

This is a repository copy of *OP340 Kidney Patients' Preferences For A Wearable Digital Health Technology To Support Self-Management Of Chronic Kidney Disease - A Discrete Choice Experiment*.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/id/eprint/181202/>

Version: Accepted Version

Article:

Gc, Vijay Singh orcid.org/0000-0003-0365-2605, Iglesias Urrutia, Cynthia Paola orcid.org/0000-0002-3426-0930, Erdem, Seda et al. (2 more authors) (2021) OP340 Kidney Patients' Preferences For A Wearable Digital Health Technology To Support Self-Management Of Chronic Kidney Disease - A Discrete Choice Experiment. International Journal of Technology Assessment in Health Care. pp. 14-15. ISSN: 0266-4623

<https://doi.org/10.1017/S026646232100101X>

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

ORAL ABSTRACT

Title:

Kidney Patients' Preferences For A Wearable Digital Health Technology To Support Self-Management of CKD – A Discrete Choice Experiment (18/18 words)

Theme:

(B) Plenary Two: Patients at the heart of innovation

Authors

Vijay GC¹, Cynthia Iglesias², Seda Erdem³, Lamiece Hassan⁴, Andrea Manca¹

¹ Centre for Health Economics, University of York, York, United Kingdom

² Department of Health Sciences, University of York, York, United Kingdom

³ Stirling Management School, University of Stirling, Stirling, United Kingdom

⁴ Division of Informatics, Imaging & Data Sciences, University of Manchester, Manchester, United Kingdom

Abstract Summary:

Incorporating user preferences and priorities early on in the development pathway of digital health technologies (DHTs) helps design a person-centred product, and increases patient's uptake of (and adherence to) these interventions. We describe the methods and results of a study conducted to elicit the preferences of individuals with chronic kidney disease towards the characteristics of wearable DHTs to support self-management.

Introduction:

Wearable Digital health technologies (WDHTs) can support and enhance self-management by giving individuals with chronic conditions more control over their health, safety and wellbeing. Involving patients early on in the design of these technologies facilitates the development of person-centred products. It may increase the potential uptake of (and adherence to) any intervention they are designed to deliver. This research aims to elicit chronic kidney disease (CKD) patients' preferences for WDHTs that may help patients manage their conditions.

Methods:

We used discrete choice experiments (DCE) to elicit preferences for WDHTs characterised by their generalisable characteristics. The study design was informed by a multi-stage mixed-method approach (MSMMA). This included a review of the published literature, focus group interviews and one-to-one interactions with CKD patients to identify relevant characteristics (that is, attributes and levels) associated with wearable DHTs. We collected the data from 113 patients (age ≥18 years) with stage 3 or above CKD. The analysis started with a conventional multinomial logit model and was extended by investigating heterogeneity in preferences via latent class models.

Results:

Our MSMMA yielded ten potential attributes for consideration in a choice task. The final list included five attributes, cross-checked and validated by the research team, and patient representatives. The most preferred attributes of WDHTs were device appearance, format and type of information provided, and mode of engagement with patients. Respondents preferred a discreet device, which offered options that individuals could choose from and provided medical information.

Conclusions:

We show how to use MSMMA to elicit user preferences in (and to inform the) early stages of development of WDHTs. Individuals with CKD preferred specific characteristics that would make them more likely to engage with the self-management support WDHT. Our results provide valuable insights that can be used to inform the development of different WDHTs for different segments of the CKD

patients population, moving away from a one-size-fits-all provision and resulting in population health gains.

Declaration of funding:

This project was funded by the Engineering and Physical Sciences Research Council (grant EP/P010148/1; The Wearable Clinic: Connecting Health, Self and Care).