

BMJ Open What attributes do patients prefer in a family physician? A cross-sectional study in a northern region of Portugal

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ABSTRACT

Objectives To determine which modifiable and non-modifiable attributes patients prefer in a family physician, as well as to analyse participants' characteristics associated with their choices.

Design Cross-sectional study.

Setting Family healthcare units (FHU) in the city of Braga and Barcelos (Northern Portugal).

Participants Adults aged 18 years or more, enrolled in the selected FHU.

Main outcome measures The preferred attributes were assessed with a questionnaire delivered in the FHU. These attributes included gender, age and nationality and the importance of being Portuguese, of greeting with a handshake, of welcoming in the waiting area, of using an identification badge and of wearing a white coat.

Results A total of 556 questionnaires were included in the analysis; 66% and 58% of the participants had no preference for the gender or age of the family physician, respectively. Using a multinomial logistic regression, male participants were 3.8 times more likely to have a preference for a male physician than having no preference, in comparison to female participants (OR 3.864, 95% CI 1.96 to 7.61). More than 69% of the participants considered greeting with a handshake, using an identification badge and wearing a white coat important or very important. There was a statistically significant association between being Portuguese and the major importance given to the use of an identification badge ($\beta=0.68$, 95% CI 0.23 to 1.12).

Conclusions Our data show that modifiable attributes of the family physician (greeting, presence of an identification badge and wearing a white coat) are important for patients. Potential changes in family physician attitude in consultation could ultimately affect patient-physician relationship.

INTRODUCTION

A trusting physician-patient relationship is essential to the success of medical care, since patient-centred medicine is characterised by a bidirectional interaction between the patient and physician at all stages of the decision-making process.¹⁻⁴ From the first moment, physicians work to build an effective relationship with their patients. Recent studies suggest

Strengths and limitations of this study

- This is the first European study to address the way patients are welcomed by their family physicians.
- The large sample size and the involvement of different Family healthcare units are additional strengths of the study.
- The main weakness of this study is the selection of a specific population from the same region, lacking information from other regions/countries.

that first impressions, once they occur, remain relatively stable over time.^{5,6} First impressions can be influenced by different characteristics such as the physician's nationality, gender, physical appearance, facial features, posture, speech and voice.⁵ Several meta-analyses concluded that patients who have a better relationship with their family physician are more likely to adhere to treatment plans and disclose information.^{7,8} Adherence to medication has been recognised as a key issue in health outcomes since, when inadequate, it reduces the effectiveness of treatment which represents a significant burden for both the patients and the healthcare system.⁷

During the consultation, physician's verbal and nonverbal communication as well as modifiable and non-modifiable attributes (which include gender, age, image and attitude) will influence the patient's opinion.^{9,10} Several researchers have already studied the gender preference for a doctor in many medical specialties.¹¹⁻¹⁶ A study published in 1997 showed that gender preferences are stronger for those health professions more likely engaged in intimate and psychosocial health issues, such as family physicians.¹¹ For some conditions, namely those more intimate, patients prefer family physicians of the same gender.¹⁷ Gender preference can ultimately lead to patient satisfaction.^{18,19} There is not much literature

**Table 1** Sociodemographic characteristics of the participants (n=556)

Participants' characteristics		
Age (years)		
Mean ± standard deviation	44.8±0.6	
Minimum	18	
Maximum	84	
	n	%
Gender*		
Male	161	29
Female	394	71
Marital Status		
Single	133	23.9
Married	316	56.8
Divorced	65	11.7
Widow	24	4.3
Other	18	3.2
Nationality†		
Portuguese	533	96.2
Other	21	3.8
Education (no years)		
< 4	13	2.3
4-9	201	36.2
10-12	171	30.8
> 12	171	0.8

*One missing value.

†Two missing values.

regarding the preference for the age of the physician. Some studies reported a preference for an age between 30 and 50 years old, reflecting a balance between an experienced and up-to-date physician.^{13 20 21} However, some authors hypothesise that patient could prefer physicians of their own age.²⁰ Physician's appearance can also be a determining factor in the patient's perception of the quality of care provided, despite the sociocultural context.¹ It has long been tradition for physicians to dress professionally in white coats as a universal symbol.²² In a pioneer study in 1987, Dunn *et al* reported that over half of the primary care patients wanted their physicians to wear a white coat during a consultation.⁹ Since then, several studies in different cultures have been developed, and the majority reported similar results.^{2 22-25} However, in some population groups physician's attire does not seem to influence patients' preferences. A study driven with a population of adolescents found that 43% had no preference for the physician's form of dressing, although most of them preferred to be observed by a physician of the same gender.²⁶ Other authors studied the role that white coats and physician's attributes had on medical students' perception on competence and judgement

making abilities. The presence of a white coat did not influence the students' perception of the physician's competence, trustworthiness or professionalism. On the other hand, male gender and Caucasian race were viewed as protective from being ascribed error.⁷ Nowadays, in some societies, such as Denmark and England, it is rare to see a primary physician wearing a white coat, while in Sweden, Finland and even in Portugal many physicians still wear it.²⁷ Some countries discouraged the use of the white coat in order to prevent disease transmission.²² In general, preferences for modifiable attributes of family physicians, particularly on which attitudes the patient values the most, are scarce. However, an appropriate and relationship-centred start of each medical consultation is important and physician's self-introduction and presentation is the intervention most often reported by patients as the first explicit moment in which they form a judgement on the physician.⁵ A recent study in USA in 2019 reported that physician's name tags were perceived to be crucial in medical settings.²⁸

Therefore, the main objective of this study was to determine which modifiable and non-modifiable attributes patients prefer in a family physician. In addition, we aimed to understand if patients' sociodemographic characteristics influence their preference for gender, age, nationality of the family physician and importance of greeting with a handshake, of using an identification badge and of wearing a white coat.

METHODS

Study design and data collection

A cross-sectional study was conducted at five family health-care units (FHU) in the northern region of Portugal, two of them are in a rural area and the remaining three are in an urban area. To evaluate patients' preferences regarding the attributes of their family physician, a self-completion questionnaire was developed by the authors. The study protocol and the questionnaire are described in online supplemental file 1). This questionnaire comprises two sections. The first section comprised eight multiple-choice questions regarding the preference for modifiable and non-modifiable attributes in a family physician and a question that allowed the participant to choose an image from eleven different options depicting different types of clothing (formal, semiformal and informal) of a family doctor, in different situations/types of medical consultation. This last question analysis will not be considered in this article. The second section comprised five questions related to participants' characteristics (age, gender, marital status, nationality and educational level).

