K. Wada, T. Shibata. Social and physiological influences of living with seal robots in an elderly care house for two months. Gerontechnology 2008; 7(2):235. In recent years, robot therapy has attracted robotics researchers, psychologists, medical doctors, etc.[1-6]. They expect that interaction with animal-type robots will result in the mental effects of interacting with real animals. We have proposed robot therapy since 1996. We developed a seal-type robot, named Paro, especially for robot therapy, and used it at pediatric hospitals and several facilities for the elderly. However, in previous research, people interacted with the robot during a certain period of a session that was conducted by the experimenter. In this research, we introduced Paro into an elderly care house, in order to investigate how people interact with Paro under freely accessible conditions and its socio-psychological and physiological effects on elderly people. **Methods** The experiment was conducted in the care house which was a type of communal housing for elderly. Twelve subjects took part, aged 67–89 (77.5±7.3) years, including one male. Two Paro were introduced and activated for over 9 hours every day in public areas of the care house. In order to investigate the psychological and social effects of the robots, each subject was interviewed by using the free pile sort method, and their social interaction was analyzed. In addition, their hormones in urine: 17-ketosteroid sulphate (17-KS-S) and 17–hydroxycorticosteroids (17-OHCS) were obtained and analyzed to assess their stress level physiologically[7-8]. Each subject was interviewed before, one and two month after the introduction of Paro. Urine tests were conducted in the week before and every two weeks after the introduction. **Results** We extracted residents' social interaction with each other and with Paro from the interviews. Then, we classified them and defined the strength of social ties with other residents and Paro. The results showed that Paro encouraged them to communicate with each other and then gradually strengthened their social ties over the two months. Furthermore, urine tests showed that the reactions of the subjects' vital organs to stress were improved after the introduction of the robots. A peak in physiological effects was present in the first month.

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Figure 1 Interaction with Seal Robot and Residents at Public area