

## Central Portuguese Doctors' agreement with the "Ten Commandments for patient-centred treatment"

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**Summary Background.** The "Ten Commandments for patient-centred treatment" suggest a different approach to therapy.

**Objectives.** To ascertain the level of agreement with the "Ten Commandments for patient-centred treatment" by physicians in Central Portugal, exploring differences by age group, sex and medical speciality.

**Material and methods.** An online questionnaire in September of 2016, sent to doctors registered in the Central Regional Section of the Portuguese Medical Association, with weekly reminders to non-respondents. The English wording was translated to Portuguese, a questionnaire with a four-grade answer was created and its reliability determined. Variables such as sex, age group and medical speciality were considered. Descriptive and inferential statistics were performed.

**Results.** A representative yet convenient sample of 811 doctors participated. Their description is as follows:  $\leq 35$  years  $n = 203$ ,  $\geq 36$  and  $\leq 55$  years  $n = 217$  and  $\geq 56$  years  $n = 373$ , women  $n = 391$  (49.2%), General Practice/Family Medicine (GP/FM)  $n = 301$ , medical speciality  $n = 303$  and medico-surgical speciality  $n = 173$ . By medical speciality, for commandment 1, there is higher prevalence of "Disagree/Completely Disagree" in the GP/FM speciality ( $p < 0.001$ ). By gender, for commandment 1, women vs men doctors "Disagree/Completely Disagree" proportion of 11.7% vs 6.4% ( $p = 0.003$ ). For the younger age groups, there is a greater proportion of "Disagree/Completely Disagree" for Commandment 1 ( $p = 0.016$ ), for Commandment 4 ( $p = 0.007$ ), for Commandment 6 ( $p = 0.001$ ), for Commandment 7 ( $p = 0.001$ ) and for Commandment 8 ( $p = 0.020$ ).

**Conclusions.** There is vast agreement with the "Ten Commandments for patient-centred treatment" in central Portugal. For Commandments 1, 3 and 6, the proportion of "Disagree/Completely Disagree" is higher than for the remaining. There is a need for future investigations to explain the present results.

**Key words:** delivery of health care, therapeutics, pharmacology, general practice.

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## Background

The *British Journal of General Practice*, in its edition of October of 2015, features the article "Ten Commandments for patient-centred treatment" [1]. This article explores the basic principles of patient-centred treatment as opposed to the common "thesis" advocating a medical approach for each pathology based on primary and secondary "end-points", putting aside the patient whose multimorbidity is ever more presented with poly-pharmacotherapy [2–5].

The history of patient-centred medicine dates to the ancient Greek school of Kos, where the patient was the main focus [4, 5]. It was only recently that the importance of the biopsychosocial model of Engel was recognized in which the integration of the psychosocial dimensions (personal, emotional, family, community) with the biological aspects (diseases) of the patients is demonstrated rather than the disease-based medical approach [6].

The Patient-Centred Medicine point of view by Stewart et al. [4] is often cited as a model of approach to the problems that a patient feels [7, 8]. It describes the following four components of the patient-centred method: Exploring health, disease and the illness experience; Understanding the whole person; Finding common ground and Enhancing the patient-doctor relationship [6].

Even though there have been several Patient-Centred studies across a wide range of medical specialties [9], with tools offered to family medicine physicians, there is a clear scarcity of research on this pharmacotherapy theme [7].

In the Portuguese National Health System, medicine is practiced in Primary Health Care, in Health Centres and Family Health Units, by General Practitioners/Family Doctors and their residents, and in Secondary Health Care, mainly in hospital, where doctors can exert a medical or a medico-surgical speciality.

It is, thus, deemed necessary to establish how pharmacotherapy is perceived by physicians.

The main objective of this study was to ascertain the agreement with the "Ten Commandments for patient-centred treatment" by physicians enlisted in the Portuguese Medical Association, Central Regional Section. This study seeks to explore the differences by specific subgroups like age group, sex and medical speciality.

## Material and methods

In September 2016, a cross sectional study was conducted after written authorisation and consent of the original authors, approval of a Portuguese Regional Health Authority Ethics Com-



mittee and support of the Central Regional Section of the Portuguese Medical Association. An informatic “Moodle” technique was used, a reminder being issued to non-respondents every Friday during September.

