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Review Article

Impact of Digital Technologies on Access to and Satisfaction with Health and Social Care Among Older Adults

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ABSTRACT

Digital technologies are increasingly used to support healthcare and social care for older adults, yet their effects on access and satisfaction depend on technological, individual, and organizational conditions. This structured narrative review synthesized current evidence on the impact of digital technologies on access to and satisfaction with health and social care among older adults. A comprehensive literature search was conducted iteratively from February 2025 through May 2026 in seven international and regional databases and search platforms. English- and Russian-language publications addressing older adults, digital health technologies, healthcare or social care access, satisfaction, and related implementation outcomes were considered. Forty-eight publications were included. Because study designs, populations, technologies, and outcomes were heterogeneous, findings were synthesized narratively and organized thematically. Evidence most consistently suggested that telemedicine, electronic health technologies, mobile health technologies, remote monitoring, mobile applications, and wearable devices may reduce geographical and mobility-related barriers, support continuity of care and chronic disease management, and improve satisfaction when services are usable, trusted, and adequately supported. Satisfaction findings were more context-dependent than access outcomes. Digital literacy, connectivity, affordability, interface usability, privacy concerns, technophobia, and access to technical or professional support repeatedly influenced adoption. Evidence specifically addressing social care, long-term care, and integration between healthcare and social services was comparatively limited. Digital technologies may complement conventional care for older adults, but age-appropriate design, digital-literacy support, privacy safeguards, non-digital alternatives, and integration into existing care pathways are important for equitable implementation.

Keywords: Aged; Digital Health; Telemedicine; Health Services Accessibility; Patient Satisfaction; Social Care; Health Literacy

Introduction

Digital transformation is considered one of the key directions in the development of modern healthcare systems. Yamshchikov et al. emphasize that digital technologies can improve access to healthcare, expand opportunities for remote interaction between patients and healthcare professionals, and optimize service delivery and health-system management. At the same time, digitalization may be accompanied by digital inequality, changes in health behavior, and the need to strengthen digital literacy; therefore, its benefits depend on rational and safe implementation [1]. User-centered digital solutions may improve care quality, access to health and social care, and satisfaction with services, but their implementation also requires information security and adaptation to the needs of different population groups [2].

Older adults may face geographical, economic, organizational, social, and functional barriers to healthcare, social services, and long-term care. Limited mobility, difficulties navigating health systems, insufficient information, and the digital divide can compound these barriers. Digital technologies can mitigate some constraints through remote consultations, electronic access to health information, remote monitoring, and improved coordination across services; however, access to devices, connectivity, technical support, and age-appropriate design remain critical [3].

Digital literacy is a major determinant of whether older adults can benefit from digital health. Higher eHealth literacy is associated with greater engagement with digital health services, whereas limited skills can exacerbate unequal access [4]. Digital-literacy interventions may improve knowledge, confidence, and participation in digital healthcare, although the effectiveness of specific educational approaches varies [5,6]. Digital inclusion therefore requires not only technology availability but also sustained support for adoption and continued use [7].

Internet use and online health information can support access to information, communication, and selected community-based services, but observational evidence does not establish that internet use uniformly reduces healthcare utilization or inequity [8]. The benefits of online information depend on users' ability to identify trustworthy sources and protect personal information [9]. Smartphone use may support health-related functions and life satisfaction [10], while social media can contribute to eHealth literacy but also creates information-quality challenges [11].

Across eHealth research, recurring barriers include low self-efficacy, limited digital skills, complex interfaces, privacy concerns, inadequate support, and poor integration with routine services [12-14]. These findings highlight the importance of inclusive, human-centered design that considers age-related physical, sensory, and cognitive characteristics and provides clear interfaces and appropriate assistance [15].

The growing volume of heterogeneous evidence warrants a structured synthesis that distinguishes the two principal outcomes of this review—accessibility and satisfaction—while also examining clinical outcomes, digital literacy, usability, implementation barriers, and the comparatively less developed social-care dimension.

Aim of the Study

To analyze and synthesize current scientific publications on the impact of digital technologies on access to and satisfaction with health and social care among older adults.

Materials and Methods

Review Design and Reporting Approach

This study was conducted as a structured narrative review with a comprehensive literature search. The reporting and organization of the narrative synthesis were informed by the SANRA principles for narrative review articles [16]. A PRISMA-style flow structure was used to improve transparency in the reporting of identification, screening, eligibility assessment, and inclusion; however, the manuscript is not presented as a systematic review and no prospective systematic-review protocol was registered [17].

Literature Search Strategy

The literature search was conducted iteratively from February 2025 through May 2026, with the final update completed in May 2026. Searches were performed in PubMed/MEDLINE, Scopus, Web of Science, ScienceDirect, SpringerLink, Google Scholar, and CyberLeninka. The search combined concepts related to older age, digital health technologies, healthcare or social care access, patient satisfaction, and digital health literacy. English-language and Russian-language terms were used as appropriate.

The exact day-level search dates, the original database-specific search histories, and the number of records returned by each individual database were not preserved in the initial search log. To avoid retrospective fabrication of data, database-specific historical yields were not estimated. For reproducibility of the revised manuscript, the search logic was reconstructed and standardized from the concepts used during the original review; the database-specific

Boolean syntax and filters are shown in Table 1. The documented screening library contained 142 records before duplicate removal.

