Supplement
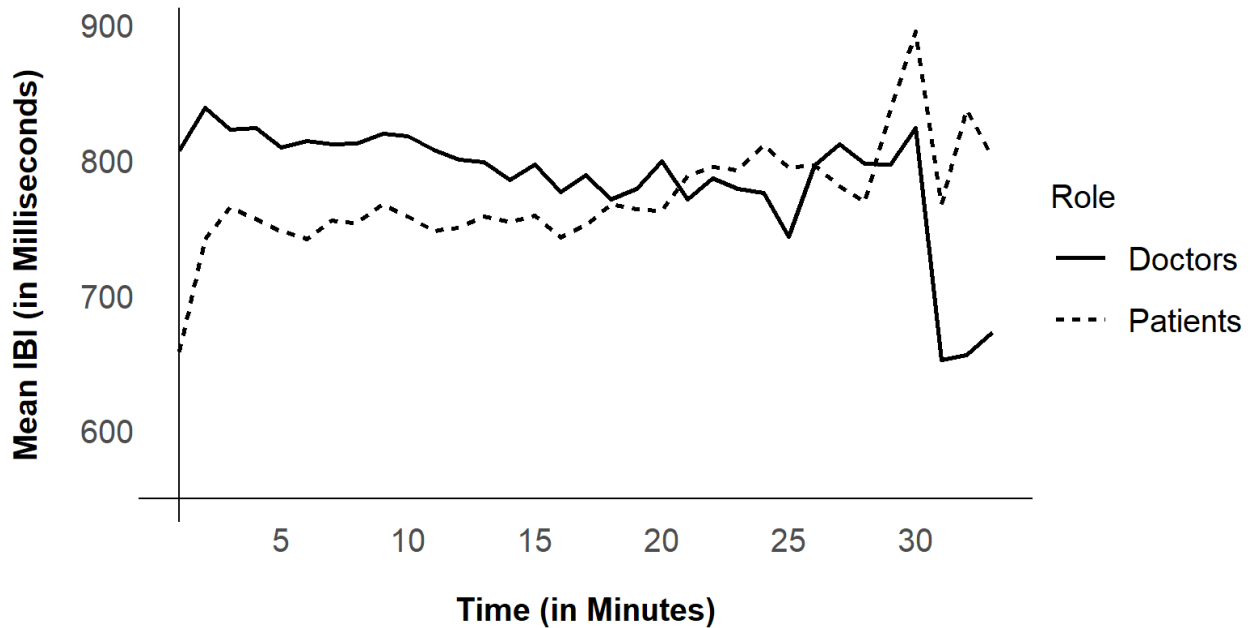
Additional Analytic Details

Raw IBI responses over time. In Figure S1, we show the average raw IBI response over time, separately for doctors and patients.

Figure S1. Mean IBI responses for doctors and patients across each time point of the consultations.

Slope coding. Table S1 displays the coding procedures used for the two primary analyses. In the first analysis (using coding 1), we determine whether both the news and information phase slopes are significantly different from zero. In the second analysis, we determine whether the slope of the news phase is significantly different from the slope of the information phase.

Table S1

Coding of news phase and information phase

	Coding 1		Coding 2	
	News Phase	**Information Phase**	**News Phase**	**Information Phase**
Question answered by test for each effect	*Is the slope of the news phase significantly different from zero?*	*Is the slope of the information phase significantly different from zero?*	*Is the slope of the news phase significantly different from zero?*	*Is the slope of the information phase significantly different from the slope of the news phase?*
Minute				
1	0	0	0	0
2	1	0	1	0
3	2	0	2	0
4	2	1	3	1
5	2	2	4	2
6	2	3	5	3
…	…	…	…	…
20	2	17	19	17

Covariance parameters. Results for all covariance parameters are reported in Table S1. At Level 3 (between groups of people with the same doctor), we attempted to estimate variance in the intercepts (values at minute 1) for patients and doctors, variance in the news phase slope for patients and doctors, and variance in the information phase slope for patients and doctors, allowing these effects to be independent from doctor to doctor (similar to the reciprocal

one-with-many-design with indistinguishable partners described in Kenny & Kashy, 2011). We were not able to estimate the following parameters: variance in the intercept for patients, variance in the news phase slope for patients, variance in the information phase slope for patients, and variance in the information phase slope for doctors. In addition to estimating variance in the intercept for doctors and variance in the news phase slope for doctors, we also estimated a covariance between them.

