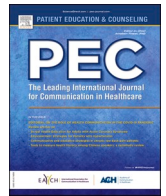


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## Instruments evaluating the duration and pace of clinical encounters: A scoping review

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## ARTICLE INFO

## Keywords:

Clinical encounters  
Time assessment  
Patient-centered care  
Duration and pace  
Unhurried conversations  
Time scarcity

## ABSTRACT

**Objective:** Hurried encounters in clinical settings contribute to dissatisfaction among both patients and clinicians and may indicate and contribute to low-quality care. We sought to identify patient- or clinician-reported instruments concerning this experience of time in clinical encounters.

**Methods:** We searched multiple databases from inception through July 2023. Working in duplicate without restrictions by language or clinical context, we identified published instruments or single items measuring perceptions of time adequacy in clinical encounters. We characterized these by time domain (perceived duration or pace of the encounter), responder (patient or clinician), and reference (experience of care in general or of a particular encounter).

**Results:** Of the 96 instruments found, none focused exclusively on perception of time adequacy in clinical encounters. Nonetheless, these instruments contained 107 time-related items. Of these, 81 items (77 %) measured the perception of the encounter duration, assessing whether there was adequate consultation time overall or for specific tasks (e.g., listening to the patient, exploring psychosocial issues, formulating the care plan). Another 19 (18 %) assessed encounter pace, and 7 (7 %) assessed both duration and pace. Pace items captured actions perceived as rushed or hurried or the perception that patients and clinicians felt pressed for time or rushed. Patients were the respondents for 76 (71 %) and clinicians for 24 (22 %) items. Most patient-reported items (48 of 76) referred to the patient's general care experience.

**Conclusion:** There are existing items to capture patient and clinician perceptions of the duration and/or pace of clinical encounters. Further work should ascertain their ability to identify hurried consultations and to detect the effect of interventions to foster unhurried encounters.

**Practice implications:** The available items assessing patient and clinician perceptions of duration and pace can illuminate the experience of time adequacy in clinical encounters as a target for quality improvement interventions. These items may capture unintended consequences on perceived time for care of interventions to improve healthcare access and efficiency.

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<https://doi.org/10.1016/j.pec.2024.108591>

Received 18 August 2024; Received in revised form 19 November 2024; Accepted 26 November 2024

Available online 30 November 2024

0738-3991/© 2024 Elsevier B.V. All rights reserved, including those for text and data mining, AI training, and similar technologies.

## 1. Background

Adequacy of time in the clinical context refers to the degree to which the time spent during a clinical encounter is sufficient to comprehensively address patient care needs. This encompasses sufficient time for key aspects of care, including active listening, addressing psychosocial issues, explaining treatment options, asking and answering questions, and collaboratively formulating a care plan. For care to take place, adequate time is necessary [1–5].

There is significant international variation in the average duration of primary care encounters, ranging from 48 s to 23 min [6]. In some high-income countries, while the average visit duration has been increasing, this additional time has been outpaced by the growing number and complexity of problems presented by patients [7,8]. These issues include the number of tests and treatments to consider, the demands of documentation and task completion in electronic health records (which can consume up to 40 % of the encounter time [9]), and the expanding set of guidelines and standards of care. Furthermore, despite the greater complexity of their situation, minoritized patients and those receiving care in deprived areas and understaffed clinics tend to receive briefer visits [7,10,11].

Increasingly, centralized scheduling decisions are aimed at optimizing resource use and ensuring that patients with complex needs, such as new patients, the elderly, or those with multiple chronic conditions or psychosocial issues, are allocated adequate time [12]. However, while clinicians may have some discretion in adjusting visit lengths, the ability to allocate "appropriate" time remains a challenge, often constrained by systemic limitations [13,14]. Observational studies have found that when clinical encounters are too brief, clinicians may skip important aspects of history-taking and physical examination, ask fewer open-ended questions, address fewer problems (particularly psychosocial ones), and offer less information, education, and self-management support [15]. On the other hand, longer visits are not always associated with higher quality care or patient satisfaction [16], nor with better communication, trust, or confidence in the clinician [17]. However, research suggests that longer visits are nevertheless associated with fewer errors and near-misses, better diagnostic accuracy, appropriate prescriptions and referrals, and stronger emotional and social engagement [15,16,18–23]. These aspects may be driving satisfaction more than the number of minutes spent in the consultation [24].

