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ORIGINAL ARTICLE

Is the gender or age of the physician key to a good physician–patient with inflammatory bowel disease relationship?

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KEYWORDS
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Abstract
Background and aims: A good patient–physician relationship in inflammatory bowel disease (IBD) is very important and physician empathy is its cornerstone. There is no evidence about if age and/or sex of physicians and patients could influence on perceived empathy by patients. The aim of the study was to assess the level of empathy of IBD specialist physicians perceived by their patients and if it varies according to the age and gender of the patient and the physician.
Methods: We performed a national cross-sectional study based on voluntary online survey to IBD patients that included the Consultation and Relational Empathy (CARE) scale.
Results: Five hundred sixty one responses to the survey were received. After applying exclusion criteria, 536 patients were included in the analysis. Total median score of CARE scale was 44.5 (maximum possible score: 50 points). Most of the patients (99.1%) considered the contents of the questionnaire to be an important issue. There were no significant differences in CARE scale scores in function of patient/physician age range or gender [physician gender: males vs. females: median 46 vs. 44, $p = 0.139$; physician age: <40 years, 40–60 years, >60 years: 45.5 vs. 44 vs. 44, $p = 0.328$].

Abbreviations: ACCU, Asociación de enfermos de Crohn y Colitis Ulcerosa; CARE, Consultation and Relational Empathy; IBD, inflammatory bowel disease; IQR, interquartile range; SD, standard deviation.

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Conclusion: Spanish inflammatory bowel disease patients have a great physician empathy perception, which is the key to a good patient–physician relationship, and this fact is not influenced by age or gender of patients or inflammatory bowel disease specialist.

PALABRAS CLAVE
Género;
Edad;
Empatía;
Relación médico-paciente

¿Es el género o la edad del médico clave para una buena relación médico-paciente con enfermedad inflamatoria intestinal?

Resumen
Introducción y objetivos: Una buena relación médico-paciente con enfermedad inflamatoria intestinal (EII) es muy importante y la empatía del médico desempeña un papel clave para conseguirla. No hay evidencia sobre si la edad o el género de médicos y pacientes podría influir en la empatía percibida por los pacientes. El objetivo del estudio es evaluar el nivel de empatía del médico especialista en EII percibida por sus pacientes y si esta varía en función de la edad o el sexo del paciente y el médico.
Métodos: Estudio transversal nacional basado en la realización de encuestas voluntarias telemáticas por pacientes con EII, completando la escala Consultation and Relational Empathy (CARE).
Resultados: Se recibieron 561 respuestas a la encuesta. Tras aplicar los criterios de exclusión, 536 pacientes fueron incluidos en el análisis. La mediana de la puntuación total en la escala CARE fue de 44,5 (puntuación máxima posible 50 puntos). La mayoría de pacientes (99,1%) consideraron los contenidos del cuestionario como aspectos de alto interés. No se encontraron diferencias significativas en la puntuación de la escala CARE en función del rango de edad o el género de pacientes y médicos (género del médico: hombres vs. mujeres: mediana 46 vs. 44, p = 0,139; edad del médico: <40 años, 40-60 años, >60 años: 45.5 vs. 44 vs. 44, p = 0,328).
Conclusión: Los pacientes españoles con EII han reportado unos altos niveles de empatía percibida, lo cual es clave para una buena relación médico-paciente, y este factor no está influido por la edad ni el género de los pacientes o el especialista en EII.

Background and aims

Inflammatory bowel disease (IBD) is a chronic entity that presents with outbreaks of inflammatory activity and periods of remission. Disease course is highly variable depending on the patient, the kind of IBD or the treatment received, but all of them will require more or less close monitoring throughout their lives. The importance of good patient–physician relationship in chronic diseases, including IBD, is well stablished. It seems to improve health related quality of life and therapeutic adherence in IBD patients.[1,2]

Empathy is a complex and multidimensional concept involving affective, cognitive and behavioral components and it has become one of the most important researches items in terms of patient–physician relationship because it is positive influence on the quality of care. To be empathic means being able to understand patient's circumstances, perspective and feelings, to communicate it and to act in a helpful way.[3] It has even been reported that pain and fear can be reduced if patients perceive a high physician empathy, showing the connection between both mental and physical sphere.[4,5] However, little work on how IBD patients perceive/report receiving empathy from their care providers has been undertaken. Some factors as anxiety or sleep quality of patients are known to influence perceived empathy, but there is no evidence about age and/or sex of physicians could influence on perceived empathy and so that in the patient–physician relationship in IBD patients.[6]

Therefore, the aim of the study was to assess the level of empathy of IBD specialist physicians perceived by their patients and if it varies according to the age and gender of the patient and the physician.

