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## Editorial

# Research activity during the residency program. Are we in the good way?

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## Actividad investigadora durante el programa de residencia. ¿Estamos en el buen camino?

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Scientific publications are a source of knowledge that help us improve treatments and practice evidence-based medicine. It is important during all the medical practice. However, it is necessary to know when is appropriate to initiate this process as well as find an equilibrium between clinical practice and scientific research [1].

During the training of the medical specialist, research is an important component. Its practice allows achieving a better clinical management of patients, developing skills of critical appreciation of scientific articles, fostering critical thinking and lifelong learning, and having greater satisfaction with their academic training [2, 3]. To this end, strategies have

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been designed to promote research during the residency, many of which have had successful results in terms of scientific production and the prestige of the academic programs where they have been carried out [4, 5]. These strategies should include identifying the leadership of the group, an appropriate selection of the group members as well as their roles, and selecting an area to study [6]

Few residency programs include a final research to achieve the medical specialty. In fact, some countries suppressed this point, being a polemic decision [7]. In addition, it is well known that all research should culminate in a publication in indexed scientific journals in order to ensure its quality and disseminate the results obtained [8]. If the residency period is a continuous process of learning and research, why it is not accepted as a common practice a final research to acquire the medical specialty? It could be an adequate reasoning. However, attending to the literature, the daily practice is so far from this theory.

In addition to the lack of obligation to carry out a scientific project at the end of the residency, the number of residents who have published an article is not elevated. In the United States, it is observed a relationship between the number of publications of residents who have not carried out and have carried out a rotation under investigation (5% and 21%, respectively) [9, 10]. In this country are observed higher ratios of scientific publication [11]. However, in this study, authors observed a relationship between scholarly productivity based on journal publication and clinical performance during residency training, observing that residents who invest substantial efforts in research are not compromised in their abilities to learn medicine and care for patients. In Latin American countries, the data is not different. The proportion of residents with some publication was 28.2% in Galicia [12], 5% among pediatric residents in Argentina [13], and 10% in Peru [14]. Being an older resident, the absence of external rotation or focused on research, a worse opinion of the training process and the presence of depressive symptoms have been seen to have a negative effect on scientific production during the residency period [14]. Moreover, it is observed a lack of knowledge to elaborate a critical review of scientific papers, despite the subjective consideration of adequate skills to do it [15]. In addition, it is observed that residents who publish at least one paper before residency are nearly six times more likely to publish during residency than those who did not publish before residency [16].

In our opinion, it is necessary to analyze the actual approach to scientific knowledge during the residency period. It is necessary to stimulate the resident, providing the enough time to acquire the skills in this field without forget the

requirements to achieve the goals in the clinical practice. In addition, it is necessary to find the points in the local system that may influence in a negative manner in the scientific production, like depression or different problems with the residency program. This work should be realized in the different Universities and Hospitals. Finally, it must considered the implementation of regulated teaching in the area of scientific research in the medical school to make easier this process.

## 1. CONFLICT OF INTERESTS

The authors have no conflict of interest to declare. The authors declared that this study has received no financial support.

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