While the link between quality of care and encounter duration remains uncertain, the association between quality of care and perceived adequacy of time is becoming clearer. When time feels hurried or scarce, clinicians report feeling pressured to lower their standards of care (e.g., ordering unnecessary tests or referrals due to insufficient time to explore patient concerns thoroughly). This contributes to clinicians feeling exhausted, disillusioned, dissatisfied, and burned out [25–27]. When the time available is insufficient to properly complete necessary tasks, patients experience hurried encounters and feel processed as in a conveyor belt, undeserving of the clinician "making time" to see them, hear them, take them seriously, and care for them [28]. In the United States, only 35 % of patients report that their clinicians have enough time to provide high-quality care [29]. While the actual duration of encounters is easy to quantify and can be extracted from extant datasets, perceptions of the adequacy of time versus the actual time spent [30] and feelings of hurriedness require direct patient and clinician feedback. Understanding these perceptions can shed light on the unintended negative effects of rigid systems and support the development of strategies to optimize access and achieve efficient throughput while guaranteeing high-quality, unhurried, patient-centered care. Understanding these perceptions, in addition to others such as the experience of being listened to and understood, contributes to ongoing research on hurried consultations, the adequacy of time in encounters, and the study of burnout caused by time scarcity [23,26,27]. Thus, capturing these perceptions is critical as they represent an important indicator of the quality of care.

The purpose of this scoping review was to identify instruments that enable patients or clinicians to rate the adequacy of time for consultations. As elaborated below, the literature revealed that perceptions of time adequacy—a broad concept that captures multiple time-based elements—may be mediated through the more granular concepts of the perceived pace and duration of a clinical encounter.

## 2. Methods

### 2.1. Design

The objective of this scoping review was to identify existing instruments that evaluate the **perceived** adequacy of time during clinical encounters and to determine what gaps remain. Due to its exploratory nature, this review did not aim to critically appraise the reliability of studies assessing the measurement properties of the available instruments or to perform a meta-analysis of these properties. We followed the JBI guidelines for the conduct of scoping reviews, an evidence-based and continuously updated expert guidance to foster rigorous, transparent and trustworthy reviews [31]. In drafting this report, we followed the PRISMA ScR standards for reporting of scoping reviews, a list of reporting requirements harmonized with JBI guidelines for their conduct that, when followed, contribute to rigorous, transparent, and trustworthy reporting of scoping reviews [32].

### 2.2. Data sources and search strategies

An experienced librarian (L.P.) developed a comprehensive search strategy within the following databases: Ovid MEDLINE(R), Ovid Embase, Ovid PsycInfo, Ovid Cochrane Central Register of Controlled Trials, Ovid Cochrane Database of Systematic Reviews, Scopus, Web of Science and CINAHL. The search was conducted from each database's inception until July 2023 without language restrictions.

### 2.3. Eligibility and selection

Papers published in peer-reviewed journals that report using an instrument to evaluate patient or clinician perceptions of time adequacy in clinical encounters, regardless of clinical setting, geography, or language, were deemed eligible. For this review, clinicians were any healthcare professionals directly involved in patient care (e.g., physicians, nurses, therapists, pharmacists). Clinical encounters denote any care-related interaction, in person or virtually (i.e., telemedicine visits), between clinicians and patients.

Instruments were included in our analysis if they were specifically designed to measure perceptions of time adequacy in clinical encounters. However, instruments that did not fully meet these criteria were still considered eligible if they contained at least one item addressing time-related aspects. We did not include studies, instruments, or items focused on waiting times, surgical times, length of stay in the hospital or emergency department, or other time-related aspects of healthcare not directly pertinent to the clinical encounter.

Researchers (A.C., N.E., D.G., and C.S.) independently screened titles and abstracts against eligibility criteria stated above. All abstracts judged potentially eligible by at least one reviewer were included for full-text review. We conducted the full-text review in two phases. Researchers (A.C., N.E., E.G., C.S., M.U.), working in duplicate and independently, reviewed the eligibility of reports (first phase) and of instruments (second phase). A senior investigator (V.M.) resolved any eligibility disagreements in the full-text phase.

We searched within included papers, [supplemental material](#), references cited for instrument development or validation, and other papers using the same instrument. For unsuccessful attempts to locate the instrument, we contacted corresponding authors via email. If, after two email contact attempts separated by a week, the authors did not reply, we excluded the paper. Disagreements were resolved through discussion

and consensus. As in prior reviews, we used Google Translate [33] to translate the titles, abstracts, and full texts of papers reported in languages other than English, French, Spanish, or Portuguese.

