Barriers for an effective communication around clinical decision making: an analysis of the gaps between doctors' and patients' point of view

José Joaquín Mira PhD,*† Mercedes Guilabert PhD,* Virtudes Pérez-Jover PhD* and Susana Lorenzo MD MPH PhD‡

*Health Psychology Department, Universidad Miguel Hernández, Elche, †Sexual and Reproductive Health, Centro Salud Hospital-Pla, Alicante, and ‡Quality Assurance Department, Hospital Universitario Fundación Alcorcón, Madrid, Spain

Abstract

Correspondence

José Joaquín Mira, PhD
Universidad Miguel Hernández
Health Psychology Department
Avd Universidad s/n
03202 Elche
Alicante
Spain
E-mail: jose.mira@umh.es

Accepted for publication

4 July 2012

Keywords: medical decision-making, patient participation, Professional-Patient Relations

Background There are doubts on whether patients feel that they have sufficient information for actively participating in clinical decisions.

Objective To describe the type of information that patients receive. To determine whether patients consider this information sufficient, and whether it contributes or not to improve clinical safety. To identify the barriers for patient participation in clinical decision making.

Study Design Cross-sectional study with 764 patients and 327 physicians.

Study Setting and participants Fourteen health centres belonging to three primary care districts and three hospitals in Spain.

Principal Findings Just 35.1% (268) (95% CI 32.2, 39.1%) of patients preferred to have the last word in clinical decisions. Age (39 vs. 62%, $P < 0.001$) and severity of illness (38 vs. 46%, $P = 0.002$) increased the tendency to take a passive role. In 85.1% (650) (95% CI 83.3, 88.3%) of the cases, patients reported having received sufficient information. Lack of consultation time (29.6%, 95% CI 25.8, 32.5%) and patients' use of Internet or other sources (19.2%, 95% CI 16.4, 22.2%) were identified as new obstacles to doctor–patient communication by the patients. Only 19.6% (64) (95% CI 15.4, 24.2%) of doctors considered that they could intervene to involve patients in the decisions.

Discussions and Conclusions The majority of patients prefer the decisions to be made by their doctor, especially those with more severe illnesses, and older patients. Patients are not normally informed about medication interactions, precautions and foreseeable complications. The information provided by general practitioners does not seem to contribute enough to the patient involvement in clinical safety.

Introduction

In recent years, the framework of the doctor–patient relationship has undergone notable changes in line with the development of the principle of autonomy, which reaffirms patients' capacity for decision making in all matters relating to their health.¹

This interaction involves attitudes, aptitudes and behaviours in the form of, on the one hand, styles of professional practice,^{2–4} and on the other, predictive and normative expectations about the content of encounters between the patient and the health professional.^{5,6}

The roles that come into play determine models of interaction with quite different levels of patient involvement in decisions.⁷ In the most classical, paternalist model, the doctor makes the decisions and sets the layout of the interaction, which will be adhered to with the patient's participation. In the informed model, the professional does what he/she can to include the patient's preferences in decisions. Finally, in the shared-decisions model, the aim is that the patient participates and gets involved in clinical decision making.

Research has provided evidence of the disadvantages of the paternalist model,^{8–12} which has given greater weight to calls to promote patient-centred health care. Nevertheless, the profile of patients is not stationary, but rather changes over time.

Higher educational level, an increase in chronic illness, access to information on the Internet and immigration are new phenomena that modify the framework of the relationship between professionals and patients.¹³

From all the aspects studied so far, the information^{14,15} provided by the doctor is one of the keys to patients' involvement in decisions that affect them, coping better with their illness or co-operating in clinical safety. It would seem that doctors and patients differ substantially in the quantity and quality of information they exchange,¹⁶ but we do not have much knowledge on whether patients feel that they have sufficient information for participating more actively in clinical decisions.

To date, there have been available scales for assessing the interaction between professionals and patients¹⁷ and other measures for rating patients' level of satisfaction with the decision taken.^{18,19} However, as these instruments were designed there have been substantial changes in this area (such as the advent of e-patients, or increased immigration in European countries), so that we do not know the difficulties doctors may face for interacting with patients nowadays.

In practice, patients want the doctor to listen to them, to resolve their doubts and to explain what is happening to them.^{20,21} Patients are willing to discern the choices that they have, although there is some doubt about whether they actually want to have the final word or not.^{4,22–24}

We are aware that many patients have intrinsic difficulties for asking questions to their doctor, although the barriers for interacting with the professional may vary according to the patient, the health-care context and the type of illness or treatment, or on how easy the professional makes it.^{4,25,26} It is not surprising that although patients may report being satisfied with the information provided by their doctor, they also claim that they do not have all the information they would like to,^{6,27–29} or that they have lingering doubts or concerns because they are afraid to ask.³⁰ The 'patient empowerment'^{10,31} approach has stressed how important it is for patients to familiarize themselves with their illness and treatment(s). They are encouraged to take on an active role and to interact with health professionals to learn more about their illness and treatment so as to contribute to the quality of care and to prevent adverse events.³²

With a view to achieving greater patient involvement in decisions, the professional should act differently in each case, according to the needs and preferences of each patient.^{1,33} But we do not know the current barriers to communication between professionals and patients in primary care or inpatients. Moreover, although we would expect some similarities, it may be that patients conduct

themselves differently depending on the context or the seriousness of their illness. In this article, we describe conditions that favour patients' participation in clinical decisions. The questions that guided our study were as follows: what patients are normally being informed about; whether such information is considered sufficient by them and whether it includes indications that contribute to clinical safety; how far patients desire an active and involved role in decisions; and what barriers currently exist in practice regarding to patient participation in clinical decisions making.

Methods

This study was approved by the Research Committee at the Miguel Hernández University.

