

Interpersonal Processes of Care (IPC) Surveys: IPC-29 and IPC-18 Scoring Instructions

Before using these scoring instructions, we recommend that IPC survey users be familiar with our associated webpage (<https://cadc.ucsf.edu/interpersonal-processes-care-ipc>) and the following publication to understand the implications of various scoring options.

Citation: Stewart AL, Nápoles-Springer AL, Gregorich SE and Santoyo-Olsson J. Interpersonal processes of care survey: Patient-reported measures for diverse groups. *Health Services Research*, 2007; 42 (3, Part I):1235-56. PMID: [PMC1955252](https://pubmed.ncbi.nlm.nih.gov/1955252/)

Direction of scoring: All scales are scored so that higher scores indicate higher frequency of the labeled interpersonal process. Thus, higher scores sometimes indicate better processes (e.g., *decided together*) and sometimes worse processes (e.g., *lack of clarity*). This conveys the meaning of the construct based on how the questions were asked.

Calculating scores: All IPC items use an identical set of response options: 1='never'; 2='rarely'; 3='sometimes'; 4='usually'; 5='always.' No item reversals are needed to create the scales. Scale scores are calculated as the mean of non-missing responses to the corresponding items (i.e., item responses are averaged, not summed). Thus, scores have a possible range of 1-5 and can be calculated for an individual if at least one item per scale has a valid response.

Scoring the IPC-29 and the IPC-18

The seven scales scored from the IPC-29 represent the seven 2nd-order factors (metric-invariant or equivalent meaning). The IPC-18 short form includes one 1st-order factor from each 2nd-order factor (scalar invariant items allowing for unbiased group mean comparisons).

For those administering the full IPC-29, there are two ways to calculate scores:

- 1) Using all 29 items, score the seven metric-invariant scales (see Table 1).
- 2) Using a subset of 18 items, score the seven scalar-invariant scales (see Table 2).

Table 1: Scoring the Seven Metric-invariant Scales from the IPC-29

DOMAIN 2 nd order factor (scale)*	Item Numbers	Definition
COMMUNICATION		
Hurried communication (-)	1-5	Doctors spoke too fast, used difficult-to-understand words, appeared distracted, ignored what patient said, and seemed bothered by patient's questions.
Elicited concerns, responded (+)	6-8	Doctors elicited patient's concerns, took concerns seriously, let patient say what she/he thought was important.
Explained results, medications (+)	9-12	Doctors explained results of tests and physical exam, explained what would happen if patient did not take a prescribed medicine, and explained possible side effects of a medicine.
DECISION MAKING		
Patient-centered decision making (+)	13-16	Doctors asked if patient could follow recommendations and treatment plan, asked if patient would like to help decide upon a treatment plan; patient and doctor worked out a treatment plan together.
INTERPERSONAL STYLE		
Compassionate, respectful (+)	17-21	Doctors were compassionate, provided support and encouragement, concerned about patient's feelings, respected patient, and treated patient as an equal.
Discrimination (-)	22-25	Doctors made assumptions about patient's level of education, income; doctors paid less attention because of patient's race or ethnicity, patient felt discriminated against because of race/ethnicity.
Disrespectful office staff (-)	26-29	Office staff were rude, talked down to patient, gave patient a hard time, and had a negative attitude toward patient.

* (+) indicates high score is better; (-) indicates high score is worse

All definitions refer to the relative frequency of the corresponding processes by doctors they have seen over the prior 12 months.

As noted above, the IPC-18 short form was created by selecting one 1st-order factor from each 2nd-order factor (scalar invariant or unbiased means). Item numbers are shown for the full IPC-29 survey, as well as for the IPC-18 short-form survey.

Table 2: Scoring the Seven Scalar-invariant Scales from the IPC-29 or the IPC-18			
DOMAIN 1 st -order factor (scale)	Item Numbers		Definition
	IPC-29 survey	IPC-18 survey	
COMMUNICATION			
Lack of clarity (-)	1, 2	1, 2	Doctors spoke too fast, used difficult-to-understand words.
Elicited concerns, responded (+)**	6-8	3-5	Doctors elicited patient’s concerns, took concerns seriously, let patient say what she/he thought was important.
Explained results (+)	9, 10	6, 7	Doctors explained results of tests and physical exam.
DECISION MAKING			
Decided together (+)	15, 16	8, 9	Doctors asked if patient would like to help decide upon a treatment plan; patient and doctor worked out a treatment plan together.
INTERPERSONAL STYLE			
Emotional support, compassion (+)	19-21	10-12	Doctors concerned about patient’s feelings, respected patient, and treated patient as an equal.
Discriminated due to race/ethnicity (-)	24, 25	13, 14	Doctors paid less attention because of patient’s race or ethnicity, patient felt discriminated against because of race/ethnicity.
Disrespectful office staff (-)**	26-29	15-18	Office staff were rude, talked down to patient, gave patient a hard time, and had a negative attitude toward patient.

* (+) indicates high score is better; (-) indicates high score is worse

** 1st-order scale is identical to the 2nd-order scale

All definitions refer to the relative frequency of the corresponding processes by doctors they have seen over the prior 12 months.