BMC Primary Care

RESEARCH

Open Access

Attributes of family physician encounters valued by older adults: a systematic review

Rebecca H. Correia[1*], Darly Dash[1], Zain Pasat[1], Ryan P. Strum[1], Komal Aryal[1], Humayun Kabir[1], Maya Potter[2], Elaine Swayze[3], Pat Beaudoin[3], Pat Ward[3] and Henry Yu-Hin Siu[4]

Abstract

Background Older adults (aged ≥ 65) are frequent users of primary care services, often presenting with unique values, needs, expectations, and preferences for family physician encounters compared to patients of younger ages. This review identified and synthesized the attributes of family physician encounters that older patients prioritize, spanning the time of accessing primary care to post-visit.

Methods We conducted a systematic search of three electronic databases (MEDLINE, Ovid Embase, Web of Science) to identify peer-reviewed research articles of any design. Seven reviewers screened and extracted information using a standardized template. We narratively synthesized findings across the included studies. Older adult patient partners provided strategic input throughout the key phases of this review, including developing the research question, literature screening and synthesis, and interpreting the findings to enhance relevance and applicability.

Results We identified 28,461 articles for screening after duplicate removal. Title and abstract screening resulted in 463 retained articles, with 62 articles included for analysis after full-text screening. We identified six key attributes of family physician encounters that older adults value before, during, and after visits: trust in providers, feeling heard, effective information exchange, affective behaviours, continuity of care (longitudinal relationships), and foresight/future planning.

Conclusions Our findings synthesizing international evidence highlight which attributes matter most to older primary care patients as they age and increasingly access family physicians. These attributes can guide primary care planning, organization, and physician education/training to promote high-quality care for older adults.

Registration Our systematic review was prospectively registered with PROSPERO (CRD42024555970).

Keywords Physicians, Family, Patient preference, Patient participation, Patient care, Health services for the aged

*Correspondence:
Rebecca H. Correia
correirh@mcmaster.ca
[1]Department of Health Research Methods, Evidence, and Impact, McMaster University, 1280 Main St W, Hamilton, ON L8S 4L8, Canada
[2]Temerty Faculty of Medicine, University of Toronto, Mississauga, ON, Canada
[3]Collaborative for Health and Aging, McMaster University, Hamilton, ON, Canada
[4]Department of Family Medicine, McMaster University, Hamilton, ON, Canada

Background

Primary care is central to addressing the diverse medical needs of older adults (aged ≥ 65) [1–3]. In most developed countries, family physicians (also known as general practitioners) deliver the majority of primary care services, providing care to patients across all age groups [4]. Demographic shifts have led to an increasing proportion of family physicians' medical practices devoted to older adult patients [5]. Family physicians report challenges in caring for older adults, which may relate to differences in training trajectories equipping physicians with more or less content knowledge, technical skills, and clinical exposures relevant to older adults [6, 7]. Furthermore, current deficits in the family physician workforce are straining health systems worldwide [8–10], impacting the growing population of older adults who rely highly on their services [2, 11]. Disruptions to primary care access and quality for older adult patients may result in greater disease burden and progression, increased health service use, higher health care expenditures, and decreased patient satisfaction [2, 12–14]. As health systems adapt to meet the growing needs of aging populations, it is essential to understand how older adults perceive medical care delivered by family physicians and what they value most for encounters.

Patients bring diverse expectations, priorities, goals, attitudes, and beliefs about their health and medical care to encounters [15]. While older adults tend to be more satisfied with health care provision than younger patients [16, 17], they have distinct needs and preferences that may reflect their greater complexity and frequent health service utilization [18–20]. Previous studies have explored the aspects of family physician encounters that older adults value above and beyond needs for adequate access to care and medical expertise; however, no comprehensive synthesis of evidence in this area exists to date.

We aimed to fill this gap by identifying and synthesizing the most valuable attributes of family physician encounters from the perspective of older adults. We believe that by understanding these priorities, health systems can better contribute to high-quality primary care that eventually can be used to guide health system planning and family medicine education to more effectively meet the evolving needs of aging population [6, 8]. Directly informed by older adult patient partners, this review will address a critical literature gap by exploring the unique values, priorities, needs, expectations, and preferences of older primary care patients that are relevant to direct physician encounters (care experiences). This work aims to offer actionable evidence to improve care quality for this demographic.

Methods

Design

We conducted a systematic review to comprehensively identify, appraise, and synthesize existing evidence [21]. Our research protocol was prospectively registered with PROSPERO (CRD42024555970). Our reporting conforms to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Supplementary Table 1) [22].

Search strategy and selection criteria

The search strategy was developed with an academic-affiliated librarian. We specified search terms aligned with three concepts comprising our research question: the population of interest (older adults), setting (community-based primary care), and phenomenon (family physician care). Supplementary Text 1 details the full search strategy, including the combinations of keywords and subject headings used to operationalize each concept.

We searched three electronic databases: Ovid MEDLINE, Ovid Embase, and Web of Science. These databases were chosen based on their breadth of indexed life sciences and biomedical journals, international scope, and interdisciplinary nature. We limited our search to articles published in the last 20 years (June 3, 2004– June 3, 2024) to reflect demographic changes in aging populations and the evolving landscape of healthcare quality initiatives internationally.

We restricted the search to published refereed research articles of any design/methodology. We excluded conference proceedings, abstracts, study protocols, and other forms of grey literature because of limited methodological descriptions. We did not restrict studies based on their country of origin. We excluded studies that could not be found in English but attempted to find translated versions of non-English studies wherever possible.

We imported full references into Covidence (Melbourne, Australia), a web-based collaboration software platform that streamlines the production of systematic reviews [23]. Duplicates were removed automatically by Covidence. In the first screening stage, seven reviewers (RHC, DD, ZP, RPS, KA, HK, MP) trained in health research methodology assessed the relevance of titles and abstracts independently and in duplicate. A standardized and piloted inclusion form was used to evaluate the identified studies (Table 1). The lead investigator resolved cases of disagreement (RHC).

In the second stage, all reviewers (RHC, DD, RPS, ZP, KA, HK, MP) independently assessed the full texts of retained studies in duplicate, using the same criteria in Table 1. The senior author (HS) resolved any disagreements between reviewers during full-text review. Lastly, the lead investigator (RHC) critically appraised the

Table 1 Eligibility criteria for literature screening

	Inclusion criteria	Exclusion criteria
Population	• Inclusive of **older adults** (aged 65+) o Not necessarily exclusive, but can be o Can look at patient sub-groups (e.g., those with a specific disease/condition, living in a specific facility)	• Not inclusive of older adults (e.g., only examined pediatric patients)
Setting	• Community-based **primary care** settings (can include office visits, home visits, long-term care/nursing homes, retirement homes, etc.)	• Only pertains to inpatient units, emergency departments, tertiary (specialist) care, etc.
Phenomenon	• Family physician/patient encounter o Assesses views, perspectives, attitudes, preferences, indicators, and/or satisfaction of **family physician** services/care o Examines factors contributing to **care quality** (expectations/needs, preferences, values, indicators, contributors, facilitators, barriers, etc.) • If examining shared (team-based) care by interdisciplinary providers, the physician's contributions must be disentangled	• Only pertains to non-physician primary care providers (e.g., nurses, physiotherapists, pharmacists) or trainees (e.g., general practice registrars, students) • Does not consider the patient or caregiver perspective (e.g., physicians' perceptions only) • Assesses satisfaction broadly about primary care services (e.g., accessibility), but not the physician/patient encounter itself • Only examines access or utilization of care (not the actual physician/patient encounter)

Legend: The inclusion and exclusion criteria applied to screen identified literature for eligibility

methodological quality of eligible studies using tools relevant to each study design [24–28].

