

Online Supplemental Material

Hudon C, Fortin M, Haggerty JL, Lambert M, Poitras M. Measuring patients' perceptions of patient-centered care: a systematic review of tools for family medicine. *Ann Fam Med.* 2011;9(2):155-164.

<http://www.annfammed.org/cgi/content/full/9/2/155/DC1>

Supplemental Appendix 1. Electronic Literature Search of the MEDLINE, Embase, and Cochrane Databases		
Database	Set	Searches
MEDLINE	1	"Patient-centered Care" or patient focused care or patient centered care or patient centred care or patient centeredness or patient centredness
	2	limit 1 to english or french
	3	"Questionnaire" or questionnaire or questionnaires
	4	"Process Assessment, Health Care"
	5	"Quality Assurance, Health Care"
	6	"Psychometrics" or psychometric or psychometrics
	7	"Validation Studies" or validation studies or validation study
	8	"Reproducibility of Results"
	9	"Factor Analysis, Statistical" or factor analysis
	10	"Outcome and Process Assessment, Health Care" or "Outcome Assessment, Health Care"
	11	"Family Practice"
	12	"Primary Health Care" or primary care
		1 st strategy
	2 nd strategy	2 and (11 or 12)
Embase	1	"Patient-centered Care"* or patient focused care or patient centered care or patient centred care or patient centeredness or patient centredness
	2	limit 1 to english or french
	3	"Questionnaire" or questionnaire or questionnaires
	4	"Process Assessment, Health Care"
	5	"Quality Assurance, Health Care"
	6	"Psychometrics" or psychometric or psychometrics
	7	"Validation Studies" or validation studies or validation study
	8	"Reproducibility of Results"
	9	"Factor Analysis, Statistical" or factor analysis
	10	"Outcome and Process Assessment, Health Care" or "Outcome Assessment, Health Care"
	11	"Family Practice"
	12	"Primary Health Care" or primary care
		1 st strategy
	2 nd strategy	2 and (11 or 12 or 13)
Cochrane	1 st and 2 nd strategies	patient focused care or patient centered care or patient centred care or patient centeredness or patient centredness
Quotation marks (" ") indicate words that were used as a MeSH while those followed by an asterisk (*) were sought as a main subject of the articles. All other words were used as keyword.		

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Supplemental Appendix 2. Quality Assessment of the Studies Included in the Review, Based on the Modified Version of Standards for Reporting of Diagnostic Accuracy						
Section and Topic	Item	Stewart et al⁹	Mallinger et al⁹³	Little et al¹¹	Little et al⁹⁴	Smith & Orrell⁹⁵
Title/abstract	Identify the article as a study concerning a measuring instrument	0 (+)*	+	0	+	+
Introduction	State the research question or study aims, like developing or validating a measuring instrument	0 (+)*	+	0	+	+
Methods						
<i>Participants</i>	Describe the study population: The inclusion and exclusion criteria, setting and locations where the data were collected	+	+	+	0	+
	Describe the method of recruitment of the participants	+	+	+	0	+
	Describe participant sampling: Was the study population a consecutive series of participants? If not, specify how participants were further selected	+	+	+	0	+
<i>Test methods</i>	Describe technical specifications of material and methods involved, including how and when measurements were taken, and/or cite references for measuring instrument	+	+	+	+	+
	Describe relevant information for the readers concerning the measuring instrument (scale available in the text)	0 (+)*	0	+	+	0
<i>Statistical methods</i>	Describe methods for calculating or comparing measures of reliability, validity and the statistical methods used to quantify uncertainty (eg, 95% confidence intervals)	0	+	+	+	0
Results						
<i>Participants</i>	Report when study was done, including beginning and ending dates of recruitment	0	+	0	0	0
	Report demographic characteristics of the study population (eg, age, sex, employment, recruitment centers)	+	+	+	+	+
	Report the number of participants satisfying the criteria for inclusion (a flow diagram is strongly recommended)	+	+	+	+	+
<i>Test results</i>	Report distribution of severity of the situation being assessed	+	+	+	+	+
<i>Estimates</i>	Report estimates of accuracy and measures of statistical uncertainty (eg, 95% confidence intervals)	+	+	+	+	+
	Report how indeterminate results, missing responses and outliers on the measuring instrument were handled	0	0	0	0	0
Discussion	Discuss the clinical applicability of the study findings	0	+	+	+	+
Total score⁵		8 (11)*	13	11	10	11