Materials

To formulate and validate the survey questionnaires, eight focus groups were organized with a total of 58 patients from five autonomous regions, together with five focus groups with a total of 53 doctors from three autonomous regions. The questions asked in those groups were designed to identify relevant aspects of the doctor–patient communication that influenced clinical decision making. Specifically, respondents were asked about (Table 1) the type of information patients were normally provided, common barriers to doctor–patient communication, frequently asked questions, what patients should know to participate in clinical decisions, the profile of a patient who assumed an active role in the consultation and the most significant changes that they could think of in the doctor–patient relationship over recent years.

Secondly, based on the information provided by the participants in the focus groups, and considering the scales used in other studies,^{4,34–36} we designed the items for the patient and doctor questionnaires, respectively. The former included 10 direct questions about health status, patient satisfaction, self-perceived difficulties in communication with the doctor and preferences

Table 1 Topics and questions asked in focus groups with patients and professionals

Patient focus groups
Information received during the consultation
1. What information do you usually receive during a normal consultation?
2. What information would like to have?
3. What are the things that you usually ask a doctor?
Desirability of the patient participation in clinical decisions
1. Do you want to take decisions that affect your health or do you prefer that the doctor decides for you?, Why?
2. What would it take for professionals to help patients participate in clinical decisions?
3. Do you think your participation in clinical decisions can be beneficial? In which cases yes and which cases no?, Why?
Barriers in doctor–patient relationship
1. What changes do you think that are occurring in the relationship between doctor and patient over recent years?
2. Why sometimes is not easy to understand what the doctor is explaining?
Professional focus groups
Information provided during the consultation
1. What information do you usually provide during a normal consultation?
2. What information do you think patients would like to have?
3. What are the things that you usually consult patients?
4. What things should and should not patients ask?
Desirability of the patient participation in clinical decisions from the professionals' point of view
1. What kind of patient is usually more actively involved in clinical decisions?
2. What changes would you highlight from the doctor–patient relationship? Are patients ready to take an active role in clinical decisions?
3. What would it take for professionals to help patients participate in clinical decisions?
Barriers in doctor–patient relationship
1. What changes do you think that are occurring in the relationship between the doctor and the patient over recent years?
2. What are the main barriers to an effective communication with patients? Structure, style, profile of patients and so on
3. What are the costs of professionals work load with patients more actively involved in clinical decision making?

about decision making; it also included the following scales: Barriers to Communication with the Doctor (BCME) and Patient Preferences about Clinical Decision Making (PPADCL). The doctors' questionnaire contained 4 direct questions for assessing doctor's job satisfaction, frequency with which patients were informed about therapeutic alternatives and self-perceived difficulties for communication with the patient, together with the following scales: Information for the Patient (INPA) and Barriers to Communication with the Patient (BCPA).

BCME: From a closed list, identifies barriers to communication with the doctor.

PPADCL: Explores whether patients opt for an active, passive or submissive style in the relationship with the doctor, which affects their involvement in clinical decision making.

INPA: Explores which information the doctor normally provides regarding to diagnosis, tests, dosage, treatment precautions and medication interactions.

BCPA: Informs about difficulties that doctors observe in their patients for participating more actively in the consultation.

Participants

Between October 2008 and May 2009, a total sample of 773 patients took a telephone survey (sample size calculated for the strata 'hospital' and 'health centre' for an error of 3%, $\alpha = 0.05$ and $p = q = 0.50$), whilst 385 doctors took a self-administered survey (sample size calculated for an error of 5%, α of 0.05 and $p = q = 0.50$). Both samples came from three different autonomous regions of Spain.

The telephone survey for patients was carried out once the patient had been discharged from the hospital, using a computer-assisted telephone interview (CATI) system with random digit dialling to select individuals aged 16 years or over and who had been discharged from one of the participating hospitals or attended one of the health centres. If the patient declined to participate, he/she was substituted by another patient at random using the same system, until the sample size

was completed. The paper survey for doctors was hand delivered at the doctor's work place (three hospitals and 14 health centres), with a maximum of three reminders being distributed. Not all participants answered all the questions, but questionnaires with five or more missing answers were excluded as invalid.

Data analysis

The results are expressed as frequencies and scores on the scales as means and standard deviations. Cronbach's alpha was applied to determine internal consistency for all scales. The factor structure of the scales was examined using principal components analysis. Given that the factors were expected to be correlated, oblique rotation was used in all cases.

The theoretical structure of these scales was confirmed by conducting a confirmatory factor analysis using maximum-likelihood estimation on the validation sample. The fit indices used were the goodness-of-fit index (GFI) and the comparative fit index (CFI). GFI and CFI expected values close to or over 0.90 for considering acceptable fit.³⁷ Additionally, for each scale we calculated the predictive validity considering the results of other studies. In the case of BCME, the predictive validity was calculated analysing whether, when the patient reported more barriers to communication with the doctor, he/she also reported dissatisfaction with the information received.³⁸ The PPADCL scale is expected to discriminate between patients who wish to be involved in clinical decisions and those who, on the other hand, prefer the decisions to be made by their doctor. We analysed the INPA's capacity for discrimination between patients who were satisfied and dissatisfied with the information provided by their doctor. To determine the predictive validity of the BCPA scale, we analysed whether those doctors who encountered more difficulties for communicating with their patients reported greater dissatisfaction.³⁹

We used the chi-square test for categorical variables (with Yates' correction when

applied) and *t*-test and ANOVA (Scheffé test applied for post hoc comparison) when the independent variables were quantitative. In these cases, we checked the homoscedasticity assumptions of the variables. This analysis was also conducted considering patients' age, sex and health self-status, and whether the illness was a chronic one (only in the sample of patients discharged from hospital). We used an enter model of logistic regression, considering as dependent variables the dichotomized responses about the information provided by the doctor, and as independent variables, possible barriers to communication. In all the statistical analyses, differences were considered statistically significant when $P < 0.05$. We used SPSS version 19.0 (SPSS, Inc, Chicago, IL, USA) for this analysis.

