0021-7557/05/81-03/268
Jornal de Pediatria

Quality of life in asthmatic children

Dear Editor,

The publication of the article by La Scala et al.[1] is both relevant and opportune in approaching a subject that is of great importance with respect of asthma in children, but is not yet widespread in Brazil. We now know that this is a complex disease and that its management, without doubt, must go beyond objective pulmonary function parameters.[2] In this sense, if educating asthmatic patients is of fundamental importance, what these patients have to say about their disease must also be.

The study of quality of life related to health (QLRH) is a relatively recent development and its integration with other variables in controlled clinical trials, while rare, is increasing in the literature.[3] The selection of questionnaires to evaluate QLRH will depend on the population and disease being studied, on the interest in the study population and on the convenience of using a generic or a specific instrument whilst no single scale yet exists.[4]

The process of creating these scales is slow and complex. For this reason adaptation of existing scales developed for other populations for our culture is recommended. This cultural adaptation, while less complex than the original construction of the questionnaire, should follow an equally rigorous process, for which recommendations also exist.[5]

With respect of the work by La Scala et al.,[1] we offer some questions and comments of a methodological nature.

1. Why did they decide to translate the PAQLQ, instead of using the version in Portuguese for Brazil, developed by the *MAPI Research Institute*? Why did they rule out that version? What are the differences between the two?

2. They state that, "No discrepancy was observed between the original WQ and the translated version." Nevertheless, they do not describe having performed international harmonization. In considering that a complete cultural adaptation is performed, it is recommended that there be discussion between the translators and authors of both versions in order to evaluate whether the terms and words used maintain the spirit of the original version, according to the original instrument's creators' criteria. If this is not done there is a risk of divergence from the original version.

3. Why didn't they perform a sample size calculation? The original study was like that, however, there are recommendations for making this calculation, such as those published by the European Regulatory Issues on Quality of Life Assessment Group, ERIQA, in 2002. A sample calculated according to appropriate methodology would improve the external validity of the results.

4. Was any cognitive criterion for inclusion considered? For example, in the results, it is stated that some children were excluded, "because they could not understand the questions" and, in the discussion, they state that for some (how many?) children, the terms "moderately", "frustrated" or "uncomfortable." were, "defined according to the standard Brazilian Portuguese dictionary". I believe that these are both basic methodological errors, since when using a questionnaire which, as an instrument should be self explanatory, the results will change depending on the interpretation(s) or definition(s) utilized.

In other words, if a child does not understand the questions is this because the translation has a higher cognitive level than corresponds to the child's age or because the child has an inadequate cognitive level for its age? Dr. Juniper's team applied a standardized reading test for the North-American culture and, based on the results of this test, defined seven years as the minimum age for responding to the PAQLQ.[6] Is the same age appropriate to our population? What level of cognitive capacity is necessary? In Spain a reading test was also used to standardize the population included for adapting the questionnaire to Spanish.[7] In Brazil, however, in addition to our educators questioning the use of this type of assessment, there is no similar reading test to those used in these other studies.

In conclusion, the methodological limitations described above do not allow for the conclusion that the objectives proposed by La Scala et al.[1] have been achieved, irrespective of the fact that the observed reliability and validity were similar to the original version.

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Authors' reply

Dear Editor,

It was with great satisfaction that we received Dr. Edgar Sarria's comments on our study recently published in this periodical.[1] In common with him we believe that the theme dealt with is of great importance in clinical practice, and that it is ever more important to deal with it in our country. Indeed, the study of the Quality of Life (QL) in patients is in vogue and has become an important focus complementing the clinical evaluation of the individual as a whole over recent decades.[2] The use of written questionnaires (WQ) for this assessment, much used with adults, is lacking in Pediatrics.