Table 1. Reconstructed database-specific search strategy used to improve reproducibility of the revised review

Database / platform	Search syntax	Filters / limits
PubMed/ MEDLINE	(("Aged"[Mesh] OR "older adult*"[tiab] OR elderly[tiab] OR ageing[tiab] OR aging[tiab]) AND ("digital health"[tiab] OR eHealth[tiab] OR mHealth[tiab] OR telemedicine[tiab] OR telehealth[tiab] OR "remote monitoring"[tiab] OR "mobile application*"[tiab] OR wearable*[tiab]) AND ("Health Services Accessibility"[Mesh] OR access*[tiab] OR "Patient Satisfaction"[Mesh] OR satisfaction[tiab] OR "social care"[tiab] OR "long-term care"[tiab]))	Publication years 2017-May 2026; humans; English/Russian where available.
Scopus	TITLE-ABS-KEY(("older adult*" OR aged OR elderly OR ageing OR aging) AND ("digital health" OR ehealth OR mhealth OR telemedicine OR telehealth OR "remote monitoring" OR "mobile application*" OR wearable*) AND (access* OR "health services accessibility" OR satisfaction OR "patient satisfaction" OR "social care" OR "long-term care"))	2017-May 2026; article/review; English/Russian.
Web of Science	TS=(("older adult*" OR aged OR elderly OR ageing OR aging) AND ("digital health" OR eHealth OR mHealth OR telemedicine OR telehealth OR "remote monitoring" OR "mobile application*" OR wearable*) AND (access* OR "health services accessibility" OR satisfaction OR "patient satisfaction" OR "social care" OR "long-term care"))	2017-May 2026; article/review; English/Russian where indexed.
Science Direct	("older adults" OR aged OR elderly) AND ("digital health" OR eHealth OR mHealth OR telemedicine OR telehealth OR "remote monitoring" OR "mobile applications" OR wearable) AND (accessibility OR "healthcare access" OR satisfaction OR "social care")	2017-May 2026; research and review articles.
Springer Link	("older adults" OR aged OR elderly) AND ("digital health" OR eHealth OR mHealth OR telemedicine OR telehealth OR "remote monitoring" OR "mobile applications" OR wearable) AND (accessibility OR satisfaction OR "social care" OR "long-term care")	2017-May 2026; journal articles and reviews.
Google Scholar	allintitle/keyword combinations of: ("older adults" OR elderly) + ("digital health" OR eHealth OR mHealth OR telemedicine OR telehealth OR "remote monitoring") + (accessibility OR satisfaction OR "social care")	Custom date range 2017-May 2026; English and Russian terms searched separately.
Cyber Leninka	("пожилые" OR "лица пожилого возраста") AND ("цифровое здравоохранение" OR телемедицина OR eHealth OR mHealth OR "дистанционный мониторинг" OR "мобильные приложения") AND ("доступность медицинской помощи" OR удовлетворенность OR "медико-социальная помощь")	2017-May 2026; Russian-language full-text publications.

Abbreviations: *AND/OR - Boolean operators; eHealth - electronic health; MeSH - Medical Subject Headings; MEDLINE - Medical Literature Analysis and Retrieval System Online; mHealth - mobile health; tiab - title/abstract field; TITLE-ABS-KEY - title, abstract, and keywords; TS - topic search. Limitation: The database-specific search strings shown in Table 1 were reconstructed from the documented search concepts because the original verbatim database search histories and database-specific retrieval counts were not retained; they should not be interpreted as archived historical search strings.*

Eligibility Criteria

Publications were eligible when they addressed digital technologies used in healthcare, health and social care, social care, or long-term care and reported findings relevant to older adults. Older adults were operationally defined as people aged 60 years or older or 65 years or older, depending on the definition used in the source study. The primary evidence base

therefore comprised older-adult populations or studies reporting an identifiable older-adult subgroup. A small number of broader or mixed-age sources were retained only when they contributed directly relevant implementation or system-level evidence on accessibility, satisfaction, digital adoption, or care delivery; these sources are explicitly identified in Table 2 as providing indirect age-specific evidence and were not used as the sole basis for conclusions about older adults.

Table 2. Characteristics, outcomes, principal findings, and methodological appraisal of the 48 included publications

Ref. / Author, year	Design / setting; sample / evidence base	Technology / focus	Outcome(s) assessed	Principal findings	Key limitations / applicability	Appraisal tool; overall confidence
1 Yamshchikov et al., 2025	Narrative literature review; Russia; N/A	Digital health broadly	Access; system efficiency; population health/quality of life	Digitalization may improve access and system efficiency; benefits depend on safe implementation.	Broad population focus; narrative methodology; indirect age-specific evidence	SANRA; Low
2 Bazaeva, 2024	Narrative/overview article; Russia; N/A	Digital technologies in healthcare	Access; service delivery; quality of care	Describes potential improvements in access, service delivery, and care quality.	Broad healthcare focus; limited reproducible methodology; indirect age-specific evidence	SANRA; Low
3 Cabañero-Garcia et al., 2025	Systematic review of reviews; multinational; 17 reviews (479 underlying studies)	Health, social and long-term care access	Access to health, social, and long-term care	Access barriers are socioeconomic, geographical, community-based, and related to the digital divide.	Interacting supply- and demand-side barriers	JBI-SR; High
4 Kim et al., 2023	Cross-sectional path analysis; Hong Kong; n=306, age >60	Digital health technologies	Technology readiness; eHealth literacy; intention to use	Technology readiness and eHealth literacy influence attitudes and intention to use DHT.	Low literacy/readiness	JBI-ACS; Moderate
5 Oh et al., 2021	Systematic review; multinational; 27 studies	Digital literacy measurement	Digital-literacy measurement and instrument validity	Digital literacy is relevant to engagement, but measurement approaches are heterogeneous.	Few validated tools; construct heterogeneity	JBI-SR; High
6 Dong et al., 2023	Meta-analysis; 7 studies; n=710	Digital health literacy interventions	eHealth literacy; knowledge; self-efficacy; skills	Interventions improved eHealth literacy, knowledge, and self-efficacy; skill effects were less certain.	Small evidence base; heterogeneity	JBI-SR; High
7 Kebede et al., 2022	Scoping review; multinational; 96 studies	Digital engagement	Nonuse, adoption, and sustained digital engagement	Maps barriers/facilitators across nonuse, adoption, and sustained engagement.	Access, skills, support, usability	JBI-SR; Moderate
8 Clarke et al., 2017	Cohort observational study; England; n=454, age ≥65	Internet use	Health and social care resource use	Frequent internet use related to selected community health-service use, but not	No causal inference; missing data	JBI-Cohort; Moderate

