
# Measurements of Digital Literacy in Older Adult Populations:

# Literature Overview

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# BRIDGING THE DIGITAL DIVIDE:
# THE NEED FOR STANDARDIZED DIGITAL HEALTH LITERACY MEASURES IN AGING POPULATIONS

Digital health technologies have reshaped the delivery and access of healthcare (Frishammar et al., 2023). The COVID-19 pandemic accelerated this transformation, with telemedicine encounters increasing by 766% in the first three months and usage rising from 15.4% in 2019 to 86.5% in 2021 (Myrick et al., 2024; Shaver, 2022; Weiner et al., 2021). Following this trend, older adults have increasingly engaged with digital health tools, reflecting a broader shift towards technology-driven healthcare (James et al., 2025; Mahajan et al., 2021).

Digital health tools provide an opportunity to enhance health and wellness management for older adults (Guasti et al., 2022). A population-based survey identifies the primary perceived benefits of these tools among older adults as ease of use, support in finding the most suitable services, and facilitation of collaboration with healthcare professionals (Kainiemi et al., 2023). As clinician shortages grow and populations age, these technologies may help reduce inefficiencies and costs, expand access—especially for individuals with limited mobility or those in rural areas—enhance care quality, and provide greater flexibility for healthcare providers (Bloom & Luca, 2016; Frishammar et al., 2023; "What Is Digital Health?," 2024).

However, despite these benefits, older adults face significant barriers to digital health access and adoption compared to younger adults (Frishammar et al., 2023; Mao et al., 2022; Moody, 2022). Older adults often lack confidence in using eHealth resources, struggle with information-seeking, and face challenges in evaluating and applying online health information compared to younger adults (Hsu, 2019). These challenges contribute to a widening digital divide, exacerbating existing health disparities (Frishammar et al., 2023; Litchfield et al., 2021).

Digital health literacy—the ability to access, understand, evaluate, and apply digital health information—is crucial in determining whether individuals can effectively use technologies to make informed healthcare decisions (CDC, 2024; *Health Literacy*, 2015). Conceptually, it combines digital literacy—proficiency in using technology—and health literacy—the ability to interpret and use health information effectively (van Kessel et al., 2022).

As digital health literacy increasingly shapes health outcomes, it has become an evolving social determinant of health, particularly among older adults (Gillie et al., 2022; van Kessel et al., 2022; Yang et al., 2022). However, this population is far from homogenous. Certain groups—including individuals living with dementia, those with limited health literacy, older adults with lower-socioeconomic status, and non-native English speakers—face compounded barriers to digital health engagement (Aponte & Nokes, 2017; Gillie et al., 2022; Hsu, 2019; Levy et al., 2015). These intersecting factors further widen disparities in access and health outcomes.

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To ensure digital health tools are effective and equitable, they must be designed and implemented in a way that aligns with the skills, needs, and cultural contexts of older adults (Aponte & Nokes, 2017). The misconception that older adults are universally incompatible with digital health has led to their exclusion from healthcare services and clinical trials incorporating these technologies (Mace et al., 2022). Addressing this exclusion is necessary to ensure patients, regardless of age or digital literacy level, can benefit from healthcare advancements.

To progress towards achieving digital health inclusion we must prioritize the development and application of standardized screening measures for digital health literacy. We have an ethical obligation to not disregard those who are unable to attain healthcare due to a lack of knowledge on how to access it. Without reliable tools to screen competencies and identify engagement barriers, efforts to bridge the digital divide remain incomplete. Quantifying digital health literacy is essential not only for improving healthcare access but also for advancing health equity and lessening disparities in an increasingly digital healthcare landscape. Accordingly, this literature review will identify and evaluate the use of existing digital literacy instruments.