Data extraction

Three reviewers (RHC, DD, ZP) extracted pertinent information from the included studies using a structured template (Supplementary Table 2). The extracted data included publication information, descriptions of the objective and methodology, and details about the attributes of family physician encounters examined in the study.

Analysis

We summarized the characteristics of included studies (e.g., publication year, design, type of data) using descriptive statistics. Subsequently, we narratively synthesized the findings reported from each study, focusing on the attributes of family physician encounters impacting care quality [29]. Given the exploratory aim of this review, we analyzed the data using an inductive approach to identify patterns [30]. We then mapped the attributes into broader categories and organized them relative to the timeframe of family physician encounters: before, during, and after visits. We presented descriptions for each identified category. Given the variability of quantitative data collected and reported across studies (e.g., using a range of satisfaction scales), we could not combine numeric data into aggregate summaries from included studies.

Patient and public engagement

Three older adult patient partners (PB, PW, ES) from the McMaster University Collaborative for Health and Aging actively contributed to all research activities. The partners were recruited before the initiation of this review, and they engaged in six in-person meetings over the study phases. The lead author (RHC) shared background reading materials with the partners in advance, presented an agenda, and led discussions during meetings. The partners contributed to the research proposal by reviewing and refining the project objectives and research question. The lead author (RHC) facilitated capacity-building for the partners to gain skills in reading scholarly articles, conducting literature review tasks, and evidence synthesis. The partners completed full-text screening and data extraction for a subset of studies. Perhaps most significant, the partners contributed to synthesizing the extracted information, which involved identifying the key attributes of physician encounters and discussing how well the results aligned with their own experiences. The lead author (RHC) then organized these attributes into a conceptual diagram, which was subsequently refined with input from the partners. After data analysis and synthesis, the partners shared valuable feedback on the presentation of findings, contributing insights to enrich the interpretation and discussion, and reviewed the manuscript.

Results

Characteristics of included literature

The search identified 34,611 articles, of which over 6,000 texts were duplicate references, leaving 28,461 studies eligible for screening (Fig. 1). Title and abstract screening resulted in 463 studies for full-text review and, ultimately, 62 studies that met the inclusion criteria.

Table 2 summarizes the descriptive characteristics of the included studies. Approximately one quarter of studies originated from the United States ($n = 15$, 24.2%), followed by the Netherlands ($n = 10$, 16.1%) and the United Kingdom ($n = 8$, 12.9%). There were similar numbers of quantitative ($n = 29$, 46.8%) and qualitative studies ($n = 27$, 43.5%), with the most frequent design being cross-sectional ($n = 21$, 33.9%). Survey or questionnaire responses

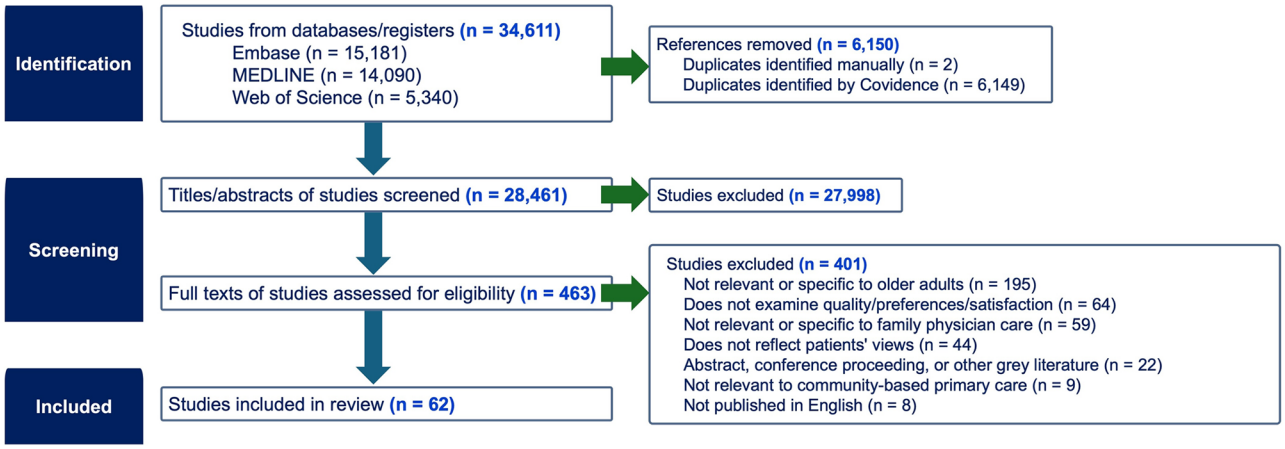

Fig. 1 PRISMA flowchart summarizing the literature search and study selection process. Legend: Flowchart displaying the number of studies identified in our search (n=34,611), screened (n=28,461), and included in our review (n=62)

($n = 24$, 38.7%) were the most frequent data type, followed by interview transcripts ($n = 18$, 29.0%). There were 116,770 total participants across the included studies, with a median of 149 participants (Interquartile range [IQR] = 795.5). Supplementary Table 3 provides details of the individual studies included in this review, while Supplementary Table 4 appraises the methodological rigor and strength of evidence.

Synthesized literature findings

Across the included studies, we identified six key attributes of family physician encounters that older adults value: trust in providers, feeling heard, effective information exchange, affective behaviours, continuity of care (longitudinal relationships), and foresight/future planning. We organized these attributes according to their relevant time points within the continuum of family physician encounters (Fig. 2). Detailed descriptions of each attribute follow:

Trust

Fourteen studies (22.6%) described the importance of older adults establishing trusting relationships with family physicians [31–44]. Older patients strive to trust that providers will deliver efficacious care and honour their preferences and wishes (e.g., for end-of-life care) [33]. During and after visits, older patients want to trust when tasks are delegated to other providers [36], such as being informed that a nurse will reach out when test results are available or that a specialist's office will follow up once a referral is received. Some studies reported factors directly impacting older adults' trust in family physicians. Three studies reported higher trust scores among patients with proactive physicians [31, 32, 37], whereas another found an inverse relationship between morbidity and trust [38]. Two studies stated that medical competence or knowledge is essential to establishing trust [36, 39]. A "vicious circle" was proposed in one study [31] and supported by others, whereby lacking trust in family physicians or having a previous negative encounter hinders open discussions and makes patients less open to trust in the future [31, 35, 36, 40, 41].

Feeling heard

Over half of the studies included in this review ($n = 33$; 53.2%) discussed the importance of patients feeling heard by their family physician [31, 34, 35, 37, 43, 45–72]. Feeling heard means that patients feel like their concerns, symptoms, and experiences are acknowledged and understood by providers. Eleven studies conveyed older adults' preferences for person-centered care models, shared decision-making, and family companions (informal caregivers) engaged during encounters [34, 37, 43, 45, 48, 51, 52, 57, 61, 69, 71]. Despite this, participants in some studies expressed that they do not feel heard or listened to [43, 52], and that their individual needs are often overlooked by family physicians [67, 72], resulting in feelings of discouragement, invalidation, judgement, and intimidation [43, 55]. During encounters, older adults want family physicians to allow sufficient consultation time and consider their diverse health needs by taking a holistic/comprehensive view to understand the whole person [34, 35, 52, 61, 66]. Patients expect providers to overcome language barriers (so patients can convey health concerns in their native language) and respect cultural differences [50, 53]. Participants in two studies described how they actively prepare for physician visits (e.g., by preparing problem/question lists) to guide encounters and ensure their needs are prioritized and voiced [54, 70].