#### 2.4. Data extraction and classification

We implemented an electronic data extraction form to systematically capture information on each paper’s publication year, setting (country, outpatient or hospital setting, and primary or specialty care), clinician type, and patient type (adult, pediatric, and/or caregivers or guardians of patients). When an instrument was used in multiple studies, we extracted data from the earliest publication, noting other papers for reference. To ensure rigor throughout the extraction process, one researcher extracted all data, and a second reviewer double-checked each entry. Regular team meetings were held to review and resolve conflicts.

From the identified instruments, researchers categorized items based on whether they captured perceived encounter duration (how long the encounter or an aspect of it seemed to take), pace (perceived speed at which activities occurred during the encounter), or both, and by whom (clinician or patient). Items were further differentiated into those assessing a general care experience, (i.e., reflecting the respondent’s experience across multiple encounters over time or unspecified time-frame) or a specific clinical encounter (denoting a singular, distinct, or recent medical experience). This classification emerged from the topics of the found items through iteration and discussion among the researchers considering the team’s goal of assessing for hurried consultations, a potential marker of quality of care.

### 3. Results

Fig. 1 depicts the study selection process. Out of the initial 8336 papers screened, 1031 were identified as potentially eligible papers, of which 284 quantified time-related perceptions of the clinical encounter. For 32 of the 43 papers, the instrument referenced was not published but we were able to obtain it directly from the authors. After excluding the 11 papers without an available instrument and the 134 in which time-related items were not used, we extracted data from 139 papers. An eligible paper the search missed (and which provided no new items) was found while drafting this report and incorporated into the review [34]. The supplemental Table 1 reports the study characteristics. Most papers assessed primary care (45%) encounters between physicians (60%) and adult (82%) patients in North America (55%).

#### 3.1. Instruments

Within the 140 papers, we identified 96 distinct instruments with at least one relevant time-related item, with a mean of 1.1 time-relevant items per instrument. We found no instruments focused exclusively on assessing the perceived adequacy of time.

The most frequently used instruments that included at least one time-related item were the Consumer Assessment of Healthcare Providers and Systems (CAHPS) – Clinician & Group Visit Survey [35] (n = 10 papers), the short form version of the Patient Satisfaction Questionnaire (PSQ) [36] (n = 10), the Communication Assessment Tool (CAT) [37] (n = 9), the Patient-Doctor Relationship Questionnaire (PDRQ) [38] (n = 9), the Medical Expenditures Panel Survey [39] (n = 5), the Interpersonal

