

## ABSTRACT

**Introduction:** Lack of healthcare infrastructure, qualified staff, and sufficient resources frequently make it difficult to provide effective care for the elderly in low-resource environments. Numerous geriatric care strategies exist. Most elderly people choose to age in their homes, surrounded by their loved ones. With the help of home-based care, medical professionals can treat elderly patients while they stay in their own homes. Telemonitoring is therefore the best technique to use while monitoring elderly people. Remote health monitoring is a useful tool for keeping tabs on the health of the elderly population in underdeveloped countries. It is critical that caregivers, family members, and healthcare professionals acquire the necessary instruction and training before using remote health monitoring equipment. However, there are a few obstacles to using telemonitoring in underdeveloped nations, such as a lack of funding to put the systems in place. Therefore, this study was conducted based on six objectives.

**Methods:** The researcher developed a conceptual framework including five independent variables. The researcher collected quantitative data from 156 elderly citizens in Sri Lanka and qualitative data from 7 doctors who worked with elderly patients for more than 5 years.

**Results:** According to the study results the researcher identified that perceived use, subjective norms, effort expectancy, facilitating conditions, and social influence have a positive influence on the behavioral intention of the elderly to use remote health monitoring systems. Moreover, under the thematic analysis, the researcher identified that telemonitoring is a suitable concept for eldercare in Sri Lanka. However, there are challenges to implementing telemonitoring in the Sri Lankan context.

**Discussion:** the study results are aligned with the previous scholars' findings and therefore, researcher accepted all hypotheses.

**Conclusion:** Based on the study results, the researcher suggests that telemonitoring systems should develop in a user-friendly manner.

**Keywords:** Elderly citizens; Low resource contexts; Telemonitoring