

## ORIGINAL PAPER

# What do homeopathic doctors think of vaccines? An international online survey



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**Background and objectives:** Parental refusal to vaccinate is a cause of serious concern. Use of homeopathy is believed to be a relevant reason for parents to refuse to vaccinate. However, vaccination is one of the main gaps dividing between medically qualified or not homeopathic practitioners. The present study sought to investigate the attitude of homeopathic doctors towards vaccination and associated variables.

**Methods:** An international online survey was conducted with homeopathic doctors by means of an anonymous self-reported questionnaire in Portuguese or Spanish. Questions investigated sociodemographic and professional characteristics, overall opinion on vaccination and on some specific vaccines.

**Results:** A total of 512 responses were obtained, 77.5% of respondents were from Latin American countries, 16.8% from Spain, with small numbers from several other countries. About 75.6% of the respondents considered vaccination safe, effective and necessary, while 12.5% stated they would not recommend vaccination under any circumstance. The variables significantly correlated with positive attitude towards vaccination were: working in the public health system ( $p = 0.04$ ) and homeopathy not the main medical activity ( $p = 0.005$ ). Homeopaths from Brazil, where homeopathy is officially accredited, were more favorable to vaccination compared to respondents from countries where homeopathy has inferior status ( $p < 0.001$ ).

**Conclusion:** The results show that there is no contradiction between homeopathy and primary prevention by means of vaccination. *Homeopathy* (2016) 105, 180–185.

**Keywords:** Vaccination; Homeopathic physicians; Survey; Spanish; Portuguese

## Introduction

Parental refusal/hesitancy to vaccinate is currently a cause of serious concern.<sup>1</sup> Every once in a while the mass media report on parents who upon deciding to treat their children with homeopathy concomitantly refuse vaccination by default. More serious, on occasions like the outbreak of measles in California in 2015, countless voices are raised claiming that vaccines are not only ineffective, but also dangerous, among which many partisans of homeopathy. According to some studies, homeopathy is a relevant reason for parents to refuse to vaccinate their

children.<sup>2,3</sup> As a result many equate homeopathy with no vaccination.

To the public in general, including doctors, it is not clear that there is a large gap dividing between medically and non-medically qualified homeopaths. As a fact, practice of homeopathy by non-doctors is forbidden in several countries, including Argentina, Belgium, Brazil, France, Italy and Romania, and a large number of homeopathic practitioners are medically qualified in several others, most notably Germany and the United Kingdom.

One case in which the gap dividing between doctors and non-doctors is particularly patent is vaccination.<sup>4</sup> According to homeopathic doctors, only non-medically qualified practitioners have issues with vaccines,<sup>5</sup> while some studies showed that homeopathic doctors recommend vaccination correctly.<sup>6</sup> In Great Britain, the Faculty of Homeopathy recommends the use of conventional vaccines,<sup>7</sup> while associations of the more numerous lay homeopathic practitioners

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are against or have no specific policy in this regard.<sup>8</sup> This tense situation is so longstanding that as early as in 1990, Fisher, the chief editor of journal *Homeopathy*, published an editorial entitled “*Enough nonsense on immunization*”.<sup>9</sup>

Fisher’s call notwithstanding, non-medically qualified homeopaths still advocate strongly against vaccination,<sup>10</sup> and/or suggest replacing it with so-called ‘homeopathic vaccines’.<sup>11</sup> The fact that no such thing as ‘homeopathic vaccines’ exists has been strongly emphasized.<sup>12,13</sup> The polemic has risen to such level that recently, on May 2015, the Canadian Paediatric Society saw itself compelled to publish a position statement on this subject.<sup>14</sup>

To add to the debate, the founder of homeopathy, Samuel Hahnemann (1755–1843) did not only recommend vaccination, but the literature strongly suggests that he applied the smallpox vaccine to his patients by his own hand. His main concern in this regard was with the possibility that the lancets used could transmit other infectious diseases.<sup>15</sup>

To the best of our knowledge, one single study in Germany sought to assess the attitudes of homeopathic physicians towards vaccination 14 years ago.<sup>16</sup> To achieve a broader understanding of the current state of affairs, we conducted a survey to investigate the attitudes toward vaccination of medically qualified homeopaths from Spanish and Portuguese speaking countries to cover countries where homeopathic care is mostly, if not exclusively provided by doctors.

