

## CONFERENCE ABSTRACT

# A protocol to systematically search the Apple and Google Play stores for respite care smartphone applications

22nd International Conference on Integrated Care, Odense, Denmark, 23-25 May 2022

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**Introduction:** Respite care is one of the support services most frequently requested by family caregivers. Yet, currently accessible services remain underutilized. This underutilization is due partly to challenges in scheduling and coordination. With billions of smartphone users worldwide, mHealth applications (“apps”) have the potential to ameliorate remote communication and care co-ordination between health providers and patients. Thus, mHealth innovations could lead to faster and more accessible respite service delivery. However, despite the potential of mHealth to improve respite care coordination, little research has been conducted to map and assess available respite care apps.

**Methods:** This study aims to review, characterise, and critically appraise apps that facilitate the provision of in-person respite care services to family carers. Using an innovative hybrid search framework where searches of academic databases and grey literature iteratively inform each other (1), a systematic search for respite care apps will be conducted across the Apple Store and the Google Play Store. App metadata will be extracted and categorized using content analysis techniques, labelling and organizing content relating to criteria such as privacy, safety, usability, accessibility, user experience (e.g., comments, app ratings), and security. The Mobile App Rating Scale will be used to appraise the included apps. These app-based services will also be analyzed according to their adherence to national respite care guidelines. Finally, clinician and carer key informants will be consulted for additional feedback on the app search strategy, preliminary analyses, and any apps the team may have missed.

**Highlights:** Preliminary results will be available by the conference. This study particularly aligns with Pillar 7: digital solutions, as the findings will aid in the creation of user-friendly resources for mHealth development. These resources will aim to: (1) appraise the apps using the criteria described in the methods, (2) share these resources with the research team’s respite care community partners for dissemination to families in their care, including a subset of apps available in Québec, Canada; and (3) provide a comprehensive overview of respite care app features, strengths, and weaknesses to inform future mHealth developments for respite care. By teaming up

with community partners to better analyze and disseminate the results to families, this collaboration will empower family carers and give them opportunities to make informed decisions regarding respite care apps available to them.

**Conclusions:** This research proposal was inspired by the co-authors' lived experiences as family carers, decision makers, and community health clinicians. The published results will map the available respite care apps and identify opportunities for improvements in the mHealth-enabled delivery of respite care services rendered to families.

**Limitations and Implications:** The search strategy language will be limited to English and French, and only applications accessible through Canadian servers will be reviewed. The results from this study will create easily accessible resources that describe the current respite care apps, informing family carers and other respite care users of their mHealth options.

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1. Lau N et al. Goldilocks...: A just-right hybrid model to synthesize the growing landscape of publicly available health-related mobile apps. JMIR. 2021.