Supplemental Appendix 2. Quality Assessment of the Studies Included in the Review, Based on the Modified Version of Standards for Reporting of Diagnostic Accuracy, continued						
Section and Topic	Item	Galassi et al⁹⁶	Lerman et al⁹⁷	Loh et al⁹⁸	Flocke⁹⁹	Flocke et al¹⁰⁰
Title/abstract	Identify the article as a study concerning a measuring instrument	+	+	+	+	+
Introduction	State the research question or study aims, like developing or validating a measuring instrument	+	+	0	+	+
Methods						
<i>Participants</i>	Describe the study population: The inclusion and exclusion criteria, setting and locations where the data were collected	0	+	+	+	0
	Describe the method of recruitment of the participants	+	0	+	+	+
	Describe participant sampling: Was the study population a consecutive series of participants? If not, specify how participants were further selected	0	+	0	+	+
<i>Test methods</i>	Describe technical specifications of material and methods involved, including how and when measurements were taken, and/or cite references for measuring instrument	0	+	+	+	+
	Describe relevant information for the readers concerning the measuring instrument (scale available in the text).	+	+	0	+	0
<i>Statistical methods</i>	Describe methods for calculating or comparing measures of reliability, validity and the statistical methods used to quantify uncertainty (eg, 95% confidence intervals)	+	0	+	+	0
Results						
<i>Participants</i>	Report when study was done, including beginning and ending dates of recruitment	0	+	+	+	+
	Report demographic characteristics of the study population (eg, age, sex, employment, recruitment centers)	+	+	+	+	+
	Report the number of participants satisfying the criteria for inclusion (a flow diagram is strongly recommended)	+	+	+	+	+
<i>Test results</i>	Report distribution of severity of the situation being assessed	+	+	+	+	+
<i>Estimates</i>	Report estimates of accuracy and measures of statistical uncertainty (eg, 95% confidence intervals)	0	+	+	+	+
	Report how indeterminate results, missing responses and outliers on the measuring instrument were handled	0	0	0	0	0
Discussion	Discuss the clinical applicability of the study findings	0	+	+	+	+
Total score[§]		8	12	11	14	11

Supplemental Appendix 2. Quality Assessment of the Studies Included in the Review, Based on the Modified Version of Standards for Reporting of Diagnostic Accuracy, continued						
Section and Topic	Item	Flocke et al¹⁰¹	Cegala et al¹⁰²	Safran et al¹⁰³	Safran et al¹⁰⁴	Duberstein et al¹⁰⁵
Title/abstract	Identify the article as a study concerning a measuring instrument	+	+	+	+	+
Introduction	State the research question or study aims, like developing or validating a measuring instrument	+	+	+	+	0
Methods						
<i>Participants</i>	Describe the study population: The inclusion and exclusion criteria, setting and locations where the data were collected	0	0	+	+	+
	Describe the method of recruitment of the participants	0	0	0	0	+
	Describe participant sampling: Was the study population a consecutive series of participants? If not, specify how participants were further selected	+	+	+	+	+
<i>Test methods</i>	Describe technical specifications of material and methods involved, including how and when measurements were taken, and/or cite references for measuring instrument	0	+	+	0	0
	Describe relevant information for the readers concerning the measuring instrument (scale available in the text)	0	+	+	+	0
<i>Statistical methods</i>	Describe methods for calculating or comparing measures of reliability, validity and the statistical methods used to quantify uncertainty (eg, 95% confidence intervals)	+	+	+	+	+
Results						
<i>Participants</i>	Report when study was done, including beginning and ending dates of recruitment	+	0	+	+	0
	Report demographic characteristics of the study population (eg, age, sex, employment, recruitment centers)	+	+	+	+	+
	Report the number of participants satisfying the criteria for inclusion (a flow diagram is strongly recommended)	+	0	0	+	+
<i>Test results</i>	Report distribution of severity of the situation being assessed	+	+	+	+	0
<i>Estimates</i>	Report estimates of accuracy and measures of statistical uncertainty (eg, 95% confidence intervals)	+	+	+	+	0
	Report how indeterminate results, missing responses and outliers on the measuring instrument were handled	+	0	0	0	+
Discussion	Discuss the clinical applicability of the study findings	+	+	+	+	+
Total score[§]		11	10	12	12	9