Results

We analysed the responses of 764 patients given that nine questionnaires were eliminated from those that responded given that the survey was not fully completed. During the study, 23% of the requested patients refused to answer. A total of 327 doctors replied to all the questions (response rate: 84.9%). The proportion of patients discharged from hospitals and receiving primary care is similar. Primary care doctors and women primary care doctors are slightly over-represented (Table 2).

Validity and reliability of the scales

The INPA is structured in two factors with items with saturations over 0.70 that explain 62.4% of the variance (Table 3). When patients respond affirmatively to each of its elements, they report greater satisfaction with the information their doctor provided them ($P < 0.001$). The BCPA includes three factors with elements whose saturations are above 0.5. The association between score on the scale and doctor's job dissatisfaction was confirmed ($P = 0.01$). The BCME has four items that saturate in a single factor. The ques-

Table 2 Sample description

Patients (<i>N</i> = 764)	Hospital discharges (<i>N</i> = 382)	Health Centre visits (<i>N</i> = 382)
Where attended ¹	382 (50)	382 (50)
Age (%)		
16–30	33 (8.6)	57 (14.9)
31–60	286 (74.9)	249 (65.2)
61–70	51 (13.3)	71 (18.6)
> 70	12 (3.1)	5 (1.3)
Gender		
Female	207 (54.2)	229 (59.9)
Educational level		
Basic education	133 (34.8)	178 (46.6)
Undergraduate	24 (6.3)	26 (6.8)
Higher studies	66 (17.3)	58 (15.2)
Vocational/Technical	90 (23.6)	60 (15.7)
No studies	69 (18.1)	60 (15.7)
Own health Perception		
Poor	60 (15.7)	33 (8.6)
Normal	173 (45.3)	194 (50.8)
Good	149 (39)	154 (40.3)
Reason for Health Centre visit		
Illness follow-up	–	150 (39.3)
Recent symptoms	–	109 (28.5)
For prescription only	–	62 (16.2)
Others	–	61 (16)
Type of illness ²		
Acute	265 (69.4)	–
Chronic	117 (30.6)	–
Doctors (<i>N</i> = 327)	Hospitals (<i>N</i> = 144)	Primary care (<i>N</i> = 183)
Age		
25–30	30 (20.8)	27 (14.7)
31–40	63 (43.7)	52 (28.4)
41–50	41 (28.5)	73 (39.9)
51–65	10 (6.9)	31 (16.9)
Gender		
Male	68 (47.2)	83 (45.3)
Type of professional ³		
Surgical services	54 (16.5)	
Medical services	87 (26.6)	185 (56.6)
Percentage of physicians self-declared satisfied with their job	81.6	65.3

Percentage in brackets.

¹Percentages calculated for the total sample of patients.

²Only applicable to the subsample of hospital discharges.

³Percentages calculated for the total sample of physicians.

tion that identifies as a barrier to communication the fact that the patient seeks information from other sources shows a saturation of 0.4,

Table 3 Metric characteristics of the scales used

	Cronbach's alpha	Number of factors	Number of items	Percentage variance explained	GFI	CFI
Information for the Patient Scale (INPA)	0.75	2	6	62.4	0.97	0.93
Barriers to Communication with the Patient Scale (BCPA)	0.65	3	9	52.2	0.97	0.91
Barriers to Communication with the Doctor Scale (BCME)	0.50	1	4	42.1	0.98	0.90
Patient Preferences about Clinical Decision Making Scale (PPADCL)	0.73	3	10	60.3	0.93	0.87

GFI, goodness-of-fit index; CFI, comparative fit index.

statistically significant but markedly lower than the rest, thus detracting somewhat from the consistency of the scale as a whole. Nevertheless, we opted to maintain it in the scale. We confirmed that the greater the patient's dissatisfaction with the information from the doctor, the higher the BCME score ($F_{2,706} = 73.7$; $P = 0.001$). The PPADCL is made up of three factors with items with saturations over 0.5. We confirmed the discrimination capacity of the scale's factors when patients preferred it to be the doctor who took decisions (passive style $F_{1,752} = 49.0$; $P < 0.001$; submissive style $F_{1,719} = 22.7$, $P < 0.001$; active style $F_{1,705} = 8.4$, $P = 0.004$).

What the patient is informed about

Dosage, causes of the illness and information about diagnostic tests constitute the information most commonly provided by doctors to their patients (Table 4). In primary care, it is less common to find patients being informed about precautions with treatment or possible complications (see Table 4 including a difference of 41 points). The adjustment variables, sex and level of care, do not modify the trend of these results. Hospital patients and doctors coincide to a greater extent in their point of view about the information provided compared

Table 4 What doctors say they inform their patients about, and what patients say they are told about by their doctors. What doctors think their patients want more information about, and what patients say they want more information about

	PC doctors (N = 183)	PC patients (N = 382)	Diff.	Hospital doctors (N = 144)	Hospital patients (N = 382)	Diff.
What patients are informed about						
Dosage	97.2	69.6	27.6	85.8	90.1	-4.3
Origin and causes of illness	83.5	44.8	38.7	86.2	86.1	0.1
Treatment complications	79.3	38.5	40.8	82.2	88	-5.8
Medication interactions	83.2	50.3	32.9	73.2	88.5	-15.3
Information about tests	88.5	51.3	37.2	92.2	85.1	7.1
Informed about possible treatment alternatives		36.1			86.9	
Informed about possible treatment alternatives so that they can participate in the decision	62.9	49.9	13	71.8	29.1	42.7
What patients want more information about						
Dosage	88.8	83	5.8	84.7	74.6	10.1
Origin and causes of illness	73.9	85.9	-12	78.2	66	12.2
Medication interactions	78.5	81.4	-2.9	62.6	72.3	-9.7
Information about requested tests	73	84.8	-11.8	68.8	68.3	0.5
Treatment complications	49.7	80.6	-30.9	50.7	59.9	-9.2

Data in% PC primary care. Diff., Difference of percentages. A positive value indicates that doctors report informing patients more commonly than is confirmed by patients' reports.

with the case in primary care patients and doctors (Table 4).