## METHODS

### SEARCH STRATEGY

This literature review was conducted using multiple electronic databases, including PubMed, Google Scholar, and EBSCO Discovery Service. A structured search strategy was applied, incorporating keywords related to digital literacy, technology literacy, the digital divide, mHealth literacy, eHealth literacy, digital literacy measures, and digital literacy screening in older populations. The specific keyword combinations used for each database are summarized in Multimedia Appendix 1.

### ELIGIBILITY CRITERIA

Included studies were (1) Published in English (2) Collected primary data (3) Focused on older adults, or compared older adult populations to younger adult populations (4) Used a validated measure to assess digital literacy.

### STUDY SELECTION

Studies identified through the database searches were first screened based on their titles and abstracts. Articles were excluded if they did not focus on older adults or failed to assess digital literacy using a validated instrument.

Next, full-text reviews were conducted to ensure that each study provided relevant data on digital literacy measures in older populations. Studies lacking essential methodological details or failing to meet the eligibility criteria were excluded. Final selections were made based on the reviewer's discretion, ensuring alignment with the study's objectives.

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## DATA COLLECTION

For each included study, data was extracted on key characteristics, including the author(s), year of publication, sample size, study design, study aim, and the primary digital literacy measurement instrument used.

# LITERATURE REVIEW

### TABLE 1. DIGITAL HEALTH LITERACY LITERATURE REVIEW

| Author | Year | Sample Size | Design | Study Aim | Measure |
|---|---|---|---|---|---|
| Zambianchi et al | 2019 | 638 | Cross-Sectional | To investigate factors influencing attitudes toward and use of information and communication technologies in older adults, including cultural context, socio-demographics, and time perspective. | ATTQ |
| Zambianchi & Carelli | 2018 | 245 | Cross-Sectional | To examine the link between positive attitudes toward digital technologies and well-being in older adults, contributing to successful aging. | ATTQ |
| Laksmi et al | 2024 | 109 | Cross-Sectional | Aims to investigate understanding, attitudes, and practices related to cell phone and mobile application utilization among Indonesian urban older adults in relation to the use of mobile health applications. | ATTQ |
| Moore et al | 2015 | 30 | Cross-Sectional | To provide design considerations for developing internet-based hearing healthcare for older adults by examining the relationships between chronological age, computer skills, and technology acceptance. | TAM |

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|---|---|---|---|---|---|
| Luo et al | 2024 | 372 | Cross-Sectional | To examine how TAM and Value-Based Adoption Model (VAM) factors impact older adults' intentions to use mHealth services, with the goal of understanding the factors influencing continued use and providing recommendations for designing and promoting future mHealth services. | TAM, VAM |
| DeLange Martinez et al | 2024 | 392 | Cross-Sectional | To examine the relationships among demographics, while also exploring the application of the Technology Acceptance Model (TAM) among low-income Asian American older adults. | TAM |
| Felber et al | 2024 | 67 | Mixed Methods | To explore technology acceptance models in a qualitative setting, adding depth to existing quantitative models. It aims to highlight overlooked factors, such as reliability, anxiety, and social aspects, that influence acceptance of assistive technology in aged care. | TAM, UTAUT |
| Choi & DiNitto | 2015 | 980 | Mixed Methods | To analyze internet usage patterns, factors contributing to discontinued use, eHealth literacy levels, and perceptions of computer and internet use among low-income adults aged 60 and older, in comparison to homebound adults under 60. | ATC/IQ, eHEALS |
| Schneider et al | 2018 | 577 | Randomized Control Trial | To investigate generational differences in engagement with an online psychological intervention by analyzing Deprexis user data, questionnaire responses, and findings from the EVIDENT study. | APOI |
| Chu | 2008 | 137 | Randomized | To evaluate the psychosocial factors affecting older adults' | CAS |

