

# Residência de Pediatria nos Cuidados Primários e o Futuro dos Pediatras em Portugal

## Pediatric Training in Primary Care and the Future of Pediatricians in Portugal

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### PALAVRAS-CHAVE

- Pediatria;
- Atenção Primária à Saúde;
- Educação Médica;
- Formação.

### KEYWORDS

- Pediatrics;
- Primary Health Care;
- Medical Education;
- Training.

### RESUMO

*Introdução:* O objetivo do estudo foi conhecer a opinião dos pediatras sobre o estágio de Cuidados de Saúde Primários (CSP) e suas expectativas relativamente aos Cuidados de Saúde Primários Pediátricos em Portugal. *Métodos:* Questionário online dirigido a residentes de Pediatria e pediatras de 22 hospitais portugueses de 1 de julho a 31 de agosto de 2010. Foram analisados dados demográficos e profissionais, e suas expectativas relativamente aos CSP. *Resultados:* Foram enviados 270 e-mails (taxa de resposta de 57%). Quinze (37,5%) supervisionados por pediatras consideraram que a duração ideal do estágio seria de três a seis meses, enquanto 45 (60,8%) supervisionados por médicos de família (MF) consideraram de zero a três meses ( $p < 0,0001$ ). Os inquiridos supervisionados por pediatras ficaram globalmente satisfeitos/muito satisfeitos em 37 (92,5%) casos versus 51 (68,9%) coordenados por MF ( $p = 0,005$ ). Setenta e dois (52,2%) consideraram que a vigilância pediátrica nos CSP deve ser assegurada por MF e pediatras consultores. Oitenta e oito (63,8%) inquiridos gostariam de assumir a função de pediatra consultor nos CSP. *Conclusões:* O estágio de CSP é importante na formação dos pediatras, e alguns aspetos devem ser melhorados. É necessário investir na saúde pública integrada nos CSP.

### ABSTRACT

*Introduction:* The aim of our study was to identify opinions on training in Primary Care and expectations on the future of Pediatric Primary Care. *Methods:* An online questionnaire was sent to Pediatric trainees and young Pediatricians at 22 Portuguese hospitals over the period of July 1 to August 31, 2010. *Results:* Two-hundred and seventy e-mails were sent, with a response rate of 57%. Fifteen (37.5%) of those supervised by Pediatricians considered the optimal training period to be 3-6 months, while 45 (60.8%) supervised by Family Physicians considered the period to be 0-3 months ( $p < 0.0001$ ). Respondents supervised by Pediatricians were largely satisfied/very satisfied with a percentage of 92.5%, versus 68.9% supervised by Family Physicians ( $p = 0.005$ ). Seventy two (52.2%) stated that Pediatric surveillance in Primary Care should be performed both by Family Physicians and Pediatric consultants. Eighty eight (63.8%) respondents would like to assume the future role of Pediatrician in Primary Care. *Conclusions:* Training in primary care is important to pediatricians' training and some aspects should be improved. Investments must be made into public health integrated with primary care.

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## INTRODUCTION

The current Portuguese Pediatric training program was published in 1996. It has sixty months duration and is divided into two distinct periods: the first three years based on basic training and the last two years based on specialized training. Pediatric training in Primary Care in Portugal, created in 1996 has six month duration included in the first period of training<sup>1</sup>. It can be supervised by Pediatricians or by General Practitioners/Family Physicians (GP/FP), depending on the availability of the centers. Since that time training in Primary Care was never been revised despite some limitations and controversies<sup>2</sup>. Another aspect that needs to be pointed out is the role of Pediatricians in Primary Care which is not well established in public health system. In Portugal there are fewer Pediatricians in the Primary Care of the public health system contrary to what happens in private health care system.

The aim of this study was to know the opinions and outlook of Pediatric trainees and young Pediatricians about current Pediatric training in Primary Care and their expectations about the future of Pediatricians in Primary Care.

