

Clinical Experiences of Working with Patient-Generated Health Data in Primary Care

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Abstract. This research aims to provide insight into the GP experience with patient-generated health data (PGHD) in a virtual care visit. Despite the prevalence of wearables, including smartwatches, the acceptability of generated data in primary care is understudied. The result of this study from mixed-method analysis showed the basic capabilities of PGHD to enhance clinical decision-making and positive impact on collaboration with the patient. The impact of PGHD on clinician satisfaction was not determined, highlighting the importance of rigorous methodology in future research.

Keywords. Patient-generated health data, virtual care, primary care, wearables

1. Introduction

The accessibility of patient-ready devices like smartwatches has fueled the growth of patient-generated health data (PGHD) [1]. This growth is outpacing how PGHD is understood and clinically used in healthcare [2]. Despite the advantages of PGHD [3], evidence that promotes the usability of PGHD in clinical settings is understudied [4-5]. Hence, understanding the potential of patient-initiated PGHD in virtual primary care is beneficial. This research aims to understand the experience of General Practitioners (GPs) with PGHD and its impact on clinical decision-making, collaboration with patients, and clinician satisfaction.

2. Methods

We recruited five GPs practicing in Victoria, Australia, to participate in a simulated video-based teleconsultation with a patient who uses a Galaxy Watch for health monitoring. The patient data included sleep quality, blood pressure, and ECG traces. Technology Acceptance Model (TAM) survey [6] was used to understand clinicians' experiences as a quantitative measure and the thematic analysis was applied to identify the key features of the GP-patient interaction.

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3. Results

The result of the thematic analysis identified three themes in the consultations: 1) The Use of PGHD in a clinical setting, 2) GP-patient Interaction, and 3) GPs attitude towards the PGHD. Four GPs used PGHD as a guide in clinical decision-making and established the means of effective communication through patient education. The TAM survey’s results indicated positive outcomes regarding perceived usefulness and attitudes toward PGHD, while the results regarding ease of use of PGHD were insignificant. Ultimately, the intention to use PGHD in the future was not strongly implied by the clinicians.

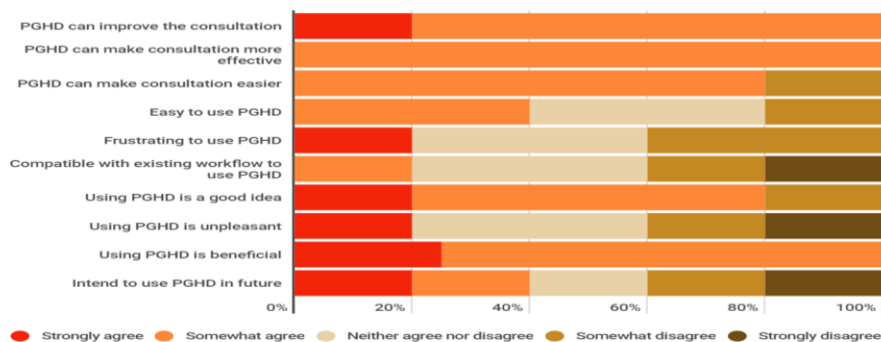


Figure 1. Survey Results.

3. Conclusions

This study concluded the basic use of PGHD from smartwatches for clinical decision-making and its positive impact on GP-patient collaboration. The findings indicated that the adaptation of PGHD from smartwatches in clinical settings has a complex nature that needs the development of rigorous methodology.

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