

J. C. Mingote Adán<sup>1</sup>  
B. Moreno Jiménez<sup>2</sup>  
R. Rodríguez Carvajal<sup>2</sup>  
M. Gálvez Herrer<sup>2</sup>  
P. Ruiz López<sup>1</sup>

# Psychometric validation of the Spanish version of the Patient-Doctor Relationship Questionnaire (PDRQ)

<sup>1</sup> Hospital Universitario 12 de Octubre  
Madrid (Spain)

<sup>2</sup> Universidad Autónoma de Madrid  
Madrid (Spain)

**Introduction.** The main aim of this study was to make a Spanish adaption of the international Patient-Doctor Relationship Questionnaire (PDRQ) that assesses the quality of patient-doctor relationship in Spanish patients admitted to an Internal Medicine Service under conditions of regular clinical practice.

**Method.** A total of 188 adult patients of 6 Internal Medicine physicians from a University Hospital in downtown Madrid were analyzed. Sociodemographic and clinical variables were collected and the PDRQ Spanish version questionnaire was administered.

**Results.** Results showed excellent psychometric data on reliability, factorial, and construct validity. Furthermore, based on scientific literature, criteria validity was determined, considering continuity of care as external criteria. Results ratify previous data related to positive relation between quality of doctor-patient relation and continuity of care.

**Conclusions.** The Spanish 13 item version of the PDRQ (CREM-P in Spanish) proved to be a valid instrument for assessing the quality of patient-doctor relation in adult patients, with clinical and research value.

**Key words:**

Patient-doctor relationship. Communication. Patient satisfaction. Quality of Health Care. Physicians. Psychometric. Questionnaires. Translations. Spain. Adult.

*Actas Esp Psiquiatr* 2009;37(2):94-100

## Validación psicométrica de la versión española del Cuestionario de Relaciones Médico-Paciente (CREM-P)

**Introducción.** El principal objetivo del presente estudio fue la adaptación del instrumento internacional *Patient-Doctor Relationship Questionnaire* (PDRQ) que evalúa la calidad de la relación médico-paciente a una muestra española de pacientes de Medicina Interna en condiciones de práctica clínica habitual.

**Correspondence:**

Bernardo Moreno-Jiménez  
Ivan Paulov, 6  
Universidad Autónoma de Madrid  
28049 Madrid (Spain)  
E-mail:bernardo.moreno@uam.es

**Método.** Fueron evaluados 188 pacientes de seis médicos especialistas en Medicina Interna de un Hospital Universitario de Madrid capital. Se recogieron información clínica y sociodemográfica y fue administrada la traducción española del cuestionario PDRQ.

**Resultados.** Los resultados indicaron niveles altos en fiabilidad, validez factorial y validez de contenido. Asimismo, a partir de los resultados obtenidos en la literatura científica se procedió al estudio de la validez criterial utilizando como criterio externo la continuidad del cuidado. Los resultados refrendan datos previos sobre la relación positiva entre calidad de la relación médico-paciente y continuidad del cuidado.

**Conclusiones.** El cuestionario final obtenido (CREM-P) de 13 ítems se muestra como un instrumento fiable, válido y de fácil cumplimentación, diseñado para permitir la evaluación tanto en contextos clínicos como de investigación.

**Palabras clave:**

Relación médico-paciente. Comunicación. Satisfacción del paciente. Calidad del cuidado. Médicos. Psicométrico. Cuestionarios. Adaptaciones. España. Adultos.

## INTRODUCTION

The national health care system has changed substantially in recent years. These changes have affected many aspects of the clinical practice, not only on the structural and organizational level but also directly on the relationship with the patient. On May 16, 2003, Law 41/2001, November 14, or the Basic Law on the Autonomy of the Patient and Rights and Obligations in Material of Clinical Information and Documentation entered into force. This law stresses the care focused on the patient as a central characteristic of each and every one of the modifications made regarding the 1986 General Health Law. We generally speak of the patient-focused care as an aspect of the patient-doctor relationship that takes into consideration the preferences, problems and emotions of the patients<sup>1</sup>. At present, this is considered to be a mechanism by which the best results of the patient are obtained on the physical, psychological and social level. In this sense, patient-doctor relationship quality has been related with treatment success<sup>1,2</sup>, treatment adher-

ence levels<sup>3</sup> and influence of bad praxis<sup>4</sup>. Even those patients who do not give value to joint decision making, according to the study of Thom and Campbell<sup>5</sup>, stress the need to establish a relationship of complicity as a way of increasing the confidence level.

