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What ethical conflicts do internists in Spain, México and Argentina encounter? An international cross-sectional observational study based on a self-administrated survey

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Abstract

Background The differences in clinical bioethics between the Mediterranean and Latin American cultures have not been analyzed. The objective of the study is to compare the ethical conflicts that internists in Spain, Mexico and Argentina have.

Methods Cross-sectional observational study through a survey directed at internists from Spain, Argentina and Mexico. The survey was administered to affiliated members of the National Societies of Internal Medicine across three countries via an online platform.

Results 762 internists participated, 261 from Spain, 154 from Argentina and 347 from Mexico. The main ethical conflicts that internists in Spain, Argentina and Mexico have are related (in order) to the end of life, to the clinical relationship and to the patient's autonomy. Withholding and withdrawing life-sustaining treatment is the most frequent conflict in Spain and Argentina and the second in Mexico.

Conclusions Internists from Spain and Argentina identify very similar ethical conflicts. Furthermore, they consider them more frequent and difficult than in Mexico. In Argentina they are less satisfied with the way they are resolved. To explain these differences, socio-cultural factors are postulated, among others: paternalism, individualism, masculinity, organization of the health system, formal training in bioethics and assessment of death.

Keywords Clinical bioethics, Internal Medicine, Culture, Mediterranean region, Hispanic

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Background

Different studies on ethical conflicts in clinical practice show variability in conflicts across countries and ethno-cultural environments [1–4]. Although ideally the goals of medicine are universal and the technological means of daily use in clinical practice may be similar in many countries, differences in the healthcare system, professional culture and priority values [5] of a country can significantly condition the types of ethical problems that appear, as well as the way to address them. Likewise, responses to problems are conditioned by local or personal values [6, 7]. Local values are prioritized in a culture through its ethical norms, often transferred into legislation [6, 8].

Current societies are increasingly multicultural, very much in line with the phenomenon of globalization, which tends to homogenize and reduce differences between societies [9, 10]. However, the tradition and the predominant cultural characteristics in each country continue to have a prevailing character in the way of structuring healthcare systems and in the way of understanding and exercising the clinical relationship [11, 12]. In this sense, the existence of a bioethics common to the Mediterranean area has been postulated (applicable, among others, to Spain or Italy), which would have a more principlist character [13–15] and with influence in Latin America [16, 17], in contrast to other Anglo-Saxon bioethics, which tends to be comparatively more utilitarian and pragmatic. However, other authors consider that it is increasingly difficult to find regional differences in the way of approaching problems in bioethics [11], so that perhaps Mediterranean and Anglo-Saxon bioethics could be subsumed in one Western bioethics [18], possibly different from other Eastern bioethics [19].

Comparing bioethical conflicts between countries can help identify specific regional problems and strengths, areas for improvement and models that may serve as a guide [20, 21]. To our knowledge, the differences in clinical bioethics between the Mediterranean (Spanish) and Latin American cultures have not been adequately analyzed to date. In particular, Latin American bioethics has influences from North America (Anglo-Saxon bioethics) and Western Europe (Mediterranean bioethics), but it also includes many particular characteristics, some associated with social justice and indigenous populations [22]. For this reason, our main objective in this work was to compare the main ethical conflicts that internists have in Spain and in two Latin American countries, Mexico and Argentina. As secondary objectives, the frequency, importance, the difficulty involved in ethical conflicts and satisfaction in their resolution were analyzed. The specialty of Internal Medicine has been chosen for its holistic and comprehensive vision of the patient, and because

it is a specialty in which many of the conflicts in clinical bioethics converge [23].

Methods and materials

Study design

This is an observational and cross-sectional study, through a self-administered, voluntary and anonymous opinion survey, distributed through the Society of Internal Medicine of the three countries of the study. First, the survey was distributed in Spain to members registered in the National Society for Internal Medicine through an online platform (between June and July 2017). Subsequently (between October and December 2017), we considered the added interest that a comparative analysis with other countries would entail, and expanded the scope of our study to include Latin American countries. We contacted members of the Society of Internal Medicine of Mexico and Argentina to also carry out the study in those countries, and then the survey was distributed in Argentina and Mexico through their respective National Societies of Internal Medicine, also through an online platform. The distribution and data collection methodology in Argentina and Mexico was similar to that carried out in Spain.

Preparation of the questionnaire

The questionnaire was prepared by a multidisciplinary team made up of internists, experts in bioethics and research methodology. To prepare it, two bibliographic searches were carried out: the first to determine which were the main ethical conflicts described by internists; the second, on the questionnaires used to explore the presence of said conflicts. Based on these searches, a draft of the survey was written. After this, a trial was carried out in Spain with 10 physicians specializing in Internal Medicine and with 10 residents of the same specialty to optimize the writing and understanding of the questionnaire. Finally, the questionnaire was reviewed by the study researchers in Spain, Mexico and Argentina, to avoid cultural biases and ethnocentrism. The questionnaire is available in supplementary file (Questionnaire 1).

Variables

The survey scored the frequency with which professionals identify different ethical conflicts and their relevance in clinical practice, using a scale from 0 to 5. In the study, 19 types of ethical conflict were evaluated. Certain conflicts were removed from other similar questionnaires reviewed in the published scientific research: assisted suicide and euthanasia because they are illegal in Mexico and Argentina; abortion, reproductive problems, genetic counseling and transplants, as they are rare conflicts in internal medicine. Questions about patients' caregivers

refer to “family members”, because in the studied contexts, caregivers are usually family members [24].

To explore the frequency, difficulty and satisfactory resolution of ethical conflicts, a Likert scale (1–4) was used. Variables were also collected about the professionals surveyed, including demographic data (age, gender), number of years of professional experience, position within the institution, scope of professional activity, training in bioethics, and hospital management model (public or other).

Statistical analysis

The qualitative variables are described using frequency tables and the quantitative variables with the mean and standard deviation. For the analysis of independence between non-dichotomous qualitative and quantitative variables, an analysis of variance (ANOVA) was carried out and a Student's *t* test was carried out between dichotomous variables, a χ^2 test was carried out between qualitative variables and the Pearson *r* correlation coefficient was carried out between quantitative variables. The level of significance was $p < 0.05$. The data were recorded in an Excel® document (Microsoft Co., Redmond, WA, USA) and were exported and analyzed using SPSS Statistics 22® (IBM, Armonk, NY, USA).

Ethical aspects

The study complies with the ethical research norms and standards reflected in the Declaration of Helsinki of the World Medical Association and in the Oviedo Convention relating to human rights and biomedicine. All respondents consented to participate in the study and were aware of the objectives of the study. All responses were anonymous and treated with the utmost confidentiality, in accordance with current legislation [25]. The research was approved by the committee of the Francisco Vallés Clinical Ethics Institute. Before completion in Mexico, the study was approved by the Mexican Society of Internal Medicine, the institution that assessed the ethical aspects of the study.