When the doctor reports dissatisfaction, it is less probable that he/she informs the patient of possible treatment complications (11 vs. 22%, $P = 0.03$). Older doctors are more likely to inform their patients about possible medication interactions (40 vs. 21%, $P = 0.004$).

Primary care patients require more information about possible complications in the course of treatment than their doctors' think, whilst hospital inpatients would like more information about possible medication interactions than their doctors think (Table 4). Whilst primary care patients want information during their treatment (80.6%), hospital inpatients are less demanding of information (59.9%).

Patient participation in clinical decisions

Only 268 (35.1% 95% CI 32.2%, 39.1%) preferred to be informed by their doctor but make the decisions themselves. State of health perceived by the patient influences preferences about whether to adopt a passive role or to make decisions jointly with the doctor, so that the poorer the self-perceived health of the patient, the more likely he or she will tend to take a passive role in the consultation (passive role score of 34.5 vs. 32.7, $P = 0.002$). Also, tendency to desire involvement in decisions declines when patients' age increases ($P < 0.001$) (Table 5).

Patients who prefer it to be their doctor who makes the decisions and tells them the best course of action are those who give the best ratings to the information provided by their doctor (Table 5).

Barriers to patients' participation in clinical decisions: doctors' points of view

A total of 218 (66.7%, 95% CI 61.7%, 72%) doctors reported offering their patients therapeutic alternatives so that they could choose. Neither job satisfaction ($P = 0.6$), age ($P = 0.7$) or level care ($P = 0.1$) modulated this result. The fact that many of the doctors' patients

had understanding difficulties did not limit the frequency with which they reported providing information on therapeutic alternatives ($P = 0.4$). Male doctors were more likely than female doctors to offer patients alternatives (73.3% vs. 61.5%, $\chi^2 = 4.4$ $P = 0.04$).

Doctors who reported that they used to inform patients about possible alternatives were more likely to provide information on potential complications in the course of treatment (OR 1.4, 95% CI 1.1, 2.1) and on the foreseeable evolution of the treatment course (OR 1.4, 95% CI 1, 2.1). However, frequency of providing information about medication interactions was equally low (OR 1.1, 95% CI 0.7, 1.5).

Just 64 (19.6%, 95% CI 15.4%, 24.2%) of doctors referred that they could do something to contribute to overcoming the difficulties commonly found in relation to patient participation in clinical decisions. The content of the information normally provided to patients by this subgroup of doctors was similar to that found in the rest of the sample.

Eighty-three (25.4%, 95% CI 20.5%, 30%) professionals reported the frequent sensation that their patients did not understand what was being explained to them. Those who thought that their patients often had problems of understanding reported the same frequency of informing about therapeutic alternatives ($\chi^2 = 3.7$, $P = 0.2$), possible complications ($\chi^2 = 1.5$, $P = 0.009$) and medication interactions ($\chi^2 = 2.6$, $P = 0.3$).

Lack of time, difficulties with the language in the case of immigrant patients or the fact that the patient had had a negative experience with a previous doctor were cited as the most substantial barriers to patient participation in clinical decisions (Table 6).

The experience is similar across levels of care, except in the case of prior problems with a previous doctor, which is significantly relevant in the primary care context ($\chi^2 = 13.8$, $P = 0.003$). In the successive analysis, sex and age did not modify the trend of these results.

The feeling that patients have difficulty understanding the information provided by the

Table 5 Styles of interaction with the doctor preferred by patients and its interaction with patient satisfaction variables included in this study

Participation in clinical decisions scale	Sex (N = 634)		Type of illness (N = 373)		Age (N = 683)				State of health (N = 684)				Patient satisfaction with the attention received ¹ (N = 691)		Understands doctor's explanations ¹ (N = 691)		Patient satisfaction with information from doctor ² (N = 691)	
	Male	Female	Acute	Chronic	16–30	31–60	61–70	>70	Poor	Normal	Good	Low	High	No	Yes	Very Low	Little	High
Active role ³	33 (17.6)	53 (22.1)	30 (21.1)	8 (11.4)	22 (36.1)	64 (20.8)	10 (12.5)	3 (18.8)	7 (11.3)	41 (19.2)	50 (25.5)	30.9	29.8*	27.8	30.2*	30.6	30.7	29.8
Passive role ³	75 (40.1)	85 (35.8)	58 (40.8)	30 (42.9)	15 (24.6)	113 (36.7)	32 (40)	3 (18.8)	24 (38.7)	65 (30.5)	77 (39.3)	30.4	33.9**	31.9	33.1	26.7	30.5	34.3**
Submissive role ³	79 (42.2)	102 (42.5)	54 (38%)	32 (45.7)	24 (39.3)	131 (42.5)	38 (47.5)	10 (62.5)	31 (50)	107 (50.2)	69 (35.2)	28.4	29.7*	30.4	29.3	28.9	28.0	29.8**
Scale scores ⁴	28.7	29.2	29	28*	30.1	28.9	28.5	27.9**	28	28.7	29.6**	30.4	28.5**	27.3	29.1*	30.3	30.6	28.4**

P-values refer to statistical significance in the scores in PPADCL comparing levels of the independent variables. Percentage in brackets.