The study of the patient-doctor relationship has been the object of research of many publications of the clinical area. However, the results of the research conducted by Haidet et al.<sup>6</sup> show that in spite of the effort made by teaching, medical and institution professionals, the attitudes of the students in their last years of medicine are more oriented towards paternalism in the patient-doctor interaction than that expected, even though they know that an interaction focused on the doctor is related with less satisfaction and confidence of the patient with the doctor figure. In the beginning, the literature related the way difficult patients were handled with the origin of a deficient clinical relationship<sup>7</sup>. Most of the investigations were focused on the assessment by the medical professional of the quality of his or her interaction with the patient. In this sense, Hahn et al.<sup>7</sup> developed a questionnaire to evaluate the difficulties in the patient-doctor relationship. In this research, the authors detected a series of characteristics of the difficult patient, such as psychiatric disorders, functional incapacity and lack of satisfaction with the care. Later studies have focused on the search for detection and management strategies of the difficult patient, but always from the paternalist view of the care<sup>8</sup>.

However, an appropriate patient-doctor relationship with quality is characterized by a longitudinal relationship between the doctor and patient (continuity of the care)<sup>9</sup>, an agreement between both on the clinical problem and its treatment<sup>1,10</sup>, mutual confidence and fluid and open communications between both<sup>11</sup>.

Among the different aspects characterizing the patient-doctor relationship, communication levels are one of those studied most in the literature. The patients, regardless of their social-economic status or ethnic group, generally want to know the full details of their diagnosis and its possibility of cure<sup>12</sup>. However, several studies indicate that the information provided by the doctors is partial<sup>13</sup>. This fact contrasts with the demand for precise information of the symptoms and diseases of the patients to establish the appropriate diagnosis and treatment. Communication and honesty between doctors and patients are extremely important. There is evidence that explicit communication when the diagnosis is made, together with being open to an open discussion on the possible errors, increase the patient-doctor relationship and prevent the number of errors in the treatment<sup>14</sup>. These data reflect the importance of the participation of the patient in the decision making<sup>15</sup>. However, generally, the patients are excluded from this process even though they have the legitimate right to accept or reject the treatment<sup>16</sup>. Furthermore, there have been several qualitative studies that describe the positive role of precise and

affective communication<sup>17</sup>. In these studies, the patient-doctor relationship is studied through the therapeutic effect, the disease models and the patient's expectations.

Another one of the principal aspects in the patient-doctor relationship refers to satisfaction levels. Patient satisfaction with the care is a concept that reflects the patient's perception regarding the care quality and treatment received. Generally evaluated by self-report, several questionnaires focused on decision making<sup>18</sup>, access and use of the different health services<sup>19</sup>, or on the treatment satisfaction<sup>20</sup>, among others, have been developed in recent literature. Therapeutic alliance is crucial for the evaluation of patient-doctor satisfaction related with the development of an empathic understanding, interpersonal opening, and climate of authenticity, confidence and acceptance<sup>17</sup>.

Based on these considerations on the different aspects of the patient-doctor relationship considered in the scientific literature, Van der Feliz-Cornelis, Van Oppen, Van Marwijk et al.<sup>21</sup> developed a questionnaire that was not very long that collected each one of the aspects mentioned briefly. The principal objective was the development of a tool having an easy-to-understand use and application that could quantify the patient-doctor relationship in both general medicine and in each one of the clinical specialties and strategic interventions of the promotion of health. The questionnaire was focused on the evaluation of the doctor as an effective professional and of help for the patient, characteristics considered to be of core importance in the effectiveness of psychotherapeutic interventions<sup>22</sup>. Based on a theoretical review, the authors used Luborsky's Helping Alliance Questionnaire (HAQ) as a baseline for the development of the Patient-Doctor Relationship Questionnaire (PDRQ). This questionnaire collects some of the aspects indicated up to now such as communication, satisfaction with the treatment and accessibility to the doctor.

Due to the absence of measurement instruments focused on the patient in the quality of the patient-doctor relationship, this present study has aimed to adapt the questionnaire developed for this by Van der Feltz-Cornelis et al.<sup>21</sup> to the Spanish language. The present study also has aimed to verify the internal consistency and discrimination capacity and to make the factorial validation of content, and criterion of the questionnaire.