Information exchange

Older adults discussed the importance of two-way information exchange with family physicians in 29 studies

Table 2 Characteristics of included studies

Study characteristics ($n=62$)	Count (%)
Year of publication	
2004 to 2008	16 (25.8)
2009 to 2014	9 (14.5)
2015 to 2019	21 (33.9)
2020 to 2024	16 (25.8)
Location of study	
United States	15 (24.2)
The Netherlands	10 (16.1)
United Kingdom	8 (12.9)
Germany	7 (11.3)
Australia	4 (6.5)
Canada	4 (6.5)
Italy	3 (4.8)
Other	11 (17.7)
Study design	
Quantitative	
Cross-sectional	21 (33.9)
Longitudinal	3 (4.8)
Randomized trial	3 (4.8)
Quasi-experimental	1 (1.6)
Cohort	1 (1.6)
Qualitative	
Design not specified	23 (37.1)
Grounded theory	3 (4.8)
Interpretive description	1 (1.6)
Mixed methods	3 (4.8)
Program evaluation	3 (4.8)
Type of data collected	
Single data source	
Surveys or questionnaires	24 (38.7)
Interview transcripts	18 (29.0)
Focus group transcripts and/or fieldnotes	7 (11.3)
Multiple data sources	
Interview/focus group transcripts and surveys/questionnaires	6 (9.7)
Interview and focus group transcripts and fieldnotes	3 (4.8)
Participant observation and surveys/questionnaires	3 (4.8)
Interview transcripts, surveys/questionnaires, and administrative data	1 (1.6)
Study participants	
Total number of participants across studies	116,770
Median number of participants per study (interquartile range)	149 (795.5)
Range of participants per study	
Minimum	6
Maximum	40,677

Legend: Descriptive information about the studies included in this systematic review

(46.8%). [36, 37, 39, 43–45, 52, 56, 61, 63, 64,67, 71–87]. Before and after primary care visits, older adults want access to their health information (e.g., using a patient portal) and patient education materials (e.g., leaflets) [36, 72, 74, 76, 77, 79, 85, 86]. During encounters, older adults expect and assume that family physicians possess the medical knowledge, competence, and expertise to understand the complexities of older adult care thoroughly [36, 37, 45, 56, 63, 73, 75]. Patients want clear explanations of their clinical indication and treatment plan (e.g., rationale for starting new prescriptions) as a prerequisite to engaged decision-making [43, 44, 61, 63, 71, 72, 78, 81–83, 87]. In one study, older adults expressed preferences to be actively engaged in dialogue with family physicians rather than passive participants being talked at [63]. In another, family companions were seen as facilitators of information exchange by advocating for patients and overcoming communication challenges [84]. Barriers to information flow included limited appointment times [52, 72, 73], having to repeat personal histories due to poor medical record-keeping [36], and difficulty navigating the health system [52, 80].

Affective behaviours

37% of studies ($n=23$) articulated older patients' preferences regarding family physicians' affective behaviours, which include how physicians listen and interact with patients through verbal and non-verbal communication skills, as well as their demeanour [36, 38, 40, 43, 44, 46, 49, 52, 56, 58, 60, 63, 69, 71, 72, 74, 81, 83, 84, 86–89]. Across studies, older adults reported frustrations and called for improvements in patient-physician communication [38, 43, 44, 46, 52, 58, 63, 69, 84, 88]. Older adults expect family physicians to provide age-friendly care by adapting to the unique needs of older patients (e.g., ensuring waiting rooms are accessible) [43, 72, 74]. During physician encounters, older patients are receptive to family physicians' mannerisms [89], body language (e.g., facing the patient, shaking hands) [56], friendliness (e.g., smiling) [40, 43, 56, 72], and active listening skills [52, 56, 60]. Multiple studies conveyed older adults' preferences for physicians to act respectfully [36, 44, 71], engage in social conversations to establish personal connections [56], be understanding and supportive [43, 44, 46, 72, 88, 89], exhibit kindness and empathy [36, 43, 44, 56, 63, 71, 72, 81, 89], show interest and concern for patients [46, 56, 71, 72, 83], and use the patient's preferred name [56]. In six studies, older adults attributed dissatisfaction to feeling rushed by family physicians, resulting in what they felt was insufficient time for the encounter [36, 46, 49, 52, 72, 89]. Patients "craved" physical contact from family physicians during examinations [58, 71, 72], a sentiment echoed by the patient partners engaged in this review. The absence of physical contact was interpreted as a sign of incompetence and lack of care.

Continuity/longitudinal care

Across 29 studies (46.8%), older adults articulated the importance of care continuity and establishing longitudinal relationships with family physicians [31, 32, 36, 38, 41–43, 46, 49, 52, 57, 58, 60, 61, 63, 66, 71–76, 79, 82, 85, 87, 89–91]. Older patients deeply value maintaining

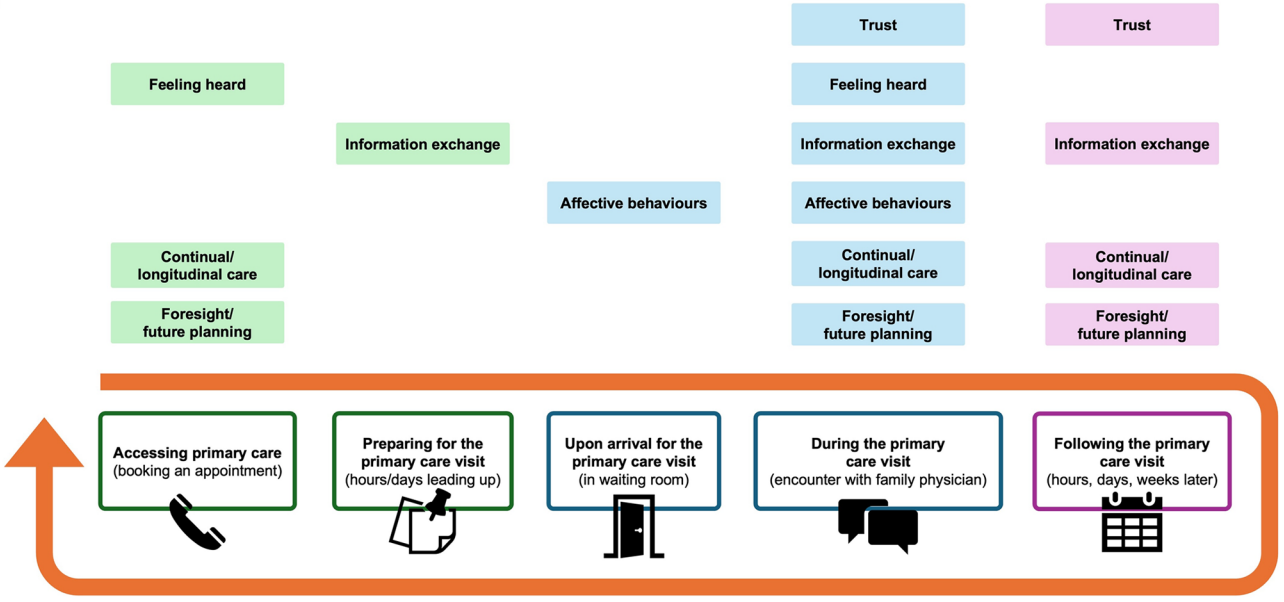

Fig. 2 Summary of attributes valued by older adults for quality family physician care. Legend: The six attributes of family physician encounters (trust, feeling heard, information exchange, affective behaviours, continual/longitudinal care, and foresight/future planning) are organized along time points in the care-seeking trajectory. The orange arrow demonstrates the cyclical/continual nature of seeking family physician care

