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POSTER ABSTRACT

A game changer Joint Design Journey of PREMS and PROMS in the HOSMARTAI virtual coach study

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Background: HosmartAI, "Hospital Smart development based on AI" (H2020, GA.101016834), stands for effective and efficient healthcare system transformation creating a common open integration platform offering multifaceted lasting functionalities (e.g. Marketplace, Co-creation space, Benchmarking tool) to healthcare stakeholders. This platform will allow the collection and analysis of highly relevant datasets to support decision-making. For validating the concept and AI platform, the project includes 8 Lighthouse Pilots, between them, a complementary system aimed to support older adults in their homes or in clinical centres to perform training, prevention and rehabilitation activities. In this sense, appropriate quality measures and methods are fundamental for a continuous improvement of care services. However, the use of PREMs in a continuous and systematic way portrays a recent and still scarcely implemented approach.

Objective: This case study presents the process that led to the participatory definition of the productivity, efficiency and quality measures for the HosmartAI virtual assistant for a continuity of care in neuropsychological rehabilitation and elderly care.

Methods: The HOSMARTAI co-creation methodology focused on exploring the care journey through two initial cycles involving 24 participants to empathize, define collaboratively user requirements and ideate the solution use paths. In the process was included the selection and adjustment of the most valuable assessment indicators with a double goal to validate the approach in a pilot study and of value for the different parts (patients, therapists, healthcare services managers).

Results/Discussion: The process contributes to meet the end-users' demands. Firstly, the co-creation process allowed deepening the understanding of the context, the health system and the challenges perceived by people in the primary-user condition, to identify significant concepts of interest for the response, and to reach an appropriate direction, taking into account the patients key points of interest. It was the base to define collaboratively an assessment protocol for the proposed system to address the commented challenges, with a key focus on the Patient Reported Experience which data has the potential to narrow the gap between the therapists' and patients' views and help tailor treatment plans to meet the patients' preferences and needs. The resulting assessment protocol ensure a combination of suitable set of PROMs and PREMs, where PREMs capture in detail the patients' experience perception with the technology and the service(s)

offered through it. From the key considerations, ensuring a soft evaluation approach including data collected throughout seamless interactions with the service interfaces (tablet and social robot) at appropriate moments of the interventions that are complemented with easy to answer questionnaires and semi-structured interviews, ensuring an assessment approach to the patient so natural, intuitive and pleasant as possible.

Conclusions: This work contributes to the solution development, validation and standardisation, enabling the delivery of high quality care from the perspective of the different stakeholders with a special focus on the end-users. This research continues collecting lessons learnt from the process, such as the need to adopt a flexible co-design framework with stakeholders (including primary and secondary users) and open to regular adjustment/revision of PREMs and PROMs on these highly changing contexts.