Methods

Population and recruitment

This is a national cross-sectional study launched from Inflammatory Bowel Disease Unit of a public large teaching Hospital of Spanish National Health System (University Hospital ''Lozano Blesa'', Zaragoza). Recruitment was conducted between July and November of 2020 by sending a voluntary online survey to IBD patients who take part of Spanish association of patients with IBD (*ACCU España*). Inclusion criteria were being part of *ACCU España* as patient suffering from IBD and giving their informed consent. Before obtaining informed consent, all participants read the patient

information document (approved by the Ethics Committee) and they had the opportunity to contact the unit to ask any questions at any time during the study.

Survey instrument

The Consultation and Relational Empathy (CARE) scale was used to assess the level of physician empathy perceived by patients. This scale is based on extensive literature reviews and in-depth interviews with a group of ambulatory patients. CARE scale is composed by 10 items, with a score range between 1 and 5 for each item (1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent). Therefore, after adding all the items results a minimum score of 10 and a maximum of 50. In case of one or more non-applicable or blank answers the patients were removed from the analysis.[7]

In addition to the CARE scale, the survey included questions about sex and age of the patients and their respective physician. Also, a question to assess the importance of empathy for the patient was added. These questions were placed at the end of the questionnaire to make it difficult for patients to sense the second objective of the study when they answered the CARE scale (Supplementary material: questionnaire). Patients who did not answer to demographic data were also excluded from the analysis.

Statistical analysis

SPSS 26.0 (SPSS Ibérica, Madrid, Spain) was used to perform data analysis. No pre-specified sample size was set. Qualitative variables are shown as absolute and percentages, quantitative variables are described as mean and standard deviation (SD) or median and interquartile range (IQR) if they were not distributed normally. Kolmogorov–Smirnov test was applied to assess normality. As the data did not follow a normal distribution, non-parametric test like Mann–Whitney *U* test and Kruskal–Wallis were used. A p value <0.05 was considered statistically significant.

Ethical considerations

All data were treated confidentially after anonymization process. This project obtained favorable decision of the Aragon Clinical Research Ethics Committee (CEICA) on February 19th 2020 (C.I. PI19/481). At all times, recommendations of Declaration of Helsinki have been followed.

Results

Study population and CARE scale

Five hundred sixty one responses to the survey were received. After applying exclusion criteria, 536 patients were included in the analysis. Total median score of CARE scale was 44.50 (IQR 31.25–50.00), that reflects a very good punctuation. The detailed score by item of the CARE scale is shown in Table 1. The median score for each of the questions was 4 or 5 points.

Demographic characteristics of the participants and their physicians are shown in Table 2. Of the 536 patients who

Table 1 Patient responses to the CARE scale detailed by item.

Question: How was the doctor ...	Median (IQR)
1 ... at making you feel at easy?	5 (4–5)
2 ... at letting you tell your ''story''?	5 (4–5)
3 ... at really listening?	4 (3–5)
4 ... at being interested in you as a whole person?	4 (3–5)
5 ... at fully understanding your concerns?	4 (3–5)
6 ... at showing care and compassion?	4 (3–5)
7 ... at being positive?	5 (3–5)
8 ... at explaining things clearly?	5 (4–5)
9 ... at helping you to take control?	4 (3–5)
10 ... at making a plan of action with you?	4 (3–5)
Total CARE score	44.50 (31.25–50.00)

IQR: interquartile range.

Table 2 Patient–physician relationship based on gender and age.

	n (%)	CARE score*	*p* value**
Physician gender			
Male	229 (42.7%)	46 (33–50)	0.139
Female	307 (57.3%)	44 (30–50)	
Physician age range			
<40 years	106 (19.8%)	45.5 (34.75–50)	0.328
40–60 years	415 (77.4%)	44 (30–50)	
>60 years	15 (2.8%)	44 (40–50)	
Patient gender			
Male	177 (33%)	45 (34–50)	0.279
Female	359 (67%)	44 (30–50)	
Patient age range			
<40 years	218 (40.7%)	43 (30–49)	0.052
40–60 years	278 (51.9%)	45 (32–50)	
>60 years	40 (7.5%)	46 (40.75–50)	
Physician and patient age			
Similar age range	284 (53%)	45.5 (30–50)	0.593
Different age range	252 (47%)	44 (32–50)	
Physician and patient gender			
The same	288 (53.7%)	45 (30–50)	0.271
Different	248 (46.3%)	44 (34–50)	

n (%): absolute frequency (percentage).
* Median (IQR).
** Univariate analysis performed with *U* Mann–Whitney test or Kruskal–Wallis.