The questionnaire was delivered by the clinical secretaries of the enrolled FHU to all patients who agreed to participate in the study at the time of the appointment (scheduled or non-scheduled), in June of 2018. The questionnaire was self-filling to allow for a more truthful response. All the completed questionnaires were deposited in a properly sealed box. Patients registered in any of

Table 2 Selected preferences for the family physician (n=556)

	n	%								
Family physician's attributes										
Gender*										
Male	43	7.9								
Female	141	26								
No preference	359	66.1								
Age†										
25–34 years	35	6.5								
35–44 years	97	17.9								
45–54 years	61	11.3								
55–64 years	24	4.4								
No preference	324	59.9								
Importance of	Being Portuguese‡	Hand shake§	Welcoming in the waiting area¶		Using an identification badge**		Wearing a white coat††			
			n	%	n	%	n	%	n	%
Not important	81	14.9	25	4.6	80	14.6	21	3.8	26	4.7
Of little importance	53	9.6	19	3.5	58	10.6	32	5.8	24	4.4
Indifferent	148	26.9	74	13.5	207	37.7	88	16	119	21.6
Important	144	26.2	236	43	131	23.9	251	45.6	215	39.1
Very important	123	22.4	195	35.5	73	13.3	158	28.7	166	30.2
How to wear the white coat‡‡										
Open	24	4.5								
Closed	142	26.6								
No preference	372	69.1								

*13 missing values.

†15 missing values.

‡7 missing values.

§7 missing values.

¶7 missing values.

**6 missing values.

††6 missing values.

‡‡18 missing values.

the FHU, older than 17 years old, with an appointment during the study period, were considered eligible. Illiterate patients or those with physical/cognitive limitations that did not allow the autonomous completion of the questionnaire were excluded. The information collected was recorded in a database created for this purpose. Each researcher filled out the database on questionnaires applied at another FHU. To ensure anonymity, the database did not allow users to be identified and there was no reference to their family physician. In 2017, there were 44823 adults registered in the five FHU. Considering an α of 0.05, power of 80%, an allocation ratio of exposed to non-exposed of 1, a proportion of non-exposed participants who develop the study outcome of 72% and a proportion of exposed participants who develop the study outcome of 96%, this would result in a sample size of 92 valid questionnaires. The considered parameters were retrieved from a small Portuguese study.¹⁰ We

considered these calculations too conservative. Therefore, we assumed, instead, a proportion of non-exposed participants who develop the study outcome of 63% and a proportion of exposed participants who develop the study outcome of 75%, resulting in a total sample size of 506.

Participants were guaranteed anonymity and confidentiality, and the voluntary nature of the enrolment was emphasised.

Confidentiality was ensured by not identifying the patient or the family physician.

Patient and public involvement

Patients were involved in face validity testing and a pilot test. The face validity of the instrument was tested with eligible patients and modifications were conducted in accordance. A qualitative study was carried out to see if the questions were well understood and if the language was appropriate and modifications were made in terms



Table 3 Association between participants' characteristics and the preferred family physician's attributes

Family physician's attributes		Participants' characteristics												P value													
		Age				Gender				Marital status					Nationality				Education								
		n	Mean±SD	P value		Male	Female	Alone	Accompanied	Portuguese	Other	<4	4-9		10-12	>12	n	%	n	%	n	%	n	%			
Gender																											
Male	43	48.6±16.3	0.157	<0.001	27	17.0	16	4.1	26	7.9	0.604	38	7.3	5	23.8	0.004	1	8.3	23	11.9	11	6.5	8	4.7	0.007		
Female	141	44.1±15.7			28	17.6	115	29.7	62	28.4	24.6	134	25.6	8	38.1		4	33.3	55	28.4	53	31.2	31	18.1			
No preference	359	44.5±14.6			104	65.4	256	66.1	139	36.8	67.5	352	67.2	8	38.1		7	58.3	116	59.8	106	62.4	132	77.2			
Age																											
25-34 years	35	38.2±17.0	<0.001	15	9.4	20	5.2	0.137	22	10.1	13	4.0	0.038	31	6.0	4	19.0	0.008	0	0.0	11	5.7	14	8.3	10	6.1	0.064
35-44 years	94	43.6±14.7		31	16.5	66	17.3	38	17.4	59	18.3	91	17.8	3	14.3		1	7.7	39	20.1	28	16.6	29	17.6			
45-54 years	61	50.3±13.2		19	11.9	42	11.0	20	9.2	41	12.7	55	10.6	6	28.6		4	30.8	13	6.7	24	14.2	20	12.1			
55-64 years	24	53.4±14.7		10	6.3	14	3.7	7	3.2	17	5.3	24	4.6	0	0.0		2	15.4	12	6.2	6	3.6	4	2.4			
No preference	323	44.0±14.3		84	52.8	239	62.7	131	60.1	193	59.8	316	61.0	8	38.1		6	46.2	119	61.3	97	57.4	102	61.8			
Importance of being Portuguese																											
Mean±SD	545	-	0.001	3.3±1.4	3.3±1.3	0.914	3.2±1.3	3.4±1.3	0.029	3.3±1.3	2.8±1.4	0.049	3.6±1.3	3.5±1.3	3.0±1.3	<0.001											
Importance of hand shake																											
Mean±SD	544	-	0.418	4.0±1.1	4.0±1.0	0.435	3.9±1.1	4.1±0.9	0.067	4.0±1.0	3.6±1.1	0.094	4.1±1.2	4.0±1.0	4.0±1.0	0.971											
Importance of welcoming in the waiting area																											
Mean±SD	544	-	0.085	3.2±1.3	3.1±1.2	0.365	3.1±1.2	3.1±1.2	0.400	3.1±1.2	2.9±1.1	0.328	3.2±1.2	3.3±1.2	2.9±1.3	0.021											
Importance of using an identification badge																											
Mean±SD	545	-	0.879	3.9±1.1	3.9±1.0	0.955	3.9±1.0	3.9±1.0	0.945	3.9±1.0	3.2±1.1	0.002	3.8±1.2	3.9±1.0	3.9±1.0	0.967											
Importance of wearing a white coat																											
Mean±SD	545	-	0.972	3.9±1.1	3.8±1.0	0.552	3.9±1.1	3.9±1.0	0.983	3.9±1.1	3.6±1.1	0.203	3.4±1.0	3.9±1.0	3.8±1.1	0.347											
How to wear the white coat																											
Open	23	46.5±18.1	0.617	0	6.5	14	3.7	0.137	10	4.7	14	4.3	0.038	21	4.1	3	14.3	0.008	2	22.2	7	3.6	10	5.9	5	3.0	0.064
Closed	142	43.6±15.3		49	24.3	93	24.3	63	29.3	79	24.5	137	26.6	5	23.8		2	22.2	43	22.4	49	29.0	48	28.6			
No preference	369	44.6±14.0		95	72.1	276	72.1	142	66.0	230	71.2	357	69.3	13	61.9		5	55.6	142	74.0	110	65.1	115	68.5			