### Questionnaire design and reliability study

To design the questionnaire, two independent native English language translators translated the ten main titles of the English original to Portuguese. This work was then analysed by a group of three doctors who selected the Portuguese sentences that best suited the English wording. A translation back to English was then made to ensure no language mismatch was noted from the original one. Subsequently, 37 Portuguese doctors with equal distribution in age groups (< 36, ≥ 36 and ≤ 55 and > 55 years), 61.8% females and 52.9% from the general practice/family medicine specialty, were asked to give written answers to the questionnaire. Two weeks later they filled it again.

The Cronbach’s alfa and the Portuguese translation are shown in Table 1. In the first round, its value was of 0.893, and in the second, it was of 0.848.

The mean scores for every question had a normal distribution, and no statistical difference was found between medium scores in both times, using the student *t*-test for paired samples.

As no other known instrument is available for feasibility comparison, the questionnaire was then driven to the “Moodle” application in the jurisdiction area of the Central Delegation of the Portuguese Medical Association. The sample size for a 95% precision, 5% error margin and response perspective of 50% was calculated as of  $n = 366$ .

An IBM-SPSS version 19 database was made to analyse data with descriptive and inferential tests after data normality was ascertained. Student *t*-test, Mann–Whitney U and Kruskal–

Wallis H tests were used. A significance level of 0.05 was defined to verify differences.

### Results

Of a population of 7396 eligible invited doctors, a rate response of 11% ( $n = 811$ ) was obtained. Of the questionnaires, 122 were not completely filled in (15%), while the number of full responses was 689. By age group, the sample consists of  $n = 203$  (25.6%) – less than 36 years,  $n = 217$  (27.4%) – 36 to 55 years and  $n = 373$  (47%) – for those aged 56 or more. Females accounted for 391 (49.2%) and from General Practice/Family Medicine  $n = 301$  (38.7%), from a Medical specialty  $n = 303$  (39%) and from a medico-surgical specialty  $n = 173$  (22.3%).

The sample answers are shown in Table 2. All questions about the Ten Commandments had high ratings of “Completely agree” or “Agree”. Overall, the percentage of “Disagree/Disagree completely” answer was lower to 10%, with exception to Commandments 1 (9%), 3 (18.8%) and 6 (21.6%).

Although answers from male doctors were more frequent, it was in the medico-surgical specialties that males were more frequent responders according to Table 3.

The study by medical specialty shows only significant difference for commandment 1 “Thou shalt have no aim except to help patients, according to the goals they wish to achieve”. There is higher prevalence of the answer “Disagree/Completely disagree” in the General Practice/Family Medicine specialty (11.2%), contrasting with a 8.2% proportion in the Medical Specialties and 9.2% proportion in the medico-surgicals ( $p < 0.001$ ).

The analysis by gender, Table 4, reveals a significant difference for commandment 1 “Thou shalt have no aim except to help patients, according to the goals they wish to achieve” in women vs men doctors in answering “Disagree/Completely disagree”, proportionally – 11.7% vs 6.4% ( $p = 0.003$ ).

Table 1. Cronbach’s alfa in the pre-test and Portuguese wording

n. Sentence [Portuguese wording]	Cronbach’s alpha
1. Thou shalt have no aim except to help patients, according to the goals they wish to achieve. [Não terás outro objetivo a não ser o de ajudar os pacientes, de acordo com os objetivos que estes pretendem atingir.]	0.931
2. Thou shalt always seek knowledge of the benefits, harms, and costs of treatment, and share this knowledge at all times. [Procurarás em permanência conhecimentos sobre os benefícios, efeitos adversos e custos do tratamento, e partilharás sempre este conhecimento.]	0.647
3. Thou shalt, if all else fails or if the evidence is lacking, happily consider watchful waiting as an appropriate course of action. [Se tudo o resto falhar ou se houver falta de evidências, considerarás confiantemente a espera ativa como uma decisão adequada.]	0.937
4. Thou shalt honour balanced sources of knowledge, but thou shalt keep thyself from all who may seek to deceive thee. [Respeitarás várias fontes de conhecimento, mas evitarás todos aqueles que tentarem enganar-te.]	0.934
5. Thou shalt treat according to level of risk and not to level of risk factor. [Tratarás, de acordo com o nível de risco e não com o nível do fator de risco.]	0.793
6. Thou shalt not bow down to treatment targets designed by committees, for these are but graven images. [Não te sujeitarás aos objetivos de tratamento estipulados por comissões, porque estes são apenas indicativos.]	0.921
7. Honour thy older patients, for although they often have the highest risk, they may also have the highest risk of harm from treatment. [Honrarás os teus doentes mais idosos, pois além de frequentemente serem aqueles que apresentam maior risco, são também aqueles que têm o maior risco de efeitos adversos resultantes do tratamento.]	0.795
8. Thou shalt stop any treatment that is not of clear benefit and regularly reassess the need for all treatments and tests. [Pararás qualquer tratamento que não tenha um benefício claro e reavaliarás regularmente a necessidade de todos os tratamentos e testes.]	0.883
9. Thou shalt diligently try to find the best treatment for the individual, because different treatments work for different people. [Tentarás, diligentemente, encontrar o melhor tratamento para o indivíduo, porque pessoas diferentes requerem tratamentos diferentes.]	0.446
10. Thou shalt seek to use as few drugs as possible. [Procurarás utilizar o mínimo possível de medicamentos.]	0.641