## Methods

An online questionnaire, with slightly different versions in Spanish and Portuguese, was made available on Google Forms from March 1 to June 30 2015 (Portuguese version – P) and from April 1 to June 30 2015 (Spanish version – S) to be anonymously responded by homeopathic physicians only. The questionnaires were advertised in mailing lists of homeopathic doctors, professional associations of homeopathic doctors, homeopathic schools for doctors and closed groups in social networks. The questionnaires contained 13 closed-ended questions and one field for optional additional comments. The closed-ended questions investigated demographic/professional characteristics (country of residence; length of experience in homeopathic practice; homeopathy as main medical activity; experience in homeopathy teaching; type of practice: children/adults, acute/chronic conditions) and attitudes toward vaccines (general beliefs on beneficial effects, efficacy and safety; vaccination official schedule; beliefs on frequency of common and severe adverse events; recommendations made to parents/patients; and mandatory status of vaccination). One additional closed-ended question in the Portuguese version concerned the work setting (public/private); Brazil is the only Portuguese/Spanish speaking country where homeopathic care is provided within the national health system. The present study was conducted within the context of a collaborative initiative with the National Board of Control of Immuno-preventable Diseases (DiNaCEI), Health Ministry, Argentina, which asked to add a question whether the respondents kept themselves up-to-date as to the epide-

miological status of preventable diseases and the changes in the latter incidence following vaccination. That question was included in the Spanish version only, as its final version was established after the Portuguese version was made available to respondents. The two versions of the questionnaire are included as [Supplementary materials](#).

The results were analyzed by means of descriptive statistics using software Microsoft Excel 2007<sup>®</sup> and described as absolute and relative frequencies. The results were analyzed by means of the chi-square or Fisher exact probability test at 5% significance level using tools available at statistical computation website VassarStats (<http://vassarstats.net>).

## Results

A total of 302 responses to the Spanish and 210 to the Portuguese version of the questionnaire were obtained. As there are no official data about the total number of actually practicing homeopathic doctors in Spanish-speaking countries, it was not possible to estimate the representativeness of the sample. Relative to the Portuguese version, it was responded by 207 homeopathic doctors from Brazil, and further 13 Brazilians responded the Spanish version. According to the last census conducted by the Brazilian Medical Association in 2013,<sup>17</sup> 2458 doctors self-declared to be accredited homeopaths, while the Brazilian Medical Homeopathic Association lists about 300 active members.<sup>18</sup>

All the respondents reported to be medically qualified homeopathic practitioners. They reside in 20 different countries, being that Brazil (n = 220; 43.0%), Argentina (n = 90; 17.6%), Spain (n = 86; 16.8%), Mexico (n = 48; 9.4%) and Colombia (n = 21; 4.1%) accounted for 90.9% of the respondents. The remainder of the participants (9.1%) was from the Americas (Uruguay, n = 6, 1.2%; United States, n = 4, 0.8%; Peru, n = 4, 0.8%; Venezuela, n = 4, 0.8%; Chile, n = 3, 0.6%; Costa Rica, n = 3, 0.6%, Paraguay, Cuba, Ecuador and El Salvador one respondent each, 0.2%). Only two respondents (0.4%) were from Portugal, there was one participant (0.2%) from India, Italy, the Netherlands and Romania each, and 13 (2.5%) did not answer this question.

About 46.1% (n = 236) of the sample reported to have taught homeopathy in (non-degree) graduate programs. About 44.9% of the participants (n = 230) had practiced homeopathy for more than 20 years, 28.9% (n = 148) for less than 10 and 26.2% (n = 134) for 10–20 years. Homeopathic practice was the main medical activity for 66.6% of the sample (n = 341). Most respondents reported to see adults and children (n = 322; 62.9%) for acute and chronic complaints (n = 297; 58.0%); 63 participants (12.3%) see children only and 114 (22.3%) adults only.

Among the 207 Brazilian doctors who responded the Portuguese version of the questionnaire, one-third (n = 71; 34.3%) provides homeopathic care at public health services full- or part-time, and 135 (65.2%) at their private practice only. Relative to the question introduced in the Spanish version of the questionnaire upon DiNaCEI