Results

In total, 762 internists participated, 261 (34%) from Spain (SPA), 154 (20%) from Argentina (ARG) and 347 (46%) from Mexico (MEX). The sociodemographic characteristics of the samples are shown in Table 1. In ARG the average age (36 years) is lower than in SPA (45 years) and MEX (48 years). In ARG there are fewer men (38%) than in SPA (53%) and MEX (67%), and more residents (43%; in SPA 15% and in MEX 2%). In ARG, more internists work in public health (92%; in SPA 82% and in MEX (56%) and there are also more internists who have received university training in bioethics (70%; in MEX 38% and in SPA 35%). All these differences are statistically significant ($p < 0.05$). Inpatient activity is predominant in the three

countries (SPA 95%, ARG 97%, MEX 82%), followed by outpatient activity (SPA 50%, ARG 38%, MEX 73.5%), but the majority combine inpatient and outpatient activity (SPA 52%, ARG 51%, MEX 63%).

70% of internists from SPA and 72% from ARG encounter ethical conflicts frequently or almost always in their healthcare practice ($p > 0.05$), while in MEX 48% do so ($p < 0.05$). Conflicts make care activities difficult almost never or rarely for 60% of SPA and ARG internists, while in MEX this is true for 82% ($p < 0.05$). For 68% of internists in SPA and for 62% in ARG, the reported degree of difficulty of ethical problems is moderate or very high, while in MEX 35% reported the same ($p < 0.05$). 92.4% of respondents from SPA and 92% from MEX reported having resolved ethical problems satisfactorily frequently or almost always, while in ARG 58% did so ($p < 0.05$). The average degree of satisfaction in MEX is 4 ($DS \pm 0.86$; $p < 0.05$), in SPA (0–5) it is 3.5 ($DS \pm 0.79$) and in ARG it is 3.3. ($DS \pm 0.93$; $p < 0.05$). Table 2.

In the three countries, women, those who work in public hospitals and the youngest (under 41 years of age and less than 21 years of professional practice) reported more ethical conflicts in their healthcare activity and more difficulty when facing them ($p < 0.05$). Women and those who work in public hospitals reported resolving them less satisfactorily ($p < 0.05$) (Table S-2).

The most frequent and relevant ethical conflicts reported in the three countries are described in Table 3. In SPA and ARG the three most frequent conflicts coincide. In the three countries (Table S-3) women, residents and those with formal training in bioethics reported encountering more of the ethical problems described in Table 3 and give them more importance ($p < 0.05$). On the other hand, those who reported encountering other ethical conflicts are younger (they have less professional experience) and report less satisfaction with the way the conflicts are resolved.

In the three countries there is a directly proportional relationship between the frequency with which ethical conflicts are encountered and the frequency with which conflicts make daily healthcare practice difficult ($r = 0.53–0.43$) and also with the reported degree of difficulty of conflicts ($r = 0.47–0.35$). That is to say, those who report encountering more ethical conflicts, also report that these conflicts make their healthcare activity more difficult, more often.

Discussion

Spanish, Mexican and Argentine internists identified the most frequent and relevant ethical conflicts as those around the end of life, especially those related to withholding and withdrawing life-sustaining treatment (WW). WW is the most frequent conflict in Spain and Argentina and the second in Mexico (the first among

Table 1 Characteristics of survey responders by country. Each p-value refers to the comparison of each country with Spain. Data: N (%) or average \pm SD

Country	Spain	Argentina	P Spa-Arg	México	P Spa-Mex	P Arg-Mex
Age (years)	45.2 \pm 12.5	36.2 \pm 10	< 0.05	48.1 \pm 11.1	< 0.05	< 0.05
Length of professional practice (years)	19.6 \pm 12.4	10.1 \pm 9.9	< 0.05	19.3 \pm 11.3	> 0.05	< 0.05
Sex			< 0.05		< 0.05	< 0.05
Male	138 (53)	58 (38)		234 (67)		
Nationality			< 0.05		< 0.05	< 0.05
Local (in each country)	246 (94.3)	130 (84.4)		343 (98.8)		
Other	15 (5.7)	24 (15.6)		4 (1.2)		
Position						
Chief	61 (23.4)	27 (17.5)	> 0.05	66 (19)	> 0.05	> 0.05
Attending	160 (61.3)	45 (29.2)	< 0.05	250 (72)	< 0.05	< 0.05
Resident	38 (14.6)	66 (42.9)	< 0.05	8 (2.3)	< 0.05	< 0.05
Other	2 (0.7)	16 (10.4)	< 0.05	23 (6.7)	< 0.05	> 0.05
Hospital administration			< 0.05		< 0.05	< 0.05
Public	215 (82.4)	142 (92.2)		193 (55.6)		
Other	46 (17.6)	12 (7.8)		154 (44.4)		
Number of hospital beds						< 0.05
≤ 200	66 (25)	54 (35.1)	< 0.05	57 (16.4)	< 0.05	
201–500	125 (48)	100 (64.9)	< 0.05	60 (17.3)	< 0.05	
501–1000	51 (20)	0		78 (22.5)	> 0.05	
> 1000	19 (7)	0		152 (43.8)	< 0.05	
Setting						
Inpatient	249 (95.4)	150 (97.4)	> 0.05	286 (82.4)	< 0.05	< 0.05
Outpatient	131 (50.2)	58 (37.7)	< 0.05	255 (73.5)	< 0.05	< 0.05
Emergency	57 (21.8)	32 (20.8)	> 0.05	77 (22.2)	> 0.05	> 0.05
Other	14 (5.4)	8 (5.2)	> 0.05	24 (6.9)	> 0.05	> 0.05
Bioethics training						
None	26 (10)	16 (10.7)	> 0.05	33 (9.5)	> 0.05	> 0.05
Personal reading	147 (56.3)	30 (20)	< 0.05	164 (47.3)	< 0.05	< 0.05
University	92 (35.2)	105 (70)	< 0.05	131 (37.8)	> 0.05	< 0.05
Postgraduate course	73 (28)	15 (10)	< 0.05	105 (30.3)	> 0.05	< 0.05
Master's degree	11 (4.2)	2 (1.3)	> 0.05	22 (6.3)	> 0.05	< 0.05
N Total	261	154		347		

Table 2 Reported frequency of encountered bioethical conflicts. Data: N (%)

	Spain	Argentina	México
Almost never	7 (2.7)	5 (3.3)	32 (9.2)
Sometimes	71 (27.2)	38 (24.7)	144 (41.5)
Frequently	171 (65.5)	90 (58.4)	149 (43)
Almost always	12 (4.6)	21 (13.6)	22 (6.3)

those who work in an inpatient setting). In addition to WW, other ethical issues at the end of life also stand out, such as palliative treatment or no cardiopulmonary resuscitation orders, which are a form of WW.