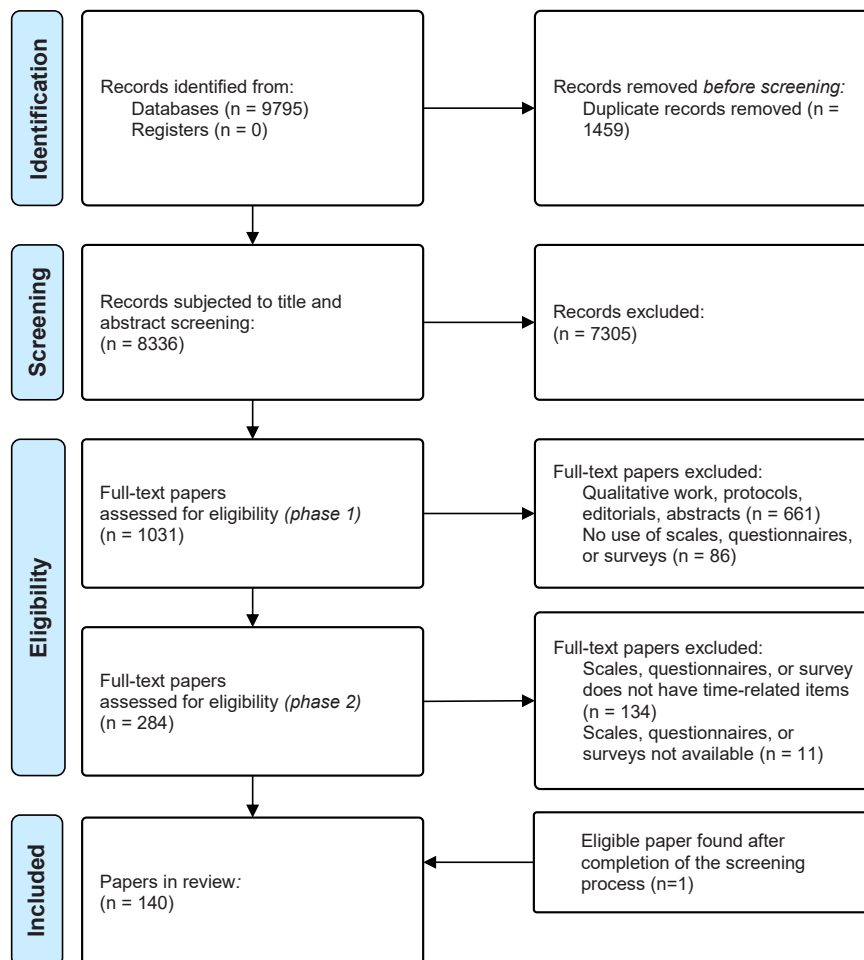


Fig. 1. PRISMA diagram - Identification process of eligible articles and instruments.

Processes of Care Survey (IPC-29) [40](n = 4), and the Press Ganey Outpatient Medical Practice Survey [41](n = 3).

### 3.1.1. Items

Of the 107 time-related items, 81 (77%) quantified the perception of encounter duration, 19 (16%) assessed encounter pace, and 7 (7%) addressed both duration and pace. Patients were the intended respondents for 76 (71%) of these items and clinicians in 24 (22%) items. An additional 7 items (7%) could be responded to by both patients (or their parents or guardians) and clinicians. Table 1A (patient-reported items) and Table 1B (clinician-reported items) provide detailed information on all time-related items.

Items assessing perceptions of encounter duration sought patient and clinician judgments about sufficient or adequate consultation time overall. Clinician-reported duration items specified whether there was sufficient or adequate time to listen to the patient, explore psychosocial issues, explain, ask and answer questions, or think through the treatment plan.

Items related to encounter pace captured patient or clinician perceptions regarding how promptly activities were carried out during the encounter. Patient-reported pace items focused on healthcare professionals seeming rushed or hurried. Clinician-reported pace items captured whether clinicians felt pressed for time or rushed, or if they had to postpone otherwise necessary actions or interrupt patients because of time pressures.

Of the 75 patient-reported items, 48 (64%) assessed the patient’s general care experience, such as “In the last 6 months, how often did this provider spend enough time with you?” from the CAHPS survey [35] and “Doctors usually spend plenty of time with me” from the PSQ long form [36]. The remaining 28 (37%) patient-reported items referred to specific clinical encounters; for example, “How did you find the duration of today’s consultation?” from the Patient Satisfaction in Primary Care Consultation (PiC) questionnaire [42] and “My nurse gave me the time I needed” from the Patient’s Perception of Nurse-Patient Relationship as Healing Transformations Scale (RELATE Scale) [43].

## 4. Discussion and conclusion

### 4.1. Discussion

#### 4.1.1. Our findings

In this scoping review, we sought to identify participant-reported instruments related to the perceived adequacy of time in clinical encounters that could be used to assess for hurried consultations, a potential marker of quality of care. We found no instruments solely dedicated to this purpose. However, we identified 107 time-related items within 96 distinct instruments intended for use mostly in adult outpatient consultations. Most items (81 out of 107) assessed perceived encounter duration, with the remainder assessing pace or both duration and pace. Typical duration items gauged level of agreement with statements about having (or not having) sufficient or adequate consultation time. Most patient-reported items did not specify a particular encounter or specific tasks within encounters, while most clinician-reported items highlighted how insufficient time impacted communication, relationships, or decision-making. Meanwhile, typical pace items assessed level of agreement with statements about health professionals appearing, acting, or feeling rushed or hurried. Some pace items assessed clinician distress from having to forgo aspects of care (e.g., listening without interrupting or addressing psychosocial issues) when pressed for time.

