

FACILITATORS AND BARRIERS IN UTILIZING BARCODE TECHNOLOGY IN DRUG PREPARATION AND ADMINISTRATION – A FOCUS GROUP STUDY FOR WARD PHARMACISTS

Laura Laakkonen, MSc (Pharm)^{1*}, Kirsi Kvarnström, PhD^{1,2}, Carita Linden-Lahti, PhD^{1,2}, Katja Janhunen, PhD³, Sini Kuitunen, PhD^{1,2}, sini.kuitunen@hus.fi. ¹ Division of Pharmacology and Pharmacotherapy, Faculty of Pharmacy, University of Helsinki, Finland, ² HUS Pharmacy, Helsinki University Hospital (HUS), Helsinki, Finland, ³ Department of Nursing Science, University of Eastern Finland, Kuopio, Finland, * At the time of study.

Background and Importance:

- Barcode technology is regarded as effective for managing medication safety in hospitals; however, its implementation faces several challenges.
- Hospital pharmacists have the potential to support barcode-assisted medication management workflows, although previous research has focused on other healthcare professionals.

Aim and Objectives:

- To examine pharmacists' perceptions of facilitators and barriers to using barcode technologies in a pediatric hospital setting.

Materials and Methods:

- A qualitative focus group study.¹
- Participants: a purposive sample of pediatric ward pharmacists (n=14) who regularly use barcode technology.
- The focus group discussions (n=3) were recorded and transcribed verbatim.
- Two researchers independently conducted inductive content analysis, which was subsequently reviewed thoroughly by the entire research group.

Results:

- Four main themes were identified: barriers, at-risk behavior, facilitators, and development ideas (Figures 1 and 2).

- The barriers exposed end-users to at-risk behavior, while development ideas focused on increasing facilitators or removing barriers and at-risk behavior (Figure 1).

Conclusion and Relevance:

- Pharmacists believe that barcode technology enhances medication safety, although many challenges remain associated with its use.
- Identifying barriers and at-risk behaviors is essential for facilitating system improvement and usability.
- Our research can inform risk management related to barcode technology in hospitals.

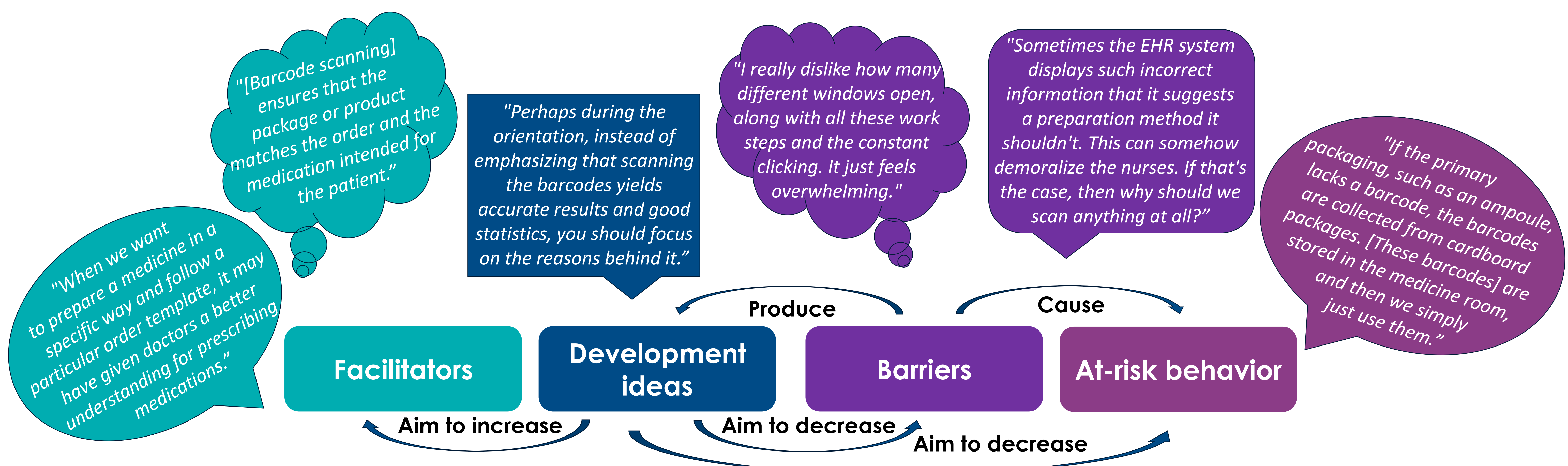


Figure 1. The main themes formed based on the study material, their relationships, and examples of study participants' views on the facilitators and barriers associated with using barcoding technology.