Supplemental Appendix 2. Quality Assessment of the Studies Included in the Review, Based on the Modified Version of Standards for Reporting of Diagnostic Accuracy, continued						
Section and Topic	Item	Stewart et al¹⁰⁶	Stewart et al¹⁰⁷	Ramsay et al¹⁰⁸	Jayasinghe et al¹⁰⁹	Haddad et al¹¹⁰
Title/abstract	Identify the article as a study concerning a measuring instrument	0	+	+	+	+
Introduction	State the research question or study aims, like developing or validating a measuring instrument	+	+	+	+	+
Methods						
<i>Participants</i>	Describe the study population: The inclusion and exclusion criteria, setting and locations where the data were collected	+	+	+	+	0
	Describe the method of recruitment of the participants	+	+	+	0	+
	Describe participant sampling: Was the study population a consecutive series of participants? If not, specify how participants were further selected	+	+	+	+	+
<i>Test methods</i>	Describe technical specifications of material and methods involved, including how and when measurements were taken, and/or cite references for measuring instrument	0	+	+	0	+
	Describe relevant information for the readers concerning the measuring instrument (scale available in the text)	0	+	+	+	+
<i>Statistical methods</i>	Describe methods for calculating or comparing measures of reliability, validity and the statistical methods used to quantify uncertainty (eg, 95% confidence intervals)	+	+	+	+	+
Results						
<i>Participants</i>	Report when study was done, including beginning and ending dates of recruitment	0	+	0	+	0
	Report demographic characteristics of the study population (eg, age, sex, employment, recruitment centers)	+	+	+	+	+
	Report the number of participants satisfying the criteria for inclusion (a flow diagram is strongly recommended)	+	+	+	+	+
<i>Test results</i>	Report distribution of severity of the situation being assessed	+	+	+	+	+
<i>Estimates</i>	Report estimates of accuracy and measures of statistical uncertainty (eg, 95% confidence intervals)	+	+	+	+	+
	Report how indeterminate results, missing responses and outliers on the measuring instrument were handled	0	0	0	0	0
DISCUSSION	Discuss the clinical applicability of the study findings	+	+	+	+	+
Total score[§]		10	14	13	12	12

Supplemental Appendix 2. Quality Assessment of the Studies Included in the Review, Based on the Modified Version of Standards for Reporting of Diagnostic Accuracy, continued							
Section and Topic	Item	Shi et al¹¹¹	Haggerty et al¹¹²	Mercer et al¹¹³	Mercer et al¹¹⁴	Mercer et al¹¹⁵	Campbell et al¹¹⁶
Title/abstract	Identify the article as a study concerning a measuring instrument	+	+	+	+	+	+
Introduction	State the research question or study aims, like developing or validating a measuring instrument	+	+	+	+	+	+
Methods							
<i>Participants</i>	Describe the study population: The inclusion and exclusion criteria, setting and locations where the data were collected	+	+	0	+	0	+
	Describe the method of recruitment of the participants	0	+	+	+	+	0
	Describe participant sampling: Was the study population a consecutive series of participants? If not, specify how participants were further selected	0	+	+	+	+	+
<i>Test methods</i>	Describe technical specifications of material and methods involved, including how and when measurements were taken, and/or cite references for measuring instrument	+	0	+	+	+	+
	Describe relevant information for the readers concerning the measuring instrument (scale available in the text)	+	0	+	0	0	+
<i>Statistical methods</i>	Describe methods for calculating or comparing measures of reliability, validity and the statistical methods used to quantify uncertainty (eg, 95% confidence intervals)	+	+	+	+	+	+
Results							
<i>Participants</i>	Report when study was done, including beginning and ending dates of recruitment	0	0	0	0	0	0
	Report demographic characteristics of the study population (eg, age, sex, employment, recruitment centers)	+	+	+	0	+	+
	Report the number of participants satisfying the criteria for inclusion (a flow diagram is strongly recommended)	+	+	0	+	+	+
<i>Test results</i>	Report distribution of severity of the situation being assessed	+	+	+	+	0	+
<i>Estimates</i>	Report estimates of accuracy and measures of statistical uncertainty (eg, 95% confidence intervals)	+	+	+	+	+	+

	Report how indeterminate results, missing responses and outliers on the measuring instrument were handled	+	0	0	+	+	0
Discussion	Discuss the clinical applicability of the study findings	+	+	+	+	+	+
Total score[§]		12	11	12	12	11	12
* Evaluation of a nonpublished paper on PPPC (Stewart, 2004, available from authors on request) combined with the initial assessment of the study quality of the main article.							
[§] Of a maximum score of 15.							

