

C. GUSTAFSSON, C. SVANBERG, M. MÜLLERSDORF. **A Robotic cat in dementia care: A pilot study.** *Gerontechnology* 2016;15(suppl):151s; doi:10.4017/gt.2016.15.s.994.00 **Purpose** The aim of the pilot study was to explore the reactions of individuals with dementia to an interactive robotic cat and their relatives' and professional caregivers' experiences regarding its usability, function, and effects. **Method** The pilot study had an intervention, mixed-methods design<sup>1</sup> and was conducted in two stages: a quantitative single-case study<sup>2</sup> including individuals with late stage dementia (n=4, two men, two women, age: 82-90 years, living at the dementia care home for 23-47 months), and a qualitative interview study<sup>3</sup> including relatives (n=3, one man; son; two women; wives) and professional caregivers (n=11, one man; two RNs; one occupational therapists; eight enrolled nurses/assistant nurses; dementia care experience: 1,5-15 years, age: 22-45 years), were conducted. JustoCat® is an interactive robotic pet developed using reminiscence therapy as a framework<sup>4</sup>. The development of JustoCat is based on promising work with the robotic seal, PARO<sup>5,6</sup>. However, the inventors of JustoCat assumed that a seal would not appeal in reminiscence therapy, a robotic cat was supposed to appeal to individuals' memories of cats. There was also the idea of downscaled, advanced technology based on the hypothesis of a robotic cat's functional reliability and lower cost. The construction of JustoCat (e.g., easy-to-change fur facilitating personalized use, washable fur) was developed following Swedish hygiene routines required in nursing homes and hospital settings. **Results & Discussion** In the Western world, the majority of individuals with dementia spend the last part of their lives in nursing homes or dementia care homes. Some individuals with dementia could increase their well-being with different therapies, for example massage, singing, music or by the company of pets. The current pilot study of four individuals with dementia and their relatives and professional caregivers showed interesting results. First, living with severe dementia is a situation with ups and downs concerning quality of life and agitated behavior, as presented in the single-case study design. Second, the analysis of the interviews shows the positive effects of the robotic cat providing stimulation, comfort, and peace to individuals living with dementia. Third, professional caregivers and relatives found the robotic cat to be a useful, reliable, and multifunctional tool in their relationships with the participants<sup>6</sup>.

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Figure 1. JustoCat of Robyn Robotics AB, Västerås, Sweden