Towards a digital intervention to support older adults with malnutrition: Findings from a design exploration with home care professionals

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Purpose Maintaining a healthy diet is vital for overall well-being and quality of life. Older adults face unique challenges in sustaining a nutritious diet, often leading to malnutrition (Leij-Halfwerk et al, 2019). Age-related health conditions, medication interactions, limited mobility, and mental health challenges can contribute to inadequate nutritional intake (Volkert et al, 2019). Older adults frequently receive support from dietitians, GP's, nurses, and their informal care network to improve and/or maintain adequate nutritional intake (Ziylan et al, 2015, Beelen et al., 2017). However, due to for example a lack of time and a lack of insight into the client's health status, inadequate role division, and limited shared awareness within the care network, the support of older adults is often not optimal. Digital intervention could help address these challenges (ten Cate 2021; Marshall et al., 2018). In this paper, we explore the potential of digital tools to address these challenges, from the perspective of home care professionals. **Method** This paper is part of a broader research in which the perspectives of dietitians, elderly, formal caregivers and informal caregivers are collected through co-design as input for the design of a digital food companion. This study focuses on the perspective of the home care professionals. Through semi-structured interviews, we aim to gather their views and needs regarding the treatment of older adults with malnutrition, and the potential value of a digital tool to support such treatment. The interviews address the challenges underlying the nutrition process, and the opportunities to improve the process through a digital intervention A total of 7 participants were interviewed (aged 31 to 60 years) based on saturation criteria. The transcribed interviews were analyzed using an inductive thematic analysis We iteratively identified patterns in the data, allowing themes to emerge from the dataset through a bottom-up approach, starting with specific categorizations and then moving to broader generalizations. **Results and Discussion** Two challenges were identified by the home care professionals, which could be addressed by digital tools: (1) Interdisciplinary collaboration within the care network is sub-optimal, influenced by missing communication, unclear role division, and lack of shared responsibility. Home care professionals experience being kept out of the loop by other professionals (such as dietitians), limiting their ability to support dietetic care. (2) Instrumental nutritional care promoting eating moments care activities such as supporting with the groceries, heating meals, or making a sandwich are not part of the insured care tasks, limiting their ability to step in. Home care professionals improvise by combining nutritional care with other insured care activities, to be able to provide the needed care. The results show that improving interdisciplinary collaboration amongst care network members is considered highest priority. This need could guide development of digital interventions: home care professionals may benefit from a digital intervention functioning as a mediator between network members, addressing the communication gap and improving the shared awareness, mediating in expectations and role division within the network. Further explorations are needed to define the balance between a digital intervention and a social intervention. In addition a digital tool may support in the day to day care of older adults, by functioning as an extension of the repetitive care tasks of home care professionals. Not all care tasks can be supported by a digital tool. As explained by home care professionals, physical contact and a (human) conversation may be as important as the care giving tasks.

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