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Supplemental Appendix 3. Subscales and Items of Instruments Measuring Patient-Centered Care	
Instrument and Subscale	Item
Patient Perception of Patient-Centeredness (PPPC)	
	To what extent was your main problem(s) discussed today Knows that this was one of your reasons for coming in today Understood the importance of your reason for coming in today Understood you today How satisfied were you with the discussion of your problem Explained this problem to you You agreed with the doctor's opinion about the problem You had the opportunity to ask your questions Asked you about your goals for treatment Explained treatment Explored how manageable this treatment would be for you You and the doctor discussed your respective roles Encouraged you to take the role you wanted in your own care Cares about you as a person
Consultation Care Measure (CCM)	
Communication and partnership	Was interested in my worries about the problem Was interested when I talked about my symptoms Was interested in what I wanted to know I felt encouraged to ask questions Was careful to explain the plan of treatment Was sympathetic Was interested in what I thought the problem was Discussed and agreed together what the problem was Was interested in what I wanted done Was interested in what treatment I wanted Discussed and reached agreement with me on the plan of treatment
Personal relationship	Knows me and understands me well Understands my emotional needs I'm confident that the doctor knows me and my history
Health promotion	Talked about ways to lower the risk of future illness Advised me how to prevent future health problems
Positive and clear approach to problem	Explained clearly what the problem was Was definite about what the problem was Was positive about when the problem would settle
Interest in effect on life	Was interested in the effect of the problem on my family or personal life Was interested in the effect of the problem on everyday activities

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Patient Reactions Assessment (PRA)	
Patient information index	Understand treatment side effects Told me what treatment would do Understand the medical plan for me Have a good idea about the changes to expect in my health Treatment procedure clearly explained
Patient communication index	Difficult to get conflicting information straightened out Difficult to ask about something I don't understand Hard for me to tell about new symptoms Hard for me to ask how treatment is going Difficulty asking this person questions
Patient affective index	Is warm and caring toward me Makes me feel comfortable discussing personal issues Person really respects me Sometimes feel insulted when talking to this person Doesn't seem interested in me as a person
Perceived Involvement in Care Scale (PICS)	
Doctor facilitation	Asked me whether I agree with his/her decisions Gave me a complete explanation for my medical symptoms or treatment Asked me what I believe is causing my medical symptoms Encouraged me to talk about personal concerns related to my medical symptoms Encouraged me to give my opinion about my medical treatment
Patient information	I asked my doctor to explain the treatment or procedure to me in greater detail I asked my doctor for recommendations about my medical symptoms I went into great detail about my medical symptoms I asked my doctor a lot of questions about my medical symptoms
Patient decision-making	I suggested a certain kind of medical treatment to my doctor I insisted on a particular kind of test or treatment for my symptoms I expressed doubts about the tests or treatment that my doctor recommended I gave my opinion (agreement or disagreement) about the types of tests or treatment that my doctor ordered
Component of Primary Care Instrument (CPCI)	
Comprehensive care	I go to this doctor for almost all of my medical care This doctor handles emergencies This doctor can take care of almost any medical problem I might have I could go to this doctor for help with a personal or emotional problem I could go to this doctor for care of an ongoing problem such as high blood pressure I could go to this doctor for a check-up to prevent illness
Accumulated knowledge	This doctor knows a lot about my family medical history This doctor clearly understands my health needs This doctor and I have been through a lot together This doctor understands what is important to me regarding my health This doctor always takes my beliefs and wishes into account in caring for me This doctor knows whether or not I exercise, eat right, smoke, or drink alcohol This doctor knows a lot about me as a person (such as my hobbies, job, etc.)
Interpersonal communication	I can easily talk about personal things with this doctor I don't always feel comfortable asking questions of this doctor This doctor always explains things to my satisfaction Sometimes this doctor does not listen to me Sometimes, with this doctor, I don't bring up things that I'm worried about Sometimes, I feel like this doctor ignores my concerns

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Preference for regular physician	If I am sick, I would always contact a doctor in this office first My medical care improves when I see the same doctor that I have seen before It is very important to me to see my regular doctor I can call this doctor if I have a concern and am not sure I need to see a doctor
Coordination of care	This doctor knows when I'm due for a check-up This doctor keeps track of all my health care This doctor always follows up on a problem I've had, either at the next visit or by phone This doctor always follows up on my visits to other health care providers This doctor helps me interpret my lab tests, x-rays or visits to other doctors This doctor communicates with the other health providers I see
Advocacy	I would recommend this doctor to friends and family This doctor always has my best interests at heart This doctor takes responsibility for helping me get all the health care I need I am confident this doctor will act as my advocate This doctor looks out for my interests in dealing with my health insurance I wonder if this doctor is cutting corners on my health care This doctor helps me weigh the pros and cons of my health care decisions This doctor guides me through the steps I need to take to deal with my insurance plan I have tremendous trust in this doctor
Family context	Other members of my family see this doctor This doctor knows a lot about my family This doctor understands how my family affects my health
Community context	This doctor knows a lot about my community This doctor uses her/his knowledge of my community to take care of me
Duration of relationship	How many years have you been a patient of this doctor? How many years have you been a patient of this practice?
Continuity	In the last year, how many visits have you had to this doctor? In the last year, how many visits have you had to other doctors in this office? In the last year, how many visits have you had to doctors outside of this office?
Medical Communication Competence Scale (MCCS)	
Information giving (Patient's self-competence)	I did a good job of: Presenting important history associated with my medical problem Describing the symptoms of my medical problem Explaining my medical problem Answering the doctor's questions thoroughly Answering the doctor's questions honestly
Information giving (Patients' other-competence)	The doctor explained the following to my satisfaction: What my medical problem was The causes of my medical problem What I could do to get better The benefits and disadvantages of treatment choices The purpose of any tests that were needed How prescribed medicine would help my problem How to take prescribed medication The possible side effects from the medicine The long-term consequences of my medical problem
Information seeking (Patients' self-competence)	I did a good job of: Explaining what medicines I am taking Letting the doctor know when I didn't understand something Letting the doctor know when I needed him or her to repeat something Making sure I understood the doctor's directions Repeating important information to make sure I understood correctly Asking the doctor to explain terms I didn't understand