long-term relationships with the same provider and continuing to receive care most often from this person [32, 36, 46, 57, 75, 89, 90]. Older adults expressed a need for reliable access to see their regular provider, facilitated by good availability (e.g., for after-hours service, reachable by phone) and limited wait times [31, 36, 49, 63, 82]. In five studies, older adults expressed dissatisfaction with extended wait times to meet with family physicians [42, 71, 72, 79, 91]. Patients requiring care in different settings (e.g., home visits) value continued and adaptive care from family physicians [36, 41, 42, 46, 61, 66, 73]. Older adults expect family physicians to coordinate/integrate their health needs from different providers (e.g., specialists, medical trainees) and settings (e.g., post-discharge) [38, 52, 60, 61, 71, 75].

Foresight/future planning

In four studies (6.5%), older adults discussed the importance of family physicians exhibiting foresight by preparing for their future health needs [31, 44, 68, 90]. Two studies reported the importance of family physicians in facilitating advance care planning and end-of-life discussions, including documenting patients' preferences [31, 90]. Frail persons enrolled in a trial assessing proactive, integrated primary care planning were satisfied with physicians who assisted with goal-setting, making treatment plans for daily life, and planning ahead for hard times [68]. In a separate study, older adults described feeling "at ease" after meeting with family physicians to understand the clinical indication or signs of disease exacerbation that would warrant emergency care [31]. Lastly, older adults appreciated family physicians' proactive approach to care by "keep[ing] an eye on them" to prevent further health complications [44].

Discussion

Summary of findings

This systematic review synthesized 62 international research articles and identified six key attributes of family physician encounters that older primary care patients value most: trust, feeling heard, effective information exchange, affective behaviours, continuity of care, and foresight/future planning. Patient partners confirmed that these attributes resonated with their personal experiences and affirmed their relevance across the care-seeking trajectory. This review did not favour or weigh individual attributes above others but instead called for prioritizing all concepts for health system planning and physician education to promote higher-quality care for older adults. Many of these attributes are deeply interconnected, whereby the realization of one often necessitates or reinforces the presence of others. Similar to the management of frailty, individual symptoms (or, in the case of this review, attributes) cannot be managed without using a multifaceted approach, where all components must be addressed collectively.

While all six attributes were critical, feeling heard, information exchange, and continuity/longitudinal care emerged as the most frequently discussed characteristics across the included literature. These attributes demonstrate that older adults highly regard family physicians' interpersonal and 'soft' skills; above all, older adults

prioritize feeling respected and understood by providers, sometimes above other technical competencies [34, 57]. Attested by the patient partners, this review suggests that age-friendly skills/knowledge are prerequisites for family physicians to address the complexities and nuances of caring for older patients. Age-friendly skills and knowledge are pre-conditions to incorporating these six attributes effectively [36, 56, 75]. Beyond expected medical expertise, the attributes synthesized in this review matter most to older patients as they navigate long-term relationships with family physicians. The prioritization of information exchange signifies the value older adults place on shared decision-making and access to their health information.

An important insight from this review is the recognition that the six attributes are not isolated but deeply interrelated and mutually reinforcing. While individual patients may prioritize or favour these attributes differently, family physicians should ensure all facets exist in their practice to promote care quality. The patient partners asserted that trust in providers, which emerged as an attribute, is interconnected and facilitated by other factors [31, 34]. For example, trust is built when older adults feel heard by their physicians and when clear, respectful information exchange occurs. Conversely, a lack of care continuity (due to seeing different providers or experiencing disruptions in care delivery) can undermine trust and reduce patients to feeling like their needs are not understood or neglected. While all six attributes correspond to varying phases across the care-seeking journey (demonstrated in Fig. 2), each attribute contributed to the overall quality of individual patient encounters with family physicians.

Equitable access to primary care and sufficient consultation time to discuss medical needs/concerns are foundational to care-seeking and tied to all attributes in this review. The role of time emerged as a fundamental enabler: without sufficient consultation time, the value of trust, information exchange, and continuity of care is compromised. Older adults consistently reported dissatisfaction when they felt rushed [36, 46, 49, 52, 72, 89], which hindered their ability to express concerns or engage in shared decision-making. This underscores the importance of ensuring that family physicians allocate sufficient time, especially when caring for older patients with complex, multi-faceted needs [92, 93]. Similarly, access to timely care is crucial. If patients do not have a primary care provider, cannot visit their physician in a timely manner, or experience difficulty getting to appointments, then none of the six attributes can be realized. Our findings emphasize the importance of improving equitable access to primary care, addressing the growing number of unattached patients [94–96], and reducing wait times, particularly in the face of an aging population. Policy-level advocacy may be needed to support care quality improvement efforts through enhanced remuneration, staffing, administration, and investments in primary care infrastructure.

Implications

In addition to medical expertise, this review highlighted the most important attributes of physicians in delivering high-quality primary care to older adults. While traditional undergraduate and postgraduate curricula conventionally emphasize clinical knowledge and diagnostic skills, there is growing recognition of the 'soft skills' that are integral to high-quality patient care and matter greatly to patients. Medical learners should evaluate whether the six identified attributes are discussed or reinforced in their learning environments and consider how their training teaches these concepts. Educators and preceptors should consider how they model and incorporate these concepts into training– even if they are not explicit in the curricula. Training programs may benefit from ensuring learners are not only knowledgeable and competent in the medical management of older adults, but that they also demonstrate these essential attributes. If trainees are not actively modelled on how to incorporate or promote age-friendly principles, they may not apply those skills effectively once in practice. Given the interconnectedness of the six attributes and expected variations in patients' preferences, family physicians should be prepared to exhibit each component.

Health system planners can also use these findings to evaluate and guide primary care planning/policy and medical practice models/organizations to support care for older adults. Building on evidence surrounding age-friendly practices [97], patient-centered medical homes [98, 99], and team-based care models [100, 101], this review highlights elements that can be integrated to tailor care for older persons. Future work could examine the attributes of multidisciplinary health providers and interprofessional teams that strengthen primary care experiences [102]. Incorporating the identified attributes may require strategies for better scheduling, longer consultation times, physical accommodations, patient navigators, and personalized care plans. Overall, these attributes can be used to develop frameworks and evaluation tools to assess whether learning and practice environments are oriented toward the needs of older patients.