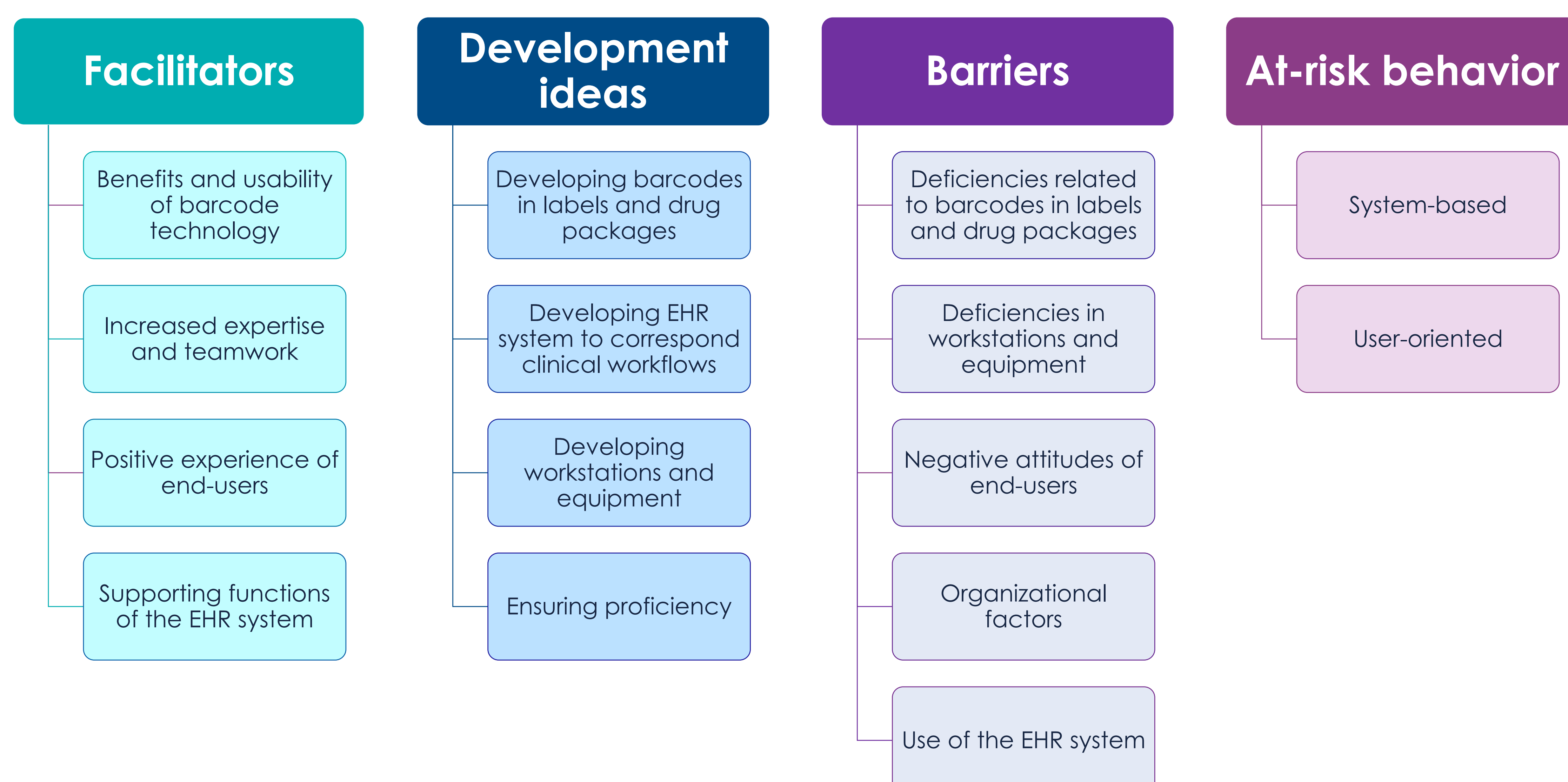


Figure 2. The main themes, along with their representative subcategories, were formed based on the study material.

Acknowledgments: We thank all pharmacists participating in the focus groups. **References:** 1) Tong A, et al. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care.* 2007;19(6):349-357.

Abstract:
5PSQ-091