#### 4.1.2. Limitations and strengths of this scoping review

Our scoping review has both limitations and strengths. Our approach may have missed some instruments and relevant time-related items that, for instance, may have been reported using different terms to describe time-related elements of patient-clinician interactions. This may explain

**Table 1A**  
Time-related items – Patient reported.

Items Evaluating The Duration		
General Care Experience		
Overall	How often did doctors or other health providers spend enough time with you? Doctors usually spend plenty of time with me	Medical Expenditures Panel Survey [58–62]  Patient Satisfaction Questionnaire (PSQ), short form [63–72] Communication Assessment Tool (CAT) [73–81]
	Please use this scale to rate the way the doctor communicated with you. Spent the right amount of time with me Please choose the appropriateness of each statement for your PCP by marking one number per statement. My PCP has enough time for me How often did doctors or other health providers spend enough time with you? Doctors usually spend plenty of time with me	Patient-Doctor Relationship Questionnaire (PDRQ) [82–90]  Health Information National Trends Survey [91,92]
	I am happy with the amount of time my surgeon spends with me during office visits	Patient Satisfaction Questionnaire (PSQ), long form [93] Questionnaire for Patient–Surgeon Relationship (Q-PASREL) [94]
	Your doctor spent the right amount of time with you	Physician-Patient Communication Behaviors [95,96] Press Ganey Inpatient Patient Satisfaction Survey [97,98]
	Time physician spent with you	Author-developed questionnaire [99]
	How much did you enjoy having a longer patient visit with a healthcare provider at your health center in addressing your diabetes concerns How often did you feel your appointment(s) were conducted in an appropriate amount of time How often the provider spent enough time with you	Author-developed questionnaire [100]  Perceived Patient-physician Communication Quality [92]
	In the past 12 months, how often did this doctor spend enough time with you In the last 3 months how often did your kidney doctors spend enough time with you	Author-developed questionnaire [101]  In-Center Hemodialysis Consumer Assessment of Healthcare Providers and Systems (CAHPS) Survey [102]
	In the last 6 months, how often did this provider spend enough time with you I’m given as much time as I need for my consultation Sometimes the person I see in clinic is too busy to spend enough time with me In the last 12 months, how often did the patient’s doctor or other health professional spend enough time with the patient In the last 12 months, how often did your personal doctor spend enough time with you	Consumer Assessment of Healthcare Providers and Systems (CAHPS) [103] Leeds Satisfaction Questionnaire [104] Leeds Satisfaction Questionnaire [104]  Health Center Patient Survey (drawing from Healthcare Providers and Systems (CAHPS) - Clinician & Group Visit Survey) [105] Health Center Patient Survey (drawing from Healthcare Providers and

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Table 1A (continued)

Items Evaluating The Duration		
		Systems (CAHPS) - Clinician & Group Visit Survey) [105]
	The nurses spent adequate time with me	Author-developed questionnaire [106]
	Time spent with the healthcare provider	Author-developed questionnaire [107]
	Did the doctor spend as much time with you as you wanted, almost as much as you wanted, less than you wanted, or a lot less than you wanted	2001 Commonwealth Fund Health Care Quality Survey [108]
	How would you rate the amount of time your doctor spends with you	Primary Care Assessment Survey [109]
	My pharmacist DOES NOT spend enough time with me	Author-developed questionnaire [110]
	Would you say that the doctors have spent time with you	Author-developed questionnaire [111]
	My provider spends enough time with me	Irritable Bowel Syndrome Satisfaction Survey [112]
	My doctor offers me enough time	Author-developed questionnaire [113]
Communication	Does your physician give you enough time to explain the reasons for your visit	Picker-Commonwealth Survey of Patient-Centered Ambulatory Care [114]
	Does your physician take enough time to answer your questions	Picker-Commonwealth Survey of Patient-Centered Ambulatory Care [114]
	There is enough time for questions during group-based opioid treatment	Author-developed questionnaire [115]
	In your case, how often did you experience that the staff took time to give the patient answers to the questions he/she had	Patient Participation in Rehabilitation Questionnaire [116]
	Perceived barriers to communication: having restricted time during the consultation	Author-developed questionnaire [117]
	Healthcare providers take time to know me	Author-developed questionnaire [118]
	Time taken by care providers in listening to patients	Author-developed questionnaire [119]
Discussion of health-related/unrelated topics	Barriers to discuss sexuality issues. I don't have enough time	Author-developed questionnaire [120]
	What is your opinion about the amount of time your PCP spends discussing emotions, behavior, and mental health	Author-developed questionnaire [121]
	My doctor never seems to have the time to talk about issues like end-of-life care	Barriers and Facilitators Questionnaire [122]
Specific Clinical Encounter		
Overall	How would you rate the amount of time you had with your doctor?	Satisfaction with the Decision-Making Process Scale [123,124]
	During your most recent visit, did this provider spend enough time with you?	Consumer Assessment of Healthcare Providers and Systems (CAHPS) - Clinician & Group Visit Survey [103, 125-133]
	The physician spent sufficient time on my consultation	Questionnaire on the Quality of Physician-Patient Interaction (QQPPI) [134, 135]
	Amount of time the care provider spent with you	Press Ganey Outpatient Medical Practice Survey [136-138]
	I found that the time for the teleconsultation was much	Author-developed questionnaire [139]

