

Topic: “Informed and Engaged: Understanding the Knowledge Needs of Hospitalized Patients for Enhanced Care Experiences”

In the complex landscape of modern healthcare, the importance of patient-centered care has become increasingly recognized [1]. A crucial aspect of this approach is ensuring that patients are well-informed about their condition, treatment options, and overall care process [2]. By allowing patients to access, control, and share their own health data, individuals are supported to take up an active role in their own healthcare and make informed decisions about treatments. However, despite advancements in medical communication, many hospitalized patients still report feeling uninformed or overwhelmed by the information they receive during their stay [3]. Encouraging patients to seek more information and ask questions during clinical visits has shown reduced anxiety [4], improved compliance [5] with instructions and higher patient satisfaction [6].

Despite the expanding body of research in this field, there remains a lack of clarity regarding patients' specific information needs during hospitalization and how to effectively support these needs through mobile phone applications. While studies have explored various aspects of patient information systems, a comprehensive understanding of how to design user-centered mobile solutions that address the unique informational and experiential requirements of hospitalized patients is still elusive.

This study aims to conduct in-depth qualitative interviews to explore and understand the information needs of hospitalized patients. By delving into patients' experiences, perceptions, and preferences regarding the information they receive—or wish they had received—during their hospital stay, we seek to identify gaps in current information provision practices and uncover opportunities for improvement.

The primary objectives of this research are:

1. To identify the types of information hospitalized patients consider most crucial for their care experience and well-being.
2. To explore how patients prefer to receive information in hospital settings, including timing, format, and delivery methods.
3. To understand the challenges patients face in accessing, understanding, and utilizing health information during their hospital stay.
4. To investigate how meeting patients' information needs might impact their overall satisfaction, engagement in care, and health outcomes.

By gaining insights directly from patients through qualitative interviews, this study aims to contribute valuable knowledge to the field of patient-centered care. The findings will inform healthcare providers, hospital administrators, and policymakers on how to better meet the information needs of hospitalized patients, ultimately leading to improved care experiences and potentially better health outcomes.

The proposed work consists of the following steps:

- Conduct literature research on current approaches to meet patients' information needs, including technologies like mobile applications
- Conduct 5-10 semi-structured qualitative interviews with previously hospitalized people and utilize Thematic Analysis to identify patient needs
- Derive requirements from interview results for a mobile application that supports hospitalized patients with information on their care journey
- Develop a holistic concept for health and administrative data for hospitalized patients with a low-fidelity prototype

The thesis must contain a detailed description of all developed and used algorithms as well as profound result evaluation and discussion. The implemented code must be documented

and provided. An extended research on literature, existing patents and related work in the corresponding areas has to be performed.

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