Over recent years research involving qualitative evaluation instruments have gained prominence and have consequently been improved by the increased interest in them. How to assess a qualitative variable has been one of the greatest difficulties. While several different methods have been used, the ideal one is yet to appear. Written questionnaires attempt to asses QL in an objective manner with respect of a specific disease or in general The first sin through failing to allow comparison across diseases and because of the need for a different WQ for each type of disease. General WQs are useful for comparing distinct diseases but do not adequately evaluate the true impact of the disease since each disease impacts on a different area of the individual's life.[3]

The Pediatric Asthma Quality of Life Questionnaire (PAQLQ) was chosen for evaluating the QL of children with asthma, because this WQ had already been validated in both in English and Spanish.[4,5] In our view the PAQLQ is the most complete because it covers important areas of the evaluation of QL in children and adolescents, allied to its ease of application.

We chose to translate the original WQ since we were unaware of the existence of the version produced by the MAPI Research Institute, or of any study that has employed it. Nevertheless, we have tried to obtain it, but without success and as such we are unable to manifest any opinion on this version. In commenting that there was no discrepancy with the original WQ, we referred to the comparison made between the original WQ and the English version obtained through "back translation".

In the original study Juniper et al.[4] validated the PAQLQ employing a sample made up of 52 patients. Taking that study as a base we concentrated on using a similar sample. The data analysis revealed that our results had similar statistical significance to that observed by those authors.

In order that the vocabulary used for the PAQLQ was standardized we used the lexicography and synonyms contained in the *Moderno Dicionário da Língua Portuguesa* published by *Editora Melhoramentos* in 1998,[6] and which, like all good dictionaries of the Brazilian Portuguese language is based on the cultural norms proposed by the *Academia Brasileira de Letras*. Although we did not perform a formal evaluation, patients were only enrolled on the study if they had a cognitive level that permitted them to read and understand the questions. Just two children aged between seven and eight were enrolled on the study because they could read and understood the terms employed correctly. Around ten children aged less than eight were excluded because they were functionally illiterate or had low intellectual capacity or presented temporal-spatial agnosia. The remaining exclusions were the result of failure to attend consultations. Limitations of space in which to present our results led to us omitting these details in preference of others that we judged of greater relevance.

Finally, we disagree with the opinion of this reader since the similarity with what is observed in the literature demonstrates that, for the population studied, we achieved a high level of reliability and validity with this instrument. Although we did not employ a formal, standardized reading test, only those children who were effectively literate and had a good degree of comprehension participated in the study. This fact, together with the points made by the reader on the subject, allows us to corroborate what we stated in the article about the need for a different instrument for assessing younger children.

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Evaluation of the nutritional status of preterm newborns

Dear. Editor,

While analyzing the article by Gianini et al.,[1] I noticed that the study contains an error in table 4. The results of the linear regression are erroneously described as *odds ratio.* Comparing this with table 3, the error is confirmed.

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Authors' reply

Dear Editor:

we are grateful for the opportunity offered by the reader José Luiz Muniz Bandeira Duarte to correct an error in table 4, of the article entitled *Evaluation of the nutritional status at 40 weeks corrected gestational age in a cohort of very low birth weight infants*, published in issue 1 of volume 80. The reader points out that there is information on an odds ratio in a table whose results had been analyzed by multivariate linear regression. The reader is correct in identifying the error, since, in fact, the column that says *odds ratio* should says ß. We would, therefore, like to request that the table be published once more in this section in its corrected form:

Table 4 - Analysis of multivariate linear regression of continuous variables selected for the final model – stepwise method (dependent variable - weight at term)

Variables	ß	IC 95%	p
(Constant)	7,443.8	6,758.5 to 8,129.0	0.000
Length of hospital stay (days)	-7.9	-11.4 to -4.5	0.000
Gestational age (weeks)	-170.9	-190.1 to -151.8	0.000
Birth weight (g)	0.7	0.4 to 0.9	0.000
Time needed to regain birth weight (days)	-13.5	-19.9 to -7.2	0.000
CRIB	-14.4	-28.6 to -0.2	0.046

CRIB = clinical risk index for babies.

We emphasize that this error in no way affects the analysis of the results presented.

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