Table 1A (continued)

Items Evaluating The Duration		
	more compared to a face-to-face visit	
	I feel the doctor did not spend enough time with me	Medical Interview Satisfaction Scale (MISS-26) [140]
	My nurse gave me the time I needed	Patient's Perception of nurse-Patient Relationship as Healing Transformations Scale (RELATE Scale) [43]
	How satisfied were you with the amount of time your surgeon spent with you	Author-developed questionnaire [141]
	Time spent with the physician/health care professional you saw	Visit-Specific Satisfaction Instrument [142]
	My needs have been addressed with appropriate consideration for my time	Six Simple Questions scale [143]
	Time spent with the person you saw	Patient Visit Rating Questionnaire [144]
	How did you find the duration of today's consultation	Patient Satisfaction in Primary Care Consultation (PiC) Questionnaire [42]
	I had enough time with my health care provider during my online visit	Author-developed questionnaire [145]
	The physician spent the right amount of time with me	Interview Satisfaction Questionnaire, Short Form [78]
	The medical consultation time was sufficient	Author-developed questionnaire [146]
	Pharmacist spent enough time with you	Author-developed questionnaire [147]
	The time in the consultation was adequate	Author-developed questionnaire [148]
	Did the MD you visited allocate enough consultation time to meet your needs	Author-developed questionnaire [149]
Communication	The healthcare professional gave me time to ask and to talk about the disease	Patient-Professional Interaction Questionnaire (PPIQ) [150,151]
	The physician gave me enough time to talk about all my problems	Questionnaire on the Quality of Physician-Patient Interaction (QQPPI) [134, 135]
	The time in the consultation was adequate	Author-developed questionnaire [152]
Physical Examination	The nurse did not take enough time for primary examination	Author-developed questionnaire [152]
ITEMS EVALUATING THE PACE		
General Care Experience		
Overall	Those who provide my medical care sometimes hurry too much when they treat me	Patient Satisfaction Questionnaire (PSQ), short form [63-68,70-72,153]
	I do not feel rushed when I am with the doctor	Patient Satisfaction Questionnaire (PSQ), long form [93,140,154]
	Those who provide my medical care sometimes hurry too much when they treat me	Patient Satisfaction Questionnaire (PSQ), long form [93,140,155]
	I feel healthcare providers are often in a rush to finish with my appointment	Author-developed questionnaire [118]
	The ideal provider caring for my gastrointestinal symptoms seems rushed	Patient-Physician Relationship Scale (PPRS) - Patient Version Revised [112]
	The doctors and other health professionals act like I'm wasting their time	Adherence Determinants Questionnaire [124]

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**Table 1A (continued)**

Items Evaluating The Duration		
Communication	I can express my doubts about the treatment even if the doctor is hurrying me When I talk to my nurse, she does not interrupt me, and she waits until I finish talking before she explains what she will do with me	Patient's Communication Perceived Self-efficacy Scale [156,157] Escala de Avaliaç ão da Comunicaç ão Empática das Enfermeiras (versão clientes) Evaluation scale of nurses' emphatic communication (client version)[158]
Specific Clinical Encounter		
Overall	The doctor appeared impatient The doctor seemed to rush	Author-developed questionnaire [159] Patient-Doctor Interaction Scale [160]
Communication	Did the doctor appear rushed Nurses appear as if they have time to listen to what you have to say	Author-developed questionnaire [34] Author-developed questionnaire [161]
Physical Examination	The doctor seemed rushed during his examination of me	Medical Interview Satisfaction Scale (MISS-26)[140]
ITEMS EVALUATING THE DURATION AND PACE		
General Care Experience		
Overall	Attributes of health care and nursing quality. Spending enough time with the nurse and not feeling rushed during the visit How often did doctors speak too fast?	Quality Health Care Questionnaire (QHCQ) [162] Interpersonal Processes of Care Survey (IPC-29) [163-166]
Communication	Healthcare professionals Provide enough time to talk so you don't feel rushed	Measure of Processes of Care (MPOC-20) [167]
Specific clinical encounter		
Communication	How good was the practitioner at letting you tell your "story" (giving you time to fully describe your condition in your own words; not interrupting, rushing or diverting you)	Consultation and Relational Empathy Scale [66,90]

in part the relative paucity of European sources compared to North American and Asian sources. Some items may have been excluded due to unclear roles within encounters (e.g., the patient-reported item “Did you have enough time to let the information you received sink in?”[44]). Nevertheless, our review yielded a set of time-related items used in instruments representing a broad range of conditions, patients, countries, clinical settings, and study aims. Our comprehensive search strategy, broad inclusion criteria, and rigorous selection procedures strengthen the reliability of this review.