Table 4 Multinomial logistic regression models used to test the association between participants' characteristics and preference for family physician's gender

	Participants' characteristics	OR _{crude}	95% CI	P value	OR _{adjusted}	95% CI	P value
Preference for male physician vs No preference	Age	1.02	1.00 to 1.04	0.062			
	Gender						
	Male	4.15	2.15 to 8.03	<0.001	3.864	1.96 to 7.61	<0.001
	Female	1	–		1	–	
	Marital status						
	Alone	1.04	0.55 to 1.99	0.896			
	Accompanied	1	–				
	Nationality						
	Portuguese	0.173	0.05 to 0.56	0.003	0.109	0.03 to 0.39	0.001
	Other	1	–		1	–	
	Education						
	<4	2.36	0.26 to 21.56	0.448	2.29	0.24 to 22.04	0.475
	4–9	3.27	1.41 to 7.60	0.006	3.49	1.42 to 8.58	0.006
10–12	1.71	0.665 to 4.41	0.265	1.70	0.64 to 4.55	0.289	
>12	1	–					
Preference for female physician vs No preference	Age	1.00	0.99 to 1.01	0.928			
	Gender						
	Male	0.60	0.37 to 0.97	0.033	0.58	0.36 to 0.94	0.026
	Female	1	–		1	–	
	Marital status						
	Alone	1.22	0.83 to 1.81	0.316			
	Accompanied	1	–				
	Nationality						
	Portuguese	0.38	0.14 to 1.04	0.058	0.361	0.13 to 1.01	0.053
	Other	1	–		1	–	
	Education						
	<4	2.43	0.67 to 8.83	0.176	2.768	0.75 to 10.18	0.126
	4–9	2.02	1.22 to 3.35	0.006	2.152	1.29 to 3.6	0.004
10–12	2.13	1.28 to 3.56	0.004	2.103	1.25 to 3.53	0.005	
>12	1	–		1	–		

of writing and clarification of the terms described in the questionnaires. Then the pilot test considering 20 patients was carried out and no changes were implemented. All the patients considered in the pilot study or in the assessment of face validity were not included in data analysis.

Statistical analysis

All the categorical variables were presented as frequencies and percentages and the continuous variables as means and SD or medians and IQRs, as appropriate. To test the association between the participants' characteristics and family physician's attributes, we used the correlation test, when both correspond to continuous variables (Pearson correlation test) and the χ^2 test when both variables are categorical. The continuous variables that describe participants' characteristics were compared across the preferred

family physician's gender, age groups and way of wearing the white coat, using independent sample t-tests or one-way analysis of variance, as appropriate. To test the association between participants' characteristics (age, gender, marital status, nationality and education) and preference regarding the age, gender and way of wearing the white coat by the family physician, multinomial logistic regression models were adjusted. Initially, univariate models were performed to assess the crude association between each of the participants' characteristics and all the outcomes. Afterwards, multivariate models were conducted considering as independent variables those identified with a $p < 0.05$ in the univariate analysis. To test the association between participants' characteristics and the Likert scale questions (importance of Portuguese

**Table 5** Multinomial logistic regression models used to test the association between participants' characteristics and preference for family physician's age

	Participants' characteristics	OR _{crude} No preference	95% CI	P value	OR _{adjusted} No preference	95% CI	P value
Preference for physician with 25–34 years vs No preference	Age	0.969	0.94 to 0.996	0.024	0.98	0.95 to 1.01	0.123
	Gender						
	Male	2.13	1.05 to 4.36	0.037	2.31	1.10 to 4.83	0.027
	Female	1	–				
	Marital status						
	Alone	2.49	1.21 to 5.13	0.013	2.01	0.92 to 4.40	0.079
	Accompanied	1	–				
	Nationality						
	Portuguese	0.196	0.06 to 0.69	0.011	0.28	0.07 to 1.03	0.055
	Other	1	–		1	–	
	Education						
	<4	*	*	*	*	*	*
	4–9	0.94	0.39 to 2.31	0.898	1.46	0.54 to 3.92	0.452
10–12	1.47	0.62 to 3.47	0.377	1.53	0.63 to 3.68	0.345	
>12	1	–					
Preference for physician with 35–44 years vs No preference	Age	1.00	0.98 to 1.014	0.792	0.99	0.98 to 1.01	0.548
	Gender						
	Male	1.34	0.82 to 2.19	0.250	1.35	0.81 to 2.24	0.250
	Female	1	–		1	–	
	Marital status						
	Alone	0.949	0.60 to 1.51	0.825	0.87	0.53 to 1.43	0.578
	Accompanied	1	–				
	Nationality						
	Portuguese	0.77	0.20 to 2.99	0.713	0.75	0.19 to 2.92	0.672
	Other	1	–		1	–	
	Education						
	<4	0.59	0.07 to 5.07	0.627	0.69	0.08 to 6.32	0.742
	4–9	1.15	0.67 to 2.00	0.612	0.16	0.63 to 2.14	0.632
10–12	1.02	0.56 to 1.83	0.96	1.06	0.58 to 1.92	0.857	
>12	1	–					
Preference for physician with 45–54 years vs No preference	Age	1.029	1.01 to 1.05	0.002	1.04	1.02 to 1.07	<0.001
	Gender						
	Male	1.287	0.71 to 2.34	0.407	1.11	0.59 to 2.09	0.739
	Female	1	–				
	Marital status						
	Alone	0.719	0.40 to 1.28	0.263	0.78	0.42 to 1.44	0.421
	Accompanied	1	–				
	Nationality						
	Portuguese	0.23	0.08 to 0.695	0.009	0.25	0.08 to 0.80	0.019
	Other	1	–				
	Education						
	<4 vs >12	3.4	0.88 to 13.15	0.076	1.28	0.29 to 5.73	0.745
	4–9 vs >12	0.56	0.26 to 1.18	0.125	0.31	0.13 to 0.71	0.006
10–12 vs >12	1.26	0.66 to 2.43	0.487	1.09	0.55 to 2.16	0.795	
>12	1	–					

Continued

Table 5 Continued

	Participants' characteristics	OR _{crude} No preference	95% CI	P value	OR _{adjusted} No preference	95% CI	P value
Preference for physician with 55–64 years vs No preference	Age	1.043	1.01 to 1.07	0.003	1.03	1.00 to 1.07	0.061
	Gender						
	Male	2.03	0.87 to 4.75	0.101	1.64	0.68 to 3.93	0.268
	Female	1	–				
	Marital status						
	Alone	0.607	0.25 to 1.50	0.281	0.79	0.31 to 2.03	0.630
	Accompanied	1	–				
	Nationality						
	Portuguese	†	†	†	†	†	†
	Other	1	–				
	Education						
	<4 vs >12	8.50	1.29 to 56.07	0.026	3.48	0.44 to 27.76	0.240
	4–9 vs >12	2.57	0.80 to 1.22	0.111	1.44	0.41 to 5.11	0.570
10–12 vs >12	1.58	0.43 to 5.76	0.490	1.47	0.40 to 5.44	0.561	
>12	1	–					

*Preference for 25–34 years was not selected by participants with less than 4 years of scholarship.

