

LALABY: An app to monitor the quality of life of cancer patients and improve decision-making for their treatment

DESCRIPTION OF INVENTION

Monitoring the quality of life of chronic patients is a complicated and expensive process. For this reason, the results provided by the patients themselves play an increasingly important role. The use of patients' own smartphones could lower the current barrier to continuous monitoring of cancer patients in clinical trials. Developments in monitoring tools have made it possible to collect objective and real-time data on patient activity in a non-intrusive manner. Continuous physical and physiological monitoring in any setting would shorten the inpatient stays, improve both recovery and diagnostic reliability while also bettering the quality of life of patients. In addition to physiological measurements, the daily physical activity of chronic patients represents an important reflection of the quality of their daily life.

Smartphones represent a significant and growing presence in the everyday lives of people around the world. Most of these smartphones are equipped with various sensors such as: accelerometer, GPS, light and temperature sensors, barometer, etc.

These sensors have become a great source of data for measuring various aspects of a user's daily life, including common activities such as walking, playing sports, sitting, etc. Due to their ease of use and low installation costs, smartphones are becoming the main platform for the analysis of human activity.

The lalaby app allows patient monitoring through motion, location, conversation detection and smartphone data usage sensors. To this end, a smartphone application called lalaby has been developed to implement this approach.

The lalaby app allows to obtain behaviour patterns that can be related to indicators of the patient's quality of life. In this way, lalaby makes it possible to assess the daily quality of life of cancer patients undergoing cancer treatment based on the information automatically collected with their smartphones.

BUSINESS APPLICATIONS

- Valid for cancer patients and through adaptation to other pathologies such as migraine or chronic Covid

TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

- Allows monitoring the day-to-day of the patient
- Allows integrating the most used questionnaires for the evaluation of quality of life (EORTC QLQ-C30)
- Allows monitoring mood changes and other reactions during treatment to improve decision-making
- Continuous monitoring

STATE OF TECHNOLOGY DEVELOPMENT

Licensable. Used in a pilot project with 25 users at hospital in Valencia.

INDUSTRIAL PROPERTY RIGHTS

Registered software
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