When comparing the results between the three countries, there is a lot of similarity between the most prominent conflicts in Spain and Argentina. We think that there are several possible causes that may explain these results. One is the cultural similarity between Spain and Argentina. According to the Kogut and Singh index of

cultural distance, which measures cultural differences between countries based on six dimensions [26], the cultural difference between Spain and Argentina is smaller than between Spain and Mexico [27]. There are also significant cultural differences between Argentina and Mexico [28]. The reasons underlying cultural similarities could fundamentally obey three dimensions of Hofstede's model [29–31]: power distance (PDI, defined as the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally), individualism (IDV, the degree of interdependence a society maintains among its members) and masculinity (MAS). Regarding the latter dimension, it must be clarified that Hofstede's model ranks a cultural system's driving values on a scale where high, or masculine scores, are taken to indicate a high societal value of competition, achievement and economic or workplace success (defined as high ranking in a

Table 3 Frequency and relevance of ethical conflicts. Data: average (order in the country's sample)

Ethical conflict	Frequency			Relevance		
	Spain	Argentina	México	Spain	Argentina	México
Withholding and withdrawing care	3.84 (1st)	3.87 (1st)	3.3 (2nd)	3.69 (1st)	4.09 (1st)	4.10 (6th)
Palliative care	3.75 (2nd)	3.70 (2nd)	3.06 (8th)	3.31 (5th)	3.93 (3rd)	4.18 (3rd)
DNR orders	3.33 (3rd)	3.65 (3rd)	3.20 (4th)	3.26 (7th)	3.89 (5th)	4.08 (7th)
Conflicts with patient's loved ones	3.11 (4th)	3.06 (9th)	3.13 (6th)	3.36 (3rd)	3.54 (8th)	3.92 (10th)
Decision making in incapable patients	3.06 (5th)	2.85 (10th)	2.90 (10th)	3.36 (4th)	3.49 (10th)	4.03 (8th)
Patient-Physician communication	3.05 (6th)	3.60 (4th)	3.61 (1st)	3.17 (8th)	3.93 (4th)	4.47 (1st)
Evaluation of capacity	2.76 (7th)	3.09 (7th)	3.07 (7th)	3.49 (2nd)	3.40 (11th)	4.15 (5th)
Confidentiality and privacy	2.59 (8th)	3.28 (6th)	3.26 (3rd)	2.91 (11th)	3.86 (6th)	4.38 (2nd)
Rejection of procedures	2.57 (9th)	3.38 (5th)	3.02 (9th)	3.27 (6th)	3.5 (9th)	3.99 (9th)
Informed consent	2.37 (10th)	3.08 (8th)	3.20 (5th)	2.71 (12th)	3.66 (7th)	4.17 (4th)
Conflicts with other professional groups	2.20 (11th)	2.63 (11th)	2.60 (12th)	2.65 (13th)	3.15 (16th)	3.25 (16th)
Conflicts with colleagues	1.85 (12th)	2.16 (15th)	2.22 (17th)	2.60 (14th)	3.01 (17th)	3.24 (17th)
Resource allocation	1.78 (13th)	2.49 (12th)	2.38 (13th)	2.54 (15th)	3.28 (15th)	3.44 (15th)
Conflicts with cultural values	1.62 (14th)	2.14 (16th)	2.77 (11th)	2.42 (16th)	3.29 (14th)	3.81 (13th)
Advance directives or living will	1.56 (15th)	2.12 (18th)	2.32 (14th)	2.94 (10th)	3.40 (12th)	3.82 (12th)
Conflicts of interest with third parties	1.51 (16th)	2.12 (17th)	1.74 (19th)	2.21 (18th)	2.65 (18th)	2.66 (18th)
Favorable treatment of certain patients	1.34 (17th)	1.49 (19th)	1.95 (18th)	1.97 (19th)	2.11 (19th)	2.18 (19th)
Patient mistreatment	1.27 (18th)	2.47 (13th)	2.22 (16th)	3.12 (9th)	3.99 (2nd)	3.91 (11th)
Vital risk to physicians	1.06 (19th)	2.25 (14th)	2.23 (15th)	2.39 (17th)	3.37 (13th)	3.75 (14th)
Total Average	2.35	2.81	2.75	2.91	3.45	3.76

hierarchical order, or “best in class”) that is inculcated in early stages of schooling and is a driving force of organisational life. Low, or feminine scores according to Hofstede's model, are interpreted as characteristic of cultural systems where caring for others has a high societal value and success is defined in terms of quality of life. Hofstede summarizes: “The fundamental issue here is what motivates people, wanting to be the best (Masculine) or liking what you do (Feminine)” [31].

There is a higher PDI in Mexico (81) compared to Spain (57) and Argentina (49), which implies more paternalistic and hierarchical attitudes. This can condition the clinical relationship. In Mexico there is a lower IDV (30) -or greater collectivism- compared to Spain (51) and Argentina (46), which is related to the search for belonging to the group and the tendency to obey, to avoid entering into conflict and with high-context communication. Finally, in cultures with a higher MAS, such as Mexico (69; Argentina 56 and Spain 42), negotiation and the capacity for integration is lower [29–31].

For internists in Spain and Argentina, ethical problems related to the end of life are more important than in Mexico. An explanation for this data is the type of activity of the internists, since among Mexican internists who work in hospitalization, WW is the most frequent conflict (it is the eighth most frequent among those who work in the outpatient setting). Another aspect that may influence this result is the greater acceptance of death in Mexico [32], which in turn is correlated with lower life expectancy [33] or the greater cultural presence of

religion. In Mexico, death and the treatment of the dying are less taboo topics than in other countries [34, 35]. We must also note other factors that can lead to fewer ethical problems at the end of life in Mexico, such as the under-development of palliative care units in Mexico [36].

The importance in our study of WW as an ethical conflict is in line with other studies [37]. WW decisions are complex for many reasons: due to their variety, difficulty [38] and the lack of adequate training. Work carried out on a similar sample showed that only 25% of Spanish internists have an adequate knowledge of what WW is [39]. The same happens in Mexico, where WW is mislabeled as “passive euthanasia”, being rejected by 44% of residents [40] and by 47.9% of medical students [41]. The confusion in Mexico between WW and the misnamed “passive euthanasia” [42, 43] also exists with palliative sedation [44, 45]. It has been proposed that the term WW can cause rejection in Mexico for religious reasons [46], and it is of note that the idea of a “medical miracle” (which would prevent withdrawing life support measures) is still strongly rooted in Mexico [21]. In Argentina, the main barrier to WW is legal: 36% consider that it lacks adequate legal support, and only 15% consider that it is an ethical issue [47].

