

## **Spanish Pediatric residents: Variability In Education and Research In Pediatric Emergency Medicine**

### **OBJECTIVE**

To analyze the education in pediatric emergency medicine (PEM) given to pediatric residents and the research carried out by them in Spain.

### **METHODS**

Descriptive cross-sectional study based on web surveys. First survey, regarding characteristics of PEM education and research in the Emergency Department (ED), was distributed to the directors of pediatric EDs included in the Spanish Society of Pediatric Emergencies. Respondents were asked to distribute a second survey to their residents and pediatric assistants. Only EDs with more than 30% of respondents were included for the descriptive analysis of all the variables.

Main outcome variables were the level of satisfaction within resident education (on a scale from 0 to 10) and the number of papers published in a peer-reviewed journal in the last 5 years. Multivariate analysis was made to assess associated factors between them.

### **RESULTS**

First survey was sent to 83 directors and 42 (50.6%) answered it. In 33 (78.6%) EDs more than 30% of respondents fulfilled the second survey, including finally 376 (92.8%) for analysis (196, 52.1%, fulfilled by residents).

Median value of resident's satisfaction with PEM training in each hospital ranked from 5 to 9. Factors associated with higher values were having education quality indicators, closer supervision of clinical practice and a structured evaluation of resident's PEM skills when finishing the working shift or the rotation in the ED period.

In the previous 5 years, the average of research training activities by ED was 1 (IQR 0-3), with 11 EDs (33.3%) having no activity. Around 50% of respondents considered that research was not adequately supported at their EDs.

Level of resident's satisfaction with research in PEM in each hospital are shown in figure 1. Sixty-eight respondents (18.1%) had published at least one paper on a peer-reviewed journal (residents, 17, 25%). Associated factors with having a paper published were the existence of a research director in the ED, having research quality indicators, self-perception of residents that the research was supported in the ED and having performed any research training activity in the previous 5 years.

Those residents with at least one paper published rated higher their education [mean= 8 (CI95% 7.34-8.66) vs those with no publications, 7.1 (CI95% 6.87-7.33)]

### **CONCLUSION**

Significant variability in PEM education and the research was noted among Spanish pediatric residents. An adequate organization of the EDs seems to be essential to improve education and research.