## METHOD

### Subjects

A total of 188 patients from 6 medical specialists in Internal Medicine of a University Hospital of the Madrid capital were evaluated. They had a mean age of 61 years, 50.3% were men and 49.7% women. These patients had a mean of 5.7 years of treatment and 94.1% had followed said treatment with the same doctor during the time period indicated.

## Instruments

The 15 item version of the Patient-Doctor Relationship Questionnaire was adapted to Spanish. In the first place, the questionnaire was translated into Spanish and then a back translation was made into English, evaluating the level of accuracy and adaptation of the differences found. Some items of example are «Thanks to my doctor, I have more information about my health»; «My doctor makes an effort to help me». The questionnaire has a 5 point Likert type scale from 1: not at all appropriate, to 5: totally appropriate.

## Procedure

The questionnaires were distributed between the months of January and March 2005, by name and internal mail, to the medical specialists of the Internal Medicine Department of a University Hospital of Madrid capital. The filling out of the questionnaire by the patients was totally self-directed and anonymous. The evaluation procedure began with a previous informed consent of the subjects together with an introductory sheet that informed about the research purpose. This authorization, once coded, was immediately separated from the rest of the evaluation questionnaire in order to maintain the participant's anonymous status. Thus, the filling out of the questionnaire by the patients was totally voluntary, self-directed and anonymous.

## RESULTS

The data were analyzed using the SPSS 13.0 statistical program. The mean variances and asymmetry and kurtosis indexes of the 15 items are seen in table 1.

Based on the data obtained in variance and standard deviation, we observed that the variability levels in the response were moderate and always greater than zero. Furthermore, based on this table, the adjustment to normality of each one of the items of the questionnaire could be observed. In this sense, and considering the asymmetry indexes, it was observed how all the items had a negative asymmetry and thus a tendency to score in the upper range. While the kurtosis index shows a general tendency to a platykurtic or flat distribution, items 6 and 15 had tended to a leptokurtic or pointed distribution.

Based on the 15 item correlation analyses, we observed that the correlations are mostly greater than 0.40, except for items 6 and 15, with the rest of the items of the questionnaire. In addition, the consistency level of the items starting from the corrected homogeneity index show us correlations greater than 0.62, except for items 6 ( $r_{\text{corrected}}$ : 0.095) and 15 ( $r_{\text{corrected}}$ : 0.426) (table 2).

To analyze the discrimination capacity of the items of the scale, an independent T samples analysis of the mean

Table 1	Means, variance, asymmetry and kurtosis				
	Mean	Variance	SD	Asymmetry	Kurtosis
Item 1	4.310	0.839	0.916	-1.165	0.728
Item 2	4.480	0.638	0.799	-1.649	2.961
Item 3	4.350	0.729	0.854	-1.275	1.448
Item 4	4.270	0.752	0.867	-0.957	0.283
Item 5	4.340	0.758	0.871	-1.378	2.027
Item 6	2.990	2.304	1.518	-0.041	-1.401
Item 7	4.380	0.674	0.821	-1.466	2.449
Item 8	4.230	1.024	1.012	-1.311	1.245
Item 9	4.290	0.773	0.879	-1.163	1.080
Item 10	4.300	0.920	0.959	-1.411	1.685
Item 11	4.210	1.004	1.002	-1.268	1.214
Item 12	4.320	0.734	0.856	-1.375	2.224
Item 13	4.340	0.798	0.894	-1.390	1.822
Item 14	3.990	1.136	1.066	-0.774	-0.099
Item 15	3.230	2.004	1.416	-0.196	-1.213

differences was made, dividing the sample into three groups based on the total score (percentile 27 and percentile 73). The results obtained showed significance levels inferior to 0.05, except for item 6 ( $t_{1-3}$ : -0.581;  $p = 0.563$ ) and item 15 ( $t_{2-3}$ : -1.649;  $p = 0.102$ ).