Strengths/limitations

Our study included a comprehensive search of international evidence, included studies of any design, and adhered to the recommendations and reporting of PRISMA guidelines. The collaborative partnership with patient partners enhanced the relevance and meaningfulness of this review for older adults. However, this study

was not without its limitations. Many studies included in this systematic review were retrospective in nature and are therefore subject to biases associated with such designs. Studies examining patient satisfaction used varying tools/scales for measurement, not allowing for quantitative results to be compared across studies or pooled. This review synthesized evidence from multiple countries, wherein the roles of family physicians may differ across health systems, and cultural differences may influence patients' values and expectations.

Conclusions

As the global population ages, it is important to recognize the attributes that older adults value, prefer, need, and expect in family physician encounters. Our review synthesized international evidence and highlighted six key attributes that can be insightful for primary care planning, organization, delivery, and training. Ensuring equitable access to primary care and sufficient time for family physician encounters emerged as essential enablers of the attributes that promote high-quality care for older adults.

Abbreviations

PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
IQR	Interquartile range

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12875-025-02794-1.

Supplementary Material 1

Acknowledgements

Not applicable.

Author contributions

RHC, HS, ES, PB, and PW conceptualized and designed the study. RHC, DD, ZP, RPS, KA, HK, and MP acquired and analyzed the data. RHC, ES, PB, PW, and HS interpreted the data. RHC drafted the manuscript. DD, ZP, RPS, KA, HK, MP, ES, PB, PW, and HS critically revised the manuscript. All authors read and approved the final manuscript.

Funding

This work was supported by a Partnership in Research Fellowship from the McMaster University Collaborative for Health and Aging, and a Patient and Community Engagement in Primary Health Care Research Fellowship from Transdisciplinary Understanding and Training on Research - Primary Health Care (TUTOR-PHC). The funders had no role in the design, execution, analysis, or interpretation of data.

Data availability

The data that support our study findings are available from the included studies referenced in this review. Extracted data from the included studies are available in the supplementary information files.

Declarations

Ethics approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Authors' information

ES, PB, and PW are Patient Partners with the McMaster University Collaborative for Health and Aging.

Competing interests

The authors declare no competing interests.

Received: 16 December 2024 / Accepted: 17 March 2025
Published online: 28 March 2025

References

1. World Health Organization, editor. Towards age-friendly primary health care. Geneva: WHO; 2004. (Active ageing series).
2. Boeckxstaens P, De Graaf P. Primary care and care for older persons: position paper of the European forum for primary care. Qual Prim Care. 2011;19(6):369–89.
3. Rothman AA, Wagner EH. Chronic illness management: what is the role of primary care? Ann Intern Med. 2003;138(3):256–61.
4. Gibson C, Arya N, Ponka D, Rouleau K, Woollard R. Approaching a global definition of family medicine: The Besrour Papers: a series on the state of family medicine in the world. Can Fam Physician [Internet]. 2016 Nov [cited 2024 Nov 5];62(11):891. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC9844586/
5. Slade S, Shrichand A, Dimillo S. Health care for an aging population: A study of how physicians care for seniors in Canada. Ottawa, ON: Royal College of Physicians and Surgeons of Canada; 2019. p. 37.
6. Adams WL, McIlvain HE, Lacy NL, Magsi H, Crabtree BF, Yenny SK, et al. Primary care for elderly people: why do Doctors find it so hard? Gerontologist. 2002;42(6):8.
7. Osborn R, Moulds D, Schneider EC, Doty MM, Squires D, Sarnak DO. Primary Care Physicians In Ten Countries Report Challenges Caring For Patients With Complex Health Needs. Health Aff (Millwood) [Internet]. 2015 Dec [cited 2024 Nov 19];34(12):2104–12. Available from: https://www.healthaffairs.org/doi/full/https://doi.org/10.1377/hlthaff.2015.1018
8. Lawson E. The Global Primary Care Crisis. Br J Gen Pract [Internet]. 2023 Jan 1 [cited 2023 Jun 20];73(726):3–3. Available from: https://bjgp.org/content/73/726/3
9. Li K, Frumkin A, Bi WG, Magrill J, Newton C. Biopsy of Canada's family physician shortage. Fam Med Community Health [Internet]. 2023 May 12 [cited 2024 Nov 19];11(2):e002236. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC10186392/
10. Shemtob L, Asanati K, Pahl N, Majeed A. What needs to be done to address staffing shortages in health and social care? Br J Gen Pract [Internet]. 2023 Feb 24 [cited 2024 Nov 19];73(728):102. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC9976838/
11. Canadian Medical Association. Health and health care for an aging population: Policy summary of the Canadian Medical Association [Internet]. 2013 p. 10. Available from: https://www.cma.ca/sites/default/files/2018-11/CMA_Policy_Health_and_Health_Care_for_an_Aging-Population_PD14-03-e_0.pdf
12. Bazemore A, Petterson S, Peterson LE, Bruno R, Chung Y, Phillips RL. Higher primary care physician continuity is associated with lower costs and hospitalizations. Ann Fam Med. 2018;16(6):492–7.
13. Menec VH, Sirski M, Attawar D, Katz A. Does continuity of care with a family physician reduce hospitalizations among older adults? J Health Serv Res Policy [Internet]. 2006 Oct 1 [cited 2024 Feb 28];11(4):196–201. Available from: https://doi.org/10.1258/135581906778476562
14. Warshaw G. Providing Quality Primary Care to Older Adults. J Am Board Fam Med [Internet]. 2009 May 1 [cited 2023 Jun 20];22(3):239–41. Available from: https://www.jabfm.org/content/22/3/239
15. Young RA, Roberts RG, Holden RJ. The Challenges of Measuring, Improving, and Reporting Quality in Primary Care. Ann Fam Med [Internet]. 2017 Mar 1 [cited 2024 Oct 18];15(2):175–82. Available from: https://www.annfammed.org/content/15/2/175
16. Sofaer S, Firminger K. Volume 26,. Patient perceptions of the quality of health services. Annu Rev Public Health [Internet]. 2005 Apr 21 [cited 2024 Oct 18];26(2005):513–59. Available from: https://www.annualreviews.org/content/journals/https://doi.org/10.1146/annurev.publhealth.25.050503.153958