After the ethical problems at the end of life, the most frequent and relevant group of ethical problems, especially in Mexico, are those linked to the clinical relationship: doctor-patient communication (the most frequent in Mexico), conflicts with family members or problems with confidentiality. It is possible that outpatient activity,

which is significantly more common in Mexico, predisposes for more conflicts related to communication. However, problems with communication are the most relevant in Mexico, both for who work in inpatient as well as in outpatient settings. We must note that in Mexico there is greater distance of power and that the clinical relationship is more paternalistic and hierarchical, which causes more dependent behaviors with respect to authority [29, 48]. Paternalism as a source of ethical problems has also been described in Mediterranean countries such as Italy [4] or Greece, where patients report not always wanting to know the truth of their clinical situation [49]. The paternalistic clinical relationship results in submission to the doctor as a form of respect [9, 50] and gives more value to the family in decision making [51–53]. In Argentina, the autonomist influence exerted by doctors trained in the United States is evident [54]. In Spain, work has been done on patient autonomy for several decades, with extensive legislative development when compared to Mexico or Argentina [55–57]. However, Spanish internists report more conflicts with families. It is probably due to the lesser distance from the power in Spain [29], which leads to more horizontal clinical relationships. There are not, however, exempt from ethical problems, increasing confrontation due to differences in criteria between doctors and patients, or their relatives [37, 58, 59].

Problems with confidentiality, most prominent in Mexico and Argentina, may also have a cultural basis [59, 60]. More collectivist societies (markedly Mexico) and with low tolerance for uncertainty are more concerned about privacy [61]. It is also important to note that conflicts with confidentiality, although they occur in all clinical settings [62], are more linked to less reliable health systems, with conditions that cause social stigma (HIV, among others) and among marginalized communities [63–66] and with the occurrence of immigration, domestic violence, abortion in Argentina, among others [58, 67–69].

The third group of problems is more directly related to respect for the patient's autonomy. In Mexico and Argentina, conflicts with informed consent stand out, while in Spain capacity (assessment of capacity and decision-making in people without capacity) and rejection of procedures stand out. Informed consent, which can be considered the explicit putting into practice of respect for autonomy in a clinical setting [11], can cause greater conflict in less autonomous cultures [70–72]. In Mexico, for example, there are official recommendations that emphasize not being “too explicit” with the patient, in case the information generates “distress, depression or fear” [73]. Given that in Spain patient autonomy is considered more valuable, more problems related to decision-making capacity appear, since this is a prerequisite to be able to

exercise autonomy. It is of note that in Spain life expectancy is 7–8 years longer than in Mexico and Argentina [33], and therefore there are more patients with cognitive impairment [74, 75] and with loss of decision-making capacity [76]. Finally, in the three countries there are few conflicts arising from advance directives, undoubtedly because their implementation is very rare in the countries of the study [77–79].

Finally, a varied group of problems appears: conflicts with colleagues (more frequent in Spain), with other professional groups, with the distribution of resources and cultural conflicts. In last place are conflicts with third parties, due to mistreatment and favorable treatment of patients. Regarding conflicts of interest (for example, with the pharmaceutical industry or with public administration), it is striking that they are not highlighted more, because they are considered a serious problem when studied specifically [80]. In all three countries, it has been described that the pharmaceutical industry unduly influences prescription in a significant number of clinicians [81–83]. It has been postulated that there may be a cognitive bias in clinicians regarding the influence of the pharmaceutical industry on their decisions [84], minimizing its importance.

The findings of studies carried out in other countries have common aspects with ours. In the United States, conflicts at the end of life were also identified as the most frequent and difficult in routine clinical practice, while those in the clinical relationship are less common. Justice conflicts also stand out [3]. In a multicenter European study (Italy, Norway, Switzerland, United Kingdom), conflicts related to autonomy in decision-making predominated (94.8%), followed by disagreements between caregivers (81.2%) and conflicts related with WW and with lack of CPR orders (79.3%) [4]. Conflicts due to cultural or religious reasons, as in our work, are rare.

Seven out of ten internists in Spain and Argentina reported encountering ethical conflicts in their clinical practice frequently or almost always, while in Mexico less than half (48%) did so. On the other hand, in Spain and Argentina ethical problems frequently or almost always made clinical practice difficult for four out of ten, more than double than in Mexico (18%). When asked about the degree of difficulty of ethical problems, it was moderate or high for more than 60% of internists in Spain and Argentina, and only for 35% of Mexicans. Therefore, as internists encounter more ethical conflicts, more find it difficult to resolve them, as is the case in Spain and Argentina. These findings may be due to a certain “axiological blindness”: if ethical conflicts are not identified (as was more frequently reported in Mexico), one is not aware of the problems associated with said conflicts. In the Spanish and Argentine cohort, healthcare professionals with formal training in bioethics (and, therefore,

who could be more sensitized) encountered more conflicts and found them difficult more frequently. All of this would reinforce the “Dunning-Kruger” effect: people with a lack of knowledge and skills are more likely to overestimate themselves and not perceive their decisions as wrong [85]. For this reason, we consider it essential to increase training in bioethics in order to raise awareness among clinicians and increase the detection and engagement with ethical problems [86]. The same applies to women (more sensitivity) [87, 88] and public workers (more solidarity), which could explain why such findings (encountering more conflicts and more participants find it difficult to resolve) in countries with less MAS such as ARG or SPA. Our study has been carried out in countries that share a language and historical influences [16], while their healthcare systems [89, 90], legislative and economic systems [91] show certain differences. In general, the data from internists in Argentina and Spain are similar: they identify the same ethical problems (the same typology and with the same frequency) and consider them difficult to a similar degree. However, professionals from both countries differ regarding their satisfaction when solving them. In Spain and Mexico the satisfactory resolution is higher: 92% resolve ethical conflicts satisfactorily frequently or almost always, while in Argentina only 58% do so. Professional experience (which was longer in Spain and Mexico) is a possible explanation for these data. In fact, the subgroup of residents (more inexperienced) in Argentina is the one with the least satisfaction, whereas those with more than 20 years of experience were the most satisfied.

