ORAL SESSION 5: ROBOTICS

One-year experience on care robot development for people with significant disabilities and elderly in Korea W.-K. Song, Y.-H. Bae, D.-l. Choi, M.-J. Lim

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Purpose Korea faces a rapidly aging population, and the care market is expected to grow. Caring needs for people with significant disabilities, the elderly with disabilities, and the burden of caring for caregivers are increasing. The development of care robots in Korea has been started in 2019 (Song, Lim, Kweon & Ro, 2019). Technology for care robot, especially for 1) lifting, 2) changing body position, 3) toileting, and 4) feeding. In addition, we are making a service model for care robots. The objective of this paper is to share the experience on the care robot project for one year based on a user-centered approach including several stakeholders. Method On the basis of field observation of real-world and people, in-depth and focus group interviews of various stakeholders, we get feedback on the unmet needs of care robots and their functions. We held the "Care Robot Network Forum" with various stakeholders including caregivers, care-receivers, researchers, companies, nursing homes, and policymakers. In addition, several workgroup meetings are held under this forum. Through these Forum and workgroup meetings, we got feedback on the care robot project. Result & Discussion In the forum and the workgroup meetings, we debate on the 1) product performance, function, and development considerations, 2) safety references and clearance/approval issues as a consumer product and/or a medical device, 3) on-site demonstration, service and provision plan. Particularly common issues on discussions were as follows: 1) clear purpose of use, specific target population with environment, and need to review product usage scenarios, 2) seamless cooperation between Ministry of Health and Welfare and Ministry of Industry, i.e., issues on product safety, sharing plan including data utilization, and business model for public beneficiary use, 3) In-depth demonstration plan reflecting domestic situation, 4) preparation on module testing from the first year, 5) efficient ways to share information and communicate. Acknowledgment This research was funded Translational Research Program for Care Robots (HK19C0002), National Rehabilitation Center, Ministry of Health and Welfare, Korea.

References

Song, W.-K., Lim, M.-J., Kweon, H. & Ro, E.-R. (2019). Planning care robot project in Korea based on user centered approach and its future direction. Proc. of AAATE, S102.

Keywords: care robot, caregiving, focus group interview **Address**: National Rehabilitation Center, Seoul, Korea

Email: wonksong@gmail.com



Figure 1. Priority area of care robots