†Preference for 55–64 years was selected by Portuguese participants only.

nationality, importance of a handshake, importance of welcoming in the waiting area, importance of using an identification badge and importance of wearing a white coat), linear regression models were used, after testing for linearity. Initially, simple linear regression models were conducted to assess the association between each of the participants' characteristics and all the outcomes. Afterwards, multiple linear regression models were performed considering as independent variables those identified with a $p < 0.05$ in the univariate analysis. Listwise deletion was the chosen method for handling missing values. All the computed p values were two tailed with a p-value lower than 0.05, indicating statistical significance. All the analysis was conducted using SPSS V.25.0.

RESULTS

A total of 650 questionnaires were delivered and a total of 556 were completed by the participants of the enrolled FHU. Most of them were female (71%), with a mean age of 44.8 ± 0.6 years and 3.8% ($n=21$) were non-Portuguese (table 1).

Non-modifiable attributes of the family physician

More than half of the participants had no preference for the gender of the family physician ($n=359$, 66.1%), but for those who showed a preference, most preferred to be seen by a female physician ($n=141$, 26.0%) (table 2). A statistically significant association was found between the characteristics of the patients (gender, nationality and education) and the physician's gender ($p < 0.001$, $p=0.004$ and $p=0.007$, respectively) (table 3). Regression models also showed this association. Male participants were 3.8 times more likely to

have a preference for a male physician and 42% less likely to have a preference for female physician, in comparison to female participants (OR 3.864, 95% CI 1.96 to 7.61 and OR 0.58, 95% CI 0.36 to 0.94, respectively) (table 4). Most non-Portuguese patients had a preference for a particular gender of the family physician, where 38.1% preferred a female physician and 23.8% preferred a male physician (table 3), whereas Portuguese participants are more likely to have no preference (OR 0.109, 95% CI 0.03 to 0.39 for male preference) (table 4). Finally, patients with a higher education considered the gender of the family physician less important ($n=132$, 77.2%) in comparison with those with a lower education (table 3). People with 4–12 years of education were about two times more likely to have a preference for either male or female physicians, rather than having no preference, in comparison to those with a higher education (table 4).

Most patients did not have a preference concerning the age group of their family physician ($n=323$, 60.1%) (table 3). However, among those who had a preference, participants preferred physicians aged 35–44 years ($n=94$, 17.5%) or 45–54 years ($n=61$, 11.4%) (table 3). There was a statistically significant association between the preference for the age of the physician and the marital status, nationality and the age of the responders ($p=0.038$, $p=0.008$ and $p < 0.001$, respectively). Patients prefer family physicians from the same age group as their own. In regression models, this association with age was found for the preference for a physician with an age between 45 and 54 years-old, where an increase in 1 year of life increased 4% the odds to select this option rather than no preference (table 5). In comparison to females, male

**Table 6** Linear regression models used to test the association between participants' characteristics and Likert scale questions

	Participants' characteristics	Non-standardised β_{crude}	95% CI	P value	Non-standardised β_{adjusted}	95% CI	P value
Importance of Portuguese Nationality	Age	0.01	0.01 to 0.02	0.001	0.01	-0.001 to 0.02	0.104
	Gender						
	Male vs female	-0.01	-0.26 to 0.23	0.914			
	Marital Status						
	Alone vs accompanied	-0.25	-0.48 to 0.03	0.029	-0.12	-0.35 to 0.12	0.325
	Nationality						
	Portuguese vs other	0.58	0.003 to 1.16	0.049	0.47	-0.11 to 1.04	0.109
	Education						
	<4 vs >12	0.62	-0.14 to 1.39	0.110	0.42	-0.38 to 1.21	0.303
4-9 vs >12	0.59	0.32 to 0.86	<0.001	0.47	0.18 to 0.76	0.002	
10-12 vs >12	0.42	0.15 to 0.70	0.003	0.42	0.14 to 0.70	0.003	
Importance of hand shake	Age	0.001	-0.003 to 0.01	0.418			
	Gender						
	Male vs female	-0.08	-0.27 to 0.11	0.405			
	Marital status						
	Alone vs accompanied	-0.17	-0.34 to 0.01	0.058			
	Nationality						
	Portuguese vs other	0.40	-0.07 to 0.87	0.094			
	Education						
	<4 vs >12	0.05	-0.55 to 0.65	0.875			
4-9 vs >12	-0.02	-0.23 to 0.19	0.851				
10-12 vs >12	-0.05	-0.27 to 0.17	0.671				
Importance of welcoming in the waiting area	Age	0.01	-0.001 to 0.01	0.085			
	Gender						
	Male vs female	0.10	-0.12 to 0.33	0.365			
	Marital status						
	Alone vs accompanied	-0.09	-0.30 to 0.12	0.400			
	Nationality						
	Portuguese vs other	0.26	-0.26 to 0.79	0.328			
	Education						
	<4 vs >12	0.25	-0.45 to 0.96	0.477			
4-9 vs >12	0.39	0.14 to 0.64	0.002				
10-12 vs >12	0.16	-0.09 to 0.42	0.206				
Importance of using an identification card	Age	0.001	-0.005 to 0.006	0.879			
	Gender						
	Male vs female	0.01	-0.18 to 0.19	0.955			
	Marital status						
	Alone vs accompanied	0.01	-0.17 to 0.18	0.945			
	Nationality						
	Portuguese vs other	0.68	0.25 to 1.12	0.002			
	Education						
	<4 vs >12	-0.11	-0.72 to 0.51	0.736			
4-9 vs >12	-0.03	-0.24 to 0.18	0.776				
10-12 vs >12	-0.05	-0.26 to 0.17	0.664				

Continued

Table 6 Continued

	Participants' characteristics	Non-standardised			Non-standardised		
		β_{crude}	95% CI	P value	β_{adjusted}	95% CI	P value
Importance of wearing a white coat	Age	0.0001	-0.006 to 0.006	0.972			
	Gender						
	Male vs female	0.06	-0.13 to 0.26	0.530			
	Marital status						
	Alone vs accompanied	-0.002	-0.18 to 0.18	0.983			
	Nationality						
	Portuguese vs other	0.30	-0.16 to 0.76	0.203			
	Education						
	<4 vs >12	-0.40	-1.02 to 0.21	0.200			
	4-9 vs >12	0.11	-0.11 to 0.33	0.315			
10-12 vs >12	0.02	-0.20 to 0.25	0.843				

participants are 2.3 times more likely to prefer a physician aged 25–34 years rather than having no preference (OR 2.31, 95% CI 1.10 to 4.83).