After, the factorial analysis of the items was made. Its results are shown in table 3. Factorialization was conducted by

Table 2	Analysis of consistency and reliability	
	Correlation element-total corrected	Cronbach's alpha is the element is eliminated
Item 1	0.757	0.909
Item 2	0.736	0.911
Item 3	0.725	0.911
Item 4	0.720	0.911
Item 5	0.774	0.909
Item 6	0.095	0.941
Item 7	0.759	0.910
Item 8	0.621	0.913
Item 9	0.710	0.911
Item 10	0.759	0.909
Item 11	0.729	0.909
Item 12	0.819	0.908
Item 13	0.788	0.908
Item 14	0.780	0.908
Item 15	0.426	0.924
Cronbach's $\alpha$	0.918	

Table 3	Factorial analysis	
	Factors	
	1	2
s12	0.851	
s7	0.821	
s1	0.819	
s3	0.810	
s13	0.808	
s4	0.805	
s5	0.800	
s2	0.797	
s14	0.790	
s11	0.788	
s10	0.775	
s9	0.753	
s8	0.687	
s15	0.418	0.326
s6		0.922

analysis of the principal components with Varimax rotation according to the validation of the original questionnaire.

The factorial analysis of the 15 items showed a two factor solution, jointly accounting for 63.88% of the total variance. While the first factor presents a self-value of 8.53, it accounts for 56.88% of the variance and is formed by 14 of the 15 items; the second factor with a self-value of 1.05 accounts for 7.00% of the variance. This second factor is exclusively made up of item 6 («I feel that it is difficult for me to communicate with my doctor»). In addition, it is observed how the last item of the first factor, item 15 («My symptoms will probably disappear»), saturate 0.418 with the first factor and 0.326 with the second. According to Nunnally<sup>23</sup>, each variable should present a factorial load greater than 0.40 in its factor and less than 0.30 in the rest of the factors. Thus, item 15 would present a problem of having scarce factorial discrimination.

Based on all the analyses conducted up to now, for the Spanish adaptation, it seems to be advisable to proceed to the elimination of items 6 and 15. In this sense, Cronbach's alpha index of the remaining 13 items was 0.956 and the analysis of the differences of means to evaluate the discrimination capacity of the final questionnaire showed significant levels less than 0.05 in all the cases.

Finally, the consistency in the distribution of the final questionnaire, elevated factorial weights and high reliability index indicate the possibility of working with an overall indicator of evaluation of the Patient-Doctor Relationship Questionnaire. The descriptive characteristics and distribu-

tion characteristics of this global factor in the present sample are shown in table 4.

In the analysis made in the original questionnaire of Van der Feliz-Cornelis et al.<sup>21</sup>, the authors measured the use of 9 of the 15 items from the psychometric analyses made. In our study, with a slightly larger sample (from 165 to 188), the best solution, both factorial as well as consistency and discrimination, was 13 items. In this sense, we wanted to verify to what degree both questionnaires were measuring the same thing, that is, to study the content validity. To do so, based on the data from the means and standard deviation provided by the authors of the original questionnaire, we made a T analysis of the differences of means. The formula for the contrast of significance of mean differences with independent samples with a different n is<sup>24</sup>,

$$t = \frac{\bar{x}_1 - \bar{x}_2}{S_x \times \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \quad S_x^2 = \frac{(n_1 - 1) \times S_1^2 + (n_2 - 1) \times S_2^2}{n_1 + n_2 - 2}$$

$$x_1 = 3.437 \text{ and } S_1 = 1.363 \text{ (} n_1 = 165 \text{).}$$

$$x_2 = 3.620 \text{ and } S_2 = 0.740 \text{ (} n_2 = 178 \text{).}$$

For  $t_{(277)0.05} \sim -1.645$ , the t value obtained was -1.558. Thus it is not in the critical region (it is not greater than -1.645) and we cannot reject the null hypothesis of equality

Table 4	Description statistics and global index distribution
N	178
Mean	3.617
Standard deviation	0.740
Variance	0.548
Asymmetry	-1.457
Standard error of asymmetry	0.182
Kurtosis	2.879
Standard error of kurtosis	0.362
Minimum	0.200
Maximum	4.330
Percentiles	
10	2.660
20	3.067
30	3.333
40	3.600
50	3.800
60	4.000
70	4.133
80	4.333
90	4.333

of means. Therefore, it is important to ratify this analysis by the size of the effect. According to Welkowitz, Ewen and Cohen<sup>25</sup> a value of size of the effect of less than 0.20 for a contrast of difference of means should be interpreted as small/null. The size of the effect *d* obtained was equal to 0.168 (*r* = 0.084), which permits us to conclude that both questionnaires are measuring the same.

In addition, we wanted to evaluate the criterion validity of the Spanish adaptation of the Patient-Doctor Relationship Questionnaire (PDRQ). We consider that one of the most appropriate external criteria in this case could be the time that the patient has been with the same doctor. Thus, the greater the time with the same doctor, the better the scores on the quality of the patient-doctor relationship.