**Table 1** Overall opinion of homeopathic doctors on vaccination

Questionnaire items	Portuguese questionnaire, n (%)	Spanish questionnaire, n (%)	Total, n (%)	P-value*
Overall opinion on vaccination				
Is necessary, effective and safe	44 (21.0)	17 (5.6)	61 (11.9)	<0.001
Only some vaccines are necessary, effective and safe	134 (63.8)	192 (63.6)	327 (63.7)	
Is unnecessary, poorly effective and unsafe	28 (13.3)	88 (29.1)	116 (22.7)	
Don't know or missing	4 (1.9)	5 (1.7)	9 (1.8)	
The current vaccination schedule is				
Reasonable	57 (27.1)	38 (12.6)	95 (18.6)	<0.001
Excessive	123 (58.6)	166 (55.0)	289 (56.4)	
Absurd and irrational	25 (11.9)	79 (26.2)	104 (20.3)	
Don't know or missing	5 (2.4)	19 (6.3)	24 (4.7)	
Occurrence of severe adverse events is				
Very rare (<1/10,000)	36 (17.1)	45 (14.9)	81 (15.8)	0.05
Rare (1/1000 to 1/10,000)	61 (29.0)	59 (19.5)	120 (23.4)	
Infrequent (1/100 to 1/1000)	44 (21.0)	74 (24.5)	118 (23.0)	
Frequent (1/10 to 1/100)	48 (22.9)	80 (26.5)	128 (25.0)	
Very frequent (>1/10)	6 (2.9)	19 (6.3)	25 (4.9)	
Don't know or missing	15 (7.1)	25 (8.3)	40 (7.8)	
Occurrence of common adverse events is				
Very rare (<1/10,000)	8 (3.8)	4 (1.3)	12 (2.3)	0.43
Rare (1/1000 to 1/10,000)	17 (8.1)	26 (8.6)	43 (8.4)	
Infrequent (1/100 to 1/1000)	32 (15.2)	43 (14.2)	75 (14.6)	
Frequent (1/10 to 1/100)	98 (46.7)	151 (50.0)	249 (48.6)	
Very frequent (>1/10)	43 (20.5)	67 (22.2)	110 (21.5)	
Don't know or missing	12 (5.7)	11 (3.6)	23 (4.5)	
Recommendations to patients/parents				
Official vaccination schedule + other vaccines	12 (5.7)	13 (4.3)	25 (4.9)	<0.001
Official vaccination schedule	93 (44.3)	34 (11.3)	127 (24.8)	
Some vaccines only	72 (34.3)	161 (53.3)	233 (45.5)	
Not to vaccinate	17 (8.1)	47 (15.6)	64 (12.5)	
Doesn't make recommendations on vaccination	16 (7.6)	45 (14.9)	61 (11.9)	
Don't know or missing	-	2 (0.7)	2 (0.4)	
Vaccination should be mandatory				
Agree	59 (28.1)	42 (13.9)	101 (19.7)	<0.001
Disagree	139 (66.2)	242 (80.1)	381 (74.4)	
Don't know or missing	12 (5.7)	18 (6.0)	30 (5.9)	

\*P-value of the difference between responses to the Portuguese and Spanish versions of the questionnaire, chi-square test; "Don't know" and missing responses excluded from analysis.

request, 65.6% (n = 198) of the respondents reported to keep themselves up-to-date or quite up-to-date as to the epidemiological situation in their country of residence.

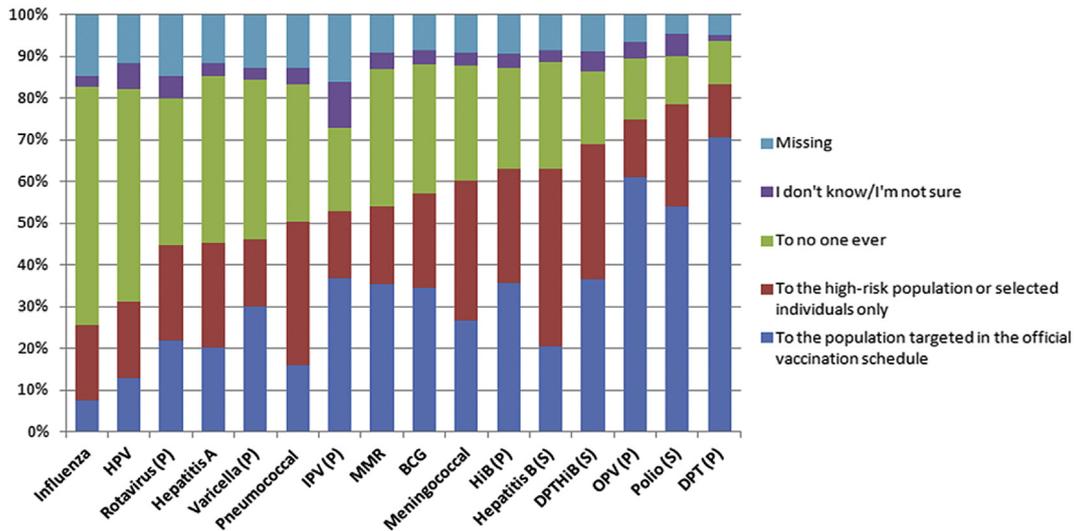
The data relative to the respondents' global opinion on the effectiveness and safety of vaccines, current vaccination schedule, mandatory status of vaccination and recommendations made to parents/patients are described in [Table 1](#).

