

# Shared-decision making in general practice: Do patients with respiratory tract infections actually want it?

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## Summary

**Background:** There is conflicting evidence on whether patients wish to be involved in medical decisions.

**Methods:** We interviewed 636 ambulatory patients with acute respiratory tract infections in cantons Basel-Stadt and Aargau. We asked whether they agreed with two statements that are the antithesis of shared-decision making. We used proportional odds regression to investigate how agreement with these two statements is associated with patient characteristics and with patient satisfaction and enablement.

**Results:** Many patients (66%) supported leaving decision making to their physician. These pa-

tients were more likely to be satisfied with the consultation and scored higher on enablement. Patients whose responses were consistent with a preference for shared-decision making were more likely to be younger, better educated and in more discomfort.

**Conclusion:** Patients consulting a general practitioner for acute respiratory tract infections should be invited to participate in decision making although many may choose to decline.

**Key words:** patient participation; patient satisfaction; primary health care; respiratory tract infections

## Introduction

Evidence as to whether patients wish to be involved in medical decision making is conflicting. A survey in hospitalised patients suggests that the majority of patients prefer physicians to make treatment decisions for them [1], even though primary care patients may prefer a more patient centred approach to consultation [2]. We asked primary care patients with acute respiratory tract infections (ARTI) whether they agreed with the following two statements which antithetically depict typical elements of shared decision making [3].

Statement A) Basically I think it should be left to the physician to decide which treatment is best for me.

Statement B) Even if I preferred something else, I would stick to my physician's advice.

In this report, we describe how responses to these two questions are associated with patient characteristics and with patient satisfaction and enablement.

## Methods

### Participants

All 636 patients in this study were part of a cluster randomised controlled trial [4]. In this trial, general practitioners (GPs) from cantons Basel-Stadt and Aargau were given training to improve their communication skills in an effort to reduce the antibiotic prescription rate for ARTI in primary care. In short, 30 GPs were randomised to receive either evidence-based guidelines for

the management of ARTI only, or these guidelines plus additional training in patient centred communication. A further 15 physicians, not randomised, served as a control to blind GPs to the comparison of real interest. Between January and May 2004, trial GPs screened and recruited consecutive patients with symptoms of ARTI aged 18 years or older, until they had recruited 20 patients. GPs collected patient baseline data on signs and symptoms, di-

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agnosis, co-morbidity and prescribed medication. Medical students, blinded to the goal of the trial, telephoned patients at 7 days to ask questions about decision making, patient satisfaction, and patient enablement. Due to limited resources they interviewed only patients in the two randomised groups and a convenience sample (one third) of the patients in the non-randomised group. Patient satisfaction (“complete” if the full score of 70 was reached) and patient enablement (scored on a scale from 0 to 12) were measured using validated scales [5, 6].

### Statistical analysis

We used proportional odds regression to estimate the association between agreement with statements A and B (fully agree/partly agree/don't agree) and (1) patient baseline characteristics (model 1), (2) complete patient satisfaction (model 2), and (3) patient enablement (model 3). Each generalised linear mixed model used the GP as a random effect and patient baseline characteristics (age, gender, education, degree of discomfort at baseline and at 7 days) and GP's treatment group as fixed effects. As a sensitivity analysis we removed the random effect from each model and added sampling weights to adjust for the underrepresented non-randomised group. All analyses were carried out in Stata 9.2.

## Results

Characteristics of the 636 interviewed patients are summarised in table 1. Of these, 66% fully agreed with leaving treatment decisions to their physician (statement A), and 43% agreed that they would follow their physician's advice even if they preferred a different treatment (statement B) (table 2). Younger and better educated patients and patients in more discomfort at baseline were less

likely to agree with these statements (table 3). Those patients who agreed that the physician should make treatment decisions were both more likely to be completely satisfied with the received care and scored higher on enablement. Similar results were seen in sensitivity analyses where sampling weights were used to adjust for the underrepresented non-randomised group.

