Title	ステークホルダーが複数存在する組織の技術受容モデル —介護施設における赤ちゃん型対話ロボットの長期導入の 事例分析—
Author(s)	大和, 信夫
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Description	supervisor: 神田 陽治, 先端科学技術研究科, 博士

Abstract

Companion robots are increasingly being developed and commercialized to support the independence of older people with dementia, improve their QOL (quality of life), control the progression of dementia, and provide healing, diversion, and entertainment. Many studies have reported the positive effects of robots on the well-being of the older people, such as enhancing positive moods, reducing agitation and anxiety, providing comfort, and improving social engagement for the older people with dementia. On the other hand, while efforts to introduce robots in nursing homes are increasing, some reports indicate that robots can only be of value in elder care if nursing staff can successfully integrate them into their ongoing care practices, and that learning how to use the robot, fear of breakdowns, and hygiene concerns add extra work and responsibility for nursing staff who are busy with their daily tasks, and as a result, increase the burden on nursing staff. The practical application of robots must be in line with the needs and sensitivities of both caregivers and care receivers.

Administrators of care facilities expect that the use of robots will improve the QOL of facility users and reduce the burden on nursing staff in response to management issues such as chronic staff shortages and high staff turnover, but they are reluctant to actively introduce robots because of concerns that the introduction of robots will ultimately increase the physical and psychological burden on nursing staff, which will have a negative impact on the quality of care provided to residents if their well-being decreases.

Research on the acceptability of companion robots has so far mainly focused on the older people with dementia as the users, and research on the nursing staff as the operators is beginning to expand, but in both cases, the focus has been on one or the other. Furthermore, research on facility administrators who make the decision to install the equipment has not been conducted, so there has been no research or discussion on the optimization of the entire care system of nursing homes. There is a lack of hypotheses about the acceptability of all stakeholders, including not only the older people with dementia who use the companion robot, but also the nursing staff who operate the robot in the nursing home and the facility administrators who make the decision to install the equipment. Hypotheses those on what requirements affect the acceptability of each stakeholder and how they are related to each other are lacking.

In this study, we conducted two experiments (one with a low level of acceptance and the other with a high level of acceptance to those stakeholders involved) using a baby-like interactive robot to improve the QOL and reduce BPSD in older people with dementia residing in a care facility without the involvement of the researchers. The results were analyzed qualitatively and quantitatively, and an acceptance model of the baby-like interactive robot was proposed from the viewpoints of the users (older people with dementia), the operators (nursing staff), and the decision makers (facility administrators) using the TAM (Technology Acceptance Model), a human behavioral intention model for predicting acceptance of new technology.

The results of this study will enable the construction of a technology acceptance model that has not been elucidated in previous studies by classifying and analyzing the acceptance of technology for each stakeholder with different positions.

This method is expected to be applied not only to nursing homes, but also to more diverse situations in healthcare and education, contributing to the expansion of technology acceptance research.

Keywords: Older People with Dementia, Technology Acceptance Model (TAM), BPSD, Interactive Doll Therapy, Minimal Design, Social Robot, Caregiver