17. Wetmore S, Boisvert L, Graham E, Hall S, Hartley T, Wright L et al. Patient satisfaction with access and continuity of care in a multidisciplinary academic family medicine clinic. Can Fam Physician [Internet]. 2014 Apr [cited 2024 Oct 18];60(4):e230. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC4046539/
18. Sarkisian CA, Hays RD, Berry SH, Mangione CM. Expectations regarding aging among older adults and physicians who care for older adults. Med Care. 2001;39(9):1025.
19. Jaworski M, Rzadkiewicz M, Adamus M, Chylinska J, Lazarewicz M, Haugan G et al. Primary care patients' expectations regarding medical appointments and their experiences during a visit: does age matter? Patient Prefer Adherence [Internet]. 2017 Jul 14 [cited 2024 Nov 5];11:1221–33. Available from: https://www.tandfonline.com/doi/abs/https://doi.org/10.2147/PPA.S133390
20. Hawkley LC, Norman GJ, Agha Z. Aging Expectations and Attitudes: Associations With Types of Older Adult Contact. Res Aging [Internet]. 2019 Jul 1 [cited 2024 Nov 5];41(6):523–48. Available from: https://doi.org/10.1177/0164027518824291
21. Medicine I of, Services B on, HC, Research C on S for SR of CE. Finding What Works in Health Care: Standards for Systematic Reviews. National Academies Press; 2011. 267 p.
22. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD et al. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. PLoS Med [Internet]. 2021 Mar 29 [cited 2024 Jun 6];18(3):e1003583. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8007028/
23. Veritas Health Innovation. Covidence systematic review software [Internet]. Melbourne, Australia. 2024. Available from: www.covidence.org.
24. Lockwood C, Munn Z, Porritt K. Qualitative research synthesis: methodological guidance for systematic reviewers utilizing meta-aggregation. JBI Evid Implement [Internet]. 2015 Sep [cited 2025 Feb 25];13(3):179. Available from: https://journals.lww.com/ijebh/Fulltext/2015/09000/Qualitative_research_synthesis__methodological.10.aspx
25. Moola S, Munn Z, Sears K, Sfetcu R, Currie M, Lisy K, et al. Conducting systematic reviews of association (etiology): the Joanna Briggs institute's approach. Int J Evid Based Healthc. 2015;13(3):163–9.
26. Barker TH, Habibi N, Aromataris E, Stone JC, Leonardi-Bee J, Sears K et al. The revised JBI critical appraisal tool for the assessment of risk of bias for quasi-experimental studies. JBI Evid Synth [Internet]. 2024 Mar [cited 2025 Feb 25];22(3):378. Available from: https://journals.lww.com/jbisrir/fulltext/2024/03000/the_revised_jbi_critical_appraisal_tool_for_the.4.aspx
27. Barker TH, Stone JC, Sears K, Klugar M, Tufanaru C, Leonardi-Bee J et al. The revised JBI critical appraisal tool for the assessment of risk of bias for randomized controlled trials. JBI Evid Synth [Internet]. 2023 Mar [cited 2025 Feb 25];21(3):494. Available from: https://journals.lww.com/jbisrir/Fulltext/2023/03000/The_revised_JBI_critical_appraisal_tool_for_the.5.aspx?context=FeaturedArticles%26;collectionId=2
28. Onwuegbuzie AJ, Poth C, Editors. ' Afterword: Toward Evidence-Based Guidelines for Reviewing Mixed Methods Research Manuscripts Submitted to Journals. Int J Qual Methods [Internet]. 2016 Dec 1 [cited 2025 Feb 25];15(1):1609406916628986. Available from: https://doi.org/10.1177/1609406916628986
29. Popay J, Roberts H, Sowden A, Petticrew M, Arai L, Rodgers M et al. Guidance on the Conduct of Narrative Synthesis in Systematic Reviews [Internet]. ESRC Methods Programme; 2006 Apr p. 92. Available from: https://citeseerx.ist.psu.edu/document?repid=rep1%26;type=pdf%26;doi=ed8b23836338f6fdea0cc55e161b0fc5805f9e27
30. Thomas DR. A general inductive approach for qualitative data analysis. Am J Evaluation. 2003;27(2).
31. Glaudemans JJ, Willems DL, Wind J, Onwuteaka Philipsen BD. Preventing unwanted situations and gaining trust: a qualitative study of older people and families' experiences with advance care planning in the daily practice of primary care. Fam Pract. 2020;37(4):519–24.
32. Parchman ML, Burge SK. The patient-physician relationship, primary care attributes, and preventive services. Fam Med. 2004;36(1):22–7.
33. van der Plas AGM, Schellekens JEAP, Glaudemans JJ, Onwuteaka-Philipsen BD. The patient's relationship with the general practitioner before and after advance care planning: pre/post-implementation study. BMC Geriatr. 2022;22(1):558.
34. Butterworth JE, Campbell JL. Older patients and their GPs: shared decision making in enhancing trust. Br J Gen Pract J R Coll Gen Pract. 2014;64(628):e709–718.
35. Stark A, Kaduszkiewicz H, Stein J, Maier W, Heser K, Weyerer S et al. A qualitative study on older primary care patients' perspectives on depression and its treatments - potential barriers to and opportunities for managing depression. BMC Fam Pract [Internet]. 2018 Jan 3 [cited 2024 Oct 23];19:2. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC5751798/
36. Berkelmans PG, Berendsen AJ, Verhaak PF, van der Meer K. Characteristics of general practice care: What do senior citizens value? A qualitative study. BMC Geriatr [Internet]. 2010 Nov 2 [cited 2024 Oct 23];10(1):80. Available from: https://doi.org/10.1186/1471-2318-10-80
37. Liang W, Kasman D, Wang JH, Yuan EH, Mandelblatt JS. Communication between older women and physicians: preliminary implications for satisfaction and intention to have mammography. Patient Educ Couns. 2006;64(1–3):387–92.
38. Shadmi E, Boyd CM, Hsiao CJ, Sylvia M, Schuster AB, Boult C. Morbidity and older persons' perceptions of the quality of their primary care. J Am Geriatr Soc. 2006;54(2):330–4.
39. Schönenberg A, Teschner U, Prell T. Expectations and behaviour of older adults with neurological disorders regarding general practitioner consultations: an observational study. BMC Geriatr [Internet]. 2021 Sep 25 [cited 2024 Oct 23];21(1):512. Available from: https://doi.org/10.1186/s12877-021-02469-3
40. Schöpf AC, von Hirschhausen M, Farin E, Maun A. Elderly patients' and GPs' perspectives of patient-GP communication concerning polypharmacy: a qualitative interview study. Prim Health Care Res Dev. 2018;19(4):355–64.
41. Hanratty B, Lowson E, Grande G, Payne S, Addington-Hall J, Valtorta N et al. Transitions at the end of life for older adults– patient, carer and professional perspectives: a mixed-methods study [Internet]. Southampton (UK): NIHR Journals Library; 2014 [cited 2024 Oct 23]. (Health Services and Delivery Research). Available from: http://www.ncbi.nlm.nih.gov/books/NBK263541/
42. Melchiorre MG, Socci M, Quattrini S, Lamura G, D'Amen B. Frail Older People Ageing in Place in Italy: Use of Health Services and Relationship with General Practitioner. Int J Environ Res Public Health [Internet]. 2022 Jul 25 [cited 2024 Oct 23];19(15):9063. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC9332283/
43. Clarke LH, Bennett EV, Korotchenko A. Negotiating vulnerabilities: how older adults with multiple chronic conditions interact with physicians. Can J Aging Rev Can Vieil. 2014;33(1):26–37.
44. van Blijswijk SCE, de Waard CS, van Peet PG, Keizer D, von Faber M, de Waal MWM et al. Wishes and needs of community-dwelling older persons concerning general practice: A qualitative study. PLoS ONE. 2018;13(7).
45. Abu Al Hamayel N, Isenberg SR, Hannum SM, Sixon J, Smith KC, Dy SM. Older patients' perspectives on quality of serious illness care in primary care. Am J Hosp Palliat Care. 2018;35(10):1330–6.
46. Bastiaens H, Van Royen P, Pavlic DR, Raposo V, Baker R. Older People's preferences for involvement in their own care: a qualitative study in primary health care in 11 European countries. Patient Educ Couns. 2007;68(1):33–42.
47. Bhatia R, Gilliam E, Aliberti G, Pinheiro A, Karamourtopoulos M, Davis RB, et al. Older adults' perspectives on primary care telemedicine during the COVID-19 pandemic. J Am Geriatr Soc. 2022;70(12):3480–92.
48. Chang SJ, Lee KJ, Kim IS, Lee WH. Older Korean People's desire to participate in health care decision making. Nurs Ethics. 2008;15(1):73–86.
49. Groot L, te Winkel M, Schers H, Burgers J, Smalbrugge M, Uijen A et al. Optimising personal continuity: a survey of GPs' and older patients' views. BJGP Open [Internet]. 2023 Mar 22 [cited 2024 Oct 23];7(2):BJGPO.2022.0099. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC10354384/
50. Howard DL, Bunch CD, Mundia WO, Konrad TR, Edwards LJ, Amamoo MA et al. Comparing United States versus International Medical School Graduate Physicians Who Serve African- American and White Elderly. Health Serv Res [Internet]. 2006 Dec [cited 2024 Oct 23];41(6):2155. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC1955313/
51. Jackson JL, Storch D, Jackson W, Becher D, O'Malley PG. Direct-Observation Cohort Study of Shared Decision Making in a Primary Care Clinic. Med Decis Making [Internet]. 2020 Aug [cited 2024 Oct 23];40(6):756–65. Available from: https://journals.sagepub.com/doi/https://doi.org/10.1177/0272989X20936272
52. Lafortune C, Huson K, Santi S, Stolee P. Community-based primary health care for older adults: a qualitative study of the perceptions of clients, caregivers and health care providers. BMC Geriatr [Internet]. 2015 Dec [cited 2020 Aug 25];15(1):57. Available from: http://bmcgeriatr.biomedcentral.com/articles/https://doi.org/10.1186/s12877-015-0052-x
53. Liu Z, Beaver K, Speed S. Chinese elders' views on their interactions in general practice: a grounded theory study. Ethn Health. 2015;20(2):129–44.
54. Mächler R, Sturm N, Frick E, Schalhorn F, Stolz R, Valentini J, et al. Evaluation of a spiritual history with elderly Multi-Morbid patients in general Practice-A