**4.1.3. Comparing our results with previous research**

Our review found measures that capture patient or clinician perceptions of time sufficiency. Beyond simple insufficiency of time, the measures of duration also reflect an underlying experience of time scarcity for clinicians and patients. A recent qualitative study among US clinicians revealed how perceived time scarcity negatively affects clinician satisfaction and wellbeing [23]. Satisfaction may result from clinicians having sufficient time (or control of the visit duration) to complete necessary tasks without compromising care standards or taking time away from themselves or others (e.g., patients waiting, staff going home late, clinicians forgoing personal activities). Clinician perceptions may reflect the unique challenges they face in fitting the work of caring for each patient within the time scheduled, as interviews with Danish clinicians revealed [28]. Clinician measures may signal when this so-called “time work” may be difficult, such as when time is so

**Table 1B**  
Time-related items – Clinician reported.

Items evaluating the duration		
<b>General Care Experience</b>		
<b>Overall</b>	I engage patients and families, so they feel I have spent the right amount of time with them, even when I am feeling rushed How time consuming is caring for this patient?	Author-developed questionnaire [168] The Difficult Doctor-Patient Relationship Questionnaire-10 (DDPRQ-10) [169,170] Quality in Psychiatric Care-Community Outpatient Staff [171]
<b>Communication</b>	The patient has time to listen  Do you have time to listen to the patient There is sufficient time to address patients' concerns Barriers to effective nurse-patient communication. Lack of time	Author-developed questionnaire [172] The trauma providers expressed needs survey [97] Author-developed questionnaire [173]
<b>Discussion of health-related/unrelated topics</b>	What are the common reasons, if any, which stop you having conversations with patients on any of these [health behavior] topics? No time to discuss Has there been a change in the amount of time available to discuss sexual health How frequently do each of the following issues create difficulties in having "do not attempt CPR" discussions? Not having enough time to have the discussion I am too busy and don't have time to offer a detailed explanation to patient about his/her potential problems Do you have enough time to devote to the dignity of your patients/clients as part of your daily routine?	Author-developed questionnaire [174] Author-developed questionnaire [175] Author-developed questionnaire [176]
<b>Decision-making, thinking</b>	One reason I do not consider psychosocial information is the limited time I have available I tend to take my time to think through treatment decisions I tend to leave myself time to think through treatment decisions before I act There is adequate time to obtain a treatment plan	Physician Belief Scale [144] Author-developed questionnaire [180] Author-developed questionnaire [180] The trauma providers expressed needs survey [97]
<b>Specific clinical encounter</b>		
<b>Overall</b>	I would have liked to spend more time with this patient. I did NOT have enough time with my patient(s) on the video visits	Physician Satisfaction Questionnaire [181-183] Author-developed questionnaire [184]
<b>ITEMS EVALUATING THE PACE</b>		
<b>General Care Experience</b>		
<b>Overall</b>	I'll interrupt a talkative patient who is wasting my time Did you feel rushed	Author-developed questionnaire [177] Author-developed questionnaire [178,179] Author-developed questionnaire [177] Author-developed questionnaire [178,179]

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Table 1B (continued)

Items evaluating the duration		
<b>Communication</b>	The patients give me opportunity/time to talk (e.g., don't interrupt)	SEGUE Framework [84, 185]
<b>Other</b>	I often feel rushed on morning rounds	The trauma providers expressed needs survey [97]
ITEMS EVALUATING THE DURATION AND PACE		
General Care Experience		
<b>Overall</b>	Due to high workload, there is often great time pressure	Author-developed questionnaire [186]
<b>Discussion of health-related/unrelated topics</b>	I am too pressed for time to routinely investigate psychosocial issues	Physician Belief Scale [144]
<b>Other</b>	Time pressures keep me from developing good patient relationships	Physician Worklife Study (PWS) Questionnaire [25]

constrained as to inhibit necessary accommodations to keep standards of care, to listen and convey understanding, to respond to, think creatively about, and competently support patients experiencing confused and confusing situations, and to engage in shared decision making.