## METHODS

We performed a cross-sectional and multicenter study between 1<sup>st</sup> July and 31<sup>st</sup> August 2010. An on-line and anonymous questionnaire was sent by e-mail to both Pediatric trainees and young Pediatricians (those who finished the pediatric training from 2000 to 2010) from 22 Portuguese hospitals. Informed consent was given when trainees and Pediatricians filled out the questionnaire. The first part of the questionnaire was about demographic and professional data and the second part included twelve multiple choice questions about the current state of training and expectations about Pediatric training in Primary Care in Portugal.

Statistical analysis was performed by *SPSS Statistics v.20*<sup>®</sup> program (IBM, USA). Categorical variables were characterized by absolute and relative frequencies. To compare categorical variables we used Chi-Squared test, Fisher's exact test (for expected values less than 5) and Monte Carlo test (tables  $2 \times 2$ ). P value less than 0.05 was considered statistically significant.

## RESULTS

Two-hundred and seventy e-mails were sent and 145 (53.7%) valid answers were obtained (response rate of 57%). Demographic and professional data is reported in Table 1.

The group supervised by Pediatricians considered that training in Primary Care should have 3-6 months duration in

37.5% and 6 months duration in 30% while the group supervised by GP/FP considered an optimal duration from 0-3 months in 60.8% ( $p < 0.0001$ ). Responders supervised by Pediatricians were globally satisfied/very satisfied in 92.5% versus 68.9% of those supervised by GP/FP ( $p = 0.005$ ). Responders were satisfied/very satisfied about theoretical and practical skills at the end of Pediatric training in Primary Care in 87.5% and 97.5%, respectively, in group supervised by Pediatricians and in 44.6% and 82.4% in the group supervised by GP/FP ( $p < 0.0001/p = 0.033$ ); about professional development in 92.5% in the group supervised by Pediatricians and 74.3% in the group supervised by GP/FP ( $p = 0.024$ ) and about scientific activity in 80% in the group supervised by Pediatricians and 50% in the group supervised by GP/FP ( $p = 0.002$ ). General characteristics of the Pediatric training in Primary Care are summarized in Table 2.

**TABLE 1**  
**Demographic and professional characteristics (n=138)**

<b>Gender</b>	<b>n (%)</b>
Male	28 (20.3)
Female	110 (79.7)
<b>Mean age, years (<math>\pm</math>SD)</b>	30.8 ( $\pm$ 3.7)
<b>Professional category</b>	<b>n (%)</b>
Pediatric trainee	95 (68.8)
Pediatrician	43 (31.2)
<b>Regional health administration</b>	<b>n (%)</b>
Northern	101 (73.2)
Central	14 (10.1)
Lisbon and Tejo Valley	9 (6.5)
Algarve	3 (2.2)
Autonomous regions	11 (8)

The specific characteristics of the Pediatric training in Primary Care according to different type of supervisor are summarized in Table 3. The major difficulties often/always pointed during the Pediatric training in Primary Care according to different type of supervisor (GP/FP versus Pediatricians) were the lack of theoretical knowledge in 21.9%/ 0 ( $p = 0.001$ ); lack of practical skills in 34.2%/10.3% ( $p = 0.006$ ), lack of support in 54.8%/10.5% ( $p < 0.0001$ ).

Seventy-two (52.2%) responders think that surveillance of child and adolescents health in Primary Care should be performed by both GP/FP and Pediatric consultants, 41 (29.7%) by Pediatricians and 2 (1.4%) by GP/FP. Eighty eight (63.8%) responders would like to assume in future the role of Pediatrician in Primary Care in public health system.

