Authors' reply

Resposta dos autores

To the Editor:

It was with great satisfaction that we received the letter from Professor Jefferson Veronezi and Physical Therapist Daiane Scortegagna commenting on our article "Adherence to treatment in patients with cystic fibrosis".[1] In our study, we evaluated adherence to treatment in patients monitored in a program for adults with cystic fibrosis. We found the rates of self-reported adherence to be high: 84.2% adherence to respiratory therapy; 21.1% adherence to physical activity; 65.8% adherence to the diet; 96.3% adherence to the use of pancreatic enzymes; 79.4% adherence to the use of vitamins; 76.7% adherence to the use inhaled antibiotics; and 79.4% adherence to the use of inhaled DNase. The self-reported adherence score correlated inversely with the clinical score. Self-reported patient adherence was greater than was that perceived by health professionals.

Respiratory therapy undoubtedly constitutes one of the fundamental pillars of the cystic fibrosis treatment,[2] and, as the individual becomes an adult, the need for autonomy and independence makes it imperative that cystic fibrosis patients employ techniques that allow them to perform airway hygiene without assistance. Such techniques include the following: autogenic drainage; modified autogenic drainage; active cycle of breathing; forced expiration; positive expiratory pressure using a mask; use of oral oscillatory devices; and high frequency thoracic compressions. The patient should be guided in the choice of techniques/combinations of techniques and should be instructed in the correct performance of the maneuvers.[3]

The *Hospital de Clínicas de Porto Alegre* (HCPA, Porto Alegre *Hospital de Clínicas*) is a referral center for cystic fibrosis treatment. The work initiated in the 1980s by the pediatric pulmonology team was successfully developed under the guidance of Professor Fernando Antônio Abreu e Silva. The improvement in survival has increased the number of adolescent and adult patients with the disease. Consequently, in recent years, specialized teams have been created in order to treat these patients. In October of 1998, the HCPA Department of Pulmonology instituted an interdisciplinary team in order to treat cystic fibrosis patients aged 16 years or older. The process of learning and knowledge acquisition reported by Veronezi & Scortegagna in their letter to the editor is closely linked to the development of this facility and to the multidisciplinary concept there implemented.

As previously stated in our article, the high adherence observed might be attributable to the small size of the team on that occasion, as well as to the intensive multidisciplinary treatment routinely provided to the patients. More specifically, the high adherence to respiratory therapy found is certainly a result of the expertise developed by the physical therapists in this multidisciplinary process.

In contrast to our study, another group of authors found the rate of adherence to respi-

ratory therapy to be only 41.2% in a group of pediatric and adult patients (1.6-40.6 years of age).[4] Those authors found the degree of adherence to be higher in the patients presenting milder disease (higher clinical scores). In our study, the degree of adherence was found to be inversely correlated with the clinical score, adherence being greater when the clinical score was lower (i.e., when the disease was more severe). This is certainly due to the fact that the ages of our patients varied widely. The changes in psychosocial behavior that occur in adolescence and adulthood, together with the inherent progression of the pulmonary disease at the onset of puberty, can explain this contradiction. In addition, it is of note that, since our study was cross-sectional, the causal relationship cannot be determined. The finding that adherence was greater among younger patients does not necessarily indicate that the disease is milder in this age bracket. As mentioned previously, the pulmonary component of the disease, in most cases, progresses inexorably from adolescence onward.

In fact, one difficulty in studying the adherence to physical therapy in the daily routine of outpatients is the lack of an objective measure of this variable. In this context, a questionnaire to evaluate self-reported adherence has been used in many studies.[4,5] We tried to overcome the disadvantage of the lack of a validated questionnaire using a simple time reference: the weekly frequency of the use of prescribed therapeutic techniques. Although this strategy can overestimate the true adherence to treatment, it can contribute greatly to the understanding of factors associated with nonadherence.[6]

Therefore, nonadherence to treatment constitutes a major obstacle to the effective treatment of cystic fibrosis. In recent years, much research has been conducted in order to understand the causes or factors associated with nonadherence to treatment. However, nonadherence to treatment can be complex and multifactorial. Therefore, interventions aimed at resolving this issue cannot succeed if all obstacles to nonadherence are not identified and addressed.

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