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|---|---|---|---|---|---|
| | | | Control Trial | experiences with technology, specifically examining computer anxiety, confidence, and self-efficacy across six congregate meal sites. | |
| Paige et al | 2018 | 830 | Cross-Sectional | To evaluate the structure of eHEALS scores and assess measurement invariance among U.S. adults across four generational groups: Millennials, Generation X, Baby Boomers, and the Silent Generation. | eHEALS |
| Sudbury-Riley et al | 2017 | 996 | Cross-Sectional | To assess the factorial validity and measurement invariance of eHEALS among Baby Boomers in the United States, United Kingdom, and New Zealand who have used the internet for information in the past six months. | eHEALS |
| Aponte & Nokes | 2017 | 100 | Cross-Sectional | To examine the validity of the Spanish version of the eHEALS with an older Hispanic population from a number of Spanish-language countries living in NYC. | eHEALS |
| Noblin & Rutherford | 2017 | 181 | Cross-Sectional | To evaluate older adults' willingness to seek and utilize health information from multiple sources. | eHEALS |
| Stellefson et al | 2017 | 283 | Cross-Sectional | To evaluate the reliability and internal structure of eHEALS when administered to older adults via telephone. | eHEALS |
| Boot et al | 2015 | 276 | Cross-Sectional | To develop and validate the CPQ as a reliable measure of computer proficiency in older adults across varying skill levels. | CPQ |

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| | | | | | |
|---|---|---|---|---|---|
| Roque & Boot | 2018 | 109 | Cross-Sectional | To develop and validate the MDPQ and MDPQ-16 as reliable measures of mobile device proficiency in older adults. | MDPQ |
| Gillie et al. | 2022 | 309 | Mixed Methods | Aims to propose TLST for use in older adults and to support the future inclusion of telehealth literacy as a SDOH. | TLST |
| Terp et al. | 2021 | 25 | Mixed Methods | Aims to explore older patients' competencies, preferences, and attitudes toward the use of information and communication technology as well as the barriers and facilitators influencing their motivation to engage with eHealth. | READHY |
| Bergh et al | 2025 | 149 | Cross-Sectional | To assess the technology readiness of older adults receiving home care in Norway to identify eHealth literacy gaps and inform support strategies for digital health adoption. | READHY |
| Hoque & Sorwar | 2017 | 300 | Cross-Sectional | To construct a theoretical model based on the UTAUT framework and empirically test it in order to identify the key factors influencing the intention of elderly users to adopt and utilize mHealth services. | UTAUT |
| Niehaves | 2017 | 150 | Cross-Sectional | To examine the intentions of elderly individuals regarding internet use and identify the key factors that influence these intentions. | UTAUT |

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TABLE 2. OVERVIEW OF MEASUREMENT TOOLS FOR DIGITAL HEALTH LITERACY (GILLIE ET AL., 2022; OH ET AL., 2021)

| **Measurement Tools for Digital Health Literacy** | **Literacy Elements** | **Year Developed** | **Languages Developed** | **Mode** | **Number of Questions** | **Reliability, Cronbach** |
|---|---|---|---|---|---|---|
| *Attitude Toward Technologies Questionnaire (ATTQ)* | 1, 2 | 2013 | English | Self-Administered | 6 | 0.91 (Italy), 0.92 (Sweden) |
| *Adapted Technology Acceptance Model (TAM)* | 1, 2 | 1989 | English | Self-Administered | 12 | 0.91 (perceived ease of use), 0.96 (attitude towards using) 0.97 (perceived usefulness), 0.70 (actual system use) |
| *Attitudes Towards Computer/Internet Questionnaire (ATC/IQ)* | 1 | 1987 | English | Interview (semistructured) | 14 | 0.98 (usefulness), 0.94 (ease of use) |
| *Attitudes Towards Psychological Online Interventions Questionnaire (APOI)* | 1 | 2015 | German | Self-administered | 16 | 0.77 (total) |
| *Computer Attitude Scale (CAS)* | 4, 5 | 1986 | English | Self-administered | 20 | 0.95 (total) |
| *eHealth Literacy Scale (eHEALS)* | 1, 2, 4, 5 | 2006 | English | Self-administered | 8 | 0.88, 0.66-0.84 (range among items) |