This study has the limitations inherent to studies carried out with self-administered questionnaires and closed answers. The degree of comprehension of the questions and the reasons that motivate the answers are unknown, and we cannot be sure that the participants have limited their interpretation of conflicts to the examples being cited in the questionnaire. There is also the possibility of a selection bias: that the respondents are more sensitive or interested in the subject studied. Furthermore, the sample may not be representative because the sample size calculation was not conducted and the three samples present differences in their size (Mexico's is larger) and sociodemographic characteristics, and they only represent a proportion of the internists in each country. The time lapse since data collection is significant, and the impact of the COVID-19 pandemic, the new regulation on euthanasia in Spain and advances in artificial intelligence and telemedicine are not being evaluated in these results. Regarding its strengths, our study has a large sample size, the largest carried out with these characteristics to date. Furthermore, the methodology when developing the survey has been exhaustive and a sufficient

number of surveys has been obtained in each country to be able to draw robust conclusions.

Conclusions

Our findings suggest that the main ethical conflicts that internists in Spain, Argentina and Mexico face are related (in order) to the end of life, to the clinical relationship and to the patient's autonomy. WW is the most frequent conflict in Spain and Argentina and the second in Mexico (the first among those who work in the inpatient setting). There is a lot of similarity between the most prominent conflicts in Spain and Argentina. Seven out of ten internists in Spain and Argentina report encountering ethical conflicts in their clinical practice frequently or almost always, while in Mexico less than half do so. In Spain and Argentina, ethical problems are considered more challenging and, in addition, they more commonly negatively influence daily clinical practice: four out of ten internists in Spain and Argentina reported that ethical conflicts frequently or almost always made their clinical practice more difficult, more than double than in Mexico. In Argentina, internists are less satisfied with the way ethical problems are resolved. To explain these differences, we have proposed different socio-cultural factors, among others: a positive assessment of death would decrease end-of-life ethical issues, paternalism would increase conflicts in the relationship with the patient, individualism would increase conflicts in the relationship with the patient's family and decrease privacy conflicts and lower masculinity index, public organization of the healthcare system and formal training in bioethics would increase the frequency of encountering ethical conflicts, as well as finding them more often difficult.

Abbreviations

ARG	Argentina
CPR	CardioPulmonary Resuscitation
IDV	Individualism
MAS	Masculinity
MEX	Mexico
PDI	Power Distance
SPA	Spain
WW	Withholding and Withdrawing life-sustaining treatment

Supplementary Information

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Supplementary Material 1

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Author contributions

A.B.P. (1, 2, 3, 4); R.G.C. (3, 4); D.R.A. (1, 4); K.O.D. (4); O.M.M. (2); P.V. (2) B.H. (1, 4)(1) Conception and design of the manuscript. (2) Data collection. (3). Analysis and interpretation of the data. (4) Drafting, review, approval of the manuscript.

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Data availability

No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate

The study complies with the ethical research norms and standards reflected in the Declaration of Helsinki of the World Medical Association and in the Oviedo Convention relating to human rights and biomedicine. All respondents provided informed consent to participate in the study and were aware of the objectives of the study. All responses were anonymous and treated with the utmost confidentiality, in accordance with current legislation: “Ley Orgánica 3/2018, de 5 de diciembre, de Protección de Datos Personales y garantía de los derechos digitales”. The research was approved by the committee of the Francisco Vallés Clinical Ethics Institute. Before completion in Mexico, the study was approved by the Mexican Society of Internal Medicine, the institution that assessed the ethical aspects of the study.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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References

