

## ORAL SESSION 11: METHODS AND MODELS

### Analyzing the barriers of technology acceptance model of older adults during the COVID-19 Pandemic

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**Purpose** As of April 30th, 2020, 3,090,445 confirmed COVID-19 cases were reported around the world (WHO, 2020). Following this COVID-19 outbreak, social distancing and living alone are the key challenges for older adults, who make up the vast majority of these cases. Although recent technological advances help to provide physical-, social-, and mental care for the aging population, most of the older adults in Turkey may not have access or comfortable access to all these technology-delivered services. Moreover, having internet access and mobile app interventions do not mean to have knowledge and motivation with these technologies (Gould & Hantke, 2020). Most of the studies showed that frustration with the new technology, which even they tried, made older adults unsure, unconfident and unmotivated (Jefferson, 2019). Due to the barriers, the use of technology causes higher stress levels. This study aims to analyze the barriers of technology acceptance that leave the older adults out of the digital connectivity, and suggests guidelines to facilitate technology use of older adults in order to cope with the isolating effects of social distancing. **Method** Participants were chosen by stratified sampling among three clusters of in total 45 older adults, 70-90 years old (20 male and 25 female). Each cluster was composed of 15 participants living alone at home with the same income levels. The first cluster had access to internet, owned a device (smart phone, lap-top, tablet) and used it with confidence. The second cluster had internet access, owned a device, but could only use it with support, whereas the last cluster had neither internet access nor a device, but were provided a technological device and support for this study. After recruitment, participants were asked to participate in virtual visits three times a week, and a yoga class twice a week. The experiment took 4 weeks. Pre-test and post-test data were collected to explore the barriers the different cluster groups had experienced during the pandemic situation. T-tests and correlation tests were employed to analyze the differences among the user groups in terms of the effects of technology use on their mood, joy, and life satisfaction. At the end of the four-week period, the technology acceptance model (TAM) questionnaire was also employed (Davis, 1989). **Results and Discussion** A reliability test for TAM was conducted and Cronbach's alpha value was found 0.92. There was a significant difference among the clusters. Considering the first cluster, positive and medium correlation was found when perceived enjoyment was correlated with perceived usefulness; technology usage is pleasant and I feel enjoyment ( $p=0.000$ ). However, the TAM findings in the second and third cluster showed that there was only one positive correlation between intention to use and perceived ease of use. Regardless of their cluster group, the participants reported barriers particular to COVID-19 that threaten them to use technology delivered services. Lack of technology literacy and independency while accessing to technology were the most common reported barriers causing stress and anxiety. The study concluded with proposed guidelines to facilitate technology use in older adults for disaster preparedness.

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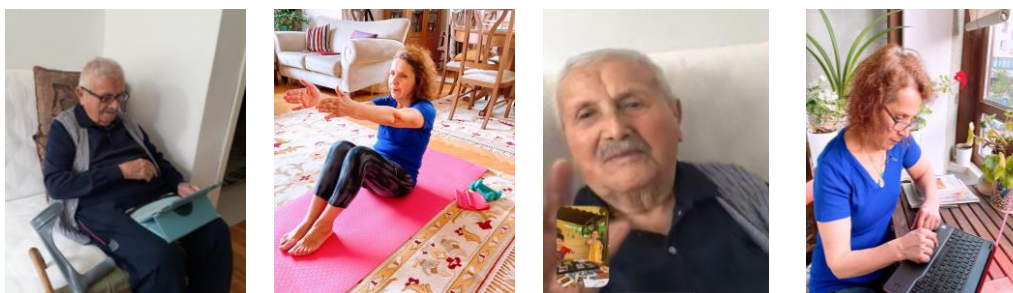


Figure 1. The barriers of technology acceptance model of older adults during the COVID-19 Pandemic