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| | | | | | | |
|---|---|---|---|---|---|---|
| *eHealth Literacy Questionnaire (eHLQ)* | 1, 2, 4, 5 | 2018 | English, Danish | Self-administered | 35 | 0.73-0.90 (total) |
| *Computer Proficiency Questionnaire (CPQ)* | 1, 2, 3 | 2015 | English | Self-administered | 33 | 0.98 (total), 0.94 (printing), 0.95 (communication), 0.97 (internet), 0.96 (scheduling), 0.86 (multimedia) |
| *Mobile Device Proficiency Questionnaire (MDPQ)* | 1, 2, 3, 4, 5 | 2016 | English | Self-Administered | 46 | 0.75 (MDPQ-46), 0.99 (MDPQ-16) |
| *Telehealth Literacy Screening Tool (TLST)* | 1, 2, 4, 5 | 2019 | English | Interview, Over the Phone or In Person (face-to-face) | 16 | N/A |
| *Readiness and Enablement Index for Health Technology (READHY)* | 1, 2, 3, 5 | 2018 | English, Danish | Self-Administered | 65 | N/A |
| *Unified Theory of Acceptance and Usage of Technology (UTAUT)* | 1, 2, 3, 5 | 2003 | English | Interview | 15 | 0.79 - 0.95 (total) |

*Literacy elements as defined by the European Commission's Digital Competence (DigComp) Framework criteria of 1) Information and data literacy (browsing, searching, filtering, retrieving, storing, data), 2) Collaboration and communication (sharing, interacting, digital identity, netiquette) 3) Digital content creation (developing, integrating, and re-elaborating digital content) 4) Safety (protecting privacy, protecting personal data, protecting health and well-being), and 5) Problem solving (creatively using digital technologies, identifying digital competence gaps, solving technical problems) (Ferrari, 2013; Oh et al., 2021)*

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### ATTQ

ATTQ is a purpose-built, six-item measure designed to assess older adults' attitudes towards new digital technologies, including information and communication technologies (ICTs). It evaluates the degree to which individuals perceive these technologies as useful, beneficial, or relevant to their daily lives. Participants respond using a 5-point Likert scale, ranging from 1 (not at all) to 5 (very much), indicating the extent to their agreement with each statement. The ATTQ provides insights into how receptive older adults are to adopting digital tools, helping researchers understand factors influencing technology acceptance and use in aging populations (Zambianchi et al., 2019; Zambianchi & Carelli, 2018).

### TAM

TAM is an information systems theory, an extension of rational action theory, that explains how users accept and use technology. It identifies two key factors influencing adoption: perceived usefulness (how much a user believes the technology will enhance their performance) and perceived ease of use (how effortless the technology is to use). External variables, such as social influence, also shape attitudes toward technology adoption. When these factors align, individuals develop a positive attitude and intention to use the technology. However, acceptance may vary based on age, gender, and personal differences. At its core, TAM provides a framework for predicting and understanding behavior through beliefs, attitudes, and behavioral intentions. It emphasizes that perceived ease of use and perceived usefulness play a more crucial role in shaping attitudes than specific, momentary beliefs about a technology (Cheah et al., 2022; Moore et al., 2015).

### ATC/IQ

ATC/IQ were assessed using the 5-item computer efficacy subscale and the 5-item computer interest subscale of the ATCQ, with each item rated on a 1–5 Likert scale. Initially validated to assess seven dimensions of computer attitudes—comfort, efficacy, gender equality, control, dehumanization, interest, and utility—among 398 students in grades 4 through 12, the ATCQ was originally called the Bath County Computer Attitudes Scale (BCCAS) (Bear et al., 1987). It was later revalidated with a sample of 420 older adults (Bear et al., 1987; Choi & DiNitto, 2013). Subsequent studies have utilized the ATCQ to examine older adults' attitudes toward computers, incorporating a greater focus on internet use and its relationship to activities of daily living (ADL) impairments (Choi & DiNitto, 2013; Czaja & Sharit, 1998; Jay & Willis, 1992).