Mixed-Methods study within the project HoPES3. Int J Environ Res Public Health. 2022;19(1):538.
55. Malta S, Temple-Smith M, Bickerstaffe A, Bourchier L, Hocking J. That might be a bit sexy for somebody your age: older adult sexual health conversations in primary care. Australas J Ageing. 2020;39(Suppl 1):40–8.
56. Marcinowicz L, Pawlikowska T, Oleszczyk M. What do older people value when they visit their general practitioner? A qualitative study. Eur J Ageing. 2014;11(4):361–7.
57. Mazzi MA, Rimondini M, van der Zee E, Boerma W, Zimmermann C, Bensing J. Which patient and Doctor behaviours make a medical consultation more effective from a patient point of view. Results from a European multicentre study in 31 countries. Patient Educ Couns. 2018;101(10):1795–803.
58. Montgomery JE, Irish JT, Wilson IB, Chang H, Li AC, Rogers WH et al. Primary Care Experiences of Medicare Beneficiaries, 1998 to 2000. J Gen Intern Med [Internet]. 2004 Oct [cited 2024 Oct 23];19(10):991. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC1492578/
59. Mortsiefer A, Altiner A, Ernst A, Kaduszkiewicz H, Krahe A, Mellert C, et al. Satisfaction with general practice care in German patients with Multimorbidity: a cross-sectional study. Fam Pract. 2017;34(4):452–8.
60. Ploeg J, Denton M, Hutchison B, et al. Primary care physicians' perspectives on facilitating older patients' access to community support services: qualitative case study. Can Fam Physician. 2017;63(1):e31–42.
61. Pohontsch NJ, Schulze J, Hoeflich C, Glassen K, Breckner A, Szecsenyi J, et al. Quality of care for people with Multimorbidity: a focus group study with patients and their relatives. BMJ Open. 2021;11(6):e047025.
62. Poot AJ, Wopereis DM, den Elzen WPJ, Gussekloo J, Blom JW. Changes in patient satisfaction related to their perceived health state during implementation of improved integrated care for older persons. PLoS ONE [Internet]. 2019 May 16 [cited 2024 Oct 23];14(5):e0216028. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC6522052/
63. Prorok JC, Hussain M, Horgan S, Seitz DP. I shouldn't have had to push and fight: health care experiences of persons with dementia and their caregivers in primary care. Aging Ment Health. 2017;21(8):797–804.
64. Raj M, Platt JE, Anthony D, Fitzgerald JT, Lee SYD. What Does Patient-Centered Mean? Qualitative Perspectives from Older Adults and Family Caregivers. Gerontol Geriatr Med [Internet]. 2021 Jan [cited 2024 Oct 23];7:1–10. Available from: http://www.scopus.com/inward/record.url?scp=85106536874%26;partnerID=8YFLogxK
65. Rzadkiewicz M, Haugan G, Włodarczyk D. Mature Adults at the GP: Length of Visit and Patient Satisfaction—Associations with Patient, Doctor, and Facility Characteristics. Medicina (Mex) [Internet]. 2022 Jan 20 [cited 2024 Oct 23];58(2):159. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC8874721/
66. Sato K, Michinobu R, Kusaba T. Perceptions of family medicine among long-term patients of a family medicine clinic in Japan: a mixed-methods study. BMJ Open. 2024;14(1):e079726.
67. Smith F, Orrell M. Does the patient-centred approach help identify the needs of older people attending primary care? Age Ageing. 2007;36(6):628–31.
68. Vestjens L, Cramm JM, Nieboer AP. Quality of primary care delivery and productive interactions among community-living frail older persons and their general practitioners and practice nurses. BMC Health Serv Res [Internet]. 2019 Jul 16 [cited 2024 Oct 23];19(1):496. Available from: https://doi.org/10.1186/s12913-019-4255-2
69. Vick JB, Amjad H, Smith KC, Boyd CM, Gitlin LN, Roth DL, et al. Let him speak: A descriptive qualitative study of the roles and behaviors of family companions in primary care visits among older adults with cognitive impairment. Int J Geriatr Psychiatry. 2018;33(1):e103–12.
70. Wensing M, Klingenberg A, Hearnshaw H, Ferreira PL, Szecsenyi J. Older patients' involvement in their health care: can paper-based tools help? A feasibility study in 11 European countries. Qual Prim Care [Internet]. [cited 2024 Oct 23];13(4):0–0. Available from: https://www.primescholars.com/
71. Naidoo K, van Wyk J. What the elderly experience and expect from primary care services in KwaZulu-Natal, South Africa. Afr J Prim Health Care Fam Med [Internet]. 2019 Oct 10 [cited 2024 Oct 23];11(1):2100. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC6852327/
72. Kelly G, Mrengqwa L, Geffen L. They don't care about us: older people's experiences of primary healthcare in Cape Town, South Africa. BMC Geriatr [Internet]. 2019 Apr 4 [cited 2024 Oct 23];19(1):98. Available from: https://doi.org/10.1186/s12877-019-1116-0
73. van de Pol MHJ, Fluit CRMG, Lagro J, Niessen D, Rikkert MGMO, Lagro-Janssen ALM. Quality care provision for older people: an interview study with patients and primary healthcare professionals. Br J Gen Pract J R Coll Gen Pract. 2015;65(637):e500–507.
74. Bogner HR, de Vries McClintock HF, Hennessy S, Kurichi JE, Streim JE, Xie D, et al. Patient satisfaction and perceived quality of care among older adults according to activity limitation stages. Arch Phys Med Rehabil. 2015;96(10):1810–9.
75. Bonney A, Jones SC, Iverson D. The older patient, the general practitioner and the trainee: patients' attitudes and implications for training. Educ prim care off publ assoc course organ Natl assoc GP tutors world organ Fam Dr. 2012;23(3):186–95.
76. Bowling A, Rowe G, McKee M. Patients' experiences of their healthcare in relation to their expectations and satisfaction: a population survey. J R Soc Med [Internet]. 2013 Apr [cited 2024 Oct 23];106(4):143. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC3618164/
77. Callahan EJ, Stange KC, Zyzanski SJ, Goodwin MA, Flocke SA, Bertakis KD. Physician-elder interaction in community family practice. J Am Board Fam Pract. 2004;17(1):19–25.
78. Thomas KM. Primary care experience among older adults in the united States: a retrospective cross-sectional study. Arch Gerontol Geriatr. 2021.
79. Mahfouz AA, Al-Sharif AI, El-Gama MN, Kisha AH. Primary health care services utilization and satisfaction among the elderly in Asir region, Saudi Arabia. East Mediterr Health J Rev. 2004;10(3):365–71. Sante Mediterr Orient Al-Majallah Al-Sihhiyah Li-Sharq Al-Mutawassit.
80. Patela D, Bakerb H, Murdochc I. Barriers to uptake of eye care services by the Indian population living in Ealing, west London - Daksha Patel, Helen Baker, Murdoch I. 2006. Health Education Journal [Internet]. 2006 [cited 2024 Oct 23]; Available from: https://journals.sagepub.com/doi/abs/10.1177/0017896906067777
81. Pettigrew S, Mizerski K, Donovan R. Older Australians' expectations of their interactions with their GPs. Res Outputs Pre 2011 [Internet]. 2005; Available from: https://ro.ecu.edu.au/ecuworks/2397
82. Sauter M, Santos-Eggimann B, Spagnoli J. Older persons' perceptions of general practitioner or specialist primary care physicians: same point of view? Swiss Med Wkly. 2015;145:w14085.
83. Travers JL, Le C, Desai MM, Merrill JA. Factors associated with dissatisfaction in medical care quality among older medicare beneficiaries suffering from mental illness. J Aging Soc Policy. 2021;33(1):51–66.
84. Wolff JL, Roter DL. Hidden in plain sight: medical visit companions as a resource for vulnerable older adults. Arch Intern Med. 2008;168(13):1409–15.
85. Cross DA, Levin Z, Raj M. Patient portal use, perceptions of electronic health record value, and Self-Rated primary care quality among older adults: Cross-sectional survey. J Med Internet Res. 2021;23(5):e22549.
86. Warren FC, Calitri R, Fletcher E, Varley A, Holt TA, Lattimer V, et al. Exploring demographic and lifestyle associations with patient experience following telephone triage by a primary care Doctor or nurse: secondary analyses from a cluster randomised controlled trial. BMJ Qual Saf. 2015;24(9):572–82.
87. Poot AJ, Caljouw MAA, de Waard CS, Wind AW, Gussekloo J. Satisfaction in older persons and general practitioners during the implementation of integrated care. PLoS ONE. 2016;11(10):e0164536.
88. Kahana B, Yu J, Kahana E, Langendoerfer K. Whose advocacy counts in shaping elderly patients' satisfaction with physicians' care and communication? Clin Interv Aging [Internet]. 2018 [cited 2024 Oct 23]; Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC6025777/
89. Mellor D, Davison T, McCabe M, Kuruvilla G, Moore K, Ski C. Satisfaction with general practitioner treatment of depression among residents of aged care facilities. J Aging Health. 2006;18(3):435–57.
90. Kastbom L, Johansson MM, Sverker A, Segernäs A. Thanks for hearing me: key elements of primary care according to older patients. Scand J Prim Health Care. 2024;42(2):304–15.
91. Prato R, Martinelli D, Fusco A, Panebianco A, Lopalco PL, Germinario CA, et al. The perception of healthcare quality of elderly in the City of Bari, South Italy. BMC Health Serv Res. 2007;7:174.
92. Mathews M, Ryan D, Deslauriers V, Moritz LR, Xiao J, Breton M et al. Care-seeking experiences of unattached patients in the Canadian health care system: Qualitative study. Can Fam Physician [Internet]. 2024 Jun 1 [cited 2024 Nov 19];70(6):396–403. Available from: https://www.cfp.ca/content/70/6/396
93. Tucker K. Experiences and perceptions of unattached older adults in New Brunswick; A qualitative study on primary care access and health system navigation. 2024 Jun [cited 2024 Nov 19]; Available from: https://unbscholar.lib.unb.ca/handle/1882/38079