The data indicate that the Portuguese-speaking respondents consider vaccination significantly or almost significantly more necessary and safer, the official vaccination schedule more reasonable and mandatory, and are more keen to recommend it to patients/parents compared to the Spanish-speaking respondents.

The respondents' opinion on specific vaccines is depicted in [Figure 1](#). The least accepted vaccines (less than 50% of respondents; influenza, human papillomavirus - HPV, rotavirus, hepatitis A, and varicella) are represented on the left of the graph, while the most accepted ones (diphtheria/pertussis/tetanus - DPT, *Haemophilus influenzae* type b - HiB, oral polio - OPV, and hepatitis B) on the right side. The pneumococcal, meningococcal, measles/mumps/rubella - MMR and BCG vaccines have an intermediate position.

As we wanted to identify variables possibly correlated with the attitude of homeopathic doctors towards vaccination, we included in the questionnaire a hypothetical question meant to probe into the respondents' soundest convictions as to the subject of interest: "If there were a highly efficient and safe vaccine for a frequent and severe illness with high morbidity and mortality rates, would you recommend them it to patients/parents?" Then we analyzed the correlation of the following variables to the responses given to that question: length of homeopathic practice; works at the public health system or not; sees children; teaches homeopathy or not; homeopathy is the main activity or not; and is or not up-to-date as to the epidemiological situation in the respective country.

About 67.0% of the respondents answered they would indeed recommend a highly effective and safe vaccine for a frequent and severe illness and 15.2% that they would not, while 16.6% manifested to be unsure. The variables significantly associated with a more positive attitude towards vaccination were to work in the public health system (p = 0.04) and homeopathy not being the main medical activity (p = 0.005). The homeopathic doctors who see children only (probably pediatricians) exhibited an almost



**Figure 1** Participants' answers to question: "To what population would you recommend this vaccine?" P: Portuguese questionnaire only; S: Spanish questionnaire only.

significant more favorable attitude towards vaccination compared to the ones who see both children and adults or adults only ( $p = 0.067$ ).

These findings suggest that the more integrated homeopathy is with conventional medicine and the more frequent the interactions of homeopathic doctors with their conventional peers are, the more favorable the attitude of homeopathic doctors toward vaccination. Reinforcing this hypothesis, comparison of the answers given to this question by the respondents from the four most expressive countries showed that the Brazilian homeopaths were significantly more favorable to vaccination compared to the Spanish-speaking ones ( $p < 0.001$ ). In Brazil homeopathy is an accredited medical specialty included also in the public health system and funded by insurance companies, while among Spanish-speaking countries only in Mexico homeopathy is an accredited medical specialty, while at the same time also lay practice is admitted (Table 2).

## Discussion

To the best of our knowledge, one single study sought to investigate the attitudes of homeopathic doctors towards vaccination.<sup>16</sup> In that study performed in Germany in 2001, 219 homeopathic and 281 conventional doctors responded a questionnaire (response rate: 30.4%). Overall, the homeopaths did not refuse vaccination, but viewed them with a specific hierarchy, as also did the participants in our study. While no divergences were found between the groups relative to the tetanus, diphtheria and polio vaccines, more German homeopaths refused vaccines against childhood diseases, risk group vaccines and the ones judged inefficacious compared to the non-homeopaths ( $p < 0.001$ ).

Relative to the overall opinion of doctors about vaccination, one study recently conducted in Israel found that 92.2% of the pediatricians surveyed ( $n = 376$ ) considered that vaccination is in the baby's best interest.<sup>19</sup> In our study,

**Table 2** Variables associated with favorable/unfavorable attitude towards vaccination

	Yes, n (%)	No, n (%)	I'm not sure, n (%)	p-value
<i>If there were a highly efficient and safe vaccine for a frequent and severe illness with high morbidity and mortality rates, would you recommend them it to patients/parents?</i>				
Works at public health system				
Yes	59 (83.1)	4 (5.6)	8 (11.3)	0.04*
No	92 (68.1)	9 (6.7)	34 (25.2)	
Homeopathy is main medical activity				
Yes	213 (63.4)	63 (18.8)	60 (17.9)	0.005**
No	129 (76.3)	15 (8.9)	25 (14.8)	
Sees children only				
Yes	50 (80.6)	7 (11.3)	5 (8.1)	0.067**
No	287 (66.6)	66 (15.3)	78 (18.1)	
Per country (n = 438)				
Brazil	164 (74.5)	14 (6.4)	42 (19.1)	<0.001**
Mexico	31 (64.6)	13 (27.1)	4 (8.3)	
Argentina	56 (64.4)	13 (14.9)	18 (20.7)	
Spain	48 (57.8)	21 (25.3)	14 (16.9)	

\*Fisher exact test; \*\*Chi-square test. Missing responses excluded from analysis.

only 11.3% of the respondents who see children only (probably pediatricians) declared to be absolutely against vaccination.

