

Abstract citation ID: ckad160.305**Measuring Digital Health Literacy in Europe – Scope, determinants and consequences**

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Increasing access to health-related digital information/resources of varied quality warrants sufficient Digital Health Literacy (DHL) in the population. Public health researchers, practitioners, and policy makers need to consider DHL for improving people's ability to use digital resources. The M-POHL HLS19 study objectives were to construct and validate a DHL measure, and identify its determinants and consequences.

Methods:

A scale was constructed with 8 items on dealing with digital health resources. Two additional items examined interactive use of resources. The scale was applied among a sample of 29,060 respondents in 13 countries using CAPI, CATI, CAWI, PAPI and mixed methods. A standardized score was calculated for DHL, range: 0-100.

Results:

Appraising the reliability of digital resources was perceived particularly difficult. The scale showed acceptable reliability (Cronbach's α 0.7-0.87/country). A confirmatory factor model loading onto a single latent variable indicated an acceptable fit for all countries. The DHL scale was sufficiently unidimensional based on principal component analysis of Rasch model residuals combined with dependent t-tests. Linear regression models with 5 DHL predictors showed a social gradient with explained variance of 6% (2-23%/country). The highest predictor was financial deprivation: $\beta = -0.15$ (0.08-0.27), then age: $\beta = -0.13$ (0.15-0.26); self-assessed social status: $\beta = 0.08$ (0.05-0.13). General health literacy was a strong predictor: $\beta = 0.51$ (0.43-0.67). In linear regressions to explain variance in self-assessed health, the DHL coefficient was significantly different from zero in 9 countries ($\beta = -0.05$ -0.10).

Conclusions:

The new DHL scale had acceptable psychometric properties. The relevance of DHL is reflected in the high proportions with lower DHL, a social gradient, and health consequences in most countries. The study offers an evidence base for tailoring DHL intervention strategies and organizational health literacy policy.

Key messages:

- Digital Health Literacy of populations in Europe was estimated through a validated measure with associations that predict public health and healthcare consequences in most countries.
- Public health practitioners and policy makers should be aware of populations with lower Digital Health Literacy (DHL), and both promote DHL while also adjusting interventions/services to DHL needs.