### APOI

The APOI questionnaire consists of 16 items designed to assess individuals' attitudes toward psychological online interventions. It examines attitudes through three main components: cognitive, affective, and behavioral, with a primary focus on the cognitive aspect—defining acceptance of online interventions as a

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cognitively based positive attitude toward their use. The factor structure of the APOI was validated in a subsample of EVIDENT participants, confirming four subscales: skepticism and perception of risks, confidence in effectiveness, technologization threat, and anonymity benefits. Each subscale includes four items, measured on a five-point Likert scale (1 = strongly agree, 5 = strongly disagree), with higher total scores indicating more positive attitudes toward POIs (Schneider et al., 2018; Schröder et al., 2015).

## CAS

The CAS questionnaire consists of a 20-item scale that evaluates individuals' attitudes toward computers, encompassing both positive and negative perspectives. Of the 20 items, eight assess positive attitudes, while the remaining items reflect negative perceptions. Participants respond using a 5-point Likert scale (1 = strongly agree, 5 = strongly disagree). The total score ranges from 20, indicating a strongly negative stance on computers, to 100, representing a highly positive outlook (Chu, 2008; Garland & Noyes, 2008).

## EHEALS

The eHEALS questionnaire is an 8-item measure designed to assess individuals' perceived knowledge, comfort, and skills in finding, evaluating, and applying electronic health information. It evaluates consumers' ability to use digital health resources effectively and determines the alignment between eHealth programs and users' needs. Responses are typically measured on a Likert scale (1 = strongly agree, 5 = strongly disagree), reflecting confidence in navigating online health information. As one of the first and most widely used eHealth literacy measures, eHEALS has been validated across diverse populations, including older adults, university students, rural adolescents, and military veterans. It has also been adapted into multiple languages, including Arabic, Japanese, and Spanish (Aponte & Nokes, 2017; Mitsutake et al., 2011; Noblin & Rutherford, 2017; Norman & Skinner, 2006; Paramio-Pérez et al., 2016; Stellefson et al., 2017; Wångdahl et al., 2021).

## EHLQ

The eHealth Literacy Questionnaire (eHLQ) is a self-assessment tool developed to evaluate digital health literacy based on the multidimensional eHealth Literacy Framework (eHLF). It measures seven key dimensions, including users' ability to process information, engagement in their own health, interaction with digital services, and perceptions of safety, control, access, and system suitability. Unlike earlier models, eHLQ incorporates both users' skills and their experiences with digital health technologies. While it has been widely used in Europe and validated for general populations, it has not been specifically tested with older adults (Cheng et al., 2022; Gillie et al., 2022; Kayser et al., 2018; Norgaard et al., 2015; Pinnock et al., 2023).

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## CPQ

The CPQ is a 33-item tool designed to assess computer proficiency in older adults, particularly those with limited computer experience. Developed within a randomized clinical trial exploring the impact of computer and internet access on seniors' well-being, the CPQ measures proficiency across six domains: computer basics, printing, communication, Internet use, scheduling software, and multimedia. Participants respond on a five-point scale Likert Scale (1 = Never tried, 5 = Very easily). Factor analysis revealed three primary proficiency areas: Internet and e-mail use, communication and scheduling, and computer basics. The CPQ also led to the creation of a shorter version, the CPQ-12, which retains similar properties but with 21 fewer questions (Boot et al., 2015, 2016)

