

POSTER PRESENTATION 4: INFORMATION AND COMMUNICATION

A descriptive study of digital health literacy and internet use of older adults living alone

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Purpose Digital health literacy refers to the ability to seek, find, understand, and appraise health information or healthcare-related digital applications and apply the knowledge gained to addressing or solving a health problem (Norman & Skinner, 2006; van der Vaart & Drossaert, 2017). The COVID-19 pandemic led to the adoption of evolving digital technologies and various changes in our daily lives. Digital health, like the web, mobile, and wearable devices, affects health status and quality of life by improving access to health information for vulnerable groups. However, if digital health literacy is not considered, health inequity due to inadequate health information will bring about health inequity (Cheng, et. al., 2020; Dunn, & Hazzard., 2019). This study aims to understand the digital health literacy of older adults living alone and explore the relationship between demographic variables, internet use, and digital health literacy. **Method** A convenience sample of older adults aged 65 years or older who live alone participated in a cross-sectional survey. The survey questionnaire included the eHealth literacy scale (eHEALS), Digital Health Technology Literacy Assessment Questionnaire (DHTL-AQ), internet use and health-related variables. Since data were not normally distributed, we analyzed by nonparametric methods such as the Mann-Whitney, Kruskal-Wallis tests, spearman's rank correlation and generalized linear model. **Results and Discussion** A total of 191 participants were included in the study. The mean age of all participants was 77.12 years, and 145(75.9%) participants were females. Of the 140 (140/191, 73.30%) people who owned a smartphone, 62(62/140, 44.29%) of them had used the internet within a month. The generalized linear model results showed that participants with low digital health literacy levels were older and had a lower education level. They also rarely or never used the internet and had lower communication scores with HCPs. These differences were statistically significant. Therefore, when applying digital health to vulnerable groups such as the elderly living alone, it is necessary to assess their education level, internet use, and digital health literacy.

References

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Keywords: digital health literacy, internet use, digital technology, older adults, living alone

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Table 1. The generalized linear model predicting digital health literacy (N=191)

	eHEALS				DHTL			
	B	SE	Wald	p	B	SE	Wald	p
Constant	2.742	.1735	249.966	<.001	.018	.6243	.001	.978
Internet Use								
No	0				0			
Yes	.321	.080	16.08	<.001*	1.08	.1991	29.417	<.001*
Education level								
No education	0				0			
Elementary school	-.006	.1103	.003	.954	.478	.316	2.293	.13
Middle school	.054	.129	.175	.676	.791	.3599	4.828	.028*
High school	.081	.1321	.378	.539	1.415	.3564	15.768	<.001*
Undergraduate or above	.194	.2144	.820	.365	1.832	.5427	11.393	.001*
Age								
65-74	0				0			
75-84	.054	.0766	0.5	.480	-.471	.1993	5.591	.018*
85+	.229	.137	2.784	.095	-1.521	.4082	13.885	<.001*
Communication with HCPs	.077	.0224	11.810	.001*	.04	.0609	.441	.507
	$\chi^2 = 47.896 (p < .001)$				$\chi^2 = 151.191 (p < .001)$			
	$LL = -673.117, \text{deviation}/df = .230$				$LL = -447.53, \text{deviation}/df = 1.176$			

Note. No. of Chronic diseases, self-efficacy, self-rated health, loneliness, and quality of life also included the model, but they were not statistically significant. SE=standard errors; HCPs=Healthcare professionals.