According to the data obtained, on average, patients considered indifferent to be seen by a physician of Portuguese nationality (average score 3.3 ± 1.3 , ranging from 1 to 5) (table 3). Nevertheless, it seems that participants with 4–9 years of scholarship consider Portuguese nationality more important than those with higher education (β -adjusted=0.47, 95% CI 0.18 to 0.76) (table 6).

Modifiable attributes of the family physician

More than 78% of the participants considered greeting with a handshake important or very important (average score 4.0 ± 1.0 , ranging from 1 to 5), regardless of the participants' characteristics (table 3). On average, patients also considered indifferent that the physician welcomes them in the waiting area (average score 3.1 ± 1.2) but more than 74% considered the use of an identification badge important or very important (average score 3.9 ± 1.0) (table 3). There was a statistically significant association between the nationality of patients and the importance of using an identification badge, where Portuguese participants assign more importance to this attribute than other nationalities (β -adjusted=0.68, 95% CI 0.25 to 1.12) (table 6).

Wearing a white coat was considered important or very important in more than 69% of the participants (average score 3.9 ± 1.0), regardless of the participants' characteristics (table 3). However, about 69% of participants did not have a preference for the way of wearing the white coat (open or closed) (table 3). In regression models, participants with less than 4 years of scholarship are almost 10 times more likely to prefer an opened white coat rather than having no preference, in comparison to those with higher education (OR 9.87, 95% CI 1.48 to 65.9) (table 7). Male participants are 1.6 times more likely to prefer a closed white coat rather than having no

preference, in comparison to females (OR 1.60, 95% CI 1.05 to 2.45) (table 7).

DISCUSSION

In our study, we aimed to understand what modifiable and non-modifiable attributes patients prefer in a family physician. As in two previous studies, we found no gender preference for the attending physician.^{11 29} However, we found that male participants showed a stronger preference for male physicians than female participants did for female physicians, results that are similar to another study.²⁰ Concerning physician's age, our results are coincident with a Portuguese study in which most patients showed no preference on this subject.³⁰ However, for those who have a preference, the most selected options were 35–54 years, which is in line with previous international studies.^{13 20 21} In the same Portuguese study, Portuguese patients preferred Portuguese physicians whereas foreign patients were indifferent to nationality. Conversely, in our study, being observed by a Portuguese physician was indifferent for most Portuguese patients and of little importance for most foreign patients. However, participants with 4–9 years of scholarship considered Portuguese nationality more important than those participants with a higher education; we believed that this may be due to language issues.

Our data also show that modifiable attributes of the family physician (greeting, identification and the wear of a white coat) are important to patients. These findings are important because potential changes in family physicians' attitude in consultation could ultimately affect patient–physician relationship. We found that more than 69% of the participants considered greeting with a handshake, using an identification badge and wearing a white coat important or very important, regardless of the participants' characteristics. In our study, greeting with a handshake was considered important, even though

**Table 7** Multinomial logistic regression models used to test the association between participants' characteristics and preference for the way of using the white coat

	Participants' characteristics	OR _{crude}	95% CI	P value	OR _{adjusted}	95% CI	P value
Preference for opened white coat vs No preference	Age	1.01	0.98 to 1.04	0.544			
	Gender						
	Male	2.08	0.89 to 4.83	0.090	2.16	1.00 to 5.13	0.081
	Female	1	–		1	–	
	Marital status						
	Alone	1.16	0.50 to 2.68	0.733			
	Accompanied	1	–		1	–	
	Nationality						
	Portuguese	0.26	0.07 to 0.96	0.044	0.26	0.07 to 1.05	0.058
	Other	1	–		1	–	
	Education						
	<4	9.20	1.42 to 59.59	0.020	9.87	1.48 to 65.92	0.018
4–9	1.13	0.35 to 3.67	0.834	1.15	0.35 to 3.81	0.820	
10–12	2.09	0.69 to 6.31	0.191	2.03	0.67 to 6.20	0.213	
>12	1	–		1	–		
Preference for closed white coat vs No preference	Age	1.00	0.98 to 1.01	0.490			
	Gender						
	Male	1.53	1.01 to 2.32	0.045	1.60	1.05 to 2.45	0.029
	Female	1	–		1	–	
	Marital status						
	Alone	1.29	0.87 to 1.91	0.200			
	Accompanied	1	–				
	Nationality						
	Portuguese	1.00	0.35 to 2.85	0.997	1.14	0.39 to 3.23	0.809
	Other	1	–		1	–	
	Education						
	<4	0.96	0.18 to 5.11	0.960	0.92	0.17 to 4.93	0.919
4–9	0.73	0.45 to 1.17	0.190	0.68	0.42 to 1.11	0.122	
10–12	1.07	0.66 to 1.72	0.789	1.07	0.66 to 1.73	0.784	
>12	1	–		1	–		

participants felt it to be indifferent to be welcomed in the waiting area. A previous study also found it important for patients to shake their doctors' hand.³¹ In respect to the use of an identification badge, there was a statistically significant association between being Portuguese and the major importance given this attribute (β -adjusted=0.68, 95% CI 0.25 to 1.12). We hypothesised that this may be due to the fact that Portuguese participants can actually understand what is written in the identification badge, but we cannot exclude other factors. It has already been reported that most patients preferred to see the physician's name badge worn at the breast pocket.³² The same was shown in another study, where 84.5% of patients felt that physicians should wear name badges in a clearly visible place.³³ Our findings emphasise its relevance. The

previous literature showed that wearing a white coat is highly valued by patients, which is consistent with our results.^{9,34} Moreover, older patients seem to attribute more importance to this uniform.³⁵ This was not confirmed in our study; we postulate that the main difference in these results was due to the different methodology and clinical settings between studies. Study designs included picture-based surveys and encounter-based survey of patients conducted prior or after receiving care and one study was in general practice context. Also, not only cultural aspects come into play concerning the use of a white coat. As mentioned previously, in some countries, this use is discouraged based on infection control measures. In fact, in an Asian study, when this was explained to patients, the majority, which had preferred doctors wearing a white

coat, changed their mind.²² Nevertheless, in several countries, the white coat still carries a strong symbolic value, transmitting confidence and reassurance to patients,³⁶ as well as identifying physicians as such. We additionally found that most patients had no preference concerning the way the physicians wear their coat (open/closed), a question that has received little attention, but those who had a preference, chose, by large, a closed coat.