1. Alkabbaj AF, Hussein GM, Albar AA, Bahnassy AA, Qadi M. The major medical ethical challenges facing the public and healthcare providers in Saudi Arabia. *J Family Community Med*. 2012. <https://doi.org/10.4103/2230-8229.94003>.
2. Alnamlah MS, Itani SA, Alqahtani MM, Abdulshaheed A, Muammar A, Menezes RG. Common medical ethics dilemmas: few reflections from a Saudi perspective. *J Forensic Leg Med*. 2022. <https://doi.org/10.1016/j.jflm.2022.102394>.
3. Du Val G, Clarridge B, Gensler G, Danis M. A national survey of U.S. internists' experiences with ethical dilemmas and ethics consultation. *J Gen Intern Med*. 2004. <https://doi.org/10.1111/j.1525-1497.2004.21238.x>.
4. Hurst SA, Perrier A, Pegoraro R, Reither-Theil S, Forde R, Slowther AM, et al. Ethical difficulties in clinical practice: experiences of European doctors. *J Med Ethics*. 2007. <https://doi.org/10.1136/jme.2005.014266>.
5. Turner L. From the local to the global: bioethics and the concept of culture. *J Med Philos*. 2005. <https://doi.org/10.1080/03605310590960193>.
6. Hoefstede G, Hoefstede GJ, Minkov M. The rules of the Social Game. In: Hoefstede G, Hoefstede GJ, Minkov M, editors. *Cultures and organizations: Software of the mind: intercultural cooperation and its importance for survival*. 3rd ed. New York: McGraw Hill; 2010. pp. 3–26.
7. Green EG, Deschamps JC, Pérez D. Variation of individualism and collectivism within and between 20 countries: a typological analysis. *J Cross-Cult Psychol*. 2016. <https://doi.org/10.1177/0022022104273654>.
8. Cienfuegos-Martínez YI, Saldivar-Garduño A, Díaz-Loving R, Avalos-Montoya AD. [Individualism and collectivism: characterization and differences in two Mexican localities]. *Acta Investig Psicol*. 2016. <https://doi.org/10.1016/j.aijppr.2016.08.003>.
9. Nápoles-Springer AM, Santoyo J, Houston K, Pérez-Stable EJ, Stewart AL. Patients' perceptions of cultural factors affecting the quality of their medical encounters. *Health Expect*. 2005. <https://doi.org/10.1111/j.1369-7625.2004.00298.x>.
10. Busolo D, Woodgate R. Palliative care experiences of adult cancer patients from ethnocultural groups: a qualitative systematic review protocol. *JBI Database Syst Rev Implement Rep*. 2015. <https://doi.org/10.11124/jbisri-2015-1809>.
11. Carlioz A, Wolyniak JG, Le Coz P. Is there such a thing as a latin bioethics? *Med Health Care Philos*. 2012. <https://doi.org/10.1007/s11019-011-9340-1>.
12. Goudarzi S, Badaan V, Knowles ED. Neoliberalism and the ideological construction of equity beliefs. *Perspect Psychol Sci*. 2022. <https://doi.org/10.1177/17456916211053311>.
13. Busquets E, Roman B, Terribas N. Bioethics in Mediterranean culture: the Spanish experience. *Med Health Care Philos*. 2012. <https://doi.org/10.1007/s11019-011-9354-8>.
14. Gracia D. The intellectual basis of bioethics in southern European countries. *Bioethics*. 1993. <https://doi.org/10.1111/j.1467-8519.1993.tb00276.x>.
15. Mallia P. Is there a Mediterranean bioethics? *Med Health Care Philos*. 2012. <https://doi.org/10.1007/s11019-012-9443-3>.
16. Rodríguez del Pozo P, Fins JJ. Iberian influences on pan-american bioethics: bringing Don Quixote to our shores. *Camb Q Healthc Ethics*. 2006. <https://doi.org/10.1017/S0963180106060294>.
17. Drane JF. Bioethics in the Americas: North and South – A personal story. *Camb Q Healthc Ethics*. 2009. <https://doi.org/10.1017/S0963180109090446>.
18. Matulic T. Researching the roots of Mediterranean bioethics. The ethics of virtue and happiness as condition sine qua non. *Filoz Istraz*. 2007;27(3):529–50. <https://hrcak.srce.hr/18298>. Accessed 14 Dec 2023.
19. Leone S. The features of a Mediterranean Bioethics. *Med Health Care Philos*. 2012. <https://doi.org/10.1007/s11019-012-9401-0>.
20. Hallenbeck J, Goldstein MK. Decisions at the end of life: cultural considerations beyond medical ethics. *Generations*. 1999;23(1):24–9. PMID: 17144035.
21. Koenig BA, Gates-Williams J. Understanding cultural difference in caring for dying patients. *West J Med*. 1995;163(3):244–9. PMID: 7571587.
22. Rodríguez del Pozo P, Mainetti JA. Bioética sin Más: the past, present, and future of a latin American bioethics. *Camb Q Health Ethics*. 2009. <https://doi.org/10.1017/S0963180109090434>.
23. Zavala Sarrio SW. Ética profesional y medicina interna [on-line]. *Diag*. 2011;50(3):135–7. <https://www.fihu.org.pe/revista/numeros/2011/jul-set/135-137.html>. Accessed 14 Dec 2023.
24. Litwin H. Social Networks and Well-being: a comparison of older people in Mediterranean and Non-mediterranean Countries. *J Gerontol B Psychol Sci Soc Sci*. 2010. <https://doi.org/10.1093/geronb/gbp104>.
25. Ley, Orgánica. 3/2018, de 5 de diciembre, de Protección de Datos Personales y garantía de los derechos digitales. *Cortes Generales*. <https://www.boe.es/eli/es/lo/2018/12/05/3/con>. Accessed 14 Dec 2023.
26. Kogut B, Singh H. The effect of national culture on the choice of entry mode. *J Int Bus Stud*. 1988;19(3):411–32.
27. Vallejo Peña A. Analizando La Cultura organizacional española Desde La Perspectiva Nacional. In: Vallejo Peña A, editor. *La Cultura organizacional española*. Madrid: Tecnos; 2022. pp. 89–103.
28. Fariás P. Measurement and graphic representation of cultural distances between latin American countries. *Convergencia*. 2016;23(70):115–41.
29. Hoefstede G, Hoefstede GJ, Minkov M. More equal than others. In: Hoefstede G, Hoefstede GJ, Minkov M, editors. *Cultures and organizations: Software of the mind: intercultural cooperation and its importance for survival*. 3rd ed. New York: McGraw Hill; 2010. pp. 53–88.
30. Hoefstede G, Hoefstede GJ, Minkov M. I, we, and they. In: Hoefstede G, Hoefstede GJ, Minkov M, editors. *Cultures and organizations: Software of the mind: intercultural cooperation and its importance for survival*. 3rd ed. New York: McGraw Hill; 2010. pp. 89–134.
31. Hoefstede G, Hoefstede GJ, Minkov M, He. She, and (S)he. In: Hoefstede G, Hoefstede GJ, Minkov M, editors. *Cultures and organizations: Software of the mind: intercultural cooperation and its importance for survival*. 3rd ed. New York: McGraw Hill; 2010. pp. 135–85.
32. Gala León FJ, Lupiani Jiménez M, Raja Hernández R, Guillén Gestoso C, González Infante JM, Villaverde Gutiérrez MC, et al. Actitudes psicológicas ante la muerte y El Duelo: Una revisión conceptual. *Cuad Med Forense*. 2002. <https://doi.org/10.4321/S1135-76062002000400004>.
33. Roser M, Ortiz-Ospina E, Ritchie H. Life Expectancy. Our World in Data. Last modified October 2019. <https://ourworldindata.org/life-expectancy>. Accessed 14 Dec 2023.
34. Márquez Mendoza O, Garduño García JJ, Veytia López M, Rodríguez García J, García Peña R, Herreros B. What are the ethical conflicts faced by Mexican internists? *Clin Ethics*. 2022. <https://doi.org/10.1177/1477509211036641>.
35. Sulkes A, Wein S. Mexico: the lively colors of death. *Palliat Support Care*. 2012. <https://doi.org/10.1017/S1478951511000617>.
36. Montes de Oca V, Hebrero M. Family dynamics, aging, and functional impairment in Mexico. *Rev Kairos*. 2008;11(1):143–66. PMID: 26317060.
37. Tuca A, Viladot M, Barrera C, Chicote M, Casablancas I, Cruz C, et al. Prevalence of ethical dilemmas in advanced cancer patients (secondary analysis of the