Based on the research made by Donahue, Ashkin and Pathman<sup>26</sup>, the same criteria were followed to establish the four analysis groups, that is, patients who had been with the same doctor for one year or less (from 0 to 12 months), from 1 to 2 years (13 to 24 months), from 3 to 5 years (25-60 months) and more than 5 years (61 months on). Of the 188 evaluated, 178 had not changed doctor since the beginning of the treatment. The chi square analyses used to compare the differences in sociodemographic characteristics based on each one of the groups of years of continuity with the same doctor can be seen in table 5. Compared with the patients who have been with the same doctor for more than 5 years, those with one year or less are generally between 18 and 39 years (37.5% compared to 3.2%).

Table 5		Chi square analysis of the sociodemographic characteristics based on number of years in treatment with the same doctor			
		% 1 year (0-12 mo.) (n = 40)	% 1-2 years (13-24 mo.) (n = 14)	% 3-5 years (25-60 mo.) (n = 41)	% > 5 years (> 61 mo.) (n = 63)
<b>Age</b>	***				
18-39		37.5	7.1	7.5	3.2
40-64		25	21.4	40	33.9
65 +		37.5	71.5	52.5	52.9
<b>Gender</b>					
Man		50	50	46.3	54.8
Woman		50	50	53.7	45.2

\*p<0.05 significant difference of each group with that of more than 5 years.  
\*\*p<0.01 significant difference of each group with that of more than 5 years. \*\*\*p<0.001 significant difference of each group with that of more than 5 years

After, a logistic regression analysis was made to evaluate the relationship existing between continuity in the treatment with the same doctor and evaluation of the quality in the patient-doctor relationship. Due to the significance obtained in regards to age, each one of the analyses was made introducing both age and gender as the first step (table 6).

The patients with more than 5 years of treatment with the same doctor had significantly greater probability of evaluating the quality of the patient-doctor relationship as appropriate than those with one year or less (OR: 8.577; 95% CI: 7.904-9.250). According to these data, the probability of considering the patient-doctor relationship as totally appropriate was almost 9 times greater in the patients with more than 5 years versus those of one year or less. In the 1 to 2 year and 3 to 5 year groups compared to the more than 5 year one, the differences were not significant, although they always showed a tendency to increase the probability of reporting more appropriate levels in the patient-doctor relationship the greater the continuity time with the same doctor. Thus, the data demonstrated the validity of the criteria of the present adaptation of the Patient-Doctor Relationship Questionnaire (PDRQ) (table 7).

**DISCUSSION**

The measurement instruments of the patient-doctor relationship make it possible to quantify the patient's opinion regarding communication, satisfaction and accessibility in the dealing with the doctor and the treatment followed<sup>1</sup>. However, in practice, there is a lack of reliable and sensitive measurement instruments focused on the patient that evaluate the quality of the patient-doctor relationship. The adaptation of the present questionnaire is, in this sense,

Table 6		Analysis of logistic regression of quality in the patient-doctor relationship based on number of years in treatment with the same doctor*		
		1 year vs. > 5 years	1-2 years vs. > 5 years	3-5 years vs. > 5 years
Odds ratio in quality of the patient-doctor relationship		8.577	2.368	2.359
95% IC		(7.904-9.250)	(1.775-2.961)	(1.721-2.997)
Beta		2.149	0.862	0.858
p		0.001	0.146	0.179

\*Results in comparison with the group of more than 5 years with the same doctor, adjusting for age and gender.



**Table 7** Patient-Doctor Relationship Questionnaire (PDRQ)

1. My doctor understands me
2. I trust my doctor
3. My doctor is dedicated to help me
4. I can talk to my doctor
5. I feel content with my doctor's treatment
6. My doctor helps me
7. My doctor has enough time for me
8. I benefit from the treatment of my doctor
9. My doctor and I agree on the nature of my medical symptoms
10. I find my doctor easily accessible
11. Thanks to my doctor, I feel better
12. Thanks to my doctor, I gained new insight
13. I can handle my medical symptoms now (even if my doctor and have no further meeting)

very appropriate, as it is an internationally validated instrument that permits us to make the comparison between different countries and makes international research possible.