Refusal to vaccinate is currently a serious cause of concern.<sup>1</sup> In the just mentioned study conducted in Israel,<sup>19</sup> identical proportions of pediatricians (38.9%) considered that parents have the right to decide or that vaccination should be mandatory. In a survey conducted with 395 members of the European Academy of Pediatrics Research in Ambulatory network, 69% of the participants reported to prefer a shared decision-making approach.<sup>20</sup> In our study, 74.4% of the respondents asserted that patients/parents should be free to make their own choices. It is worth to notice that vaccination is mandatory in most South American countries, as well as in Mexico and Spain.

In one study conducted in Spain in 2013,<sup>21</sup> a questionnaire was delivered to patients/parents seeking care from homeopathic doctors (122 respondents/265 eligible subjects, response rate: 46.0%). While the primary outcomes were ethical features of medical practice, some findings are relevant to our subject of interest. Questions 6 and 7 specifically targeted vaccination: the respondents' beliefs on vaccination and what their homeopathic and conventional doctors had discussed with them in this regard. Almost one third of the sample (28%) reported not to have discussed vaccines with their homeopathic doctors and 15% to have largely discussed vaccines with their homeopathic physicians, who respected their decision. In our study, only 11.9% of the respondents (P: 7.6%; S: 14.9%) stated they make no recommendations on vaccination whatsoever, which allows inferring that they neither discuss it with patients/parents. About 19% of the respondents in the Spanish study stated they preferred homeopathy to the point of refusing vaccination and 8% agreed to selected vaccines only, quite close to the proportion of the ones who said their homeopathic doctors were rather critical and recommended selected vaccines only (6%). No respondent reported their homeopathic doctor had tried to dissuade them from vaccination. Curiously, 70% of the respondents declared to ignore the opinion of their conventional doctors on vaccination, while 25% informed such doctors were favorable to mass vaccination and had a negative attitude towards homeopathy.

Most respondents consider that vaccination is frequently/very frequently associated with common side events (70.1%), and about one-third (29.9%) that is frequently/very frequently associated with severe adverse events. This perception runs against the currently available data on the safety of vaccines,<sup>22,23</sup> and might probably be accounted for by the specificity of the factors considered in homeopathic clinical practice.<sup>24,25</sup>

The main limitation of the present study derives from the lack of accurate information on the number of actually practicing homeopathic doctors in any country in the world, as any formally trained physician is entitled to prescribe homeopathic medicines independently from having or not attended a formal training course in homeopathy. As a result, we were not able to estimate the representativeness of the study population. Closely related, another limitation

derives from the fact we chose to distribute the questionnaire online, which precluded any estimation of the potentially eligible participants.

Those shortcomings notwithstanding, the responses obtained point to a favorable attitude towards vaccination among medically qualified homeopaths. In addition, it is worth to notice that on July 28 2015, a joint position statement was published by the Health Ministry of Argentina, representatives of the Pan American Health Organization (PAHO), the Argentinian National Immunizations Committee and a panel of experts in complementary and alternative medicine, including homeopathic doctors.<sup>26</sup> According to that statement, there is no contradiction between complementary and alternative therapeutic approaches and primary prevention by means of vaccination and that for parents/patients to make sound decisions in this regard they must have access to accurate information.

## Conclusion

Most homeopathic physicians agreed that vaccination is an effective and safe preventive tool, with different rates of acceptance of the individual vaccines. In addition, positive attitude among homeopaths towards vaccines correlated with indicators of better integration to mainstream medicine.

We believe that the results of the present study are relevant for primary care doctors, so as to be able to provide accurate information to parents/patients who also seek homeopathic care and thus contribute to reduce the prevalence of refusal to vaccinate. Similar studies ought to be conducted with homeopathic doctors from other countries to confirm the results of the present one. More rigorous records of the actually practicing medically qualified homeopaths are needed to establish the representativeness of samples.

## Conflict of interest

None.

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## Appendix A

### Supplementary material

Supplementary material related to this article can be found at <http://dx.doi.org/10.1016/j.homp.2015.11.001>.

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