Our study has notable strengths. First, it is, to the best of our knowledge, one of the first European studies to evaluate how patients understand the way they are welcomed by the family physician. Second, the relevance of the study, since these results can be used to modify our attitudes towards the patient, which is in line with the patient-centred approach previously mentioned. Third, the study was conducted in different FHUs, allowing a strong sample size and the comparison between different realities. Finally, although it was performed in the northern area of Portugal, it is possible to replicate in different populations in order to adapt our practices to local patient's expectations. Our results must be interpreted in the context of a few limitations. Only one region of Portugal has been studied, so it is not possible to report the data safely to the general Portuguese population or other countries. In addition, the studied sample has some asymmetries, namely regarding the distribution between genders, with a strong female predominance, and in terms of nationality, with more than 96% of patients being Portuguese. This imbalance demands caution in interpreting our results. Moreover, we excluded illiterate patients to ensure self-filling of the questionnaire; however, this may not constitute an important limitation since the illiteracy rate in Portugal is quite low.³⁷

Future studies examining patients' preferences regarding physicians' appearance in several clinical contexts would be interesting, seeing that strategies targeting these attributes may enhance trust and satisfaction. This is further strengthened by the fact that these preferences may be highly variable between different populations and countries, requiring understanding of the local context. On the other hand, it would also be interesting to assess whether the patients' answers are influenced by their family physician's attributes. That is, to test if there is an association between the patients' preferences and their own family physician's characteristics and usual behaviour (nationality, use of identification badge, white coat, etc). This was not performed due to the risk of bias, because we felt patients could be less truthful if they had to identify their physicians.

In conclusion, not only did we find that patients have little preference for gender, age or nationality of their family physician, but more important, patients value certain modifiable aspects such as being greeted with a handshake, the use of an identification badge and of a white coat. Potential changes in family physicians' attitude in consultation could ultimately affect the patient-doctor relationship, which highlights the importance of this study.

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The favourite family doctor: a survey of patients' preferences of family doctor's attributes

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Abstract

Introduction: The relationship of trust between the family doctor and the patient is essential to the success of medical care. The appearance of the physician can be a determining factor in the patient's perception of the quality of care provided.

Despite previous studies have shown that, in general, patients prefer doctors with a formal style and wear white coats, the preference of Portuguese patients is not yet known.

The main purpose of this study was to determine what appearance and posture patients prefer in a family doctor.

Methods: A cross-sectional study will be conducted at five Family Health Units (FHU) in Northern Portugal. To evaluate patients' preferences regarding the characteristics of their family doctor, a self-completion questionnaire was developed by the study's authors. The population of the study will consist of patients with 18 or more years of the FHU included in the study.

Subsequently, a statistical analysis will be performed, to evaluate the preferences of aspects related to the appearance and posture of the physician and possible relationships between the variables obtained.

Introduction

The relationship of trust between the family doctor and the patient is essential to the success of medical care.¹ During the consultation, and based upon the verbal and nonverbal communication, the image and posture of the physician will influence the patient's opinion.^{2,3} Indeed, the appearance of the physician, despite the socio-cultural context, can be a determining factor in the patient's perception of the quality of care provided.¹ The importance of a worthy, clean and healthy appearance goes back to Hippocrates, who stated that he who does not care for his own body is not able to care for others.^{4,5}

Out of the medical context, a study that included 200 big companies reported that professionals who have a more formal appearance show more professionalism in the workplace and therefore are classified as being more productive employees.⁵

In a pioneer study in 1987, Dunn et al reported that 65% of 200 patients wanted their physicians to wear a white coat during a consultation.² Since then, several studies in different cultures have been developed, and the majority reported similar outcomes. However, it appears that in some population groups this characteristic of the physician does not seem to influence the opinion of the patients. A study by Neinstein et al. with a population of adolescents found that 43% had no preference about the style of dressing of the physician, although most preferred to be observed by a doctor of the same sex.⁶ Nowadays, in some societies, such as Denmark and England, it is rare to see a primary physician wearing a white coat, while in Sweden, Finland and even in Portugal many physicians still wear it.⁴ A study in New Zealand has shown that this population prefers the use of semiformal clothing in a higher percentage than the use of white coat.⁷ A new doctor-patient relationship assuming a more equal relationship rather than a paternalistic one, is the main reason for questioning the use of a white coat.

In family doctors, the negative impact of men's wearing long hair, earrings and piercings seems to be consensual in most studies, and the use of short tops and skirts, prominent accessories (such as long earrings) and makeup loaded by women.⁸

In Portugal, there are few studies to assess the influence of the physician's appearance and posture on the success of the doctor-patient relationship, particularly on which attitudes and clothing the patient values most. A 2008 study, with a convenience sample of 199 patients, developed in a health unit in Vila Franca de Xira, concluded that patients preferred physicians with a careful appearance, a white coat, a clear communication and fluent in portuguese.⁹ It is not known, however, the preferences of patients from other regions of Portugal.

Objectives

Main objective:

- To determine the appearance and posture patients prefer in a family doctor and which are the most preferred aspects.

Secondary objectives:

- Evaluate whether patients value the way they are welcomed in the physician's office;
- Evaluate whether patients value the use of a tag with the physician's identification;
- Evaluate if the patient's preferences are influenced by their sociodemographic characteristics.

Methods

Population

In 2017, there were 44823 adults enrolled in the 5 FHU.

Sample

Sample technique

The required number of patients will be recruited in June of 2018, from the participants' FHU. All the patients that attended a scheduled or non-scheduled appointment during this period will be systematically invited to participate.

Sample size

Considering an alpha of 0.05, power of 80%, an allocation ratio of exposed to non-exposed of 1, a proportion of non-exposed participants who develop the study outcome of 72% and a proportion of exposed participants who develop the study outcome of 96%, this would result in a sample size of 92 valid questionnaires. The considered parameters were retrieved from a small Portuguese study.⁹ We considered these calculations too conservative. Therefore, we have assumed instead a proportion of non-exposed participants who develop the study outcome of 63% and a proportion of exposed participants who develop the study outcome of 75%, resulting in a total sample size of 506.

Participants

The study participants will comprise all adults of the 5 FHU.

Inclusion criteria

- Patients registered in any of the FHU, older than 17 years old
- Adults who agree to take part in the study.

Exclusion criteria

- The illiterate patients or those with physical/cognitive limitations that did not allow the conscious and autonomous completion of the questionnaire were excluded.