answered the survey, two thirds were women and just over half (51.9%) were between 40 and 60 years old, noting that only 7.5% of patients were over 60 years old. Most of the patients (531 (99.1%)) considered the contents of the questionnaire to be an important issue. The patient's physicians were women in 57% of cases and were between 40 and 60 years of age in 77% of cases. Only 2.8% of doctors were over 60 years old. In about half of the cases (53%), physician and patient were of the same sex and in the same age range.

Influence of gender and age on patient–physician relationship

Analyzing CARE scale scores of cases in which the sex of patient and physician are the same compared who do not, no statistically significant differences were found [median (IQR) the same gender vs. different gender: 45 (30–50) vs. 44 (34–50), $p = 0.271$]. No differences were found either, comparing punctuation of CARE scale based on patient–physician age ranges [median (IQR) similar age range vs. different age range: 45.5 (30–50) vs. 44 (32–50), $p = 0.593$]. See Table 2.

Discussion

The present study was developed to assess whether patient–physician relationship is influenced by the sex and age of IBD specialist and by the sex and age of patients. The CARE scale items aim to capture the internal atmosphere of the consultation; valuing empathy in the context of listening, reassuring and planning, from a patient perspective. Our study reveals that the empathy perceived by the patient is very good in the IBD units of our country in male and female patients, in young and in older patients with no significant differences but with slight trend to be even better in elderly patients. This could be because many of these patients have a decades-long patient–physician relationship. Related to gender, some studies point out that female patient have a higher perception of satisfaction with their patient–physician relationship,[8] but in our cohort no significantly differences were found.

If we take into account the IBD specialist age and gender, no statistical differences in CARE scale scores given by the patient were found either. These results could reflect the important roll-change that women have experimented worldwide in last decades, not only from the physicians point of view, but also from the patients' perception, normalizing what were previously unusual: women as doctors. Despite the fact that men traditionally occupied the majority of staff positions in medicine, women have gradually become more and more present and the number of women choosing medicine as career has not stopped growing.[9,10] In that way, results of the study convey the encouraging message that Spanish society is in the right way toward equality between men and women and the eradication of sexism in the world of medicine, at least from the perspective of the patient. On the other hand, patients feel well treated by both less experienced doctors and those with more experience, regardless of the patient's age.

To the best of our knowledge, this study is to the first to evaluate specifically the possible influence of the physician gender and age in physician empathy perceived by IBD patients. A strength of the study is the anonymous nature of the surveys, so that doctors have not had any influence in their patient's scores. What is more, patients have also had the freedom to answer in the calmness of their own home rather it would have done in the hospital.

On the other hand, there are some weaknesses to consider. Despite the national character of the study, the sample size is not very large and the fact that the questionnaire was online could influence in a lower participation of some subgroups such as elder patients or those without internet access. Moreover, we do not have CARE questionnaire scores of IBD patients from few decades ago, when female gastroenterologists were a rarity to compare both results, and although the CARE is a validated method to measure physician empathy, the Spanish version used in this study has not been validated in IBD patients previously.

Finally, note that this study was carried out during the SARS-CoV-2 pandemic which increased precautions in patients with IBD, many of them on immunosuppressive treatment, leading to changes in medical care in most Inflammatory Bowel Disease Units of our country. Telematic medical assistance began to be more frequent than usual. Despite this, patient's perception of their IBD specialist empathy was not negatively affected.

Conclusions

Spanish IBD patients have a great IBD specialist empathy perception, which is the key to a good patient–physician relationship, and this fact is not influenced by age or gender of patients or physicians.

Ethical considerations

This project obtained favorable decision of the Aragon Clinical Research Ethics Committee (CEICA) on February 19th 2020 (C.I. PI19/481). Recommendations of Declaration of Helsinki have been followed.

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Conflict of interest

The authors declare no conflict of interest.

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Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.gastrohep.2022.07.002.

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