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EDITORIAL

Research in primary care☆

Investigación en atención primaria

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Paediatrics, like any other medical discipline, involves responsibilities in the areas of health care, teaching, research and management of resources, and these also affect primary care (PC) paediatricians. Until a few years ago, the activity of primary care paediatricians (PCPs) was solely confined to health care, because the organisation they worked for assigned them that role, leaving teaching functions almost exclusively to hospitals. The entry of well trained and motivated paediatricians into health centres all over the country has made it possible to extend the teaching of paediatric MIRs (specialty registrars or residents) to the PC health care setting, for training in areas that cannot be addressed during their rotation at the hospital. Initially this was done in the form of isolated arrangements by agreement between the training managers at the hospitals and the PCPs at the health centres. Official support and recognition for this rotation came with Ministry of Health Order SCO/3148/2006 of 20 September 2006, which for the first time established a compulsory rotation in PC. Research in PC paediatrics has not followed the same course and is still far from achieving recognition either from PCPs or from the institutions where they work and from funding bodies. Although in some autonomous communities, such as Andalusia, the contractual conditions for training programmes and even for qualified professionals already have a specific section for research with an associated financial incentive, the reality is that there is not enough time available in the working day to put it into practice.

Research is an indispensable element of the health care process, as it analyses and studies problems in search of their causes or solutions, as part of a process of continuous improvement of clinical care. In Spain research in primary care is at an inadequate and unacceptably low level. The reasons for this have already been enumerated previously,[1] and for over 10 years they have remained practically the same.

Factors that should be emphasised are the serious health care overload which prevents research activity being pursued during working hours, the absence of any kind of compensation, the lack of training in research methodology and the dispersion of PCPs, which makes it difficult to gain access to necessary resources and develop high-powered research teams. Despite this, in the last three conferences of the Spanish Association of Paediatrics, held in 2013–2015, contributions from Primary Care were in fifth place numerically, with 249 papers, behind Infectious Diseases, Neonatology, Gastroenterology, and Hospital Paediatrics and ahead of the other specific areas of Paediatrics.

In spite of all these limitations there are beginning to be signs of new opportunities in this area thanks to the growing interest of PCPs in research and the introduction of information and communication technologies (ICTs), such as electronic medical records, systems for recording prescriptions in pharmacy services and access to the network of electronic health libraries as a source of knowledge. This issue of *Anales* includes two high-quality contributions on PC carried out using ICTs as a working tool, based on

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different subject matter and study designs, but with the focus of interest on PC.

Casares et al.[2] have carried out an observational, descriptive, retrospective study using data on prescriptions from the Pharmacy Information Service in their autonomous community, and analyse the geographical and temporal pattern of consumption of anti-asthmatics in the paediatric population of Castille-León. They have observed great variability in prescribing between professionals in different health areas and high use of some active ingredients of limited effectiveness, which do not correspond to the recommendations of asthma treatment guidelines. This type of research, in the form of a multicentre comparative clinical audit, is very valuable, because, as the authors suggest, it provides pointers for implementing strategies for training and for identifying barriers to achieving more appropriate prescribing, which will undoubtedly have a direct impact on the health of patients and better management of resources. Moreover, it is a highly valid study for PCPs directly involved in health care practice elsewhere, because it was carried out in the environment where the researchers work, using data ''from and for'' the same organisation.

Domínguez et al.,[3] using electronic medical record data and supplementary questionnaires, have performed a population-based prospective longitudinal study on two cohorts of children in Asturias to assess the real impact of attendance at nursery school by children under 2 years old in their autonomous community on respiratory illnesses, with the object of answering the question families sometimes ask about whether or not it is advisable to take their children to nursery school. This question becomes a research question, which is answered with sufficient data to conclude that early schooling has adverse **negative consequences about health** with an unfavourable risk/benefit balance in the autonomous community where the study was performed. An analysis of the family's employment situation provides suggestions on the legislative changes that could improve this state of affairs.

These two studies have three things in common. Firstly, they answer research questions arising in their respective health care environments which will serve to implement activities for improvement or to generate new research questions. Secondly, they are studies that analyse patient data from a number of health centres (networking), included in the records of information systems that cover a large proportion of the population (*big data*). It is vitally important to raise questions on health care practice or determining factors affecting health that can be answered by analysing data collected prospectively day by day during visits by patients to networked health centres. It would be difficult to test a hypothesis with a research study instigated by health centres working in isolation, given the limited sample size of each. This was the objective that led to the establishment of PAP.en.RED, an initiative for a PC network promoted by the Spanish Association of Primary Care Paediatrics (AEPap) and its Research Group.

Nevertheless, these working tools are far from being as efficient as they should be, as their usefulness for research is very limited, because they were designed for very specific functions related to individual patients and not to obtain information at the population level that could benefit the population as a whole, as well as individuals, of course. They can provide information on the prevalence of asthma, but they are not designed to evaluate process indicators in illnesses or their relationship to health outcomes automatically. They can be used to draw up obesity maps[4] but they cannot tell us how it is related to diet, which is included in child health programmes, or its relationship to asthma or other potential conditions. Pharmacy record systems that enable us to ascertain variability of prescribing and pharmaceutical spending cannot be correlated with diagnoses or health outcomes, bearing in mind the importance of obtaining information in real time on safety and efficacy of prescribed drugs, as noted by Casares et al.[2]

Our proposal on this issue is that, as has recently happened with vaccines, we should demand that the Interterritorial Committee of the National Health System or the competent body should institute a process of standardisation of ITCs in Spain, to include properly agreed process indicators, making it possible to relate these to health outcomes that could be fruitful elements for research in Primary Care and Public Health.

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