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Information seeking (Patients' other-competence)	The doctor did a good job of: Reviewing or repeating important information Making sure I understood his or her explanations Making sure I understood his or her directions Checking his or her understanding of what I said
Information verifying (Patients' self-competence)	I did a good job of: Asking the doctor all the questions that I had Getting the answers to my questions Getting all the information I needed
Information verifying (Patients' other-competence)	The doctor did a good job: Encouraging me to ask questions Asking me questions related to my medical problem Asking me questions in a clear, understandable manner Asking questions that allowed me to elaborate on details
Socioemotional communication (Patients' self-competence)	I did a good job: Contributing to a trusting relationship Being open and honest
Socioemotional communication (Patients' other-competence)	The doctor did a good job: Using language I could understand Being warm and friendly Contributing to a trusting relationship Showing that he or she cared about me Making me feel relaxed or comfortable Showing compassion Being open and honest
Primary Care Assessment Survey (PCAS)	
Organizational access	How quickly you can see the doctor when you are sick and call for an appointment How many minutes you wait to see the doctor once you arrive for your appointment Ability to get through to the doctor's office by phone Ability to speak to your doctor by phone when you have a question/need medical advice Convenience of the doctor's office location Hours when the doctor's office is open
Financial access	Amount of money you pay for doctor visits Amount of money you pay for medication and other prescribed treatments
Longitudinal continuity	How long has this person been your doctor
Visit-based continuity	See your regular doctor for routine check-up See your regular doctor when you are sick
Contextual knowledge of patient	If I was unconscious or in a coma, my doctor would know what I would want done for me Doctor's knowledge of entire medical history Doctor's knowledge about your responsibilities at work, home, or school Doctor's knowledge about what worries you the most about your health Doctor's knowledge about you as a person (your values and beliefs)
Preventive counseling	Has the doctor talked about smoking Has the doctor talked about alcohol Has the doctor talked about seat belt use Has the doctor talked about diet Has the doctor talked about exercise Has the doctor talked about stress Has the doctor talked about safe sex

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Integration	<p>Help your regular doctor gave you in deciding who to see for specialty care</p> <p>Help your regular doctor gave you in getting an appointment for specialty care you needed</p> <p>Regular doctor's involvement in your care when being treated by specialist or when hospitalized</p> <p>Regular doctor's communication with specialist or other doctors who saw you</p> <p>Help regular doctor gave you in understanding what specialists or other doctors said about you</p>
Communication	<p>Quality of specialist or other doctors that your regular doctor sent you to</p> <p>Thoroughness of doctor's questions about your symptoms and how you are feeling</p> <p>Attention doctor gives to what you have to say</p> <p>Doctor's explanations of your health problems or treatments</p> <p>Doctor's instructions about symptoms to report and when to seek further care</p> <p>Doctor's advice and help in making decisions about your care</p> <p>How often do you leave your doctor's office with unanswered questions</p>
Interpersonal treatment	<p>Amount of time doctor spends with you</p> <p>Doctor's patience with your questions or worries</p> <p>Doctor's friendliness and warmth toward you</p> <p>Doctor's caring and concern for you</p> <p>Doctor's respect for you</p>
Thoroughness of physical examination	Thoroughness of doctor's physical examination of you
Trust	<p>I can tell my doctor anything</p> <p>My doctor sometimes pretends to know things when he/she is really not sure</p> <p>I completely trust my doctor's judgments about my medical care</p> <p>My doctor care more about holding costs down than about doing what is needed for my health</p> <p>My doctor would always tell me the truth about my health, even if there was bad news</p> <p>My doctor cares as much as I do about my health</p> <p>If a mistake was made in my treatment, my doctor would try to hide it from me</p> <p>All things considered, how much do you trust your doctor</p>
Interpersonal Processes of Care (IPC)	
Hurried communication	<p>Speak too fast</p> <p>Use words that were hard to understand</p> <p>Ignore what you told them</p> <p>Appear to be distracted when they were with you</p> <p>Seem bothered if you asked several questions</p>
Elicited concerns, responded	<p>Really find out what your concerns were</p> <p>Let you say what you thought was important</p> <p>Take your health concerns very seriously</p>
Explained results, medications	<p>Explain your test results such as blood tests, X-rays, or cancer screening tests</p> <p>Clearly explain the results of your physical exam</p> <p>Tell you what could happen if you didn't take a medicine that they prescribed for you</p> <p>Tell you about side effects you might get from medicine</p>
Patient-centered decision making	<p>Ask if you would have any problems following what they recommended</p> <p>Ask if you felt you could do the recommended treatment</p> <p>If there were treatment choices, ask if you would like to help decide your treatment</p>

