



The Role of Smartwatches in One's Health: A Short Commentary

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Technology today is reaching newer milestones with every passing day. A significant contribution of technology to the society is the advancement in the normal “watch” worn in a human’s hand, and giving birth to the “smartwatch”. Its applications ranges from monitoring one’s heart rate, sleep habits physical activity, blood pressure, SpO₂ level, phone notifications as well as performing various other functions.

It has been reported that low physical activity is currently the fourth leading risk factor for mortality worldwide.¹ Even though the scientific literature shows limited evidence supporting the use of wearable fitness trackers leads to an improvement in health,² these devices are gaining popularity each day and new fitness devices appear on the consumer market regularly.

These watches can potentially transform health care by supporting/evaluating health one’s routine life as they are familiar to most people, are easily available, have near-real time continuous monitoring of physical activity and physiological measures, provide tailored messaging and reminders, enable communication between patients, family members, and health care providers.³

Two identified areas where the benefits of these devices may accrue are epilepsy⁴ and cardiology treatment and research.⁵ Photoplethysmography (PPG) is a relatively new technique in wearables. PPG is an optical technique to estimate HR by monitoring changes in blood volume beneath the skin. Because of the proximity to the skin, the smart watch can also be a source of physiological data derived directly from the wearer’s body.⁷ With the potential for widespread adoption in the healthcare sector, smart watches equipped with biosensors have the potential to provide important healthcare information to patients and their providers.

The most common application using smart watches in the healthcare sector focused on health monitoring or smart home environment for the elderly.⁸ An other important application concerns monitoring chronically ill patients needing medication and/or adherence monitoring.⁸ Among the elderly, fall detection has been playing an important role in the smart home environment, although the use of such wearable devices in the real-world settings demands further research and improvement in accuracy.⁹

However, there is a need to closely monitor the advancements in these smartwatches and closely analyse the data reported by these smartwatches. Watches with ECG app and irregular heart rhythm notification are important as they have saved plenty of lives. This short commentary was an effort to educate the readers of this journal regarding the same.

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