Ref. / Author, year	**Design / setting; sample / evidence base**	**Technology / focus**	**Outcome(s) assessed**	**Principal findings**	**Key limitations / applicability**	**Appraisal tool; overall confidence**
				primary/secondary care use.		
9 Bachofner et al., 2024	Mini-review; multinational; NR	Online health information	Health-information access; autonomy; information appraisal	Online information may support autonomy and access when trustworthy and usable.	Information appraisal; privacy; digital skills	SANRA; Low
10 Li et al., 2022	Cross-sectional survey; China; n=941 older adults	Smartphone/social and healthcare apps	Life satisfaction; healthcare/social-network affordances	Healthcare and social-network affordances mediated associations between smartphone use and life satisfaction.	Cross-sectional design	JBI-ACS; Moderate
11 Zhang et al., 2025	Systematic literature review; 16 studies	Social media/eHealth literacy	eHealth literacy; health-information behavior	Social media use interacts with eHealth literacy and health-information behavior.	Information quality; literacy differences	JBI-SR; High
12 Wilson et al., 2021	Scoping review; 14 studies	eHealth	eHealth barriers and facilitators	Barriers/facilitators clustered into individual, technological, relational, environmental, and organizational domains.	Self-efficacy; support; privacy; functionality	JBI-SR; Moderate
13 Zhang et al., 2025	Scoping review; 25 studies	eHealth	Access; uptake; usability; eHealth outcomes	Evidence maps access, uptake, usability, and eHealth outcomes in older adults.	Literacy; access; usability	JBI-SR; Moderate
14 Vergouw et al., 2020	Qualitative study; Netherlands; n=19, mean age 73	Primary-care eHealth applications	Needs; barriers/facilitators; acceptability	Convenience and immediate GP contact were valued; tailored, user-friendly design supported acceptability.	Low computer experience; mismatch with needs	JBI-Q; Moderate
15 Denecke et al., 2025	Scoping review; 40 papers	Inclusive digital-health design	Usability; accessibility; inclusive design	Synthesized design heuristics to improve inclusivity and usability for adults ≥60.	Age-related physical/cognitive needs	JBI-SR; Moderate
19 Kultanova & Spankulova, 2024	Narrative review; Kazakhstan; N/A	Telemedicine	Geographic access; telemedicine development	Describes telemedicine development and potential to improve geographic access in Kazakhstan.	Broad telemedicine review; not older-adult-specific; infrastructure/regulatory focus	SANRA; Low
20 Zhang et al., 2023	Scoping review of systematic reviews; 29 systematic reviews	Telehealth in aging care	Feasibility; effectiveness; cost; acceptability; access	Telehealth appears feasible and acceptable in selected domains, but evidence	Review-level heterogeneity; variable underlying review quality/generalizability	JBI-SR; Moderate

Ref. / Author, year	**Design / setting; sample / evidence base**	**Technology / focus**	**Outcome(s) assessed**	**Principal findings**	**Key limitations / applicability**	**Appraisal tool; overall confidence**
				quality/generalizability vary.		
21 Fernandes et al., 2025	Systematic review; 37 articles (31 original, 6 reviews)	Telehealth	Access; health outcomes; disease management; quality of life	Generally favorable signals for access, disease management, health outcomes, and quality of life.	Substantial heterogeneity across study designs and outcomes	JBI-SR; High
22 Wong et al., 2022	Systematic review and meta-analysis; 13 publications; 4,097 older adults	Nurse-led telehealth	Quality of life; self-efficacy; depression; hospital admissions	Telehealth self-care programs may improve quality of life and support ongoing care.	Variation in RCT quality and intervention content	JBI-SR; High
23 Orlando et al., 2019	Systematic review; 36 studies; 3,607 participants	Telehealth videoconferencing	Patient/caregiver satisfaction with videoconferencing	Patient/caregiver satisfaction generally high; convenience and travel reduction frequently valued.	Heterogeneous satisfaction measures	JBI-SR; High
24 Ting et al., 2024	Cross-sectional study; Malaysia; n=149	Multidisciplinary geriatric telemedicine	Acceptance; treatment/medication-plan optimization	Moderate-to-high acceptance; medication and treatment-plan optimization were common.	Single-center convenience sample	JBI-ACS; Moderate
25 Chen et al., 2025	Systematic review; 8 trials; 1,454 participants	Gamified mHealth and wearables	Daily steps; moderate-to-vigorous physical activity	Improved daily steps and moderate-to-vigorous physical activity.	Sustainability and theoretical consistency	JBI-SR; High
26 G et al., 2025	Structured literature review; 19 articles	mHealth adoption	mHealth adoption determinants	Perceived usefulness, usability, and support were recurring adoption determinants.	Many studies atheoretical	SANRA; Moderate
27 Nadal et al., 2020	Scoping review; 68 studies	mHealth technology acceptance	Technology-acceptance constructs and measurement	Acceptance is a staged process; definitions and measures vary widely.	Conceptual inconsistency	JBI-SR; Moderate
28 Ahmad et al., 2022	Scoping review; 6 studies	Mobile health applications	Willingness; barriers; motivators for app adoption	Older adults were willing to use trusted, tailored apps; skills, privacy, and professional involvement affected adoption.	Small number of included studies	JBI-SR; Moderate
29 Alzghaibi, 2025	Cross-sectional study; Saudi Arabia; n=344 chronic-disease app users	Sehaty mHealth app	Usability; accessibility; privacy; satisfaction; engagement	Technical stability, navigation, privacy, and accessibility influenced engagement and satisfaction; age-related barriers were noted.	Mixed-age chronic-disease sample; purposive sampling; indirect age-specific applicability	JBI-ACS; Low