Variables

The study variables, their operational definition, the type and the values that the variable can assume are described in detail in Table 1.

Table 1 – Operational definition, type, acceptable values and coding of the variables under study

	Variable	Definition	Variable type	Values that the variable can take
Physician Characteristics	Sex	Participant preference about physician gender	Categorical nominal	Male Female Indifferent
	Age	Participant preference about physician average age	Categorical ordinal	25-34 35-44 45-54 55-64 Indifferent
	Nationality	Importance given to medical doctor being of Portuguese nationality	Categorical ordinal	1-5
	Hand shake	Importance given to physician getting up and shaking hands with the patient when he enters the office	Categorical ordinal	1-5
	Identification	Importance given to physician being identified	Categorical ordinal	1-5
	White coat	Importance given to physician wearing a white coat	Categorical ordinal	1-5
	White coat style	Participant preference about how the physician wears the white coat	Categorical nominal	Open Closed No preference
Physician Type of Clothing	Physical examination	Participant preference regarding different styles of physician clothing to perform physical examination	Categorical nominal	Informal female (selected or not selected) Semi-formal female (selected or not selected) Formal female (selected or not selected) Informal male (selected or not selected) Semi-formal male (selected or not selected) Formal male (selected or not selected) None selected
	Gynecological or rectal examination	Participant preference regarding different types of physician clothing to perform gynecological or rectal examination	Categorical nominal	
	Intimacy and sexual matters conservation	Participant preference regarding different types of physician clothing to talk about intimacy and sexual matters	Categorical nominal	
	Psychological problems conversation	Participant preference regarding different types of physician clothing to talk about psychological problems	Categorical nominal	
	Acute medical problems	Participant preference regarding different types of physician clothing to address acute medical problems	Categorical nominal	
	Responsible	Choosing the doctor who appears more responsible	Categorical nominal	
	Authoritarian	Choosing the doctor who appears more authoritarian	Categorical nominal	
	Competent	Choosing the doctor who appears more competent	Categorical nominal	
	Feel reassured	Choosing the doctor who would make the patient feel more reassured	Categorical nominal	
	Return	Choosing the doctor who the patient would most likely come back to	Categorical nominal	
	Family doctor	Choosing the doctor who the patient would prefer as a his/her family doctor	Categorical nominal	

Participant Characteristics	Age	Number of years between the date of birth and the date of data collection	Continuous	-
	Sex	Participant's sex	Categorical nominal	Male Female
	Marital status	Participant's situation in relation to marriage or marital society	Categorical nominal	Single Married Divorced or separated Widowed Other
	Nationality	Participant's nationality	Categorical nominal	Portuguese Other
	Educational level	Participant's highest level of education completed	Categorical Ordinal	Less than 4th grade 4th grade 5th to 6th grade 7th to 9th grade 10th to 11th grade 12th grade University

Study location

The study will take part at five Family Health Units (FHU) in northern region of Portugal.

Type, duration and study period

Cross sectional analytical study, with an expected duration of two years and two months (from August 2017 to November 2019).

Study design

To evaluate patients' preferences regarding the attributes of their family doctor, a self-completion questionnaire will be developed by the authors. The face validity of the instrument will be tested in a pilot study including 20 patients and modifications will be conducted accordingly.

This questionnaire comprises two sections: the first section is divided into two parts: i) eight multiple-choice questions regarding the preferences for the ideal family doctor; ii) choosing an image from eleven different options depicting different types of clothing (formal, semi-formal and informal) of a family doctor, in different situations / types of medical consultation. In the second part of the first section, the goal is to evaluate the patients' preference regarding the family doctor's physical appearance, focusing on the clothing used by the physician in the consultation, in different medical procedures (physical examination and intimate examination [gynecological or rectal examination]) and when addressing different subjects (intimate and sexual, psychological problems and acute problems). In this sense, patients will be asked to choose from among several representative images of different types of clothing (formal, semi-formal and informal), which would be their preference in each case. The last questions of this section will be about which medical doctor

seems the most responsible, authoritarian and competent, and which would make the patient feel more reassured.

The last part of the questionnaire encompasses five questions related to the characterization of the participant (age, sex, marital status, nationality, and educational level). The self-completion questionnaires will be delivered by the clinical secretaries of the FHU involved to all patients who agree to participate in the study at the time of the consultation. All the completed questionnaires will be deposited in a properly sealed box.

Operationalization of the study questionnaire

The questionnaire is self-filling to allow for a more truthful response. These will be delivered by the clinical secretaries of the units involved in the study. The clinical secretary will deliver the questionnaire to all patients who agree to participate in the study. There will be two ballot boxes in each FHU, and their location may vary between different Health Units according to their physical facilities, in order to adapt their location to the places of easier accessibility to patients.

Database

The information collected will be recorded by the researchers in a database created for this purpose, ensuring full confidentiality of the data throughout the investigation. Only the researchers involved in the study will have access to the database. Each researcher will fill out the database on questionnaires applied at another health unit. The database will not allow users to be identified and there will be no reference to who your family doctor is.

Statistical analysis

All the categorical variables will be presented as frequencies and percentages and the continuous variables has means and standard deviations or medians and interquartile ranges, as appropriate.

To test the association between the participants' characteristics and family doctor's attributes, the authors will use the correlation test, when both correspond to continuous variables (Pearson correlation test) and the chi-squared test when both variables are categorical.

The continuous variables that describe participants' characteristics will be compared across the preferred family doctor's sex, age and way of using the white coat, using independent sample T-tests or one-way ANOVA, as appropriate.

To test the association between participants' characteristics (age, sex, marital status, nationality and education) and absence of preference regarding the age, sex and way of using the white coat by the family doctor, binary logistic regression models will adjust. Initially, univariate models will perform to assess the crude association between each of the participants' characteristics and all the outcomes. Afterwards,

multivariate models will conduct considering as independent variables those identified with a p value <0.05 in the univariate analysis.

To test the association between participants' characteristics and the likert scale questions (importance of Portuguese nationality, importance of handshake, importance of encounter in the living room, importance of doctor's identification and importance of wearing the white coat), linear regression models will be used. Initially, simple linear regression models will conduct to assess the association between each of the participants' characteristics and all the outcomes. Afterwards, multiple linear regression models will perform considering as independent variables those identified with a p value < 0.05 in the univariate analysis.

All the computed p values will two-tailed with a p value lower than 0.05, indicating statistical significance. All the analysis will be conducted using SPSS V.25.0.

Strengths and Weaknesses of the study

Study strengths:

- Sampling dimension with power to respond to objectives;
- Original study;
- Relevance of the theme;
- Study carried out in different functional units with different contexts;
- Ensures anonymity;
- No interference from health professionals during the period of questionnaire response;
- Potential applicability in daily medical conduct.