## MDPQ

MDPQ is a 46-item measure designed to assess overall proficiency with mobile devices, particularly among older adults. It evaluates eight key activity domains: Mobile Device Basics, Communication, Data and File Storage, Internet, Calendar, Entertainment, Privacy, and Troubleshooting and Software Management. Participants rate their ability to perform various smartphone or tablet operations using a 5-point Likert scale, ranging from 1 (never tried) to 5 (very easily). A shorter version, the MDPQ-16, includes 16 items by selecting the two highest-loading questions from each subscale. Both versions have demonstrated strong reliability and validity, with analyses confirming that they measure a single construct closely tied to mobile device experience. The MDPQ subscales were specifically designed to assess functions that support older adults' independence and well-being through technology use (Carrasco-Dajer et al., 2024; Roque & Boot, 2018). While developed in English, it has been validated and translated into German, Japanese, Slovenian, Spanish, and Portuguese (Moret-Tatay et al., 2019; Petrovčič et al., 2019; Raymundo et al., 2024; Schlomann et al., 2024; Shimokihara et al., 2024).

## TLST

The TLST is an assessment designed to evaluate older adults' readiness and ability to engage with telehealth services. It was designed for older adult low literate populations based on key components of READHY, eHEALS, eHLF, and eHLQ. It is organized into three sections: biopsychosocial background, technological literacy screening, and eHealth literacy screening. The biopsychosocial section includes eight questions, often completed through chart review, that address the individual's background and access to technology. The technological literacy screening evaluates the patient's access to technology, while the eHealth literacy screening assesses their knowledge, comfort, and proficiency with digital health tools like Epic MyChart. The TLST uses a simplified 1-2 grading scale, with an added 0 for null answers, where responses of "No," "Never," or "Unsure" are scored as 0, "Sometimes" or "Yes" as 1, and "Frequently" as 2. This tool provides quantifiable data on the telehealth navigation skills of older adults, helping identify areas for improvement and support tailored to their needs (Gillie et al., 2022).

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### READHY

The READHY is a concept-based instrument designed to assess individuals' readiness for and enablement in using health technologies. It draws on the eHLQ, the Health Education Impact Questionnaire (heiQ), and the Health Literacy Questionnaire (HLQ) to address a set of dimensions related to health technology use. The instrument includes 13 dimensions, encompassing user attributes (knowledge and health information), the intersection between users and technology (feeling of safety, control, and motivation), and user experience (accessibility, functionality, and suitability of technologies). READHY incorporates 65 items, rated on a four-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), with each dimension consisting of 4 to 6 items. The 13 scales reflect the combined insights of the three foundational questionnaires, including dimensions on self-management, emotional responses, and social support in the context of health technology (Bergh et al., 2025; Kayser et al., 2019; Terp et al., 2021).

### UTAUT

The UTAUT is a model designed to explain user intentions and behaviors regarding technology adoption. Built upon previous models of acceptance, including TAM, UTAUT aims to provide a more comprehensive framework by integrating constructs from various theories. It identifies four key factors influencing technology acceptance: performance expectancy, effort expectancy, social influence, and facilitating conditions. These factors are considered to shape the user's behavioral intention to adopt the technology and, ultimately, their actual use behavior. The UTAUT model has been applied in various fields, including healthcare, to better understand and predict technology adoption, such as the use of mobile health services or eHealth platforms (Hoque & Sorwar, 2017; Kayser et al., 2019; Niehaves, 2017).

## DISCUSSION

### DELIVERY OF MEASUREMENT TOOLS

The literature indicates that self-assessment methods are the most commonly used among the 12 reviewed tools, with 3 (25%) utilizing an interview format and only 2 of those 3 (16.6% of the total) demonstrating established reliability. The interview method, while less common, could be more effective for older adults, especially those who may be living with complex health conditions such as dementia. In these cases, the inclusion of a human operator—whether in person or over the phone—may offer a more accurate and supportive method for survey delivery (Gillie et al., 2022; Kayser et al., 2019). This is particularly important given that older adults may face cognitive and sensory challenges that could interfere with their ability to complete self-administered assessments. Additionally, further exploration of adapting existing tools, for populations with specific needs—such as individuals living with dementia—would be valuable. This has been seen in the eHEALS telephone format adaptation (Stellefson et al., 2017). The reliability of these adapted tools remains an important area for future research.

