Usability and Integration of a Vaccination Tool in Pharmacies: A Multi-Perspective Analysis

Degree programme: MAS Digital Health

The integration of digital tools in community pharmacy practice is transforming daily operations, but their adoption remains sometimes limited. This study analyzes the usability and integration of Documedis® Vaccination, a Clinical Decision Support System in pharmacies, identifying technical, organizational, and human barriers.

Background

In Switzerland, pharmacies play a key role in vaccination, but the diversity of recommendations and risk management require adapted digital tools. Documedis® Vaccination, a Clinical Decision Support System (CDSS), aims to optimize this process. However, its adoption remains limited for unknown reasons.

Objectives

The study aims to examine the usability, adoption barriers, and integration of Documedis® Vaccination in community pharmacy practice. Three complementary approaches were used to gather insights from:

- 1. The product team (Focus group) Investigating barriers and solutions.
- 2. Regular users (Questionnaire) Evaluating realworld usage and integration into daily practice.
- 3. New users (Think-Aloud testing) Identifying interface and user experience difficulties.

The goal is to formulate recommendations to improve the tool's efficiency, usability, and adoption.

Key Results

Documedis® Vaccination has the potential to support vaccination services in Swiss pharmacies but faces adoption barriers due to interoperability issues, workflow limitations, and usability challenges. Key improvements include:

- Integration with pharmacy information system and the Electronic Patient Record (EPR) to eliminate duplicate data entry.
- Merging the clinical decision support and the vaccination documentation into a single process.
- Enhancing usability with clearer vaccination status labels to improve the patient safety.
- Reducing manual workload through automation and structured data entry.

Conclusion

Without these improvements, these barriers may lead to difficulty in using the tool and thus compromise patient safety. To use Documedis® Vaccination® optimally, it is essential to ensure its seamless integration into pharmacy workflows, make its recommendations clear and precise, and guarantee its adoption by pharmacists. The future deployment of the Electronic Patient Record (EPR), with its structured data, can support its adoption by facilitating information exchange and strengthening the integration of Documedis® Vaccination.

Future Research and Innovation

Further research should delve deeper into workflow analysis to ensure its more efficient integration, identifying best practices for seamless adoption in pharmacies. It is also crucial to explore how to optimize interoperability, specifying concrete examples such as direct integration with pharmacy Information systems or automated data exchange with the EPR. Additionally, further studies should assess cost-effectiveness, the impact of patient data entry, and A/B testing to measure efficiency gains and guide improvements for Documedis® Vaccination.



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