Ref. / Author, year	**Design / setting; sample / evidence base**	**Technology / focus**	**Outcome(s) assessed**	**Principal findings**	**Key limitations / applicability**	**Appraisal tool; overall confidence**
30 Azevedo et al., 2025	Meta-analysis of RCTs; 7 RCTs; 490 participants	mHealth apps for diabetes	Diabetes management and self-management outcomes	mHealth supported selected diabetes-management outcomes in older adults.	Small evidence base; intervention heterogeneity	JBI-SR; High
31 Shin et al., 2024	Systematic review/app evaluation; USA; 6 apps	Home-assessment mHealth apps	App functionality; quality; accessibility	No app met all desired functionality, quality, and WCAG accessibility criteria.	Small app set; US app-store focus	JBI-SR; Moderate
32 Moore et al., 2021	Qualitative systematic review/meta-synthesis; 20 records; 349 participants	Wearable devices	User experience; adoption and sustained wearable use	Sustained use depends on comfort, usability, perceived value, feedback, and support.	Heterogeneous devices and populations	JBI-SR; High
33 Hettiarachchi Senarath et al., 2024	Systematic review with qualitative synthesis; 22 studies	Electronic patient-reported measures	Uptake and routine use of electronic patient-reported measures	Uptake depends on workflow fit, usability, training, and clinician engagement.	Implementation heterogeneity	JBI-SR; High
34 Zou et al., 2023	Systematic review; 20 intervention studies	Digital health during COVID-19	Remote-care and health outcomes during COVID-19	Digital tools supported remote care during the pandemic; studies varied in design and bias.	Rapid implementation; heterogeneous risk of bias	JBI-SR; High
35 Hamiduzzaman et al., 2025	Meta-synthesis; 21 articles	Virtual healthcare for chronic conditions	Accessibility; equity; satisfaction; cost-effectiveness	Identified accessibility, equity, satisfaction, and cost-effectiveness as key quality domains.	Digital divide; device access; service complexity	JBI-SR; High
36 Wijayanti & Makmun, 2024	Narrative/overview review; N/A	Digital health broadly	Healthcare access and effectiveness	Reports potential improvements in healthcare access and effectiveness.	Broad healthcare focus; limited methodological detail; indirect age-specific applicability	SANRA; Low
37 Liu et al., 2026	Systematic scoping review; 17 studies	Digital technologies for healthcare	Healthcare use cases; information access; health management	Chronic disease management, rehabilitation, and monitoring were dominant uses; access to health information improved.	Limited number and heterogeneity of studies	JBI-SR; Moderate
38 Hepburn et al., 2025	Updated systematic review; 29 peer-reviewed studies + 30 gray-literature documents	DHT adoption in chronic disease	Digital-health adoption barriers and facilitators	Identified capability, opportunity, and motivation barriers/facilitators, including equity factors.	Heterogeneous technologies/settings	JBI-SR; High
39 Park et al., 2026	Observational secondary-data analysis; USA; n=653 homebound older adults	Patient portals/video telehealth	Portal and video-telehealth use	Prior online experience and assisted ICT training predicted eHealth use more	Observational design	JBI-ACS; Moderate

Ref. / Author, year	Design / setting; sample / evidence base	Technology / focus	Outcome(s) assessed	Principal findings	Key limitations / applicability	Appraisal tool; overall confidence
				strongly than device access alone.		
40 He et al., 2025	Cross-sectional SEM study; China; n=377	Telemedicine	Intention to use telemedicine	Usefulness/ease of use, cost value, system quality, trust, and self-efficacy promoted intention; anxiety reduced it.	Cross-sectional self-report	JBI-ACS; Moderate
41 Malarvizhi et al., 2024	Cross-sectional survey; Malaysia; n=393 adults >40	e-healthcare services	Intention and use of e-healthcare services	Expectancy, social influence, value, and facilitating conditions predicted intention/use.	Not older-adult-specific; convenience sampling; indirect age-specific applicability	JBI-ACS; Low
42 Birati & Tzemah-Shahar, 2026	Scoping review; 17 studies; 6,822 participants	Digital-health resistance in primary care	Digital-health resistance and adoption barriers	Functional, psychological, risk, value, and relational-care concerns interact to shape resistance.	Predominantly high-income Western settings	JBI-SR; Moderate
43 Song et al., 2025	Systematic review and meta-analysis; 19 studies; 9,385 participants	Technophobia in digital health	Technophobia prevalence and correlates	Older adults showed elevated technophobia; privacy/security concerns were prominent.	All included studies cross-sectional	JBI-SR; High
44 Sinabell & Ammenwerth, 2024	Systematic review + case study; 20 review papers (+3 targeted challenge papers); case study n=7	eHealth usability evaluation	eHealth usability evaluation	Standard usability methods often require adaptation for older users; 24 recommendations proposed.	Small case-study sample	JBI-SR; Moderate
45 Kang et al., 2023	Scoping review; South Korea; 42 studies	Digital literacy	Digital-literacy measurement	Measurement was highly heterogeneous; relatively few validated instruments were used.	Measurement heterogeneity	JBI-SR; Moderate
46 Weber et al., 2023	Cross-sectional survey; Switzerland; n=922, age ≥60	Digital physical-activity interventions	Preferences and needs for digital physical-activity interventions	Users preferred websites, video content, personalization, and accessible human support.	Highly active/educated sample	JBI-ACS; Moderate
47 de Siqueira Silva et al., 2024	Scoping review; 68 documents	Digital home care	Primary-care access; communication; monitoring; quality of life	Digital home care may support access, communication, monitoring, and quality of life but can widen inequality.	Heterogeneous evidence; access barriers	JBI-SR; Moderate
48 Arsenijevic et al., 2020	Systematic review and meta-analysis; 27 studies	eHealth tools in vulnerable groups	Adherence to electronic health tools	Multimodal content and direct provider communication were associated	High heterogeneity; mixed vulnerable groups; indirectness for older adults	JBI-SR; High