Table 2. The 10 Commandments answers		
	n	%
1. Thou shalt have no aim except to help patients, according to the goals they wish to achieve		
Completely agree	349	49.4
Agree	293	41.5
Disagree	54	7.6
Completely disagree	10	1.4
2. Thou shalt always seek knowledge of the benefits, harms, and costs of treatment, and share this knowledge at all times		
Completely agree	464	65.0
Agree	243	34.0
Disagree	7	1.0
3. Thou shalt, if all else fails or if the evidence is lacking, happily consider watchful waiting as an appropriate course of action		
Completely agree	180	26.5
Agree	371	54.6
Disagree	115	16.9
Completely disagree	13	1.9
4. Thou shalt honour balanced sources of knowledge, but thou shalt keep thyself from all who may seek to deceive thee		
Completely agree	529	74.5
Agree	178	25.1
Disagree	3	0.4
5. Thou shalt treat according to level of risk and not to level of risk factor		
Completely agree	258	39.3
Agree	341	52.0
Disagree	52	7.9
Completely disagree	5	0.8
6. Thou shalt not bow down to treatment targets designed by committees, for these are but graven images		
Completely agree	205	30.0
Agree	331	48.5
Disagree	135	19.8
Completely disagree	12	1.8
7. Honour thy older patients, for although they often have the highest risk, they may also have the highest risk of harm from treatment		
Completely agree	509	72.8
Agree	177	25.3
Disagree	9	1.3
Completely disagree	4	0.6
8. Thou shalt stop any treatment that is not of clear benefit and regularly reassess the need for all treatments and tests		
Completely agree	475	67.0
Agree	223	31.5
Disagree	10	1.4
Completely disagree	1	0.1
9. Thou shalt diligently try to find the best treatment for the individual, because different treatments work for different people		
Completely agree	549	76.8
Agree	160	22.4
Disagree	6	0.8
10. Thou shalt seek to use as few drugs as possible		
Completely agree	511	71.8
Agree	189	26.5
Disagree	8	1.1
Completely disagree	4	0.6

Age group (*)	Specialty			Total n (%)
	GP/FM n (%)	Medical n (%)	Medico-surgical n (%)	
Less than 36 years	64 (22.1)	78 (27.6)	20 (11.9)	162 (21.9)
36 to 55 years	43 (14.9)	103 (36.4)	66 (39.3)	212 (28.6)
Equal or higher than 56 years	182 (63.0)	102 (36.0)	82 (48.8)	366 (49.5)
Sex (**)				
Female	154 (51.2)	166 (54.8)	65 (37.6)	385 (49.5)
Male	147 (48.8)	137 (45.2)	108 (62.4)	392 (50.5)

(\*)  $p < 0.001$ ; (\*\*)  $p = 0.001$ .

		Specialty (*)		
		Family Medicine n (%)	Medical n (%)	Medico-surgical n (%)
1. Thou shalt have no aim except to help patients, according to the goals they wish to achieve	Completely agree	115 (41.7)	132 (49.4)	97 (63.8)
	Agree	130 (47.1)	113 (42.3)	44 (28.9)
	Disagree/Completely disagree	31 (11.2)	22 (8.2)	11 (7.3)

(\*)  $p < 0.001$ .