Weaknesses:

- Only one region of Portugal will be studied (not possible to report the data safely to the general Portuguese population or other countries)

Study timeline

Chronogram

The implementation of the research protocol will begin on August 1, 2017. It will be presented on November 28, 2017, in the Coordination of the Internship of General and Family Medicine of the North Zone, within the scope of the Course of Introduction to Research Methodologies, mandatory in the 2nd year of Specific Training. With regard to the development of the research, data will be collected, at the same time, processed and subsequently analysed. Finally, the report will be prepared and discussed.

	2017						2018						2019						
	July	August	September	October	November	December	January	February	March	April	May	June	July - December	January	February	March	April	May	June
Protocol and questionnaire design																			
Submission to ethical approval																			
Questionnaires delivery																			
Data analysis and results discussion																			
Release of the results																			

Human Resources and Materials

For the implementation of this Protocol, the following resources are required:

Humans:

- Clinical secretaries involved in the study (who will participate in the distribution of questionnaires to the study population)
- Investigators of the study

Materials:

- Computers
- Office supplies: ballpoint pens and adhesive tape
- Ballots
- A4 sheets for printing questionnaires
- Printer
- Ink cartridges

Ethical Considerations

Participants will be guaranteed anonymity and confidentiality, and the voluntary nature of the enrolment will be emphasized. Confidentiality will be ensured by not identifying the patient or the family doctor's.

The investigators deny any conflict of financial, ethical or legal interest with the issue being studied.

This protocol will be submitted to the Northern Health Region Ethics Committee for approval. In the same submitted for approval and authorization to the Clinical Council of the Healthcare Center Group of Braga and Technical Council of the FHU involved in the study.

Budget

For the implementation of this research protocol, the resources and budget foreseen are described below. All costs of the study will be supported by the authors.

Table 1 – Study material and budget.

Material	Number of units required	Unitary Cost	Total Cost
Questionnaires (A4)			
<i>Black and White</i>	245 x3	0,02€	14,7€
<i>Colour</i>	245 x1	0,15€	36,75€
Ballpoint pen	3 x5	0,17€	2,55€
Adhesive tap	1	1,21€	1,21€
Ballot box	No costs		
Unforeseen expenses	(15%)		8,3€
TOTAL			63,5€

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US: _____ COD:

Appendix 1: Questionnaire

The favourite family doctor

A SURVEY OF PATIENTS' PREFERENCES FOR FAMILY DOCTOR'S ATTRIBUTES

We request your assistance in the study "The favourite family doctor" by completing the following questionnaire.

The main objective of this study is to understand the importance patients attribute to the appearance and posture of a family doctor.

The questionnaire includes 2 sections (Section A and Section B), consisting of 3 pages in total, taking approximately 10 minutes to complete.

You are free to refuse participating in the study, but if you choose to participate, your anonymity is guaranteed. Whether you participate or refuse, there won't be any benefit or detriment in health care access.

When you have completed the form, you should place the questionnaire in the boxes prepared for the purpose, located in the clinical secretariat or waiting room.

Thanks for your participation!

For clarification of any doubt,

Please contact the clinical secretary

who will contact the researcher responsible for the study at your Health Unit.

US: _____

COD: **SECTION A: PHYSICIAN CHARACTERISTICS**

Please put an × in the square that corresponds to your answer.

1. I would prefer my medical doctor to be:

- Man
 Woman
 Indifferent

1. _____

2. I would like that the age of my medical doctor would be between:

- 25-34
 35-44
 45-54
 55-64
 Indifferent

2. _____

3. How important is for you that your family doctor is of Portuguese nationality?

- | | | | | |
|--------------------------|---------------------------------|--------------------------|--------------------------|---------------------------|
| <i>Not
important</i> | <i>Of Little
importance</i> | <i>Indifferent</i> | <i>Important</i> | <i>Very
important</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3. _____

4. How important is for you that your family doctor gets up and shakes hands with you when you enter the office?

- | | | | | |
|--------------------------|---------------------------------|--------------------------|--------------------------|---------------------------|
| <i>Not
important</i> | <i>Of Little
importance</i> | <i>Indifferent</i> | <i>Important</i> | <i>Very
important</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. _____

5. How important is for you that your family doctor meets you in the waiting room?

- | | | | | |
|--------------------------|---------------------------------|--------------------------|--------------------------|---------------------------|
| <i>Not
important</i> | <i>Of Little
importance</i> | <i>Indifferent</i> | <i>Important</i> | <i>Very
important</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. _____

6. Do you consider important that your family doctor is identified (for example, having a card with his/her name)?

- | | | | | |
|--------------------------|---------------------------------|--------------------------|--------------------------|---------------------------|
| <i>Not
important</i> | <i>Of Little
importance</i> | <i>Indifferent</i> | <i>Important</i> | <i>Very
important</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. _____

7. Do you consider important that your family doctor wears a white coat?

- | | | | | |
|--------------------------|---------------------------------|--------------------------|--------------------------|---------------------------|
| <i>Not
important</i> | <i>Of Little
importance</i> | <i>Indifferent</i> | <i>Important</i> | <i>Very
important</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. _____

8. If your family doctor uses a white coat, how would you prefer it to be?

- Open
 Closed
 Indifferent

8. _____

9. Please put an × in the square that corresponds to your answer, considering the listed options (you can select several options for each question). If you consider that all options are valid, please put ax × in every square. If you consider that none of the options are appropriate, please select the option “None”.



None

I. Which of these doctors would you prefer to:

a) Perform physical examination

b) Perform gynecological or rectal examination

c) Talk about intimacy and sexual matters

d) Talk about psychological problems

e) Solving acute medical problems (example: flu)

II. Which of these doctors appears the most:

a) Responsible

b) Authoritarian

c) Competent

III. Which of these doctors would make you feel more reassured?

--	--	--	--	--	--	--

IV. Which of these doctors would you came back to?

--	--	--	--	--	--	--

V. Of all the doctors represented in the images, which would you choose for your family doctor?

--	--	--	--	--	--	--

US: _____

COD: **SECTION B: SOCIODEMOGRAPHIC AND PROFESSIONAL CHARACTERISTICS**

Please put an x in the square that corresponds to your answer.

10. Age (type the number): ___ years

10. _____

11. Gender

 Male Female

11. _____

12. Marital status

 Single Married Divorced ou separated Widowed Other

12. _____

13. Nationality

 Portuguese Other

13. _____

14. Educational Qualifications

 Less than 4th grade 4th grade 5th to 6th grade 7th to 9th grade 10th to 11th grade 12th grade University

The questionnaire is over.

Thank you for your participation!