Ref. / Author, year	Design / setting; sample / evidence base	Technology / focus	Outcome(s) assessed	Principal findings	Key limitations / applicability	Appraisal tool; overall confidence
				with better adherence.		
49 Laukka et al., 2024	Qualitative analysis of survey responses; Finland; n=1,100, age ≥75	Digital health and social services	Preferences for and use of digital health/social services	Preferences emphasized accessibility, usability, choice, and availability of support.	Open-ended survey data	JBI-Q; Moderate
50 Silva et al., 2026	Rapid review; 19 studies	ICT in health interventions	Access/coordination; self-care; mental health; social participation	ICT supported access/coordination, self-care, mental health, and social participation.	Heterogeneous reporting and implementation detail	JBI-SR; High
51 van Berkel et al., 2019	Retrospective observational study with matched controls; UK; n=5,154 enrolled; n=3,562 analyzed	Community telehealth	Emergency hospital admissions	Emergency admissions decreased by 22.7% relative to matched controls; supports system-level potential.	Not older-adult-specific; residual confounding; indirect age-specific applicability	JBI-Cohort; Moderate

Abbreviations: *COVID-19 - coronavirus disease 2019; DHT - digital health technology; eHealth - electronic health; GP - general practitioner; ICT - information and communication technology; JBI - Joanna Briggs Institute; JBI-ACS - JBI Analytical Cross Sectional checklist; JBI-Q - JBI Qualitative checklist; JBI-SR - JBI Systematic Reviews checklist; mHealth - mobile health; N/A - not applicable; NR - not reported; RCT - randomized controlled trial; SANRA - Scale for the Assessment of Narrative Review Articles; SEM - structural equation modeling; UK - United Kingdom; US/USA - United States of America; WCAG - Web Content Accessibility Guidelines. Overall methodological confidence was used for interpretation rather than exclusion. Methodological-confidence assignment: High = key design-specific appraisal domains were largely satisfied with no major concern judged likely to materially alter interpretation; Moderate = one or more methodological concerns or areas of incomplete reporting were present, but findings remained interpretable; Low = multiple important limitations or inadequate reporting in key domains substantially reduced confidence. These categories are author-defined interpretive summaries, not official JBI or SANRA cut-offs, and were not used as exclusion criteria.*

Eligible technologies included telemedicine and telehealth, eHealth and mHealth, mobile health applications, remote patient monitoring, wearable devices, electronic patient-reported outcome or experience tools, virtual care platforms, and other information and communication technologies supporting health or social care. The primary outcomes were (1) access to or accessibility of healthcare and health/social care services and (2) patient, caregiver, or user satisfaction with digitally supported care. Secondary outcomes included continuity of care, quality of life, treatment adherence, chronic disease management, self-management and autonomy, digital literacy, usability, technology acceptance, and implementation barriers or facilitators.

Eligible publication types included systematic reviews, meta-analyses, scoping and rapid reviews, randomized and non-randomized intervention studies, cohort and cross-sectional studies, observational studies, and qualitative studies. Full-text publications in English or Russian, predominantly from 2017 to May 2026, were considered. Duplicate records, conference abstracts, editorials, commentaries, publications without accessible full text, studies unrelated to digital health or older adults, and studies not reporting outcomes relevant to the review questions were excluded.

Study Selection and Data Extraction

Study selection and data extraction were performed by a single reviewer. Duplicate records were removed first. Titles and abstracts were then screened for relevance, followed by full-text assessment against the predefined eligibility criteria. Of 142 documented records, 22 duplicates were removed, leaving 120 records for title/abstract screening. Fifty-three records were excluded at this stage. Sixty-seven full-text reports were assessed, of which 19 did not meet the eligibility criteria, resulting in 48 publications included in the narrative review (Figure 1). Reason-specific counts for the 19 full-text exclusions were not retained in the original screening log; the documented reasons included ineligible population, intervention, outcome, or publication type.