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Compassionate, respectful	How often were doctors compassionate Give you support and encouragement Concerned about your feeling Really respect you as a person Treat you as an equal
Discrimination	Make assumptions about your level of education Make assumptions about your income Pay less attention to you because of your race or ethnicity You feel discriminated against by doctors because of your race or ethnicity
Disrespectful office staff	Rude to you Talk down to you Give you a hard time Have a negative attitude toward you Make you feel that your everyday activities, such as your diet and lifestyle, would make a difference in your health
General Practice Assessment Survey (GPAS)	
Accessibility	Location Opening hours Phoning through to reception Phoning through to the GP Availability of specific GP Availability of any GP Waiting times in surgery Same-day urgent availability of GP
Technical care	GP's medical knowledge Thoroughness of physical examination Arranging tests Treatment prescribing Diagnosis
Communication	GP's thoroughness asking questions GP's thoroughness attention GP's thoroughness explanations Frequency of leaving surgery with unanswered questions
Interpersonal care	GP's spending time with patient GP's showing patient GP's showing caring and concern
Trust	Trusting of GP's judgments GP's truthfulness about medical condition GP's valuing your health above costs Overall trust in GP
Knowledge of patient	GP's knowledge of patient's medical history GP's knowledge of patient's worries GP's knowledge of patient's responsibilities at home/work
Nursing care	Nurses' attention to patient Quality of care Nurses' explanations
Patient Perception of Quality (PPQ)	
Interpersonal aspects of care	Manner in which my doctor receives me (polite, kind, sets the patient at ease) Respect shown by the physician (regardless of my age, I expect to be treated as a person and not as a number) Reassuring attitude of the doctor Respect for privacy during the physical examination Interest paid by the doctor (listening, encouragement to express my problems)
Technical aspects of care	The explanations about my health problem were clear and complete (cause, seriousness, progress) The explanation about the tests to be taken were clear and complete (purpose, process,

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	<p>communication of results) The explanation about the treatment chosen were clear and complete (process, effects and complications) My involvement in the decisions concerning the tests and treatments Time spent in consultation with my doctor History of my problem taken by the doctor (previous illnesses, personal problem and family history) Doctor's skill in making the physical examination more comfortable Appropriateness of the tests and exams prescribed by the doctor Correct diagnosis made by the doctor Execution of the care and treatments (ex. care performed well) Possibility of seeing the same doctor from one visit to the next Time spent waiting to obtain test results</p>
Outcomes of care	<p>Improvement in my state of health (decrease of symptoms, of pain) Lessening of my fears and anxieties Return to my routine activities Ability to react (what to do, who to contact) if my state of health deteriorates Motivation to follow the treatment prescribed</p>
Primary Care Assessment Tool-Adult (PCAT-A)	
First contact accessibility	<p>When the office is open and you get sick, would someone from there see you the same day? When the office is closed on Saturday or Sunday and you get sick, would someone there see you the same day? When the office is closed and you get sick during the night, would someone there see/talk with you that night? When the office is closed, is there a phone number you can call when you get sick</p>
First contact utilization	<p>When you need a regular general check up, do you go to your doctor before going somewhere else? When you have a new health problem, do you go to your doctor before going somewhere else? When you see a specialist, does your doctor have to approve or give you referral?</p>
Ongoing care	<p>See the same doctor or nurse each time Doctor or nurse understands what you say or ask Your doctor answered in ways that you can understand You can call or talk to the doctor who knows you best Your doctor knows you very well as a person Your doctor gives you enough time to talk about your worries or problems You feel comfortable telling your doctor about your worries or problems Your doctor knows who lives with you Your doctor knows what problems are most important to you Your doctor knows your complete medical history Your doctor knows about your work or employment Your doctor knows if you had trouble getting or paying for medicines you needed Your doctor is willing to meet with family members if you thought it would be helpful Your doctor knows about all the medications you are taking Your doctor lets you look at your medical record Your record is always available Your doctor calls or sent you the results of the lab tests If the doctor who knows you best is not available and you have to see someone else, would your doctor get the information about that visit? You recommend your doctor to a friend or a relative You recommend your doctor to someone who does not speak English well</p>
Coordination of service	<p>Your doctor suggests you to go to the specialist or special services Your doctor knows you made these visits to the specialist or special service Your doctor discuss with you different places you could have gone to get help with that problem Your doctor or someone working with your doctor help you make the appointment for that visit Your doctor write down any information for the specialist about the reason for the visit</p>