¹Two sample t-test, 2-sided.

²Only data of the patients who met the criteria for each group.

³ANOVA, 2-sided.

⁴Data are scores of the Patient Preferences about Clinical Decision Making (PPADCL).

* $P < 0.05$.

** $P < 0.001$.

Table 6 Barriers to patient participation in clinical decisions according to the doctors' point of view

Doctors	Both (N = 327)	Hospital (N = 144)	Primary Care (N = 183)
Thinks he/she can do something to help patient participation in clinical decisions	64 (19.6)	25 (17.1)	39 (21.1)
Often feels patients do not understand his/her explanations	83 (25.4)	37 (25.4)	46 (24.9)
Most significant barriers to patient participation in clinical decisions			
Patient receives contradictory information (e.g. other professionals. Internet)	248 (75.8)	101 (70.4)	147 (80.5)
Difficulties for communicating with the patient	205 (62.7)	86 (59.5)	119 (64.8)
Language difficulties with immigrant patients	288 (88.1)	128 (88.8)	160 (87.4)
Patient previously attended by other doctor	143 (43.7)	51 (35.2)*	92 (50.5)*
Passive attitude by patient during consultation	244 (74.5)	108 (75.3)	136 (74.5)
Unquestioning faith in what doctor says	231 (70.5)	103 (71.8)	128 (70)
Patient does not want information	231 (70.6)	99 (69)	132 (72.4)
Patient's negative experience with other doctor	262 (80.1)	116 (80.9)	146 (79.7)
Not enough time to attend properly to patient	306 (93.5)	140 (97.2)	166 (90.6)

Percentage in brackets. Chi-squared test. 2-sided, hospital vs. primary care.

**P* = 0.02.

doctor is increased when the patient receives contradictory information (OR 1.7, 95% CI 1.1, 2.6), the doctor perceives difficulties for communicating with his or her patients (OR 1.7, 95% CI 1.2, 2.4), he or she is dissatisfied with the job (OR 0.5, 95% CI 0.3, 1).

Barriers to patient participation in clinical decisions: patients' points of view

A total of 540 (70.7%, 95% CI 68.5%, 75%) patients reported satisfaction with the informa-

tion facilitated by their doctor; 650 (85.1%; 95% CI 83.3%, 88.2%) considered that their doctor provided them with sufficient information. Older patients and those who had been discharged from hospital gave more positive ratings to the information provided by their doctors, although all of them felt that they had received sufficient information (Table 7).

Patients reported that consulting other sources and lack of time were the main barriers to effective communication with the doctor (Table 8). Women, acute patients and younger

Table 7 Patient satisfaction with the information received

	Satisfaction with the information provided by doctor <i>n/N</i> (%)	Consider that their doctor provides them with sufficient information <i>n/N</i> (%)	Understand well the information provided by the doctor <i>n/N</i> (%)
Setting			
Hospital discharge	320/382 (83.8)*	336/382 (88)	360/382 (94.2)
Health Centre patients	220/371 (59.3)	314/376 (83.5)	355/371 (95.7)
Age			
16–30	50/88 (56.8)**	73/87 (83.9)	86/87 (98.9)
31–60	381/520 (73.3)	448/522 (85.8)	494/519 (95.2)
61–70	88/115 (76.5)	101/117 (86.3)	106/115 (92.2)
Over 70	14/17 (82.4)	16/17 (94.1)	15/17 (88.2)
Gender			
Male	226/294 (76.9)	258/295 (87.5)	277/294 (94.2)
Female	276/389 (71)	332/392 (84.7)	370/390 (94.9)

Chi-squared test. 2-sided. *n/N* of patients who replied affirmatively to the item/total patients who replied to the item. *P*-values refer to the differences between satisfied and dissatisfied patients.

**P*-values = 0.001.

***P*-values = 0.03.

Table 8 Barriers to patient participation in clinical decisions according to the patients' point of view

Difficulties in communication with the doctor	Hospital Discharge		Primary Care		Acute ¹		Chronic ¹		Men		Women		16–30	31–60	61–70	>70
	Global	(N = 376)	(N = 357)	(N = 262)	(N = 114)	(N = 288)	(N = 380)	(N = 86)	(N = 506)	(N = 111)	(N = 13)	(N = 13)	(N = 86)	(N = 506)	(N = 111)	(N = 13)
One doctor says one thing and another says something else (N = 733)	6.4	6.9	6.2*	5.4	9.6	4.9	7.3	9.1	6.7	2.7	14.3					
Other sources used (other patients, Internet) (N = 726)	19.2	26.1	11.8*	29.4	18.4	19.2	21.4	26.7	21.1	5.4	15.4*					
Doctor's language too technical (N = 729)	10.1	8.3	12.1	7.3	10.6	10.1	9	15.2	9.1	10.5	15.4					
Too many patients and little time allotted (N = 732)	29.6	21.3	38.5*	20.6	22.8	25.9	29.5	33.7	29.7	27	15.4					

Data in percentage. Chi-squared test. 2-sided, hospital vs. primary care or differences between age's categories.

¹Data correspond to patients discharged from hospital.**P* < 0.001.

respondents found it more difficult to communicate with the doctor (Table 9).

Discussion

The tendency observed in patients to report satisfaction with the information provided by doctors conceals the reality that certain information relevant to therapeutic effectiveness and patient safety is either not provided when needed or is not fully understood by patients, which limits the potential of the professionals efforts to involve the patient in the treatment.⁴ This result confirms the findings of other studies carried out in the primary care context⁴⁰ and provides new information on what happens in the hospital context.