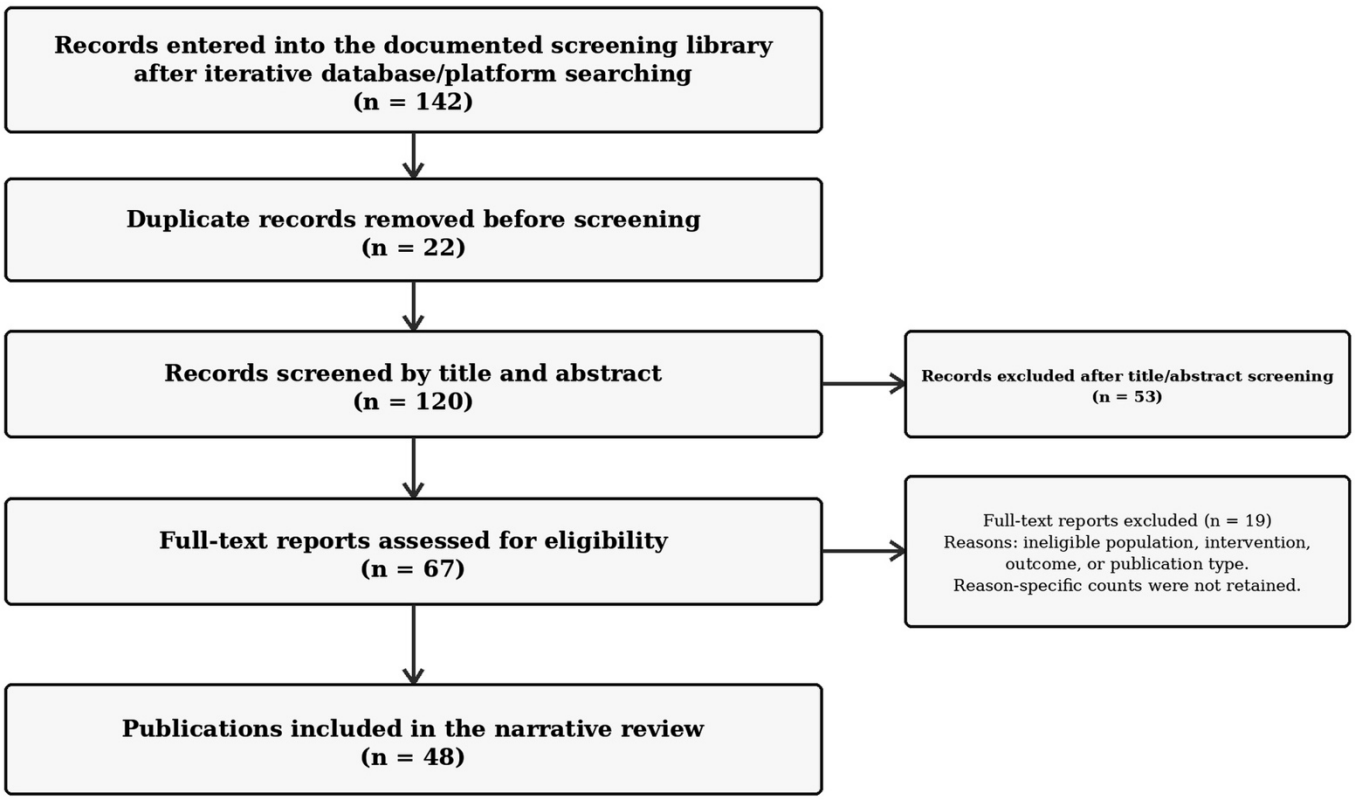

Figure 1. PRISMA-style flow diagram showing identification, screening, eligibility assessment, and inclusion of publications in the narrative review

For each included source, data were extracted on publication year, study design and setting, study population or evidence base, type of digital technology, outcomes related to accessibility and/or satisfaction, principal findings, and major implementation barriers or facilitators. These characteristics are summarized in Table 2.

Methodological Quality Appraisal

Because the evidence base included heterogeneous study designs and evidence-synthesis formats, critical appraisal was performed with design-appropriate tools. Systematic reviews, meta-analyses, scoping reviews, rapid reviews, and other structured evidence syntheses were appraised using relevant domains of the JBI Critical Appraisal Checklist for Systematic Reviews and Research Syntheses [18]. Analytical cross-sectional studies, cohort studies, and qualitative studies were appraised using the corresponding JBI design-specific checklists. Narrative, overview, and mini-review articles, for which the JBI systematic-review checklist was not appropriate, were appraised using SANRA domains [16]. Methodological confidence was assigned qualitatively from the pattern of design-specific checklist judgments rather than from a numerical score. High confidence indicated that key design-specific domains were largely satisfied and that no major methodological concern was judged likely to materially alter interpretation. Moderate confidence indicated one or more methodological concerns or areas of incomplete reporting, while the findings remained interpretable. Low confidence indicated multiple important limitations or inadequate reporting in key domains that substantially reduced confidence in the findings. These high/moderate/low categories are author-defined interpretive summaries and are not official JBI or SANRA cut-offs; they were used to inform interpretation and not as exclusion criteria. Appraisal was performed by the same single reviewer and is therefore itself subject to reviewer-level bias.

Data Synthesis

Statistical pooling was not undertaken because of substantial heterogeneity in study designs, populations, digital interventions, comparators, and outcome measures. Findings were synthesized narratively and organized into predefined thematic domains: accessibility and continuity of care; satisfaction and quality of life; clinical outcomes and chronic disease management; lifestyle modification and engagement; digital literacy, usability, technology acceptance, and implementation barriers; and social care, care coordination, and aging in place. Accessibility and satisfaction were analyzed as distinct primary outcomes.

Results

Characteristics and Methodological Profile of the Included Evidence

The final evidence base comprised 48 publications: 36 review or evidence-synthesis articles and 12 primary empirical studies. The primary studies included cross-sectional, cohort, qualitative, and retrospective observational designs across healthcare and community settings. Technologies included telemedicine and telehealth, eHealth platforms, mHealth applications, remote monitoring, wearable devices, online health information, patient portals, and broader ICT-based interventions. Following design-appropriate critical appraisal, 17 sources were judged to have high, 24 moderate, and 7 low overall methodological confidence. Higher-confidence evidence was concentrated among systematic reviews and meta-analyses with transparent search, selection, and appraisal procedures; lower-confidence evidence was mainly associated with narrative or overview formats and mixed-age studies with limited direct applicability to older adults. No publication was excluded solely on the basis of methodological quality.