94. Bayoumi I, Glazier RH, Jaakkimainen L, Premji K, Kiran T, Frymire E et al. Trends in attachment to a primary care provider in Ontario, 2008–2018: an interrupted time-series analysis. Can Med Assoc Open Access J [Internet]. 2023 Sep 1 [cited 2024 Nov 19];11(5):E809–19. Available from: https://www.cmajopen.ca/content/11/5/E809
95. Ford JA, Turley R, Porter T, Shakespeare T, Wong G, Jones AP et al. Access to primary care for socio-economically disadvantaged older people in rural areas: A qualitative study. PLOS ONE [Internet]. 2018 Mar 6 [cited 2024 Nov 19];13(3):e0193952. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0193952
96. Alemu FW, Nicholson K, Wilk P, Thornton JS, Ali S. Unmet need and access to family physicians: A national analysis using the Canadian Longitudinal Study on Aging. SSM - Health Syst [Internet]. 2024 Dec 1 [cited 2024 Nov 19];3:100028. Available from: https://www.sciencedirect.com/science/article/pii/S2949856224000217
97. Frank C, Feldman S, Wyman R. Caring for older patients in primary care. Can Fam Physician. 2018;64:416–8.
98. The College of Family Physicians of Canada. The Patient's Medical Home [Internet]. 2019 p. 40. Available from: https://patientsmedicalhome.ca/files/uploads/PMH_VISION2019_ENG_WEB_2.pdf
99. Agency for Healthcare Research and Quality. Coordinating Care for Adults With Complex Care Needs in the Patient-Centered Medical Home: Challenges and Solutions. 2012;61.
100. Austin N, Rudoler D, Allin S, Dolovich L, Glazier RH, Grudniewicz A et al. Team-based primary care reforms and older adults: a descriptive assessment of sociodemographic trends and prescribing endpoints in two Canadian provinces. BMC Prim Care [Internet]. 2023 Jan 10 [cited 2024 Jan 19];24(1):7. Available from: https://doi.org/10.1186/s12875-022-01960-z
101. Buhr G, Dixon C, Dillard J, Nickolopoulos E, Bowlby L, Canupp H et al. Geriatric Resource Teams: Equipping Primary Care Practices to Meet the Complex Care Needs of Older Adults. Geriatrics [Internet]. 2019 Dec [cited 2025 Mar 4];4(4):59. Available from: https://www.mdpi.com/2308-3417/4/4/59
102. Elliott J, Stolee P, Boscart V, Giangregorio L, Heckman G. Coordinating care for older adults in primary care settings: understanding the current context. BMC Fam Pract [Internet]. 2018 Dec [cited 2020 Aug 25];19(1):10. Available from: https://bmcfampract.biomedcentral.com/articles/https://doi.org/10.1186/s12875-018-0821-7

Publisher's note