### LANGUAGE AND CULTURAL COMPETENCE

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A common limitation of the reviewed tools is their development primarily in English, with only a subset translated into other languages. Of the twelve tools assessed, eleven were originally developed in English. Notably, the MDPQ has demonstrated effectiveness and has undergone validation in multiple languages, a process that appears to be ongoing as recently as 2024. Given the diverse linguistic and cultural backgrounds of older adults, addressing language barriers is critical to ensuring the accessibility of digital health tools. Digital literacy screening has the potential to either mitigate or exacerbate health disparities, depending on how these tools are adapted for different cultural and linguistic groups. To prevent reinforcing existing inequities, such interventions must be designed with cultural competence. Ensuring that digital screening tools are accessible in multiple languages is essential to avoiding the disproportionate exclusion of minority communities, which could otherwise deepen existing health disparities (Aponte & Nokes, 2017).

## PERCEIVED VS. OBJECTIVE HEALTH LITERACY

The reviewed tools, such as ATTQ, TAM, and eHEALS, primarily assess individuals' perceived comfort and skill in using the internet for health-related purposes. However, these tools do not evaluate objective digital skills. The reliance on self-reported data introduces the potential for individuals to either overestimate or underestimate their abilities. This discrepancy between perceived and actual skills may skew findings and limit the accuracy of these tools in assessing digital health literacy. Future measurement approaches should integrate objective assessments of technology skills alongside self-reports to provide a more comprehensive evaluation of digital health literacy.

## COMMUNITY-BASED APPLICATION

There is a need for further investigation into the implementation of digital health literacy screening tools in community-based settings. While existing studies provide substantial evidence on the validity and reliability of these tools, their effectiveness in real-world applications outside controlled research environments remains underexplored. Assessing how these tools perform in community health initiatives is essential for determining their ability to accurately measure digital health literacy across diverse populations. As digital health interventions become increasingly integrated into public health and healthcare delivery systems, ensuring that these tools are both adaptable and effective in community settings is crucial for promoting equitable access. Future research should examine the feasibility, usability, and impact of incorporating digital health literacy assessments into ongoing health programs, with particular attention to their accessibility across different demographic and socioeconomic groups. Additionally, efforts should focus on identifying where and how these tools are currently being implemented to inform best practices and guide future adoption.

## TAILORING DIGITAL HEALTH LITERACY ASSESSMENTS FOR OLDER ADULTS

Given the focus of this review on older adults, it is essential to consider measurement tools specifically designed for this population. The TLST shows considerable promise as a digital health literacy assessment tailored to the unique needs of older adults. Unlike tools such as the ATC/IQ, which are designed with younger populations in mind, the TLST accounts for the distinct challenges older adults face when engaging with digital health technologies. Further research is needed to establish the reliability and validity of the TLST in diverse older adult populations.

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## CONCLUSION

The development of digital health measurement tools for older adults requires careful consideration of the diverse needs of this population. These tools must be adapted to address the specific challenges of older adults, including cognitive decline, sensory impairments, and varying levels of digital literacy. Moreover, they should be culturally competent and accessible in multiple languages to ensure they do not exacerbate existing health inequities. The growing importance of digital health tools calls for a shift from research-based validation to real-world implementation in community health settings. By prioritizing the development of user-centered tools that reflect the heterogeneous nature of older adults' digital capacities, we can better support this population in navigating the increasingly digital landscape of healthcare.

Further research is needed to assess the effectiveness of existing tools in community settings, explore ways to adapt tools for individuals with specific needs, such as those living with dementia, and improve the accuracy of digital health literacy assessments. Addressing these gaps will contribute to the broader goal of leveraging digital health technologies as a social determinant of health, improving access and outcomes for older adults across diverse communities.

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