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<p>Coordination of service, continued</p>	<p>Your doctor knows what the results of the visit were After going to the specialist or special service, did you doctor talk with you about what happened at the visit? Your doctor seem interested in the quality of care you get from that specialist or special service</p>
<p>Comprehensiveness, services available</p>	<p>Answer questions about nutrition or diet Immunization ('shot') such as for flu or tetanus Check to see if your family is eligible for any social service program or benefits Suggestions for nursing home care for someone in your family Family planning or birth control methods Discussion of alcohol or drug abuse problems for you or a family member Counsel mental health problems Test for lead poisoning Sew up a cut that needs stitches Counseling and testing for HIV/AIDS Hearing screening Allergy shots Removal of wart Pap tests for cervical cancer Rectal exams or sigmoidoscopy exams for bowel cancer Smoking counseling Prenatal care Splinting for sprained ankle Care for an ingrown toe nail What to do in case someone in your family is incapacitated and can't make decisions about his/her care Changes in mental or physical abilities that are normal with getting older</p>
<p>Comprehensiveness, services received</p>	<p>Advice about healthy food and unhealthy food Advice on seat-belt use or child safety seats Home safety, like getting and checking some detectors and storing medicines safely Ways to handle family conflicts that arise from time to time Advice about appropriate exercise for you Tests for cholesterol level in your blood Checking on and discussing the medications you are taking Possible exposures to harmful substances in your home, at work, or in your neighborhood Ask if you have a gun, its storage or its security For female: How to prevent osteoporosis or fragile bones For females: Care for menstrual or menopause problems For over 65: How to prevent hot water burns For over 65: How to prevent falls</p>
<p>Community orientation</p>	<p>Would anyone at doctor's office ever make home visits? Your doctor knows about health problems of your neighborhood Does your doctor survey patients to see if the services are meeting people's needs? Does your doctor survey in the community to find out about health problems that they should know about? Ask family members to be on the board of directors or advisory committee?</p>
<p>Consultation and Relational Empathy (CARE)</p>	
	<p>Making you feel at ease Letting you tell your story Really listening Being interested in you as a whole person Fully understanding your concerns Being caring and compassionate Being positive Explaining things clearly Helping you to take control Deciding on a treatment plan with you</p>

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Instrument on Doctor-Patient Communication Skills (IDPCS)

- Greeted me in a way that made me feel comfortable
- Discussed my reason(s) for coming today
- Encouraged me to express my thoughts concerning my health problems
- Listening carefully to what I had to say
- Understood what I had to say
- If a physical examination was required, the doctor fully explained what was done and why
- Explained the lab tests needed to explore the patient's problem
- Discussed treatment options with me
- Gave me as much information as I wanted
- Checked to see if the treatment plan(s) was acceptable to me
- Explained medication, if any, including possible side-effects
- Encouraged me to ask questions
- Responded to my questions and concerns
- Involved me in decisions as much as I wanted
- Discussed next steps, including any follow-up plans
- Checked to be sure I understood everything
- Showed care and concern about me as a person
- Spent the right amount of time with me
- Overall, I was satisfied with my visit to the doctor today

AIDS = acquired immunodeficiency syndrome; GP = general practitioner; HIV = human immunodeficiency virus; Pap = Papanicolaou.

Online Supplemental Material

Hudon C, Fortin M, Haggerty JL, Lambert M, Poitras M-E. Measuring patients' perceptions of patient-centered care: a systematic review of tools for family medicine. *Ann Fam Med*. 2011;9(2):155-164.