Some of the differences between the present research and the original one should be mentioned. The following have been considered during the present investigation: the study populations differed both in sample size and medical specialty as well as in sociodemographic variables. Furthermore, when the factorial analysis of the data was made, we obtained a different dimensionality than that of the original. Given that the results of the factorial analysis are greatly influenced by the sample type, the variability could be due to the differences between the samples and not so much to the questionnaire, according to the results obtained in content validity. The items of the questionnaire presented good corrected homogeneity levels and, as a whole, Cronbach's alpha value was greater than that described by Van der Feltz-Cornelis et al.<sup>21</sup>. However, this difference is not extraordinary, since once the reliability and validity analyses were made, the original questionnaire was reduced to 9 items and the Spanish adaptation to 13 and we know that the larger the number of items the greater the alpha indexes generally are.

One of the principal limitations of the questionnaire is the unilateral view focused on the patient in the patient-doctor relationship. Thus, it would be interesting to develop an instrument oriented to the doctor in future investigations that includes each and every one of the aspects collected in the present questionnaire. In addition, beginning from the evaluation of a questionnaire focused on the perceptions of the patients in regards to the attitude of help from their doctor, we should be aware of the possibility of response due to social desirability. In this sense, an attempt was made to control this variable, assuring that the filling

out of the questionnaire was totally voluntary, self-directed and anonymous. On the other hand, the scores obtained with the PDRQ cover all the scale values. Furthermore, although there is a tendency to score in the upper range, the analyses made on the capacity of discrimination and sensitivity of the questionnaire make it possible to conclude that the validity of the scale is not influenced by the response level, although the reliability levels could be somehow influenced. In regards to the validity of the PDRQ instrument, we consider that new studies are necessary with another type of patient based on diagnosis, treatment and/or medical specialty to be able to corroborate both the content validity and to study the external validity of the questionnaire. The results obtained on criterion validity are based on the choice of the external criterion «continuity of care». According to the review study made by Cabana and Jee<sup>27</sup> with more than 5,000 articles related with patient satisfaction and continuity of the treatment with the same doctor, the authors concluded that there is a strong association between care continuity and care quality, even in patients with chronic diseases. Continuity in time permits the doctors to know their patients better<sup>28</sup> and to have greater confidence<sup>29</sup>. Furthermore, in a sample in which percentile 50 corresponds to an age of 65 years, the choice of continuity of care as external criterion seems to be very adequate, above all when the older patients in the longer patient-doctor relationships perceive the doctor as an attentive and dedicated person<sup>30</sup>.

We believe that the adaptation made permits us to obtain a reliable, valid and easy-to-fill out questionnaire. This instrument makes it possible to evaluate the quality of the patient-doctor relationship, making it possible to obtain an important view of the group more than partial knowledge of some of their aspects studied in the literature such as communication levels or patient satisfaction, considering the possible variability based on age. We consider that the PDRQ questionnaire may be used as a multicultural study tool to investigate the influence of the culture in the patient-doctor relationships. This action would make it possible to access greater knowledge of the patient-doctor relationships in intercultural interaction. In addition, based on each one of its items, this instrument may be used as a measurement of qualitative analysis in the daily practice, manifesting its potential use in training programs in continuing practice and education of the medical personnel.

#### ACKNOWLEDGEMENTS

Our sincere thanks to the nurses, clinical assistants and doctors of the Internal Medicine Department of the University Hospital 12 de Octubre of Madrid, headed by doctor Ángel del Palacio, for their interest and collaboration.

