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ADVANCES IN HEALTH DEVICES ALLIED TO THE DIAGNOSIS AND PREVENTION OF ATRIAL FIBRILLATION

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Cardiovascular diseases (CVD) are one of the most common causes of early death worldwide. One of the main CVDs is Atrial Fibrillation (AF), which is characterized as an arrhythmic cardiovascular disease that has an electrocardiographic tracing with an absent P wave and an irregular RR interval. Its incidence increases advanced age, and its most frequent causes are mitral valve disease, ischemic heart disease and cor pulmonale. It is also important to note that AF - with a 0.3% annual increase in prevalence in people over 65 and an 8% incidence in people over 80 - is associated with increased morbidity and mortality. In this context, the emergence and growth of digital technologies designed to manage and monitor lifestyle factors is proving to be effective not only in tracking physical activity, but also in assessing physiological parameters such as heart rate, heart rhythm, sleep duration and blood oxygenation, which are of great use to medicine.

OBJECTIVES

This study aims to understand the applicability and effectiveness of the use of technologies such as smart watches in cardiac health, especially their role in reducing CVD mortality.

METHODOLOGY

The methodology adopted was the reading of articles from 2022, 2023 and 2024 found in the SciELO and Google Scholar databases, the descriptors used were smartwatches, atrial fibrillation and cardiovascular diseases.

CONCLUSION

Smartwatches are capable of detecting and monitoring vital signs, providing the user with electrocardiogram tracings in real time, representing arrhythmic diseases such as AF. This data contributes to the screening and early diagnosis of such pathologies, thus facilitating management, control and treatment. It is worth noting that different types of devices must be analyzed in order to find the one with the greatest sensitivity and accuracy. Therefore, health technology is the main ally in the evolution and treatment of arrhythmias prevalent in the world's population, which are still a stumbling block for doctors and health professionals today, and is in search of innovative solutions based on concrete evidence.

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