Accessibility and Continuity of Care

Across the literature, the most consistent potential benefit of digital technologies was improved service reach when conventional access was constrained by geography, mobility, or the need for frequent follow-up. Telemedicine reviews described expanded access to specialist advice, remote monitoring, and continuity of care for older adults, particularly those with chronic conditions or limited mobility. A scoping review of 29 systematic reviews concluded that telehealth was promising across several aging-care domains, but emphasized variable study quality, inconsistent outcome definitions, and limited generalizability [19,20]. A more recent systematic review similarly found favorable signals for healthcare access and service continuity while highlighting substantial heterogeneity across 37 included articles [21]. These findings support telehealth as a complementary mode of care rather than evidence of a universal replacement for in-person services.

Satisfaction and Quality of Life

Satisfaction outcomes were generally positive but more context-dependent than access outcomes. A meta-analysis of 13 trials involving 4,097 community-dwelling older adults found modest improvements in quality of life and self-efficacy with nurse-led telehealth, although intervention content and risk-of-bias profiles varied [22]. A systematic review of 36 studies involving 3,607 patients and caregivers reported generally high satisfaction with telehealth videoconferencing, commonly related to convenience, reduced travel, and perceived access to clinicians; however, satisfaction measures were heterogeneous [23]. In a Malaysian multidisciplinary geriatric telemedicine service, 149 participants reported moderate-to-high acceptance, with medication and treatment-plan optimization among the clinical outputs [24]. Taken together, these studies suggest that satisfaction depends strongly on usability, communication quality, confidence in remote care, and the availability of human support rather than on the digital modality alone.

Clinical Outcomes and Chronic Disease Management

Evidence on clinical outcomes was concentrated in chronic disease management, self-management, and remote monitoring. Across 37 articles, telehealth showed favorable but heterogeneous signals for health outcomes, disease management, quality of life, and access [21]. Nurse-led telehealth programs produced small improvements in quality of life and self-efficacy in community-dwelling older adults [22], while a meta-analysis of seven randomized trials involving 490 older adults with diabetes suggested benefits for selected diabetes-management outcomes [30]. During the COVID-19 pandemic, a systematic review of 20 intervention studies documented rapid expansion of digital care for older adults, but intervention types and risk-of-bias profiles varied substantially [34]. A meta-synthesis of 21 articles on virtual healthcare for older adults with preventable chronic conditions identified accessibility, equity, satisfaction, and cost-effectiveness as important quality domains [35]. Real-world evidence from a large community telehealth program reported fewer emergency admissions relative to matched controls, but the cohort was not restricted to older adults and residual confounding limits age-specific causal interpretation [51]. Overall, the evidence supports potential clinical utility while remaining too heterogeneous for a uniform estimate of effect.

Lifestyle Modification, mHealth, and Wearable Technologies

mHealth and wearable technologies were most frequently linked to self-management, physical activity, and technology engagement. A systematic review of eight trials involving 1,454 participants found that gamified mHealth interventions increased daily steps and moderate-to-vigorous physical activity, although sustainability and theoretical consistency remained concerns [25]. Reviews of mHealth adoption emphasized perceived usefulness, ease of use, trust, support, and age-appropriate design as recurring determinants of uptake [26-28]. Evidence from a mixed-

age chronic-disease sample also identified technical instability, navigation problems, privacy concerns, and accessibility limitations as barriers; because that study was not restricted to older adults, it was treated as indirect evidence [29].

For disease-specific and monitoring applications, a meta-analysis of seven randomized trials involving 490 older adults with diabetes suggested that mHealth applications can support selected diabetes-management outcomes [30]. A systematic review of home-assessment applications identified only six apps meeting screening criteria, and none simultaneously met all desired functionality, quality, and accessibility standards [31]. A qualitative systematic review and meta-synthesis of 20 records involving 349 participants found that sustained wearable-device use was shaped by device comfort, usability, perceived usefulness, feedback, and support [32]. Electronic collection of patient-reported measures may also support individualized assessment, but a qualitative evidence synthesis of 22 studies showed that routine uptake depends on workflow integration, usability, training, and clinician engagement [33].

Digital Literacy, Usability, Technology Acceptance, and Implementation Barriers

Implementation success depended heavily on individual capability, technology design, and the surrounding care environment. A systematic scoping review of 17 studies found that digital technologies were most frequently used for chronic disease management, rehabilitation, and health monitoring, with benefits linked to access to information and health management [37]. An updated systematic review of 29 peer-reviewed studies on older adults with chronic diseases identified limited digital literacy, physical and cognitive challenges, infrastructure gaps, usability problems, privacy concerns, and mistrust as recurring barriers [38]. Among 653 homebound older Medicare beneficiaries, previous online experience and ICT training—particularly assisted training—were stronger predictors of portal and video-telehealth use than device access alone [39].

Technology-acceptance studies also showed that perceived usefulness, ease of use, system quality, cost value, trust, self-efficacy, and facilitating conditions influence intention and use, whereas technology anxiety and perceived complexity can discourage adoption [40,41]. A scoping review framed resistance as an interaction of functional and psychological barriers, including concerns about loss of relational care and digital identity [42]. A meta-analysis of 19 cross-sectional studies involving 9,385 participants found substantial technophobia among older adults, with privacy and security concerns particularly prominent [43]. Usability research showed that conventional evaluation approaches often require adaptation for older users because of cognitive, sensory, perceptual, and motor considerations [44]. Digital-literacy evidence was also highly heterogeneous: a scoping review of 42 studies identified substantial variation in measurement instruments [45], while a survey of 922 community-dwelling older adults highlighted preferences for personalized access, video-based content, and direct support when using digital interventions for physical activity [46].