**TABLE 2**  
**General characteristics of Pediatric training in Primary Care (n=138)**

	Supervisor			p
	Global data (n=138)	Pediatrician (n=55)	Family physician (n=82)	
<b>Importance of Primary Care in Pediatric training, n (%)</b>				
Important/very important	104 (75.4)	39 (97.5)	64 (86.5)	0.093 <sup>y</sup>
Little/nothing important	11 (7.9)	1 (2.5)	10 (13.5)	
<b>Optimal duration, n (%)</b>				
0 months	1 (0.7)	0	1 (1.4)	<0.0001 <sup>*</sup>
0-3 months	56 (40.6)	10 (25)	45 (60.8)	
3-6 months	36 (26.1)	15 (37.5)	21 (28.4)	
6 months	16 (11.6)	12 (30)	4 (5.4)	
6-12 months	6 (4.3)	3 (7.5)	(4.1)	
<b>Global satisfaction, n (%)</b>				
Satisfied/very satisfied	88 (63.7)	37 (92.5)	51 (68.9)	0.005 <sup>y</sup>
Little satisfied/unsatisfied	27 (19.5)	3 (7.5)	23 (31.1)	
<b>Skills at the end of Primary Care training, n (%)</b>				
Theoretical	69 (50)	35 (87.5)	33 (44.6)	<0.0001 <sup>§</sup>
Satisfied/very satisfied	46 (33.4)	5 (12.5)	41 (55.4)	
Little satisfied/unsatisfied	101 (73.2)	39 (97.5)	61 (82.4)	0.033 <sup>y</sup>
Practical	14 (10.1)	1 (2.5)	13 (17.6)	
Satisfied/very satisfied				
Little satisfied/unsatisfied				
<b>Professional development, n (%)</b>				
Satisfied/very satisfied	93 (67.4)	37 (92.5)	55 (74.3)	0.024 <sup>y</sup>
Little satisfied/unsatisfied	22 (15.9)	3 (7.5)	19 (25.7)	
<b>Scientific activity, n (%)</b>				
Satisfied/very satisfied	70 (50.7)	32 (80)	37 (50)	0.002 <sup>§</sup>
Little satisfied/unsatisfied	45 (32.6)	8 (20)	37 (50)	

<sup>y</sup>Fisher exact test; <sup>\*</sup>Monte Carlo test; <sup>§</sup>Chi-square test

**TABLE 3**  
**Specific characteristics of Pediatric training in Primary Care (n=138)**

	Type of supervisor		p
	Pediatrician (n=55)	Family physician (n=82)	
<b>Satisfied-very satisfied/ Little satisfied-unsatisfied</b>			
<b>Development evaluation and promotion</b>	39 (97.5)/ 1 (2.5)	62 (83.8)/ 12 (16.2)	0.031 <sup>y</sup>
<b>Promotion of breastfeeding</b>	38 (95)/ 2 (5)	53 (71.6)/ 21 (28.4)	0.003 <sup>y</sup>
<b>Identification of normal deviations</b>	38 (95)/ 2 (5)	56 (75.7)/ 18 (24.3)	0.01 <sup>y</sup>
<b>Fundamentals in pediatric nutrition</b>	38 (95)/ 2 (5)	57 (77)/ 17 (23)	0.017 <sup>y</sup>
<b>Domestic accidents prevention</b>	37 (94.9)/ 2 (5.1)	58 (78.4)/ 16 (21.6)	0.029 <sup>y</sup>
<b>Oral health prevention</b>	38 (95)/ 2 (5)	56 (77.8)/ 16 (22.2)	0.029 <sup>y</sup>
<b>Amblyopia screening</b>	29 (72.5)/ 11 (27.5)	38 (51.4)/ 36 (48.6)	0.029 <sup>y</sup>

**TABLE 3**  
**Specific characteristics of Pediatric training in Primary Care (n=138)**

	Type of supervisor		
Language evaluation	33 (82.5)/ 7 (17.5)	48 (64.9)/ 26 (35.1)	0.048 <sup>§</sup>
Behavior evaluation	35 (87.5)/ 5 (12.5)	47 (63.5)/ 27 (36.5)	0.007 <sup>§</sup>
Identification and signaling children victims of abuse	32 (82.1)/ 7 (17.9)	41 (56.9)/ 31 (43.1)	0.008 <sup>§</sup>
Routine and sleep habits implementation	36 (92.3)/ 3 (7.7)	55 (74.3)/ 19 (25.7)	0.025 <sup>‡</sup>
Leisure time	33 (84.6)/ 6 (15.4)	46 (62.2)/ 28 (37.8)	0.013 <sup>§</sup>
Toys choose	34 (87.2)/ 5 (12.8)	35 (47.3)/ 39 (52.7)	<0.0001 <sup>§</sup>
Literacy promotion	32 (82.1)/ 7 (17.9)	41 (55.4)/ 33 (44.6)	0.005 <sup>§</sup>
Knowledge about community structures for children and adolescents	33 (82.5)/ 7 (17.5)	35 (47.9)/ 38 (52.1)	<0.0001 <sup>§</sup>
Knowledge about community support for children and adolescents	33 (84.6)/ 6 (15.4)	35 (47.3)/ 39 (52.7)	<0.0001 <sup>§</sup>
Basics of epidemiology	29 (72.5)/ 11 (27.5)	34 (45.9)/ 40 (54.1)	0.007 <sup>§</sup>

