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LETTERS TO THE EDITOR

Comparative analysis of child development screening tools designed and validated in Mexico☆

Análisis comparativo de pruebas de tamiz para la detección de problemas en el desarrollo diseñadas y validadas en México

Regarding the review made in ''Comparative analysis of child development screening tools designed and validated in Mexico''[1] about the PCD-R risk indicators, we offer the following observations.

1. In Table 1, ''General description of the screening tests compared in the study'', the column ''Aspects evaluated'' indicates that the INDIPCD-R is divided into development areas: ''...(sitting, crawling, standing, walking, expressive language, receptive language, emotional/social, manual abilities, cognition and practice), background''[1]. The INDIPCD-R does not differentiate development areas; therefore, the information showed in this table is mistaken.
2. The ''Age range'' column of the same table shows that INDIPCD-R evaluation goes from ''0 to 4 years of age (evaluated in six groups)''[1]. The age range is wrong since the cited INDIPCD-R article in reference 15[2] states that the age range goes from 6 to 48 months.
3. In Table 2, ''Comparison of the characteristics of the screening tests reported in the validation studies'' refers to a study population of ''145 children coming from one clinic and two CENDI''. This information is incorrect because the study population was of 347 children aged 6 to 48 months[2].
4. As a consequence of the previous point, the statement that appears in table 4: ''Questionnaire to evaluate risk bias in diagnostic accuracy studies (QUADAS)'', that mentions that the INDIPCD-R presents a high risk of bias, is erroneous.
5. The article mentions that INDIPCD-R ''cannot be compared against itself''[1]. The authors did not consider that the development scale ''Profile of Behaviors in Development (PCD-R)'' that appears in references 28 and 29 of the article referred on this letter[3,4], which was used as a gold standard, is an independent test of INDIPCD-R. The organization of the test, its items, and results are different[2].
6. In our paper, we showed that INDIPCD-R is an instrument that applies only if the child shows *signs of abnormal development in the different age groups ranging from 6 to 48 months*. Unlike PCD-R, which as a diagnostic tool that evaluates the areas of sitting, crawling, standing, walking, expressive language, receptive language, emotional/social, manual ability, cognition and practice, and establishes a relationship between the development areas and the child's age, identifying whether the development coefficients in each area are or not according to his age[2], we decided to use the PCD-R as a gold standard because it has Mexican validity and reliability studies in general population[3–5]. The Bayley Scale of Infant Development (BSID-II) is a good example of how a developmental screening test can originate a screening test used on a wider population[6,7]. BSID-II was used as the gold standard in assessing the screening test for the validity of the Bayley Infant Neurodevelopmental Screener (BINS)[7].
7. In the paper by Orcajo et al., the terms diagnosis and screening tool (''*diagnóstico*'' and ''*tamizaje*'' in Spanish) are used interchangeably. Hence, the QUADAS election ''as a tool for the quality assessment of studies of diagnostic accuracy included in systematic reviews'', which evaluates ''the bias risk of diagnostic accuracy publications''[1]. We consider it important to note that the tests reviewed in their article are screening tests, not diagnostic tests. As other authors, we differentiate between a development screening test and an evaluation or developmental test. Therefore, we cite the following fragments:

''Screening tests do not provide a diagnosis; they help to determine whether further investigation is necessary (e.g., a diagnostic evaluation) by medical experts in pediatric development''[8].

Secondly, ''...the developing screening tools are not diagnostic, and results must precede a more intensive evaluation''[9].

Regarding the reproducibility studies, we agree about the need for further studies of INDIPCD-R with a larger sample, with healthy children and children with diverse pathologies. For this reason, we made the previous observations through

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this prestigious magazine, so that whoever wishes to apply this instrument can do so.

For the rest, we appreciate your comments that push us to continue to look after the instrument quality.

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Answer to letter to the editor: Comparative analysis of child development screening tools designed and validated in Mexico☆

Respuesta a carta al editor: Análisis comparativo de pruebas de tamiz para la detección de problemas en el desarrollo diseñadas y validadas en México

We welcome the comments regarding our article since we cherish the high-level academic discussion that gives us the opportunity to delve into the underlying motivations which are the following:

A) Contribute to the continuous improvement of Mexican research.
B) Promote the use of checklists to improve the design, methodology, and reporting quality of national publications.
C) Sand out the manuscript quality impact on the clinician's judgment about the usefulness of diagnostic or therapeutic methods.

A worldwide concern exists about the reproducibility, reliability, and validity of published research and the biases to which it is exposed that has prompted the creation of different strategies to reduce it.[1]

One of these strategies, supported by the World Health Organization (WHO) and the Pan American Health Organization (PAHO) for its efficiency and low-cost implementation, is the use of guidelines for the development of higher methodological quality research. Among them are CONSORT for randomized trials, STROBE for observational studies, and STARD for diagnostic accuracy studies, to mention some examples. These guidelines are grouped for easy reference on the web page from the EQUATOR Network (Enhancing the Quality and Transparency of Health Research) initiative[2].

Our paper is guided by this spirit, and therefore its goal is ''to *compare the quality of the validation reports published and their risk of bias among the screening tests developed and validated in Mexico*[3]''. For this reason, our opinions are not issued on the comparative utility of the tests—which would invariably require an experimental design—but on the content of validation reports, as well as a subjective judgment based on validated checklists globally known for the risk of bias of presented data.

We briefly respond to the comments:

1. It is mentioned: ''In Table 1. General description of the screening tests compared in the study, in the

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