**Table 1**  
Characteristics of interviewed patients with ARTI.

Total number of interviewed patients – n (%)	636 (100)
Age – median [IQR]	43 [28]
Women – n (%)	350 (55)
Education	
Low ( $\leq 5$ years) – n (%)	142 (23)
Medium ( $> 5$ and $\leq 10$ years) – n (%)	352 (56)
High ( $> 10$ years) – n (%)	136 (22)
Degree of discomfort from ARTI at baseline (scale 1–10) – median [IQR]	5 [3]
Degree of discomfort from ARTI after 7 days (scale 1–10) – median [IQR]	3 [3]
Completely satisfied patients – n (%) *	305 (48)
Patient enablement (score 0–12) – mean [SD]	8.3 [2.0]

ARTI, acute respiratory tract infection

\* Patients with satisfaction score of 70 out of 70.

**Table 2**  
Patients' responses to statements depicting typical elements of shared-decision making.

Statement	A) “Basically the physician should decide which treatment is best for me.”	B) “Even if I preferred something else, I would stick to my physician's advice.”
Fully agree – n (%)	420 (66)	273 (43)
Partly agree – n (%)	145 (23)	192 (30)
Don't agree – n (%)	71 (11)	171 (27)
Total – (%)	636 (100)	636 (100)

## Discussion

In this study the majority of primary care patients with ARTI agreed to leave the decision making to their physician. The patients who disagreed with statements A and B were on average younger and better educated. These patients also seemed more critical about the received care and felt less enabled.

There is no methodological gold standard on how to assess patients' preferences [3]. Our approach has been previously used [1, 7], but one limitation is that degree of agreement with simple statements may not adequately reflect patients' opinions about a complex topic. When asked for evaluation, patients tend to give answers they

**Table 3**  
Odds ratios for  
proportional odds  
models 1 to 3.

Model* (n = 594 <sup>†</sup> )	Covariate	Statement A): “Basically the physician should decide which treatment is best for me.” (Fully agree/Partly agree/ Don’t agree)	Statement B): “Even if I preferred something else, I would stick to my physician’s advice.” (Fully agree/Partly agree/ Don’t agree)	
		Adjusted Odds Ratio (95% confidence interval)		
1	Age (per 10 years)	1.31 (1.16–1.48)	1.11 (1.01–1.23)	
	Female	1.17 (0.82–1.67)	1.78 (1.30–2.44)	
	Education (per 5 years)	0.49 (0.37–0.65)	0.52 (0.41–0.67)	
	Discomfort at baseline (scale 1–10)	0.94 (0.86–1.04)	0.88 (0.81–0.96)	
	Discomfort after 7 days (scale 1–10)	1.00 (0.92–1.10)	0.97 (0.90–1.05)	
	Treatment group of GPs:			
	– Control	1.00 (reference)	1.00 (reference)	
– Guidelines only	1.33 (0.80–2.22)	1.24 (0.79–1.95)		
– Guidelines & communication training	1.56 (0.93–2.63)	1.16 (0.73–1.86)		
2 †	Patient satisfaction (completely satisfied)	1.21 (0.85–1.72)	1.60 (1.17–2.19)	
3 ‡	Patient enablement (score 0–12)	1.17 (1.07–1.29)	1.18 (1.09–1.28)	

\* Multivariate mixed models with the general practitioner as a random effect.

† Missing values led to a reduced sample; 594 / 636 = 93%.

‡ In models 2 and 3 patient satisfaction and patient enablement were added in turn to covariates of model 1; changes to model 1 covariates were minor and are not shown.

think the interviewer wants to hear [5]. In our study, telephone interviews by medical students not involved in patient care should limit this desirability bias, but we cannot rule it out. Due to the trial framework [4] patients in our study represent a relatively homogenous group of primary care patients (adults suffering from ARTI). ARTI in primary care is not considered a serious condition and it is perhaps understandable that patients do not care so much about treatment received as long as it reduces unpleasant symptoms. However, in a more heterogeneous group of primary care patients, those with more serious conditions might prefer a patient centred approach [2].

Our results are in line with a recent survey from a representative sample of US citizens which found that the “collaborative model of decision making is popular and may be desirable, [but] it is by no means universally held by the public” [7]. As in the large US study or in Swiss hospitalised patients [1], factors such as younger age and better education are associated with a higher preference for shared-decision making. Our results further suggest that patients who favour participation are

more difficult to satisfy. Therefore, GPs must find out whether the actual patient in front of them, under these circumstances and with this specific problem, wants the professional to take the lead or not. Each patient should be invited to participate in decision making, but he or she may ultimately decide to abstain.

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