

# What factors determine healthcare professionals' (HCPs) acceptance of mobile devices for telehealth: A qualitative study conducted in Queensland, Australia

Vasundhara Rani Sood<sup>1</sup>, Prof. Raj Gururajan<sup>2</sup>, Dr. Abdul Hafeez Baig<sup>3</sup>

1 USQ, Toowoomba, 4350, Qld, Vasundhara.Rani@usq.edu.au

2 USQ, Toowoomba, 4350, Qld, Raj. Gururajan@usq.edu.au

3 USQ, Toowoomba, 4350, Qld, Abdul.Hafeez-Baig@usq.edu.au

## Background

The introduction of telehealth has transformed the way of health delivery. Using telehealth, travel time and distance barriers are virtually eliminated for patients who live in remote areas where access to a hospital or clinician is limited (Coach 2013). Despite the various benefits of telehealth, the static model of telehealth services is preferred globally. In the Australia for telehealth consultation, the patient arrives at the recipient site 30 minutes before the teleconference begins so that staff can take the necessary observations and can send the results to the hospital, even though mobile device based telehealth has potential to monitor patient bed side in home environment. Yet most of mobile device based telehealth services are used in text messaging and in calling globally. The use of mobile device based telehealth services in many health activities such as telemedicine, patients' records, treatment and monitoring is slow. Tamrat and Kachnowski (2012) claimed sustainable adoption of prenatal and neonatal mobile device based telehealth services remains under-developed. Therefore, the aim of this research is to explore the perceptions and experiences of HCPs for acceptance of mobile devices in telehealth by HCPs in Australia.

## Methods

This research is conducted using qualitative approach. Six focus group discussions (FGDs) (each group having 5-7 members) and 2 interview were used to collect qualitative data. The target population was HCPs such as occupational therapists (OT) and physiotherapists, dietitians, oral health practitioners involved with the provision of telehealth services.

## Results

In Queensland health care professionals intention, self-efficacy, compatibility, relative advantages, education and training, management support, network coverage, privacy and security, resource issues, trialability, age and experience with technology use are found to be important factors for the use of mobile devices whereas social influences, functional features of mobile devices and complexity were found to be conflicting factors among various HCPs for the use of mobile devices in the Australian telehealth environment.

## Discussion

This study findings add to the stream of knowledge and provided factors that has policy an empirical implications. In policy and practice terms, this study makes a significant contribution towards an understating of factors for the use of mobile devices in telehealth. These factors can serve as a guide to policy makers and managers to implement mobile devices in telehealth. Further, the results obtained from this research study can be applied to the rest part of the Australia and rest of the world to understand the use of mobile devices in the telehealth environment. The paper also indicated age and experience as moderating variables which can further be considered and can be investigated in other studies such as survey. Further, the factors and the items obtained in this research study can be used to design survey questionnaire to conduct this research study using the quantitative approach.

Vasundhara is a PhD candidate in health informatics research at the University of Southern Queensland (USQ), School of Management and Enterprise. Vasundhara graduated from the Himachal Pradesh University (HPU), Shimla, India with a master's of technology in computer science. Her research interests are health care utilization, quality, outcomes and communication. In addition to pursuing her PhD, she has been working in the BELA department of USQ as a causal staff. She has also worked as an assistant professor in HPU. During her PhD she has also presented her research in ACIS 2015 and ECIS 2016 top ranked conferences in information system. She has also published a book chapter with IGI publication for Handbook of Research on 'Healthcare Administration and Management' book.