Caregiver's experiences in caring for the disabled and aging population using feeding assistance robots

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Purpose Korea is currently experiencing a rapid increase in the aging population compared with other OECD countries (Statistics Korea, 2020). A consequence of this has been an increase in the number of people who need care but also a lack of caregiver availability (Lim et al., 2019). To address this problem, not only Korea, but other countries are researching the effectiveness of robot care technology for both the elderly and disabled (Kim, 2019). The purpose of this study was to understand and describe the experiences of caregivers using feeding assistance robots. **Method** The participants were 20 caregivers (family members, care workers, carers, or nurses) of long-term care facilities or communities who participated in this study of feeding assistance robots in Seoul, and Gyeonggi-do and Chungcheongnam-do in Korea. In this study, the feeding assistance robot Obi (Desin LLC, US) was used. After the participants used the feeding assistance robot for 7 days, they were interviewed concerning the perceived usefulness, ease of use, need for improvement, and behavioral intention of feeding assistance robots based on the unified theory of acceptance and use of technology. The data were analyzed using the qualitative content analysis method by an inductive approach that proposed by Elo and Kyngas (2008)**.** The analysis process was as follows: 1) documented the interview data, 2) repeatedly read and code meaningful phrases and sentences, 3) collected phrases and sentences with similar meanings to extract topics, and 4) integrated topics with similar meanings to derive a category. In this study, the data analysis program MAXQDA2022 (VERBI Software, Germany) was used. **Results and Discussion** The positive opinions included “favorable reception of robot care technology,” “relief of the meal care assistance burden,” “relief of the physical burden,” and “hope for continuing development of care robot technology.” The negative opinions expressed included “dissatisfaction with care robot technology,” “price too high,” “increase in the psychological burden,” “difficulty due to the care receiver’s behavior,” and “negative response from care receivers or co-workers.” The findings of this study suggest that opinions from caregivers who will be using this type of robot need to be reflected in the development and supply stages if implementation proceeds. Moreover, it is necessary that to remodeling feeding assistance robots to match with the Korean context. The continuing development of robot technology is necessary to improve the quality of care and relieve the problems of caregiver burden.

References

Statistics Korea (2020). 2020 Statistics on the Aged.

Lim Jeongmi, Lee Yunkyung, Kang Eunna, Lim Jiyoung, Kim Juhang, Park Youngsook, Yoon Taehyung, Yang Chanmi, Kim Hyesoo (2019). A Mid- to Long-term Plan for the Supply of Long-term Care Workers in a Changing Population Structure. Korea Institute for Health and Social Affairs

Kim Youngsun (2019). Current State and Development Directions for Dementia Care Technology. *Health and Welfare. Policy Forum, 276*, 42-57

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