Social Care, Care Coordination, and Aging in Place

Compared with healthcare, evidence specifically addressing social care and integrated health-social care remained less developed. Home-based digital care was one of the clearest areas of overlap. A scoping review of 68 documents found that digital home-care interventions may support access to home-based primary care, communication, quality of life, and remote monitoring, but may also increase inequity when technology access and communication needs are not addressed [47]. A meta-analysis of eHealth adherence among vulnerable groups showed that multimodal tools and direct communication with providers were associated with better sustained use, while poor integration into health systems limited their ability to provide comprehensive support [48].

Older adults' preferences for digital health and social services also emphasize the importance of choice, usability, accessibility, and human assistance. A Finnish qualitative analysis of responses from 1,100 adults aged 75 years or older showed that digital service design should reflect older users' preferences rather than assuming uniform readiness for digital delivery [49]. A rapid review of 19 studies reported that ICT-based interventions can support healthcare access and coordination, self-care, mental health, and social participation, although the evidence was heterogeneous [50]. In a large real-world telehealth program in Liverpool, 3,562 patients with chronic conditions who met the study criteria experienced a 22.7% relative reduction in emergency admissions compared with matched controls; however, the cohort was not restricted to older adults and residual confounding remained possible [51]. These findings reinforce the need to integrate digital tools into broader care pathways while preserving non-digital alternatives for people at risk of exclusion.

Discussion

This review suggests that the relationship between digital technology and care outcomes in older adults is not uniform. Accessibility appears to be the most consistently supported benefit, particularly when digital services reduce travel requirements, facilitate specialist contact, or enable monitoring for people with mobility limitations or chronic disease. Satisfaction, in contrast, depends more directly on service design and user experience. Positive satisfaction findings are most plausible when technologies are easy to use, supported by healthcare professionals or caregivers, and perceived as trustworthy and clinically useful [19-24].

The distinction between accessibility and satisfaction is important. A technology may increase nominal access to a service without producing a satisfactory experience if the interface is difficult to navigate, technical support is unavailable, privacy is uncertain, or the digital encounter is perceived as less relational than face-to-face care. Conversely, high satisfaction among selected users does not demonstrate equitable access at the population level. The digital divide therefore remains a central equity issue rather than a purely technical problem [3,12,38,42,43].

The social-care dimension deserves particular attention. Although several sources addressed health and social care jointly, most empirical evidence focused on clinical services, chronic disease management, or healthcare utilization. Evidence on digital coordination with social care, long-term care, assistance with daily living, and community support was comparatively sparse [3,8,47,49,50]. Future research should therefore evaluate outcomes that reflect integrated care, caregiver burden, social participation, independent living, and continuity between healthcare and social-service sectors rather than treating healthcare access as a proxy for the broader health-social care experience.

From an implementation perspective, the evidence consistently supports human-centered and age-appropriate design. Digital-literacy training alone is unlikely to eliminate inequity if devices, connectivity, accessible interfaces, privacy safeguards, and professional support are absent. Hybrid models that preserve face-to-face options may be particularly important for older adults with sensory or cognitive limitations, low digital confidence, or limited social support [15,38-46].

Limitations

Several limitations should be considered. First, this was a structured narrative review rather than a prospectively registered systematic or scoping review. The original search was conducted iteratively, and day-level search dates, verbatim database-specific search histories, database-specific historical yields, and reason-specific full-text exclusion counts were not retained; these data were not retrospectively estimated. The database-specific strategies presented in Table 1 were reconstructed from the documented search concepts to improve transparency and should not be interpreted as verbatim archived search histories. Second, study selection, data extraction, and critical appraisal were performed by a single reviewer, increasing the possibility of selection, extraction, and appraisal bias. Third, the evidence base was highly heterogeneous and contained both primary studies and secondary evidence syntheses, creating potential overlap in underlying primary literature. Fourth, English- and Russian-language publications were prioritized, which may have introduced language bias. Fifth, a small number of mixed-age or broader adult sources were retained for directly relevant implementation or system-level context; they were explicitly treated as indirect evidence and limit age-specific inference. Sixth, the high/moderate/low confidence categories used to summarize appraisal across heterogeneous designs are author-defined interpretive categories rather than official JBI thresholds. Finally, no meta-analysis was undertaken; the review therefore describes patterns and consistency of evidence rather than pooled effect estimates.

Conclusion

The available literature suggests that digital technologies can improve access to healthcare and, in selected settings, health and social care for older adults, particularly by reducing geographical and mobility-related barriers and supporting continuity of care. Telemedicine, eHealth, mHealth, remote monitoring, mobile applications, and wearable devices also show potential to support chronic disease management, self-management, and user satisfaction. However, the magnitude and consistency of these benefits cannot be assumed across settings because the evidence is heterogeneous and methodological quality varies.

Satisfaction should not be interpreted as an automatic consequence of digital access. It is shaped by usability, trust, communication quality, privacy, technical support, and the extent to which services reflect older adults' preferences and capabilities. Evidence specifically concerning social care and integrated health-social care remains less developed than evidence focused on clinical healthcare and warrants further study.

Future implementation should therefore prioritize age-appropriate and inclusive design, digital-literacy support, accessible infrastructure, protection of personal data, professional and caregiver support where appropriate, and integration of digital services into existing care pathways. Digital technologies are best viewed as complementary tools within flexible, person-centered models of care rather than universal substitutes for in-person services.

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