The need for a national perspective to improve COPD management

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It is well known that COPD is a leading cause of morbidity and mortality worldwide. Even if the mechanisms can be considered universal, the disease is the result of a complex interplay between exposure (to noxious gases and particles) and host factors (not only genetic factors but also airway hyperresponsiveness and poor lung growth during childhood).[1] Because these conditions may vary considerably between countries and regions, local data are fundamental to obtain a clear picture of the problem and to understand how to deal with the emerging COPD pandemic. Some studies have analyzed data for regions that are considered homogeneous, one such study being the *Proyecto Latinoamericano de Investigación en Obstrucción Pulmonar* (PLATINO, Latin American Project for the Investigation of Obstructive Lung Disease) study,[2] which examined the prevalence of COPD in large cities in five Latin American countries (Brazil, Chile, Mexico, Uruguay, and Venezuela). In addition, the management of the disease can vary considerably, due to differences between countries in terms of the organization of health care services, including prevention, as well as in terms of socioeconomic status, as demonstrated by the differences among national guidelines.[3] This issue of the JBP presents three papers focused on the epidemiology, anthropometric characteristics, and management of COPD, as well as a campaign to improve knowledge of the disease, in Brazil.

Gonçalves-Macedo et al.[4] examined the temporal trends in COPD mortality rates in the various macro-regions of Brazil, together with the temporal trends in in-hospital morbidity and mortality. Their study highlights the fact that the perspective should be not only national but also regional. In fact, the authors found a downward temporal trend in COPD mortality rates in the macro-regions with higher socioeconomic indices, as well as downward temporal trends in the in-hospital morbidity rate and mortality indicators in all regions, those decreases being far more pronounced in the regions with optimal socioeconomic conditions. The most important finding of their study is that, despite the increase in COPD mortality rates observed between 2000 and 2016 in the northern, northeastern, and central-west regions, there was a significant reduction in the proportions of smokers in all regions in the same period, which underscores the importance of other factors, such as socioeconomic status, for mortality. How can programs aimed at improving disease management be planned and organized without this crucial information? In certain regions, campaigns aimed at reducing smoking habit will be appropriate, whereas in others an approach aimed at improving the socioeconomic status of patients with COPD is expected to be more beneficial.

Marchioro et al.,[5] on behalf of the PLATINO team, demonstrated anthropometric changes in individuals with COPD in the city of São Paulo, Brazil, between 2003 and 2012. In 2012, patients with mild COPD showed increases in their body mass index (BMI), whereas those with the more severe form of the disease (Global Initiative for Chronic Obstructive Lung Disease stage III or IV) showed an opposite trend. Those results, as emphasized by the authors, show the importance, at least in São Paulo but probably also in other cities and regions of Brazil, of knowing the nutritional profile of patients with COPD, in order to prevent not only weight loss, a well-known risk factor for mortality in COPD,[6] but also excessive weight gain, which is equally as dangerous, mainly in patients with the milder form of the disease.[7] Marchioro et al.[5] also showed that, in 2012, 60.3% of all patients with COPD in Brazil were overweight or obese. In a subanalysis of the PLATINO study, Montes de Oca et al.[8] found no significant difference in BMI strata among countries in South America. An international study conducted in eleven countries—Pakistan and ten countries in the Middle East and North Africa (MENA) region—known as the BREATHE study,[9] explored the prevalence of COPD symptoms, smoking habits, management of the disease, and disease burden, as well as reporting the rate of health care services utilization in the general population. In a subanalysis of that study, aimed at evaluating the BMI distribution among individuals with COPD, Koniski et al.[10] demonstrated a heterogeneous scenario, the proportion of patients with COPD with a BMI > 30 kg/m^2 (i.e., class II or III obesity) being highest in the Persian Gulf countries, whereas it was lowest in the Maghreb countries (Algeria, Morocco, Tunisia, Libya, and Mauritania) and Pakistan. Therefore, if the data are homogenous on a regional scale, taking a common approach to optimizing nutritional status appears to be a rational solution in South America, whereas not in other areas, such as the MENA region and Pakistan.

Finally, Alcântara et al.[11] evaluated the use of video lessons as a means of training a multidisciplinary primary health care team on COPD in the city of Goiânia, Brazil. In that "pilot" study, which involved only 36 participants (including community health agents, nurses, nursing assistants, physicians, and dentists), the authors

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demonstrated that a significant proportion of the participants (approximately 40%) had a low level of knowledge about COPD and showed that the video training program was a complete success, as evidenced by the fact that, after training, 100% of the participants expressed very strong agreement with all 16 items on the questionnaire employed, thus demonstrating optimal knowledge of the various aspects of the disease. In addition, the authors found that the levels of COPD knowledge were lowest among community health agents and nursing assistants, whereas they were highest among physicians. That information is valuable because, as discussed by the authors, various training strategies have been implemented in Brazil in an attempt to address the complexity of multidisciplinary primary health care. Such strategies cannot be irrespective of the specific target, given that physicians, nurses, and other members of the team will probably suggest different approaches based on their different backgrounds.

In conclusion, the optimization of COPD management requires the analysis of many factors, which can vary considerably across countries and regions. That is why there is an urgent need for local data, which are crucial to a better understanding of the scenario, as well as to the planning of campaigns aimed at improving disease management. Even if not everyone agrees with the saying "If you can't measure it, you can't improve it", there is no doubt that it is true in the field of COPD.

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