- PALCOM study). Support Care Cancer. 2021. <https://doi.org/10.1007/s00520-020-05885-0>.
38. Toyas Miazza C, Martínez-Álvarez RM, Díez-Manglano J, Ezpeleta Galindo A, Laín Miranda ME, Aspiroz Sancho C. Limitation of therapeutic effort in patients with bacteremia. *Rev Esp Geriatr Gerontol*. 2018. <https://doi.org/10.1016/j.regg.2018.02.005>.
 39. García-Caballero R, Real de Asúa D, García Olmos L, Herreros B. Do internists know what limitation of therapeutic effort means? *Rev Clin Esp*. 2021. <https://doi.org/10.1016/j.rceng.2020.01.007>.
 40. Gutiérrez-Castillo A, Gutiérrez-Castillo J. Active and Passive Euthanasia - Current Opinion of Mexican Medical Students. *Cureus*. 2018. <https://doi.org/10.7759/cureus.3047>.
 41. Loria A, Villarreal-Garza C, Sifuentes E, Lisker R. Physician-assisted death. Opinions of Mexican medical students and residents. *Arch Med Res*. 2013. <https://doi.org/10.1016/j.arcmed.2013.07.005>.
 42. Mansilla-Olivares A, López-Bárcena J, Plancarte-Sánchez R, Valenzuela-Gómez-Gallardo F, Rojo J, Meneses-González F, et al. National Academy of Medicine of Mexico posture with regard to end-of-life decisions. *Gac Med Mex*. 2018. <https://doi.org/10.2485/GMM.M19000219>.
 43. Herreros B, Moreno-Milán B, Pachó-Jiménez E, Real de Asúa D, Roa-Castellanos RA, Valentia E. [Terminology in clinical bioethics]. *Rev Med Inst Mex Seguro Soc*. 2015;53(6):750–61. PMID: 26506495.
 44. Manzini J. Palliative sedation: ethical perspectives from Latin America in comparison with European recommendations. *Curr Opin Support Palliat Care*. 2011. <https://doi.org/10.1097/SPC.0b013e3283492acd>.
 45. Núñez Olarte JM, Gracia Guillén D. Cultural issues and ethical dilemmas in Palliative and End-of-Life Care in Spain. *Cancer Control*. 2001. <https://doi.org/10.1177/107327480100800107>.
 46. Gutiérrez-Castillo A, Gutiérrez-Castillo J, Guadarrama-Conzuelo F, Jiménez-Ruiz A, Ruiz-Sandoval JL. Euthanasia and physician-assisted suicide: a systematic review of medical students' attitudes in the last 10 years. *J Med Ethics Hist Med*. 2020. <https://doi.org/10.18502/jmehm.v13i22.4864>.
 47. Duarte Moritz R, Deicas A, Rossini JP, Brandão da Silva N, Miranda do Lago P, Osni Machado F. Perceptions about end of life treatment in Argentina, Brazil and Uruguay intensive care units. *Rev Bras Ter Intensiva*. 2010;22(2):125–32. PMID: 25303753.
 48. Schuler RS, Jackson SE, Jackofsky E, Slocum JW. Managing Human resources in Mexico: A Cultural understanding. *Bus Horiz*. 1996. [https://doi.org/10.1016/S0007-6813\(96\)90009-9](https://doi.org/10.1016/S0007-6813(96)90009-9).
 49. Dalla-Vorgia P, Katsouyanni K, Garanis TN, Touloumi G, Drogari P, Koutselinis A. Attitudes of a Mediterranean population to the truth-telling issue. *J Med Ethics*. 1992. <https://doi.org/10.1136/jme.18.2.67>.
 50. Cicero-Oneto CE, Valdez-Martínez E, Bedolla M. Decision-making on therapeutic futility in Mexican adolescents with cancer: a qualitative study. *BMC Med Ethics*. 2017. <https://doi.org/10.1186/s12910-017-0231-8>.
 51. Klessig J. The effect of values and culture on life-support decisions. *West J Med*. 1992;157(3):316–22.
 52. Blackhall LJ, Murphy ST, Frank G, Michel V, Azen S. Ethnicity and attitudes toward patient autonomy. *JAMA*. 1995. <https://doi.org/10.1001/jama.1995.03530100060035>.
 53. Kreling B, Selsky C, Perret-Gentil M, Huerta EE, Mandelblatt J. The worst thing about Hospice is that they talk about death: contrasting Hospice decisions and experience among immigrant Central and South American latinos to US-born White, Non-latino Cancer caregivers. *Palliat Med*. 2010. <https://doi.org/10.1177/0269216310366605>.
 54. González Victorica MI, Bertolino L, Pavlovsky S. Argentina. Telling the truth to cancer patients in a multicultural society. *Ann N Y Acad Sci*. 1997. <https://doi.org/10.1111/j.1749-6632.1997.tb48078.x>.
 55. Gobierno de México. Ley General de Salud de los Estados Unidos Mexicanos. Art. 51. Reformado DOF 17th. April, 2009. <https://www.diputados.gob.mx/LeyesBiblio/pdf/LGS.pdf>. Accessed 14 Dec 2023.
 56. Honorable Congreso de la Nación Argentina. Ley 26.742. Modifícase la Ley N° 26.529 que estableció los derechos del paciente en su relación con los profesionales e instituciones de la Salud. 24th May, 2012. <https://www.argentina.gob.ar/normativa/nacional/ley-26742-197859/texto>. Accessed 14 Dec 2023.
 57. Cortes Generales. Ley 41/2002, de 14 de noviembre, básica reguladora de la autonomía del paciente y de derechos y obligaciones en materia de información y documentación clínica. <https://www.boe.es/buscar/act.php?id=BOE-A-2002-22188> Accessed 14 Dec 2023.
 58. Espinoza-Suárez NR, Zapata del Mar CM, Mejía Pérez LA. Conspiracy of silence: a barrier in the physician, patient and family communication. *Rev Neuropsiquiatr*. 2017. <https://doi.org/10.20453/rnp.v80i2.3105>.
 59. Pérez-Cárceles MD, Pereñíguez JE, Osuna E, Luna A. Balancing confidentiality and the information provided to families of patients in primary care. *J Med Ethics*. 2005. <https://doi.org/10.1136/jme.2004.010157>.
 60. Turvey CL, Klein DM, Nazi KM, Haidary ST, Bouhaddou O, Hsing N, et al. Racial differences in patient consent policy preferences for electronic health information exchange. *J Am Med Inf Assoc*. 2020. <https://doi.org/10.1093/jamia/ocaa012>.
 61. Li Y et al. Cross-cultural privacy differences. In: Knijnenburg BP, Page X, Wisniewski P, editors. *Modern socio-technical perspectives on privacy*. Switzerland: Springer Nature Switzerland. 2022. pp. 267–92. https://doi.org/10.1007/978-3-030-82786-1_12.
 62. Beltrán-Aroca CM, Girela-Lopez E, Collazo-Chao E, Montero-Pérez-Barquero M, Muñoz-Villanueva MC. Confidentiality breaches in clinical practice: what happens in hospitals? *BMC Med Ethics*. 2016. <https://doi.org/10.1186/s12910-016-0136-y>.
 63. De Boni R, Veloso VG, Grinsztajn B. Epidemiology of HIV in Latin America and the Caribbean. *Curr Opin HIV AIDS*. 2014. <https://doi.org/10.1097/COH.000000000000031>.
 64. Valle A, Treviño AC, Zambrano FF, Urriola KE, Sánchez LA, Elizondo JE. Perceived HIV-Associated Stigma among HIV-Seropositive men: psychometric study of HIV Stigma Scale. *Front Public Health*. 2015. <https://doi.org/10.3389/fpubh.2015.00171>.
 65. Wiginton JM, Murray SM, Algarin AB, Baral SD, Sanchez TH, Smith LR. Metrics of sexual behavior stigma among cisgender men who have sex with men in Mexico: exploratory and confirmatory factor analyses. *BMC Infect Dis*. 2022. <https://doi.org/10.1186/s12879-022-07672-0>.
 66. Ottenheimer D, Huda Z, Yim ET, Atkinson HG. Physician complicity in human rights violations: involuntary sterilization among women from Mexico and Central America seeking asylum in the United States. *J Forensic Leg Med*. 2022. <https://doi.org/10.1016/j.jflm.2022.102358>.
 67. Dickens BM, Cook RJ. Law and ethics in conflict over confidentiality? *Int J Gynaecol Obstet*. 2000. [https://doi.org/10.1016/S0020-7292\(00\)00286-1](https://doi.org/10.1016/S0020-7292(00)00286-1).
 68. Cavallo M. Conflicting duties over confidentiality in Argentina and Peru. *Int J Gynaecol Obstet*. 2011. <https://doi.org/10.1016/j.jijgo.2010.11.001>.
 69. Kimberg L, Vasquez JA, Sun J, Anderson E, Ferguson C, Arreguin M, et al. Fears of disclosure and misconceptions regarding domestic violence reporting amongst patients in two US emergency departments. *PLoS ONE*. 2021. <https://doi.org/10.1371/journal.pone.0260467>.
 70. Celis MA, Sotelo J, Halabe J, Arrieta O, Burgos R, Campillo C, et al. Answer to the letter to the editor regarding the article informed consent: recommendations for its documentation. *Gac Med Mex*. 2019. <https://doi.org/10.24875/GMM.M19000259>.
 71. Lazcano-Ponce E, Angeles-Llerenas A, Álvarez-del Río A, Salazar-Martínez E, Allen B, Hernández-Ávila M, et al. Ethics and communication between physicians and their patients with cancer, HIV/AIDS, and rheumatoid arthritis in Mexico. *Arch Med Res*. 2004. <https://doi.org/10.1016/j.arcmed.2003.06.007>.
 72. Vargas-Parada L, Kawa S, Salazar A, Mazón JJ, Flisser A. Informed consent in clinical research at a general hospital in Mexico: opinions of the investigators. *Dev World Bioeth*. 2006. <https://doi.org/10.1111/j.1471-8847.2006.00135.x>.
 73. Celis MA, Halabe J, Arrieta O, Burgos R, Campillo C, De la Lla M, et al. Informed consent: recommendations for its documentation. *Gac Med Mex*. 2018. <https://doi.org/10.24875/GMM.18004339>.
 74. Vega Alonso T, Miralles Espí M, Mangas Reina JM, Castrillejo Pérez D, Rivas Pérez AI, Gil Costa M, et al. Prevalence of cognitive impairment in Spain: the Gómez De Caso study in health sentinel networks. *Neurología*. 2018. <https://doi.org/10.1016/j.nrl.2016.10.002>.
 75. Ribeiro FS, Teixeira-Santos AC, Leist AK. The prevalence of mild cognitive impairment in Latin America and the Caribbean: a systematic review and meta-analysis. *Aging Ment Health*. 2022. <https://doi.org/10.1080/13607863.2021.2003297>.
 76. Moya J, Marson DC, Edelstein B. Assessment of capacity in an aging society. *Am Psychol*. 2013. <https://doi.org/10.1037/a0032159>.
 77. Zabala Blanco J, Díaz Ruiz JF. Thoughts about the development and utility of previous instructions. *Med Fam SEMERGEN*. 2010. <https://doi.org/10.1016/j.semerg.2009.06.003>.
 78. Velasco-Sanz TR, Rayón-Valpuesta E. Advance directives in intensive care: Health professional competences. *Med Intensiva*. 2016. <https://doi.org/10.1016/j.medin.2015.04.011>.