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Supplemental Appendix 4. Psychometric Properties of Included Instruments (Except PPPC and CCM Already Described in the Text)			
Instrument	Reliability	Test Scale Assumptions	Validity
Patient Reactions Assessment (PRA)	<i>Internal consistency:</i> Overall Cronbach's α of .91 ⁹⁶	—	<i>Face validity:</i> An initial pool of 56 items was evaluated for face validity by 4 oncologist nurses and 13 counseling students ⁹⁶ <i>Discriminant validity:</i> PRA was able to differentiate a group of providers who were perceived by counseling professionals as having more effective relationships with patients from a group who were perceived as having less effective patient relationship ⁹⁶ <i>Factor analysis:</i> The 3-factor oblique model seemed to provide the best fit to the data ⁹⁶
Perceived Involvement in Care Scale (PICS)	<i>Internal consistency:</i> Overall Cronbach's α of .73 ⁹⁷	—	<i>Predictive validity:</i> Doctor facilitation and patient decision making were related with patient satisfaction with care. Doctor facilitation and information exchange was related with patients' levels of understanding, reassurance, perceived control over illness, and expectations for improvement in functioning. ⁹⁷ Doctor facilitation scale was related with patient participation ⁹⁸ <i>Factor analysis:</i> 3 relatively independent factors ⁹⁷
Component of Primary Care Instrument (CPCI)	<i>Internal consistency:</i> Cronbach's α ranging from .68 to .79 ¹⁰⁰	—	<i>Content validity:</i> A panel of experts evaluated the relevance of the items to the component they proposed to measure and assessed the items for clarity and conciseness ⁹⁹ <i>Predictive validity:</i> CPCI was related with patient satisfaction ⁹⁹ . Interpersonal communication was associated with being more up to date on screening ¹⁰⁰
Primary Care Assessment Survey (PCAS)	<i>Internal consistency:</i> Cronbach's α ranging from .81 to .95 ¹⁰³	Were well satisfied by all Likert-scaled measures. Assessment of data completeness, scale score dispersion characteristics, and interscale correlations provide strong evidence for the soundness of all scales, and for the value of separately measuring and interpreting these concepts ¹⁰⁴	—

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Interpersonal Processes of Care (IPC)	<i>Internal consistency:</i> Cronbach's α coefficients ranging from .65 to .90 ¹⁰⁷		
General Practice Assessment Survey (GPAS)	<i>Internal consistency:</i> All Cronbach's α coefficients were above .70 (except for the trust scale = .69) ¹⁰⁸ <i>Test-retest reliability:</i> All 7 of the multi-item scales had test-retest correlations greater than the 0.70 (access: 0.81; technical care: 0.89; communication: 0.85; inter-personal care: 0.83; trust: 0.83; knowledge of patient: 0.87; nursing care: 0.92) ¹⁰⁸	Were well satisfied ¹⁰⁸	<i>Discriminant validity:</i> Respondents who were extremely satisfied scored significantly higher than those who were not ¹⁰⁸
Patient Perception of Quality (PPQ)	<i>Internal consistency:</i> Cronbach's α coefficients ranging from .83 to .94 ¹¹⁰		<i>Discriminant validity:</i> Indices developed are potentially discriminating ¹¹⁰ <i>Factor analysis:</i> The 3 factors explained 60% of the total variance ¹¹⁰
Primary Care Assessment Tool- Adult (PCAT-A)	<i>Internal consistency:</i> Cronbach's α ranging from .64 to .95 ¹¹¹	Were well satisfied ¹¹¹	<i>Content validity:</i> 9 expert were asked to rate the appropriateness and representativeness of the primary care domain items ¹¹¹ <i>Factor analysis:</i> 7 factors explained 88% of the total variance ¹¹¹
Consultation and Relational Empathy (CARE)	<i>Internal consistency:</i> Overall Cronbach's α of .92 ¹¹³		<i>Face and content validity:</i> Feedback from patients interviewed, the general practitioners, and the expert researchers led to a number of modifications ¹¹³ <i>Predictive validity:</i> General practitioner empathy is associated with patient enablement at contact consultation and a prospective relationship between patient enablement and changes in main complaint and well-being at 1 month ¹¹³ <i>Concurrent validity:</i> Strong correlations with the Reynolds Empathy Scale (RES) and the Barret-Lennard Empathy Subscale (BLESS) ¹¹⁵
Instrument on Doctor-Patient Communication Skills (IDPCS)	<i>Internal consistency:</i> Cronbach's α for the patient questionnaire was .69 ¹¹⁶		<i>Face validity:</i> The initial instruments were administered to 4 specialists and 3 family doctors who, along with their patients, provided feedback ¹¹⁶ <i>Factor analysis:</i> For patients, 60% of the variance was explained by the first factor (process of communication) and 6 % by the second (content of communication) ¹¹⁶

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