#### REFERENCES

1. Castillo Garzón MJ. Comunicación: medicina del pasado, del presente y del futuro. *Rev Clin Esp* 2004;204:181-4.

2. Greenfield S, Kaplan SH, Ware JE. Expanding patient involvement in care: effects on patient outcomes. *Ann Intern Med* 1985;102:520-9.
3. DiMatteo MR. Enhancing patient adherence to medical recommendations. *JAMA* 1994;271:79-83.
4. Harpole LH, Orav J, Hickey M, Posther KE, Brennan TA. Patient satisfaction in the ambulatory setting: influence of data collection methods and sociodemographic factors. *J Gen Intern Med* 1996;11:431-4.
5. Thom DH, Campbel B. Patient physician trust: an explanatory study. *J Fam Pract* 1997;44:169-76.
6. Haidet P. et al. Medical students' attitudes toward patient-centered care and standardized patients' perceptions of humanism: a link between attitudes and outcomes. *Acad Med* 2002;76(10 Suppl.):42-4.
7. Hahn SR, Thompson KS, Wills TA, Stern V, Budner NS. The difficult doctor-patient relationship: somatisation, personality and psychopathology. *J Clin Epid* 1994;47:647-57.
8. Van der Feltz-Cornelis CM, Wijkkel D, Verhaak PFM, Collijn DH, Huyse FJ, Dyck van R. Psychiatric consultation for somatizing patients in the family practice setting: a feasibility study. *Int J Psychiatry Med* 1996;26:223-39.
9. Christakis DA, Mell L, Wright JA, Davis R, Connell FA. The association between greater continuity of care and timely measles-mumps rubella vaccination. *Am J Public Health* 2000;90:962-5.
10. Vedsted P, Mainz J, Lauritzen T, Olesen F. Patient and GP agreement on aspects of general practice care. *Fam Pract* 2002;19:339-43.
11. Kerse N, Buetow S, Mainous III AG, Young G, Coster G, Arroll B. Physician-patient relationship and medication compliance: a primary care investigation. *Ann Fam Med* 2004;2:455-61.
12. Blackhall LJ, Murphy ST, Frank G, Michel V, Azen S. Ethnicity and attitudes toward patient autonomy. *JAMA* 1995;274:820-5.
13. Field D, Copp G. Communication and awareness about dying in the 1990s. *Palliat Med* 1999;13:459-68.
14. May T, Aulisio MP. Medical malpractice, mistake prevention, and compensation. *Kennedy Inst Ethics J* 2001;11:135-46.
15. Craig YJ. Patient decision-making: medical ethics and mediation. *J Med Ethics*. 1996;22:164-7.
16. Moreno-Jiménez B, Rodríguez-Carvajal R, Gálvez M, Garrosa E. Aspectos psicosociales de la práctica clínica. *Aten Prim Salud Ment* 2005;8:12-20.
17. Besing JM. Doctor-patient communication and the quality of care. *Soc Sci Med* 1991;32:1301-10.
18. Lerman CE, Brody DS, Caputo CG, Smith DG, Lazaro GC, Wolfson HG. Patients' perceived involvement in Care Scale: relationship to attitudes about illness and medical care. *J Gen Intern Med* 1990;5:29-33.
19. Steven ID, Thomas SA, Eckerman E, Browing C, Dickens E. A patient determined general practice satisfaction questionnaire. *Austr Family Physician* 1999;28:342-8.
20. Beattie PF, Pinto MB, Nelson MK, Nelson RM. Patient satisfaction with physical therapy: instrument validation. *Phys Ther* 2002;82:557-65.
21. Van der Feliz-Cornelis CM, Van Oppen P, Van Marwijk HWJ, De Beurs E, Van Dyck R. A patient-doctor relationship questionnaire (PDRQ-9) in primary care: development and psychometric evaluation. *Gen Hosp Psychiatry* 2004;26:115-20.
22. Horvath A, Gaston L, Luborsky L. The Therapeutic Alliance and its measures. En: Miller NE, Barber JP, Docherty JP, editores. *The psychodynamic treatment research: a handbook for clinical practice*. New York: Basic Books, 1993; p. 247-73.
23. Nunnally JC. *Psychometric theory*, 3<sup>rd</sup> ed. New York: McGraw-Hill, 1994.
24. Pardo A, San Martín R. *Análisis de datos en Psicología II*. Madrid: Pirámide, 1998.
25. Welkowitz J, Ewen RB, Cohen J. *Estadística aplicada a las ciencias de la educación*. Madrid: Santillana, 1981.
26. Donahue KE, Ashkin E, Pathman DE. Length of patient-physician relationship and patients' satisfaction and preventive service use in the rural south: a cross-sectional telephone study. *BMC Fam Pract* 2005;6:40.
27. Cabana MD, Jee SH. Does continuity of care improve patient outcomes? *J Fam Pract* 2004;53:974-80.
28. Flocke SA, Stange KC, Zyzanski SJ. The association of attributes of primary care with the delivery of clinical preventive services. *Med Care* 1998;36(8 Suppl.):AS21-30.
29. Kao AC, Green DC, Davis NA, Koplman JP, Cleary PD. Patients' trust in their physicians: effects of choice, continuity, and payment method. *J Gen Intern Med* 1998;13:681-6.
30. Wasson JH, Sauvigne AE, Mogielnicki P, Frey WG, Sox CH, Gaudette C, et al. Continuity of outpatient medical care in elderly men. *JAMA* 1984;252:2413-7.