At Level 2 (between dyads, within groups of people with the same doctor), we attempted to estimate variance in the intercepts (values at minute 1) for patients and doctors, variance in the news phase slope for patients and doctors, and variance in the information phase slope for patients and doctors, allowing these effects to be independent from dyad to dyad. We were not able to estimate variance in the information phase slope for doctors. In addition to the variances we were able to estimate at this level, we also estimated the following within-person covariances: a covariance between the intercept for patients and the news phase slope for patients, a covariance between the intercept for patients and the information phase slope for patients, and a covariance between the news phase slope for patients and the information phase slope for patients. We were not able to estimate a within-person covariance for doctors between their intercepts and news phase slopes.

Finally, we estimated variances in within-time-point residuals for doctors and patients, as well as the covariance between them, and we applied a first-order autoregressive structure to IBI responses over time (meaning that the within-person residuals at adjacent time points were correlated; Bolger & Laurenceau, 2013; Bolger & Shrout, 2007).

Table S1

(Co-)variance parameters

Random effects ([co-]variances)	Estimate	SE	z	p
Level 3 (Between groups of people with the same doctor)				
Intercept for doctors	5041.62	2279.58	2.21	.014
News phase slope for doctors	54.30	66.11	0.82	.21
Covariance between intercept for doctors and news phase slope for doctors	-45.97	282.32	-0.16	.87
Level 2 (Between dyads, within groups of people with the same doctor)				
Intercept for doctors	4442.19	799.24	5.56	< .0001
News phase slope for doctors	2.35	79.93	0.03	.49
Intercept for patients	8366.73	1509.70	5.54	< .0001
News phase slope for patients	471.84	159.15	2.96	.002
Information phase slope for patients	4.88	2.74	1.79	.037
Covariance between intercept for patients and the news phase slope for patients	-119.58	360.06	-0.33	.74
Covariance between intercept for patients and the information phase slope for patients	-21.98	53.86	-0.41	.68
Covariance between the news phase slope for patients and the information phase slope for patients	0.15	18.65	0.01	.99
Level 1 (Within dyads, within groups of people with the same doctor)				
Variance of doctor within-time-point residuals	1774.23	98.60	17.99	< .0001
Variance of patient within-time-point residuals	1374.75	81.95	16.78	< .0001

	304.76	53.34	5.71	< .0001
Covariance of doctor and patient within-time-point residuals				
Within-person first-order autocorrelation of residuals	0.38	0.03	13.47	< .0001

Figures 2 and 3. The model-predicted trajectories for individual participants that are displayed in Figures 2 and 3 were obtained from a model similar to the primary analysis reported in the main text with one exception: there were no Level 1 covariance parameters specified (i.e., it did not use the REPEATED statement in SAS PROC MIXED). Predicted values can take on non-linear patterns when a REPEATED statement is used, making it difficult to visualize the individual trajectories obtained with the fixed parameters and the Level 3 and Level 2 random effects. Because we wanted to visualize those trajectories, we removed the REPEATED statement from the model used to obtain the predicted values displayed in these figures.

First Sensitivity Analysis

In a sensitivity analysis, we examined whether effects were robust when adjusting for people's gender, age, smoking status, and exercise status, as well as patients' cancer stage, patients' cancer type, duration of the appointment, and the number of times that a patient had met with a particular doctor. When including these covariates, all results are consistent with the ones presented in the main text. We report the Type III tests of fixed effects in Table S2 and the covariance parameters in Table S3.

Table S2

Type III Tests of Fixed Effects in the First Sensitivity Analysis

	Numerator df	*Denominator df*	*F*	*p*
Slope for news phase	1	117	57.71	< .0001

Slope for information phase	1	142	0.64	.43
Interaction between slope for news phase and role	1	75.4	44.51	< .0001
Interaction between slope for information phase and role	1	89.4	0.98	.33
Interaction between slope for news phase and news type	2	210	0.25	.78
Interaction between slope for information phase and news type	2	146	6.11	.003
Interaction between slope for news phase, role, and news type	2	135	0.58	.56
Interaction between slope for information phase, role, and news type	2	92.7	1.94	.15