	Age group			Total n (%)
	< 36 years n (%)	36 to 55 years n (%)	≥ 56 years n (%)	
<b>Thou shalt have no aim except to help patients, according to the goals they wish to achieve (*)</b>				
Completely agree	58 (39.5)	93 (47.9)	186 (55.7)	337 (49.9)
Agree	79 (53.7)	81 (41.8)	121 (36.2)	281 (41.6)
Disagree/Completely disagree	110 (6.8)	20 (10.3)	27 (8.1)	57 (8.5)
<b>“Thou shalt, if all else fails or if the evidence is lacking, happily consider watchful waiting as an appropriate course of action” (**)</b>				
Completely agree	30 (22.4)	50 (26.7)	92 (28.0)	172 (26.5)
Agree	77 (57.5)	96 (51.3)	183 (55.8)	356 (54.9)
Disagree/Completely disagree	27 (19.3)	41 (21.9)	53 (16.1)	109 (16.8)
<b>“Thou shalt not bow down to treatment targets designed by committees, for these are but graven images” (***)</b>				
Completely agree	30 (22.2)	56 (29.8)	115 (34.7)	201 (30.7)
Agree	69 (51.1)	82 (43.6)	165 (49.8)	316 (48.3)
Disagree/Completely disagree	36 (26.7)	50 (26.6)	51 (15.4)	137 (20.9)
<b>“Honour thy older patients, for although they often have the highest risk, they may also have the highest risk of harm from treatment” (£)</b>				
Completely agree	92 (63.9)	131 (70.4)	267 (69.0)	490 (73.4)
Agree	48 (33.3)	50 (26.9)	68 (20.1)	166 (24.9)
Disagree/Completely disagree	4 (2.9)	5 (2.7)	3 (0.9)	12 (1.7)
<b>“Thou shalt stop any treatment that is not of clear benefit and regularly reassess the need for all treatments and tests” (§)</b>				
Completely agree	86 (58.5)	126 (65.3)	241 (71.1)	453 (66.7)
Agree	58 (39.5)	62 (32.1)	95 (28.0)	215 (31.7)
Disagree/Completely disagree	3 (2.1)	5 (2.6)	3 (0.9)	11 (1.6)

(\*)  $p = 0.016$ ; (\*\*)  $p = 0.007$ ; (\*\*\*)  $p < 0.001$ ; (£)  $p < 0.001$ ; (§)  $p = 0.020$ .

When analysing by age group and according to Table 5, there are significant differences for Commandment 1 “Thou shalt have no aim except to help patients, according to the goals they wish to achieve”. Those less than 36 years old tend to significantly agree less ( $p = 0.016$ ).

For Commandment 4 “Thou shalt honour balanced sources of knowledge, but thou shalt keep thyself from all who may seek to deceive thee” ( $p = 0.007$ ); Commandment 6 “Thou shalt not bow down to treatment targets designed by committees, for these are but graven images” ( $p = 0.001$ ); Commandment 7 “Honour thy older patients, for although they often have the

highest risk, they may also have the highest risk of harm from treatment” ( $p = 0.001$ ) and Commandment 8 “Thou shalt stop any treatment that is not of clear benefit and regularly reassess the need for all treatments and tests” ( $p = 0.020$ ), those aged more than 56 years tend to significantly agree more.

## Discussion

### Summary

Our study intended to find out the opinion of the medical population from the centre of Portugal about the “Ten Com-

mandments for patient-centred treatment” – a theme that, to our knowledge, has not yet been studied in Portugal or elsewhere. There is vast agreement with such “Commandments”, although there are individual differences for age group, medical specialty and doctors’ sex.

### Strengths and limitations

As strengths of this work, sample size and being a pioneer work must be emphasized. Moreover, its innovative scope probably had some notoriety for such a sample to be studied. This study is also important in the knowledge of what doctors believe and probably practice, so giving clues as to how pre- and post-graduate teaching and development should be organised in order to improve continuing medical education and professional development.

The representative sample of 811 doctors must be carefully interpreted by gender, with female doctors answering less than male ones. The authors cannot characterize if the respondents were residents or specialists. In an attempt to make the questionnaire as brief, attractive and simple as possible, only three variables were studied: age group, gender and medical specialty.

As limitations, the authors must mention its regional context in the centre of Portugal and the fact that this is a “Moodle” platform study on a convenient, voluntary yet size representative sample. The informatics skills needed, that not all doctors have achieved, the intention to answer and information desire are also limitations and bias.

