**Care robots in society: Knowledge and orientation needs**

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Pekkarinen et al. (2020). Gerontechnology 19(suppl); https://doi.org/10.4017/gt.2020.19.s.69664

**Purpose** Care robots are being taken into use in elderly care services, but the situation is dynamic in terms of technological development and socio-institutional adaptation. (Cresswell, Cunningham-Burley & Sheikh, 2018; Pekkarinen et al., 2020). We studied the knowledge and orientation needs related to care robots in three European countries. "Orientation" is here understood as the introduction to technology use and learning of different skills for effective use of care robots, but also as societal awareness-raising related to the uptake of robots in elderly care. (Johansson-Pajala et al., 2020). **Method** The data for this study were collected in 33 interviews conducted in Germany, Sweden and Finland. The interviewees represented public sector service organizations, robotics companies, interest organizations of social and healthcare professionals, end-users' interest organizations as well as educational organizations. The interviews were transcribed, and a content analysis was conducted. **Results and Discussion** There is an immense need for knowledge related to care robots in the society. It is related to understanding practical contexts and user needs; availability of different robots; awareness of technological limitations; knowledge on costs and financing opportunities; knowledge on different impacts of practical robot use; knowledge on processes, procedures and robots' tasks in care, and knowledge on regulations. Orientation should include both technical familiarization with devices, integration of technologies into working life, and "preparing ground" towards the change caused by the introduction and use of robots. Constant consolidation of users' needs and technological opportunities is needed, as is collaboration between different professions. As the lack of knowledge creates both overly optimistic beliefs and exaggerated fears as to robots' capabilities and impacts of their use, it is crucial to provide a multi-faceted view of robots in elderly care through continuous orientation at the different levels of the society. Providing opportunities to gain practical experiences of robots is essential. The most effective results are likely to be gained when proceeding with small steps and dialogue in this orientation process.

This study was supported by the ORIENT project under JTC 2017 launched by JPI MYBL (Award No. 318837 by the Academy of Finland; Award No. 2017-02300 by Forte, Sweden; Award No. 16SV7954 by the Federal Ministry of Education and Research, Germany). The study was also supported by the LUT Research Platform on Smart Services for Digitalisation (DIGI-USER).

**References**

Cresswell, K., Cunningham-Burley, S., & Sheikh, A. (2018). Health Care Robotics: Qualitative Exploration of Key Challenges and Future Directions. Journal of Medical Internet Research, 20(7), e10410. doi:10.2196/10410

Johansson-Pajala, R.-M., Thommes, K., Hoppe J.A., Tuisku, O., Hennala, L., Pekkarinen, Gustafsson, C. (2020). Care robot orientation – What, Who and How? Potential users' perceptions. International Journal of Social Robotics. https://doi.org/10.1007/s12369-020-00619-y

Pekkarinen, S., Hennala, L., Tuisku, O., Gustafsson, C., Johansson-Pajala, R.-M., Thommes, K., Melkas H. (2020). Embedding care robots into society and practice: Socio-technical considerations. Futures, 122. https://doi.org/10.1016/j.futures.2020.102593

**Keywords**: care robot, knowledge, orientation, society
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