<sup>‡</sup> Fisher exact test; <sup>§</sup> Chi-square test

## DISCUSSION

Our results show that there are marked differences between the opinion of respondents regarding the training in Primary Care when supervised by Pediatricians or GP/FP. Those supervised by Pediatricians reported that the training in Primary Care should have a longer duration when compared to GP/FP supervision. Also global satisfaction, satisfaction regarding acquisition of theoretical/practical skills, professional development and scientific activity were higher in the first group. Moreover, more difficulties were pointed out when training was supervised by GP/FP. This training is important for the Pediatricians' formation, ideally under Pediatric supervision. Half of the respondents think that surveillance of child and adolescent health in Primary Care should be performed by both GP/FP and Pediatric Consultants. At the end, the majority of the responders would like to work in Primary Care. In general, trainees are more satisfied when supervised by Pediatricians and their training more productive scientifically maybe because Pediatricians are more motivated to teach and their training in the past more specific.

In the majority of the European countries, primary care for children and adolescents is provided by Pediatricians in

competition with GP/FP and in many European countries the Pediatrician is involved mainly in secondary care<sup>3</sup>. In Portugal, most families use the public health system, in which currently most primary care for the pediatric population is provided by GP/FP. Current pediatric training programs in Europe are not comparable in quality or content, however, European Medical Organizations are working towards standardization of training of European physicians. European Board of Pediatrics defends a common pediatric trunk and complements this with training programs for Primary Pediatric care, Secondary Pediatric care or Tertiary Pediatric care. The basic pediatric training or "common trunk" will have 3 years duration, will provide experience mainly in pediatrics primary and secondary care in both outpatient and in general hospital care<sup>3</sup>. This program was also suggested by the Portuguese College of Specialty in Pediatrics in 2010<sup>4</sup>. This organization will provide much more time in Primary Pediatric care for those who want to follow this area.

The European Forum for Primary Care highlights the role of primary care as part of the solution of the current and future workforce problem. A multidisciplinary approach is required as a response to changing healthcare needs and integrated

care for people with chronic illness is needed<sup>5</sup>. The European Pediatric Association and Union of National European Pediatric Societies and Associations Committee's recommend that ideally, Pediatricians should be the deliverers of Pediatric Primary care from birth to late adolescence and play an important role both during pregnancy and early adulthood<sup>6</sup>. In Portugal during the 90s, the General Health Department undertook a number of initiatives to develop Community Pediatrics in Portugal, which ultimately did not concretize. In 2008, the Pediatric Consultant was created to renew the connections between Primary Care and Hospital providing periodic consultancy in the area of child and youth health in the Primary Health Care Units<sup>7</sup>. Later, there was a proposal for the creation of the Ambulatory Pediatrics giving differentiated support in Primary Care and providing secondary care but it never was created<sup>8</sup>. Nowadays, a way to avoid the excessive number of Pediatricians without places in Hospitals in our country would be placing more Pediatric Consultants at the Primary Health Care Units allowing the formation of pediatric trainees in the future.

## CONCLUSIONS

The Primary care is an important area for Pediatrician's formation and some aspects such as supervision should be improved during Pediatric training. It is necessary to invest in public health integrated with Primary Care and in a based community-oriented care. The authors highlight the emergent reformulation need of the existing training model and the interest of the respondents in Primary Care.

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## CONFLICTS OF INTEREST AND SOURCES OF FUNDING

The authors declare no conflicts of interest or external funding source for this study.

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