Table S3

(Co-)variance Parameters in the First Sensitivity Analysis

Random effects ([co-]variances)	Estimate	SE	z	p
Level 3 (Between groups of people with the same doctor)				
Intercept for doctors	5343.02	2616.09	2.04	.02
News phase slope for doctors	51.49	65.32	0.79	.21
Covariance between intercept for doctors and news phase slope for doctors	-60.45	306.69	-0.20	.84
Level 2 (Between dyads, within groups of people with the same doctor)				
Intercept for doctors	4206.14	802.96	5.24	<.0001
News phase slope for doctors	6.89	81.06	0.08	.47
Intercept for patients	9055.12	1706.36	5.31	<.0001
News phase slope for patients	480.10	162.48	2.95	.002

Information phase slope for patients	5.04	2.83	1.78	.038
Covariance between intercept for patients and the news phase slope for patients	-85.78	388.40	-0.22	.83
Covariance between intercept for patients and the information phase slope for patients	-22.60	58.44	-0.39	.70
Covariance between the news phase slope for patients and the information phase slope for patients	-4.29	19.28	-0.22	.82
Level 1 (Within dyads, within groups of people with the same doctor)				
Variance of doctor within-time-point residuals	1772.39	98.63	17.97	<.0001
Variance of patient within-time-point residuals	1385.72	83.27	16.64	<.0001
Covariance of doctor and patient within-time-point residuals	306.20	54.03	5.67	<.0001
Within-person first-order autocorrelation of residuals	0.38	0.03	13.37	<.0001

Second Sensitivity Analysis

In a second sensitivity analysis, we examined whether effects were robust when estimating the news slope from minutes 1 through 2 and the information slope from minutes 2 through 20. All results are consistent with the ones presented in the main text. We report the Type III tests of fixed effects in Table S4 and the covariance parameters in Table S5.

Table S4

Type III Tests of Fixed Effects in the Second Sensitivity Analysis

	Numerator df	*Denominator df*	*F*	*p*
Slope for news phase	1	119	57.77	< .0001
Slope for information phase	1	142	2.25	.14

Interaction between slope for news phase and role	1	76.3	41.51	< .0001
Interaction between slope for information phase and role	1	93.1	0.26	.61
Interaction between slope for news phase and news type	2	221	0.72	.49
Interaction between slope for information phase and news type	2	146	5.92	.003
Interaction between slope for news phase, role, and news type	2	142	0.53	.59
Interaction between slope for information phase, role, and news type	2	96.4	1.11	.33

Table S5

(Co-)variance Parameters in the Second Sensitivity Analysis

Random effects ([co-]variances)	Estimate	*SE*	*z*	*p*
Level 3 (Between groups of people with the same doctor)				
Intercept for doctors	5040.02	2278.22	2.21	0.01
News phase slope for doctors	52.22	65.35	0.80	.21
Covariance between intercept for doctors and news phase slope for doctors	-44.86	280.63	-0.16	.87
Level 2 (Between dyads, within groups of people with the same doctor)				
Intercept for doctors	4439.06	799.30	5.55	< .0001
News phase slope for doctors	5.28	80.16	0.07	.47
Intercept for patients	8421.48	1514.17	5.56	< .0001
News phase slope for patients	522.27	174.03	3.00	.001
Information phase slope for patients	7.89	3.35	2.36	.009

Covariance between intercept for patients and the news phase slope for patients	-98.23	374.07	-.026	.79
Covariance between intercept for patients and the information phase slope for patients	-38.05	58.30	-0.65	.51
Covariance between the news phase slope for patients and the information phase slope for patients	-17.34	21.26	-0.82	.41
Level 1 (Within dyads, within groups of people with the same doctor)				
Variance of doctor within-time-point residuals	1766.17	98.06	18.01	< .0001
Variance of patient within-time-point residuals	1351.84	80.78	16.73	< .0001
Covariance of doctor and patient within-time-point residuals	297.07	52.92	5.61	< .0001
Within-person first-order autocorrelation of residuals	0.38	0.03	13.33	< .0001

Figure captions

Figure S1 Caption: Mean IBI responses for doctors and patients across each time point of the consultations.

Figure S1 Alt Text: A graph illustrates the average raw IBI response over time for doctors and patients separately.

Figure S1 Long Description: A graph illustrates the average raw IBI response over time for doctors and patients separately. The y-axis displays IBI in milliseconds, while the x-axis represents time in minutes. The average trajectory for doctors is represented by a solid black line, while the average trajectory for patients is shown with a black dashed line.