Patients in this study would like their GP to provide them with more information than the professionals suspect about possible treatment complications. At the same time, hospital inpatients would like more information on medication interactions that represent a risk for them. Such information could be considered in decisions about the content of information in programmes designed to involve the patient in clinical safety.⁴¹ It might be also useful information to prevent the patients' errors related with medication besides introducing tools to reduce errors (such as pillboxes).

Various studies have revealed the differences between the points of view of patients and doctors about the information they exchange.^{15,21,42–44} This study, including doctors, primary care and hospital patients, makes it possible to deepen a little further and shows that those differences between patients and doctors regarding that information are greater in the case of primary care (for example, in relation to the origin and causes of the illness). The result is especially relevant at this level of care, in which the doctor requests the patient's full complicity to ensure therapeutic effectiveness, and strategies towards a reduction of this discrepancy are recommended. The result can be partly explained by the differences in morbidity and

Table 9 Scores on Barriers to Communication with the Doctor Scale (BCME)

	BCME	95% CI difference between means	P-values
Men (N = 285)	7.1	-0.2, 0.4	0.7 ¹
Women (N = 372)	7.1		
Chronic (N = 114)	6.8	0.3, 0.6	0.06 ¹
Acute (N = 262)	6.9		
Doubts remaining (N = 228)	8	1.0, 1.6	0.001 ¹
No doubts remaining (N = 481)	6.7		
		95% CI	
16–30 (N = 86)	7.6	7.2, 8.1	0.03 ²
31–60 (N = 506)	7.1	6.9, 7.3	
61–70 (N = 111)	6.8	6.5, 7.2	
>70 (N = 13)	6.6	5.7, 7.5	

95% CI, 95% confidence interval.

¹Two sample *t*-test, 2-sided.²ANOVA, 2-sided.

timing (in relation to the illness or problem) between the two different levels of care, but it is still a warning of the need for efforts to improve communication with patients. Also, to understand these data, we can consider that it might be possible that in some cases (especially in the hospital setting) different health providers could contribute to inform the patients about possible treatment reactions, not just the physicians.

Regarding the information that could contribute to improve clinical safety, this study reveals that the patients are not normally informed about possible medication interactions, or about precautions and foreseeable complications in relation to the course of treatment. Likewise, we found that providing information on possible treatment alternatives, advisable if the aim is to involve the patient in clinical decisions, is not a common practice either. In general, the doctors' point of view about the information provided does not meet patients' preferences, and this finding agrees with those published from studies conducted in other countries analysing patients preferences.^{19,22,45}

The exception are older doctors (and therefore more experienced), who were found to

provide in-depth information about medication interactions, alternatives and precautions to be taken. A relevant fact is that doctors who reported dissatisfaction with their job were those who provided patients with deficient information on these aspects.

In this study, we found that doctors who tend to provide information about treatment precautions also informed patients about therapeutic alternatives and possible medication interactions. Curiously, in the sample of doctors analysed, even though the doctor considered that his or her patient does not understand the information, he/she continues to provide it. It would seem that greater priority is given to fulfilling the duty of informing patients than to ensuring that they understand the information. This aspect, not focused upon in other studies, requires further analysis to determine whether or not there is a stable trend.

Patients prefer a more passive role, even though they wish to receive information. As pointed out by other authors,^{24,46} only 1/3 of patients want to have the last word on decisions – precisely those who better understand the doctor's explanations. The higher the patients' educational level, the more likely they are willing to participate in clinical decisions.⁴⁷ The majority opt for a passive style, as shown in previous research.^{4,6,48} Older patients and those with a poorer self-perceived health showed a preference for a passive style.^{4,19,24,49} Patients with a passive style are those most likely to see their preferences satisfied regarding to their consultation with the doctor, so that the level of involvement in decisions is low. It is also relevant the fact that few doctors believe that they can contribute to increase patients' involvement in clinical decisions. This is probably the most relevant barrier to involve patients in safety. A strategy to change this viewpoint is necessary to engage patients in clinical decisions.³²

Considered as a whole, and bearing in mind the patients' and professionals' participating profiles, the results of the present study show that patients neither take the responsibility to make decisions nor consider it a valid alternative for them. The majority of doctors also act

in a way that does not facilitate such involvement, probably because there is insufficient insistence during either their basic training or their specialization period on the clinical usefulness of achieving patient involvement.

Barriers to achieving greater patient participation include lack of time, different language and information found on the Internet; and negative previous experiences with other health professionals (this aspect above all in the primary care context). The new phenomena of immigration in European countries and e-health come on top of other factors, already mentioned in a previous publication,³⁰ limiting the active patients' participation. We are aware that failure to reduce the information gap between patients and doctors about a particular treatment generates dissatisfaction⁵⁰ and that patients seek to satisfy such preferences,²¹ turning to a change of doctor if necessary and when possible.³⁰ Dissatisfaction has been related with the feeling that the patient is not listened and probably encourages a more passive role. If we add to this fact the lack of consultation time identified in this study as one of the most relevant barriers, the difficulties for choosing a more active role become evident.

Recent studies^{51,52} have shown how patients also influence doctors' styles of practice, and in this case we have seen that it is more common to find an active role among younger doctors.

It is quite possible that sociodemographic changes, on one hand, and a greater insistence in the training of professionals (doctors, nurses and other health professionals) on more patient-centred styles of practice, on the other, might reduce communication barriers. However, job dissatisfaction emerges as a factor, which threatens the pursuit of patient-centred styles of practice.