79. Gobierno de España. Número de inscripciones en el Registro Nacional de Instrucciones Previas desde la sincronización completa de los registros autonómicos. 2021. https://www.sanidad.gob.es/ciudadanos/rnip/doc/Documentos_2021/2021_Numero_de_Inscripciones_en_el_Registro_Nacional_de_Instrucciones_Previas_desde_la_sincronizacion_completa_de_los_Registros_Autonomicos-Enero_2021.pdf. Accessed 14 Dec 2023.
80. Rivero-Serrano O, Durante-Montiel I. Ethics in contemporary medicine. *Gac Med Mex*. 2008;144(4):279–83. PMID: 18942260.
81. Castresana L, Mejia R, Aznar M. The attitude of physicians regarding the promotion strategies of the pharmaceutical industry. *Medicina*. 2005;65(3):247–51. PMID: 16042137.
82. Moliner J, Mozota J, Abad JM, Casaña L, Júdez D, Rabanaque MJ. Is it pertinent to investigate the relations between physicians and the drug industry. *Rev Calid Asist*. 2009. [https://doi.org/10.1016/S1134-282X\(09\)70656-6](https://doi.org/10.1016/S1134-282X(09)70656-6).
83. Fernández-Álvarez I, Zapata-Cachafeiro M, Vázquez-Lago J, López-Vázquez P, Piñero-Lamas M, García Rodríguez R, et al. Pharmaceutical companies information and antibiotic prescription patterns: a follow-up study in Spanish primary care. *PLoS ONE*. 2019. <https://doi.org/10.1371/journal.pone.0221326>.
84. Lajmi H, Lajmi M, Hmaied W. The characteristics of conflict of interest in the doctor's pharmaceutical representative relationship. *Tunis Med*. 2022;100(2):127–32. PMID: 35852246.
85. Kruger J, Dunning D. Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. *J Pers Soc Psychol*. 1999. <https://doi.org/10.1037/0022-3514.77.6.1121>.
86. Villaplana-Soto AE, Altisent R, Delgado-Marroquín MT. Is the vocation born or done? The impact of the degree in medicine on the ethical sensitivity of the student. *FEM (Ed Impresa)*. 2019. <https://doi.org/10.33588/fem.225.1016>.
87. Cross SE, Madson L. Models of self: self-construals and gender. *Psychol Bull*. 1997;122(1):5–37. <https://doi.org/10.1037/0033-2909.122.1.5>.
88. Cross SE, Bacon PL, Morris ML. The relational-interdependent self-construal and relationships. *J Pers Soc Psychol*. 2000;78(4):791–808.
89. Belló M, Becerril-Montekio VM. The health system of Argentina. *Salud Publica Mex*. 2011;53(suppl 2):s96–108. PMID: 21877098.
90. Gómez-Dantés O, Sesma S, Becerril VM, Knaut FM, Arreola H, Frenk J. The health system of Mexico. *Salud Publica Mex*. 2011;53 suppl 2:S220-S232. PMID: 21877087.
91. Council of the European Union. G20 summit in Hamburg, Germany. 2017. <https://www.consilium.europa.eu/en/meetings/international-summit/2017/07/07-08/>. Accessed 14 Dec 2023.

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