Similarly, the patient-reported items identified in our review may also detect the effect of time constraints on patients. However, we hypothesize that patient measures are less sensitive to the effects of time constraints on care to the extent that clinicians act as buffers to the adverse consequences of policies that narrowly pursue improvements in access and throughput at the expense of consultation length [45]. This is, in part, why patient perceptions of the adequacy of time are distinct from their satisfaction with the encounter, a related but different construct [34]. Indeed, we have found that independent coders can agree on the adequacy of encounter time without reference to patient satisfaction [46].

Our review found measures that capture the experience of a specific encounter and others that assessed the general experience of care, i.e., experiences across multiple encounters. The latter may be particularly useful in ascertaining hurried or rushed care for patients with chronic conditions within arrangements that ensure continuity and coordination of care. These measures could help understand the extent to which clinicians and patients compensate for the constraints of each visit over multiple encounters. This may explain the inverse correlation between encounter duration and consultation rates [47].

#### 4.1.4. Implications for research

The next steps for research on the experience of adequate time in clinical encounters involves evaluating the ability of these items to discriminate across encounters that produce different quality of care and to respond to practice changes designed to promote unhurried consultations. Additionally, further research needs to determine differences in the measurement characteristics between items that inquire about sufficient duration (time to complete tasks) or about pace (hurried interactions), and to determine if these differ for clinicians working autonomously or as employees subject to centralized scheduling [48]. It may also be helpful to explore patient reports on the same dimensions, with close attention to their expectations for and prior experiences with encounter duration and pace, i.e., the sense that patients have time to share their concerns and that clinicians will make time to listen and respond to them, and thus legitimize those concerns, including emotional and practical aspects of their care.[28,49].

With further development and understanding, self-reported measures on the experience of time in clinical encounters can play a crucial role in evaluating the quality of care as well as the effect of interventions seeking to improve it. Our review found that time-related items are embedded in almost 100 instruments to assess care. It will be important to explore whether these time-related items retain their discriminative ability within comprehensive instruments or if they lost some

effectiveness when surrounded by measures of care with substantial priming and ceiling effects [50].

## 5. Conclusion

Hurried encounters contribute to patient and clinician dissatisfaction and may indicate and contribute to low-quality care. Although further work is needed to ascertain their ability to discriminate across encounters and to respond to practice changes across various populations, clinical settings, and encounter types, self-reported items are available to assess patient and clinician experiences of time scarcity manifested as insufficient duration (given the work allocated to the encounter) and/or as hurried interactions.

These items may make it feasible and, arguably, urgent to assess and routinely monitor temporal experiences in healthcare. With further validation, these items could be used to evaluate the impact of health-care interventions to promote patient-centered care, assess the effects of interventions aimed at improving healthcare access and efficiency that may inadvertently hurry care and erode its quality, and capture unhurried consultations as a marker of the quality of care.[51,52].

## Implications for practice

Beyond considerations of “time as a barrier” to high-quality, patient-centered care, assessing clinicians’ perception of encounter duration and pace may help uncover those organizational strategies that, as seen in the U.S., devalue clinicians, degrade clinical care and contribute to clinician burnout and premature exit from the practice.[23,26,27] At the population level, measures of encounter duration and pace may help clarify the relationship between the wide range of encounter times across countries and variations in care quality and outcomes [6]. Combining measures of perceived duration and pace with measures of actual encounter length and detailed data on content of the encounter may improve insight into how these phenomena interact to produce unhurried clinical encounters.

In some jurisdictions, clinical care is shifting rapidly toward virtual encounters including text-based interactions through patient portals and video or telephonic visits.[53,54] The higher volume associated with these encounter types is associated with increased time pressure[55] and a higher rate of clinician exhaustion and burnout [56]. The extent to which extant items can capture this experience when clinicians and patients interact virtually or asynchronously (via text messaging through patient portals) deserves further attention to account, for example, for time pressures resulting from connectivity issues in virtual visits and to the largely invisible effects of time pressure on the parties when communicating asynchronously via text. These measures could also be used to assess encounters where the electronic medical record plays a distracting or interrupting role [53], and, conversely, those where medical scribes or other interventions relieve time pressures related to documentation [57].

## Funding statement

None.

## Disclosures

None of the authors have any relevant disclosures.

## CRediT authorship contribution statement

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## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.pec.2024.108591](https://doi.org/10.1016/j.pec.2024.108591).

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