Our data come from samples of Spanish patients and professionals from 3 autonomous regions, with a health-care model built around two levels of care. Caution should be taken in attempting to generalize these findings to other countries and health-care models. Despite previous analysis of possible barriers to communication and conditions for patient participation

in clinical decisions by means of qualitative techniques, the final selection of elements from the scales employed may have left out some aspects relevant in other health-care contexts. Also, the study does not take into account that a single patient will probably have different doctors in primary care and in the hospital, which will necessarily have an effect on the final data available.

In conclusion, it seems that the information provided by doctors, especially at the primary care level, does not contribute to involving the patient in clinical safety, even though patients appear to be interested in this type of information. On the other hand, it is confirmed that the majority of patients, despite their willingness to be informed, prefer the doctor to make the decisions, especially when they have a serious illness or if they are older. Finally, it seems that professionals from both care levels do not have a clear idea on what they might do to help their patients adopt a more active role. Patients are unlikely to seek more active participation in the doctor-patient encounter if their physicians do not smooth the progress of it. This study shows that in some cases (a few) the patient wishes to participate and the doctor should encourage him/her to ask questions and to address their concerns. However, this is not enough for most cases. Health authorities should review procedures to reduce bureaucratic tasks so that the doctor has more time for the patient consultation. Also, it might be necessary to reconsider the training skills during the period of specialization. Teaching is not only a matter of providing information but it is also probably needed to educate in listening to the patients.

Acknowledgements

We would like to appreciate the reviewers' contribution that let us improve the manuscript. The study was funded by the Spanish Health Research Fund (Fondo de Investigación Sanitaria, FIS) (references FIS PI06574 and PI0611809), within a coordinated project entitled 'Conditions for putting the Patient Autonomy Act into practice'.

Conflict of interest

None.

References

- Lorenzo S. Hacia nuevos planteamientos de calidad. El paciente como coprotagonista. *Gaceta Sanitaria*, 2008; **22**: 186–191.
- Bertakis KD, Roter D, Putnam SM. The relationship of physician medical interview style to patient satisfaction. *Journal of Family Practice*, 1991; **32**: 175–181.
- Loayssa JR, González F, Ruiz R. Teoría declarada de los médicos de familia sobre la relación con el paciente. *Atencion Primaria*, 2007; **39**: 291–297.
- Ford S, Schofield TH, Hope T. Are patients' decision-making preferences being met? *Health Expectations*, 2003; **6**: 72–80.
- Feldman-Stewart D, Brundage MD, McConell BA. Practical issues in assisting shared decision-making. *Health Expectations*, 2000; **3**: 46–54.
- Coulter A. After Bristol: putting patients at the centre. *BMJ*, 2002; **324**: 648–651.
- Charles C, Whelan T, Gafni A. What do we mean by partnership in making decisions about treatment?. *BMJ*, 1999; **319**: 780–782.
- Hartzband PH, Groopman J. Keeping the patient in the equation- humanism and health care reform. *BMJ*, 2009; **361**: 554–555.
- Coulter A, Magee H. *The European Patient of the Future*. Maidenhead: Open University Press, 2003.
- Kassirer JP. Incorporating patients' preferences into medical decisions. *The New England Journal of Medicine*, 1994; **330**: 1895–1896.
- Mira JJ, Aranaz JM, Vitaller J *et al.* Percepción de seguridad clínica tras el alta hospitalaria. *Medicina clínica*, 2008; **131**: 26–32.
- Beach MC, Sugarman J, Johnson RL, Arbelaez JJ, Duggan PS, Cooper LA. Do patients treated with dignity report higher satisfaction, adherence, and receipt of preventive care. *Annals of Family Medicine*, 2005; **3**: 331–338.
- Ong LML, Haes JCJM, Hoos AM, Lammes FB. Doctor-patient communication: a review of the literature. *Social Science and Medicine*, 1995; **40**: 903–918.
- Schoen C, Osborn R, Huynh PT *et al.* Taking the pulse of health care systems: experiences of patients with health problems in six countries. *Health Affairs*, 2005; **24**: 509–525.
- Mira JJ, Rodríguez-Marín J. Análisis de las condiciones en las que los pacientes toman decisiones responsables. *Medicina clínica*, 2001; **116**: 104–110.
- Laine Ch, Davidoff F, Lewis ChE, Nelson E. Important elements of outpatient care. *Annals of Internal Medicine*, 1996; **125**: 640–645.
- Légaré F, Moher D, Elwyn G, LeBlanc A, Gravel K. Instruments to assess the perception of physicians in the decision-making process of specific clinical encounters: a systematic review. *Medical Informatics and Decision Making*, 2007; **15**: 7–30.
- Holmes-Rovner M, Kroll J, Schmitt N *et al.* Patient satisfaction with health care decisions: the Satisfaction with Decision Scale. *Medical Decision Making*, 1996; **16**: 58–64.
- Nolan MT, Hughes MT, Kub J *et al.* Development and validation of the Family Decision-Making Self-Efficacy Scale. *Journal of Palliative Care*, 2009; **7**: 315–321.
- Guadagnoli E, Ward P. Patient participation in decision-making. *Social Science and Medicine*, 1998; **47**: 329–339.
- Mira JJ, Rodríguez-Marín J, Peset R *et al.* Causas de satisfacción y de insatisfacción de los pacientes en hospitales y atención primaria. *Revista de Calidad Asistencial*, 2002; **17**: 273–283.
- Arora NK, McHorney C. Patient preferences for medical decision making: who really wants to participate? *Medical Care*, 2000; **38**: 335–341.
- Mira JJ, Tirado S, Pérez-Jover V, Vitaller J. Determinantes de la elección de hospital por parte de los pacientes. *Gaceta Sanitaria*, 2004; **18**: 205–212.
- Janssen NBAT, Oort FJ, Fockens P, Willems DL, de Haes HCJM, Smets EMA. Under what conditions do patients want to be informed about their risk of a complication? A vignette study. *Journal of Medical Ethics*, 2009; **35**: 276–282.
- Benbassat J, Pilpel D, Tidhar M. Patients' preferences for participation in clinical decision making: a review of published surveys. *Annals of Behavioral Medicine*, 1998; **24**: 81–88.
- Dickert NW, Kass NE. Understanding respect: learning from patients. *Journal of Medical Ethics*, 2009; **35**: 419–423.
- Davison J, Degner L, Morgan Th. Information and decision-making preferences of men with prostate cancer. *Oncology Nursing Forum*, 1995; **22**: 1401–1408.
- Sculper MJ, Dwyer N, Browning J, Horsley S, Cullimore J. A survey of women's preferences regarding alternative surgical treatments for menorrhagia. *Health Expectations*, 1998; **1**: 96–105.
- Ashbury F, Findlay H, Reynolds B, McKerracher K. A Canadian survey of cancer patients' experiences: are their needs being met?. *Journal of Pain and Symptom Management*, 1998; **16**: 298–306.
- Mira JJ, Lorenzo S, Pérez-Jover V, Ortiz L. Listen carefully to the patient, it means more advantages than costs. *Medicina clínica*, 2010; **135**: 477–479.

