

Identifying Features and Functions of a Work-Management App for Supporting People with Early-Onset Dementia/Mild Cognitive Impairment

Sheida Marashi¹, Arlene Astell², Anna Mäki-Petäjä-Leinonen³, Ann-Charlotte Nedlund⁴, Louise Nygård⁵, Jennifer Boger^{1,6}

¹University of Waterloo, Canada; ²University of Toronto, Canada; ³University of Eastern Finland, Finland; ⁴Linköping University, Sweden; ⁵Karolinska Institute, Sweden; ⁶Research Institute for Aging, Canada

Introduction

- The prevalence of **early-onset dementia (EOD)** and **mild cognitive impairment (MCI)** is rising rapidly worldwide [1].
- Many people are employed in a paid occupation when diagnosed with MCI/EOD [2,3].
- MCI/EOD can affect memory, problem-solving, and communication; all abilities that are crucial for task management.
- There are limited user-friendly technologies to provide workplace support for this population [4,5].

Objectives

This research aims to develop a **user-centered digital application** for work-management tailored to the requirements of people with MCI/EOD.

Research question:

“What features and functions would support people with MCI/EOD at work?”

Methods

1. Semi-structured interviews and participatory workshops with people with Mild cognitive impairment/dementia and their support persons;
2. Thematic analysis of transcribed interviews in NVivo V.12 Pro.

Results

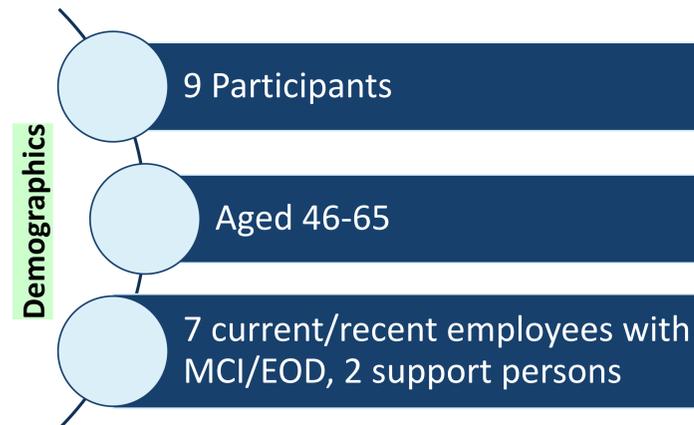


Table1. Themes derived from qualitative analysis.

Themes	Examples of findings
Work-related challenges	<ol style="list-style-type: none"> 1) Forgetting the starting point of a task; 2) Multi-tasking; 3) Task re-ordering; 4) Missing tasks.
Effective self-initiated strategies	<ol style="list-style-type: none"> 1) Delegating tasks to trusted individuals; 2) Working from home for better focus and organization; 3) Creating task lists and cheat sheets.
Technology features that impacted usability	<ol style="list-style-type: none"> 1) Minimal need for navigation; 2) Versatility and portability; 3) Learnability.

Discussion

1. Management of workplace tasks is crucial and difficult for the people with MCI/EOD in our study.
2. People with MCI/EOD want solutions that reduce stigma and foster inclusion. This finding supports developing technology that is usable **by everyone** in the workplace.
3. The identified challenges and self-initiated strategies (Table1) gives insights as to what and how to focus the design. Examples of features and functions derived from this:

- Mitigate task-related challenges: note-taking and list-making features.
- Tracking progress through tasks: setting labels for accomplished vs. remaining tasks.
- Managing team tasks/delegating tasks: task-sharing features.

4. More participants are needed to increase the robustness and generalizability of results.

Conclusion

To our knowledge, this is the first research that has included people with MCI/EOD in designing an app to support work-task management.

Future work

- Develop more design-led inquiries as usable and non-usable features are identified.
- Develop a wireframe.
- Develop a functional prototype for further user-testing.

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