As confounding factors, the absence of knowledge about what doctors know about medicines and its prescriptions are to be considered. Some problems with a nationwide web-based prescription formulary happened while the field study was made, and such might have had some impact on the present results.

### Comparison with existing literature

We have found no other results on this subject in an extensive literature review in Medline and web of science, so no comparisons can be made. However, the present results deserve interpretation and its implication for future studies must be thought of.

When studying the overall results, three Commandments stand out by the proportion of “Disagree/Completely disagree” answers:

Commandment 6 “Thou shalt not bow down to treatment targets designed by committees, for these are but graven images”: 21.6%.

This result shows an apparent questioning of the definition of some pathologies, that are, in fact, risk factors. Doctors feel obliged to treat these with medicines when they could and probably should be treated differently. It also raises the question of the thresholds or cut-offs that must be kept in mind to initiate drug treatment. A statistical difference was found for this commandment for age group, the two younger ones “Disagreeing/Completely disagreeing” more. The real meaning of this result deserves future study.

Commandment 3 “Thou shalt, if all else fails or if the evidence is lacking, happily consider watchful waiting as an appropriate course of action”: 18.8%.

Due to the European General Practice/ Family Medicine Definition [10], a “... watchful waiting as an appropriate course of action...” attitude was expected mainly in the General Practice/ Family Medicine specialty respondents, but such did not happen. The reasons for doctors to engage in immediate pharmacological treatment such as reduced consultation time, social, via media, pressure, fear of negligence, patients needs, patients pressure and need to observe guide-lines, among others, must now be studied, because of its economical and financial impact.

Commandment 1 “Thou shalt have no aim except to help patients, according to the goals they wish to achieve”: 9%.

The very straight writing of this commandment implies the need of sound medical skills, reasoning, compassion, empathy and prevention from harm [11–14]. A significant difference was found by medical specialty, with more frequent “Disagree/Completely disagree” answers in the “General Practice/Family Medicine” setting. This result deserves a very profound study, for it is not in accordance with the European Definition [10]. Once again the reasons supporting this answer must be studied – with eventual comparison with clinical outcomes as far as Quaternary Prevention is thought of. Reasons for choice of answer could include: Intrinsic characteristics of the sample, induced knowledge in school, need to accomplish guidelines, shortage of time for consultation or other. For this commandment, a difference was also found for gender and age group, women and those aged 36 to 55 years answering “Disagree/Completely disagree” more often.

### Implications for research and/or practice

This study in dealing with the beliefs and knowledge about patient-centred pharmacological therapy, is a very good opportunity for the development of sound strategies for better performance. From 2011 onwards, a series of clinical guidelines have been issued by the Portuguese health authorities intended to be dealt with as a “normative”, with imperiosity of its accomplishment, with external audits and where pharmacological therapy is very strict, in fields such as Arterial Hypertension [15], Diabetes [16], Asthma [17] and Bening Prostate Hypertrophy [18], among others.

At the same time, and for General Practice/Family Medicine, other series of procedure and result indicators have been issued by the Portuguese “Central Authority for the Health Systems”, one of them for accountability: the price of medicines prescribed by inpatient, indicator 2013.068.01 [19].

The Portuguese doctors’ continuous medical education about pharmacological therapy is accomplished by a wide variety of inputs, and one cannot exclude the Pharmaceutical industries’ interests in such. Still, for the scope of these commandments, the authors cannot recall specific actions.

So this study opens up a very interesting line of investigation that hopefully will clarify the present results.

### Conclusions

There is vast agreement with the “Ten Commandments for patient-centred treatment” by physicians enlisted in the Central Regional Section of the Portuguese Medical Association.

Nevertheless, Commandment 1 “Thou shalt have no aim except to help patients, according to the goals they wish to achieve”, Commandment 3 “Thou shalt, if all else fails or if the evidence is lacking, happily consider watchful waiting as an appropriate course of action” and Commandment 6 “Thou shalt not bow down to treatment targets designed by committees, for these are but graven images” obtained a higher proportion of the answer “Disagree/Completely disagree” than the remaining.

There seems to exist a need for future investigations to explain the present results, namely why the General Practice/ Family Medicine doctors seemed less engaged in the watchful waiting strategy and treatment of the accorded goals to achieve, than do doctors of other specialties.

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