- 31 Hartzband PH, Groopman J. Keeping the Patient in the Equation-Humanism and Health Care Reform. *BMJ*, 2009; **361**: 554–555.
- 32 Longtin Y, Sax H, Leape L, Sheridan S, Donalson L, Pittet D. Patient participation: current knowledge and applicability to patient safety. *Mayo Clinic Proceedings*, 2010; **85**: 53–62.
- 33 Dutta-Bergman MJ. The relation between health-orientation, provider-patient communication, and satisfaction: an individual-difference approach. *Am J Health Behav*, 2005; **18**: 291–303.
- 34 O'Connor AM. Validation of a Decisional Conflict Scale. *Medical Informatics and Decision Making*, 1995; **15**: 25–30.
- 35 Shields CG, Granks P, Fiscella K, Meldrum S, Epstein RM. Rochester Participatory Decision-Making Scale (RPAD): reliability and validity. *Annals of Family Medicine*, 2005; **3**: 436–442.
- 36 Mira JJ, Tomás O, Pérez-Jover V, Nebot C, Rodríguez-Marin J. Predictors of patient satisfaction in surgery. *Surgery*, 2009; **145**: 536–541.
- 37 Byrne BM. *Structural Equation Modeling with AMOS. Basic Concepts, Applications and Programming*. Mahwah, NJ: Lawrence Erlbaum Associates, Pbs, 2001.
- 38 Speedling E, Rose D. Building effective doctor-patient relationship from patient satisfaction to patient participation. *Social Science and Medicine*, 1985; **21**: 115–120.
- 39 Robbins JA, Bertakis KD, Helms LJ, Azari R, Callahan EJ, Creten DA. The influence of physician practice behaviors on patient satisfaction. *Family Medicine*, 1993; **25**: 17–20.
- 40 Barca I, Parejo R, Gutiérrez P, Fernández F, Alejandro G, López de Castro F. La información al paciente y su participación en la toma de decisiones clínicas. *Atencion Primaria*, 2004; **33**: 361–367.
- 41 Schwappach DL. Review: engaging patients as vigilant partners in safety: a systematic review. *Medical Care Research and Review*, 2010; **67**: 119–148.
- 42 Siminoff LA, Ravdin P, Colabianchi N, Sturm ChM. Doctor-patient communication patterns in breast cancer adjuvant therapy discussions. *Health Expectations*, 2000; **3**: 26–36.
- 43 Brody D, Miller S, Lerman CE, Smith DG, Lazar CG, Blum MJ. The relationship between patients' satisfaction with their physicians and perceptions about interventions they desired and received. *Medical Care*, 1989; **27**: 1027–1035.
- 44 Bell RA, Kravitz RL, Thom D, Krupat E, Azari R. Unmet expectations for care and the patient-physician relationship. *Internal Medicine Journal*, 2002; **17**: 817–824.
- 45 Jahng K, Martin L, Golin C, DiMatteo MR. Preferences for medical collaboration: patient-physician congruence and patient outcomes. *Patient Education and Counseling*, 2005; **57**: 308–314.
- 46 Barrio-Cantalejo IM, Simón-Lorda P, Sánchez C *et al.* Adaptación transcultural y validación del Picker Patient Experience Questionnaire-15 para su uso en población española. *Revista de Calidad Asistencial*, 2009; **24**: 192–206.
- 47 Street RL, Millay B. Analyzing patient participation in medical encounters. *Health Communications*, 2001; **13**: 61–73.
- 48 Beaver K, Bogg J, Luker KA. Decision-making role preferences and information needs: a comparison of colorectal and breast cancer. *Health Expectations*, 1999; **2**: 266–276.
- 49 Hamann J, Neuner B, Kasper J, Spies C, Casparu C, Härter M. Participation preferences of patients with acute and chronic conditions. *Health Expectations*, 2007; **10**: 358–363.
- 50 Peck BM, Ubel PA, Roter D *et al.* Do unmet expectations for specific tests, referrals, and new medications reduce patients' satisfaction. *International Journal of General Medicine*, 2004; **19**: 1080–1087.
- 51 Lown BA, Hanson JL, Clark WD. Mutual influence in shared decision making: a collaborative study of patients and physicians. *Health Expectations*, 2009; **12**: 160–174.
- 52 Schildmann J, Grunke M, Kalden JR, Vollmann J. Information and participation in decision-making about treatment: a qualitative study of the perceptions and preferences of patients with rheumatoid arthritis. *Journal of Medical Ethics*, 2008; **34**: 775–779.