We conducted a survey of Chinese randomized controlled trials (RCTs) assessing children's pain intensity to determine what pain scales they used, whether the pain scales were translated in a standard fashion, and whether posttranslational validation was assessed. We searched 4 main Chinese academic databases (including the Chinese BioMedical Literature Database), and 612 RCTs assessing children's pain intensity were included, of which 116 RCTs (19% of all included studies) did not use a specific pain scale. Of the remaining 496 RCTs using specific pain scales (of 31 pain scales being used, 21 were observational scales, 10 were self-reported), 39 (6% of all included studies) used self-reported pain scales to assess children under 3 years old, and 75 (12% of all included studies) used observational pain scales to assess children older than 7. Of the 31 pain scales identified, 29 were originally created in another language, but only 1 (FLACC, the face, legs, activity, cry, consolability) was translated into a Chinese version following recommended procedures and had assessed the validity of the Chinese version [4]. In addition, we discovered some other problems in our study, such as there being more than one translation version for a certain scale, the contents of the scale not matching the given name, and so forth.

From our survey, we found that only a few pain scales were translated following recommended approaches and almost 40% of the Chinese RCTs have not assessed children's pain intensity properly. Although there is no direct evidence, poor translation may contribute to the improper use of pain scales, and our survey highlights the importance of standardized translation of children's pain scales.

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Response to letter to the Editor

To the Editor:

This letter addresses the question: behavioural pain scales for young children: when post translation validation studies are needed? We thank Kehu Yang and Rao Sun for showing interest in our work [3,4] and for underlining the importance of considering cultural differences in behavioural expressions of pain. In our view, however, it is unlikely that an Asian newborn child or a young infant would differ from a Caucasian or an African infant in the expressions of pain, although this, of course, remains to be proven. From what age do these behavioural manifestations of pain, such as crying, limb withdrawal, holding the painful area, prostration, etc., start to vary from one country, ethnic group or culture to another? This is not known, nor is it known how far they might differ.

About pain perception mechanisms, we are aware of little evidence of significant differences in pain perception among human racial groups [1]. Currently, the medical literature is scarce on the impact of culture or ethnicity on children's perceptions of pain and its intensity. Nevertheless, recent studies of experimental pain in children of various ethnic origins have showed that Asians demonstrate more pain sensitivity than Caucasians, who evidenced more pain sensitivity than African-Americans and Hispanics [5].

In contrast, pain expression is largely presumed to be different in people of various ethnic origins. However, the facial expression of pain has been demonstrated to be the same in newborns of differing ethnic origins [7]. One study of immunization pain behaviour has identified some differences among babies at 2 months, with the Chinese babies showing greater responses [6]. In another immunization study, pain scores (measured by the Modified Behaviour Pain Scale and total time in distress) did not differ within children of various origins, classified as “individualist cultures” (such as North America or Western Europe) or “collectivist cultures” (such as African, Asian and South American) [10]. In an observational study of postoperative behaviours in 37 children of multiethnic origins, the 5 most frequently observed behaviours were calmness, maintaining of a single position, flexing limbs, eyes being shut, and knees being drawn up, with 100% of the children exhibiting 3 behaviors—calmness, maintaining one position, and flexing limbs—whatever their ethnic origins [9]. Recently, a study of children after postoperative ambulatory surgery showed some differences between Hispanic and Caucasian American children, with more apathy in white Caucasians and fewer behavioural changes in Hispanic-speaking children [2].

It is possible that differences in the behavioural expression of pain might begin to appear when a child integrates familial or cultural expressions of pain, but few studies are available to identify precisely at which age this occurs. Research is required to gain insight into these issues.

This being so, it is certainly advisable to conduct validation studies when using a measure developed in a foreign culture.

We, of course, encourage the translation of the EVENDOL scale into Chinese. A first translation is still available, done by colleagues during an emergency course, from the original French version, which we can make available to researchers and clinicians. The translation work should not be too problematic, since EVENDOL is made up of simple, descriptive items. This is why we consider that the recommendations made by Sousa [8] for the translation of complex, subjective, self-administered questionnaires, such as quality-of-life scales, may not be fully applicable to such a simple list of behaviours. A careful translation should include several bilingual caregivers in the translation panel, discussions of the wording choices, and several sessions to reconcile the French and Chinese versions. Once this is done, it should be possible to go on to validation tests in a clinical setting.

If, on the other hand, it is thought that the differences between the countries and the cultures are too great and have an impact on pain behaviours from a very early age, rather than validating a scale of foreign origin, it could be more appropriate to develop relevant items from observation of children in the country concerned. This should involve expert opinion, a careful study of video recordings, and a validation study of the scale obtained.

References

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