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CONFERENCE ABSTRACT

More in Action: Cocreating a mobile health application to promote physical activity with and for older adults

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Introduction: Addressing the challenges of an ageing population and increasing chronic conditions necessitates a transformative shift in healthcare. It involves moving away from a service-oriented model and adopting an integrated care approach emphasizing prevention. Research underscores the positive impact of regular physical activity (PA) on older adults' physical, cognitive, and mental well-being. The World Health Organization recommends at least 150-300 minutes of moderate-intensity PA weekly, and muscle-strengthening exercises. Despite increased awareness, PA participation rates among older adults remain concerning. Portable technologies, such as mobile health (mHealth) apps, show promise in promoting PA and can play a vital role in delivering integrated preventive care. Nevertheless, sustaining long-term engagement remains challenging. Involving end-users in the design process using co-creative methodologies is essential for creating effective solutions (7, 8, 9). This study aims to develop a mHealth app promoting PA and a healthy lifestyle through a co-creative process with community-dwelling older adults.

Methodology: To better understand the needs of older adults, a co-creative process was employed using design thinking . This process involved interviews with 22 participants, to grasp the target population's needs and motivations while identifying problems related to inadequate PA. Subsequently, two co-creative workshops were conducted with 21 older adults and eight experts to generate innovative solutions for the identified issues. Participants met specific criteria: age (≥65 years), no severe illnesses, Dutch language proficiency, and active participation ability. Results were analyzed, using thematic synthesis. Finally, a prototype concept was developed and tested on a sample of 65 older adults.

Results: Twenty-two interviews unveiled four themes: PA-perception, health benefits, influencing factors, and attitude towards technology. Participants acknowledged PA's health benefits, such as improved mobility, and mental health. Barriers included poor health and lack of time. Facilitators were enjoyment and social connections. Co-creative workshops addressed PA coping strategies and app features, resulting in an app with tailored tips, literacy content, workouts, a community calendar, and a helpdesk function. Feedback (n=65) indicated positive user experiences, with an overall System Usability Scale score of 70.38 ± 14.51, and a mean net promoter score of 7.66.

Discussion: Design thinking is a powerful tool in technology development, especially for older adults. This study aimed to create a mHealth app for promoting PA using co-creative methods with experts and older adults. It employed interviews and workshops for extensive data collection on technology experiences and PA. The research revealed that motivating older adults to engage in PA requires a holistic approach, considering social, individual, and contextual factors. Addressing the digital divide and offering personalized solutions aligned with older adults' preferences are implementation challenges. Focusing on benefits, reliability, and effectiveness encourages long-term technology use among older adults.

Conclusion: In conclusion, this study aimed to identify coping strategies, barriers, and facilitators for engaging in PA while highlighting the challenges of implementing mHealth apps and the importance of personalized solutions. Future research should assess the long-term impact of such interventions and consider the holistic factors that influence behavior change in this population, fostering a comprehensive approach to integrated preventive care.