

# Smartphone Communication for Chronic Disease Prevention and Management

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## Abstract

Long-term health management is difficult for the continually expanding population of chronic disease sufferers. Smartphone interventions appear to be promising. Lifestyle variables have a key role in the development of chronic diseases such as heart disease, lung disease, and diabetes, and adjustments in lifestyle habits associated with these disorders can reduce chronic disease risk. The potential and evidence base for leveraging modern technology applications and platforms within the new communications environment to improve the prevention and management of lifestyle-related chronic diseases in the future are then considered. We explore the consequences and adaptation of lessons learned from the commercial and political applications of new technology, as well as their significance to public health. Studies discovered that the smartphone intervention was a completely or partially useful technique for assisting in the management of several chronic conditions. Patients with chronic conditions who used health-related smartphone apps are felt secure in the knowledge that their illnesses were being closely tracked, participated in their own health management more effectively, and believed that they had not been forgotten by their doctors and were being taken care of even outside the hospital/clinic. This article discusses the aspects of smartphone interventions for long-term chronic condition care, as well as how these applications benefit chronic disease patients. However, there are few smartphone apps for long-term chronic disease management. More smartphone apps are needed to assist people in managing chronic conditions.

**Keywords:** chronic disease sufferers, Smartphone Communication, public health.

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## INTRODUCTION

Both the number of chronic diseases and the number of persons suffering from chronic illnesses are on the rise [1]. People with chronic diseases are living longer lives as a result of improved therapies. Empowering and engaging persons with chronic conditions to manage their own health and/or therapy programs is one of the most critical difficulties facing healthcare systems. Electronic health (e-health) has become a significant tool for healthcare systems as information science and technology have advanced. E-health solutions efficiently deliver the correct information to the right audiences at the right time, in the right location, and in the best manner to guide healthcare and health promotion. E-health technologies can be interactive, interoperable, simple to use, entertaining, adaptive, and available to a wide range of users [2].

The World Health Organization (WHO) defines mobile health (m-health) as medical and public health practice assisted by mobile technology such as mobile phones, patient monitoring devices, personal digital assistants, and other wireless equipment. Four or more types of m-health projects were reported by three-quarters of WHO member countries. 4 Communication between individual patients and health service providers, communication between healthcare professionals, intersectional communication in emergencies, health monitoring and surveillance, and access to information for healthcare professionals at the point of care were among the m-health initiatives covered in the survey [3].

Smartphones, as opposed to traditional mobile phones, enable mobile access to numerous computer operations such as Web internet use, e-mail, and social networks. They also have significant on-board computer

power, big memory abilities large screens, and accessible software platforms that stimulate app development [4].

In the past few years, lifestyle-related long-term conditions such as CVD and diabetes, their comorbidities such as prevalent psychological problems, and the main lifestyle behaviors causally associated to these have emerged as the most significant contributors to global

disease burden [5]. Table 1 shows well-designed, strengthened and advantages of these such tools [6].

This article examines how lifestyle-related chronic conditions can be addressed within the new communications landscape, which is characterized by information and communication technologies (ICTs) that use the Internet, mobile health (m-health), social media, and smart wearable devices.

**Table 1: Mobile Health advantages**

A.	Reach out to a big number of people and populations at a minimal cost
B.	Less direct human touch is necessary for program delivery
C.	With high fidelity, address many important functions of effective health behavior change programs at the same time, such as education, coaching, monitoring, and social support.
D.	Create massive volumes of data that may be utilized in actual time to guide for more successful, and persistent programs

## METHOD

This research technique is based on a review of the literature to investigate the usage of smart phones for chronic illness prevention and management. And make recommendations to health care practitioners and organizations on how to implement a set of procedures to ensure chronic illness control.

## DISCUSSION

Choosing the fit and matching disease is one of the most significant things that leads to successful app utilization. Typically, the type of disease being able to use health related smartphone apps is the primary issue for academics, followed by how an app might be applied based on the linked sickness or condition. Some disorders are even linked; for example, obesity and overweight are linked to a number of chronic diseases, including type 2 diabetes, hypertension, cardiovascular disease, arthritis, hyperlipidemia, and asthma. Studies showed that health-related smartphone apps are beneficial and effective in some ways in monitoring patients' symptoms, supporting patients, or assisting with chronic illness management [7].

Following the discovery of applications that match the researcher's disease of interest, the researcher's next worry is the characteristics of potential app users. What patients are eligible to utilize the apps? According to this analysis of the literature, the requirements are as follows: First and foremost, patients must be able to comprehend, read, and write. Second, the sufferers must own a smartphone and be capable of using smartphone apps. Some health-related smartphone apps require patients to have Internet connection and be comfortable using a PC. Third, people are willing and capable of managing their chronic diseases via health-related smartphone apps. It is also critical that patients have a positive attitude toward utilizing health-related smartphone apps [8].

The third aspect a researcher must explore is how smartphone apps can especially assist in management. Symptom management, treatment management, and daily activity management are all common app contents. In terms of symptom management, one study focused on the treatment of chemotherapy-related side effects in cancer patients. A few reviews focused on the specific criteria to help diabetes patients manage blood glucose, insulin dose modification, and nutritional intake in terms of therapy and daily activity management. Studies that focused on the everyday activities of overweight individuals in order to help them manage their calorie and fat consumption as well as their physical activities [9, 10].

## CONCLUSION

Considering the communication and support needs of persons with chronic conditions, this review emphasizes the significance of future research on health-related smartphone apps treatments. Patients with chronic diseases felt confident in the knowledge that their medical conditions were being closely monitored because to the apps on mobile devices. They were taking a more active role in their own health management. They also felt that their doctors had not forgotten about them and that they were being taken care of even outside of the hospital/clinic.

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