help themselves by actually looking after their health and conditions. We have often heard the phrase "Prevention is better than Cure" and now with the growth of the Mobile health industry, this could be a reality if made use of judiciously.

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In this paper, the author explores the scope of mobile health educational programs in improving the health and wellness status thus raising the life expectancy of its population in Lower and middle income countries (LMIC's). That can be achieved through predesigned health tips shared by practitioners or experts in the area, thus aiming at improving the lifestyles of the people within the given location. The aim was to design a mobile health pilot program from the inputs given.

The health care sector in many LMICs is constrained by the high financial and human resource costs, as well as lengthy implementation times, of expanding health facilities and training workforces based on accepted WHO standards (Schweitzer, 2010). With the coming in of Mobile health, healthcare has been taken to a different level where one can even warn the physician that they are likely to have an MI (myocardial infarct). Call centers that will continuously evaluate the data and interpret them and give valuable information to the patients have been running in several countries. Smart algorithm and feedback systems are changing the face of healthcare services (Kay, 2011).

The World Health Organization defines mobile health as "the spread of mobile technologies as well as advancements in their innovative application to address health priorities." (Kay, 2011). The National Institute of Health, on the other hand, defines mobile health as "the use of mobile and wireless devices to improve health outcomes, healthcare services, and health research." ("Mobile Health (M-Health) information and resources - Fogarty International Center @ NIH," n.d.)

Mobile Health is a rapidly developing field and has over 160,000 health apps that are currently available in the global market (Research2Guidance, 2015). Mobile health contributes to the empowerment of patients so that they are able to manage their health more actively, live independently focusing on self-assessment or remote monitoring solutions. Mobile health is an emerging part of e-health, where Information & Communication Technologies (ICT) are used to improve health products, services, and processes (Kay, 2011). It is a promising area to supplement the traditional delivery of healthcare and complements rather than replaces it. We can help the public attend to the social determinants of healthcare in building a safer, healthier environment in order to lead a healthier lifestyle. We could help run the best healthcare system in the world. Mobile health can be used wisely to help people live a long healthy and happy life. We can try giving every person instant round the clock access to high-quality health care, at very affordable costs and access to the advice of highly skilled physicians across the country. Instead of making them travel to hospitals, we can take the hospital to them! What we can do is promote proactive preventive healthcare rather than reactive, when treating patients. That will go a long way in keeping patients out of the hospital. Ah doesn't this all sound divine in a world where health is still unaffordable to many.

Several studies, have shown us that mobile health has indeed worked wonders for patients adhering to medication intake, in patients suffering from cardiovascular disease and improvements in mother and child care etc. (Gandapur et al., 2016). When the success of the same has been proved, we need to move a step ahead in utilising this resource in the most positive way possible. These findings can be utilized in LMIC's where the doctors are scarce to cater to the population, and we wish to achieve the maximum we can to fill this gap.

More than 100 countries are now exploring the use of mobile phones to achieve better health (Report, Innovation, & Fund, 2015). Mobile health can be used to enhance health education and compliance to medication. One problem commonly faced is the shortage of medical practitioners in the country, especially in rural areas. That is a huge obstacle that comes in the way of delivery of health care services. This brings up a scope of opportunities to these countries, like organising support groups or communities