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## Remote monitoring to achieve self-management of type-2 diabetes mellitus: A prospective study

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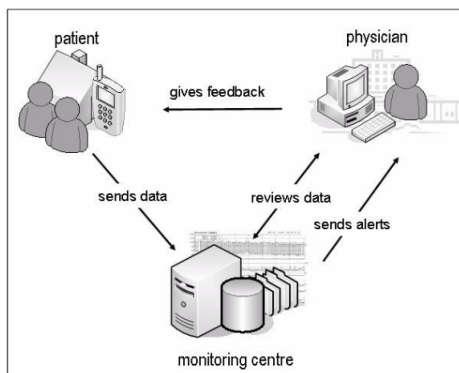
**Background:** The world's population is aging, and more people are living with chronic conditions including diabetes mellitus. Healthcare providers are moving towards the use of telemonitoring to identify patient self-management approaches and ensure the delivery of health care at their home.

**Aim:** To explore three telemonitoring technologies that intend to achieve self-management of type 2 diabetes mellitus thereby improve HbA1c levels and quality of life.

**Method:** Interrupted time series design to evaluate the impact of three different telemonitoring solutions provided by one large combined health and social care trust with technology-naive people, aiming to manage their type 2 diabetes mellitus. Sample: A total of 166 patients met the criteria at the diabetes clinic, with 29 patients consenting to take part in the study.

**Results:** Participants' baseline measurements were similar. The d-Nav solution exhibited significant improvement in HbA1c over the other telemonitoring solutions. Participants showed acceptability and significant satisfaction of using all three solutions and exhibited improved quality of life.

**Conclusion:** This exploratory study demonstrates the feasibility of using telemonitoring to self-manage type 2 diabetes mellitus offering a line of communication between the patient and their clinical care team at a distance.



**Figure1:** The architecture of telemonitoring system consists of three main entities: The patient, the server and the healthcare provider.

### Biography

Hayat Mushcab has completed her BSc in Health Information Management & Technology at King Faisal University. She completed her MSc in Computing and Intelligent Systems at University of Ulster; PhD in the field of Telehealth/Telemonitoring and Connected Health at Ulster University in the Faculty of Life and Health Sciences. She has five publications in international journals.

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