

# Validating psychometric instruments: a vital issue in mental health

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Editorial

The creation, validation, and adaptation of scales, structured interviews, and other psychometric instruments form a fundamental part of current psychiatry. Instruments should be useful not only to be applied and to improve processes of diagnosis and treatment, but also to help the progress of the science itself. In this sense, in order for research in psychiatry to move forward, it is important to make use of standardized instruments that allow both mental alterations and changes that manifest themselves through the application of pharmacological or behavioral treatments to be assessed, classified, and quantified. However, psychometrics is an area which for many years has been only partially dealt with by applied psychiatry and psychology, which have focused on aspects related to clinical diagnosis and treatment.

Other aspects should be taken into account further to the classic requirements of psychometrics, such as validity (that tests measure what they are supposed to measure), reliability (that measurements are similar if carried out at different times), ecology (that measurements can be applied in different contexts), and that measurements are pragmatically useful.<sup>1</sup> In this sense, adaptation studies on an instrument developed in one language that can be applied in another are well known and accepted.<sup>2,3</sup> However, very often geographical, cultural,<sup>4</sup> and linguistic adaptations should be carried out, even when the scale or instrument was developed and applied in populations that share the same language.

Another important aspect is the study of the replication of the psychometric properties of scales on clinical populations. However, patients with "mental disorders" have frequently been considered a unique category, and differences between patient groups have been minimized. On occasion, the study of an instrument in clinical populations confirms the psychometric advantages previously described in the general population or in patients with another mental disorder.<sup>5</sup> However, there is much data to the contrary. For example, it is known that an instrument developed for patients with affective disorders such as the Beck depression Scale did not replicate its properties when used in a sample

of patients with addictions.<sup>6</sup> As such, the instrument or its scores needed to be adapted, as the differences in responses and in the perceptions of different patient groups cannot be ignored. All of this clearly justifies new validation and evaluation being carried out. The higher end of this situation has led to the development of new instruments based on existing ones, but oriented towards concrete populations, such as PRISM which specializes in evaluating Dual Pathology.<sup>7</sup>

Another area that has been partially developed is that of so-called "enhancement strategies" which consist of combining instruments to improve predictive values, sensitivity, etc. Although complex, this field is very interesting, and there are promising studies into the improvement of psychometric properties when combinations of various tests are used.<sup>8</sup>

One vital aspect in applying the instruments is feasibility, as most instruments must be able to be applied by clinics outside of academia. In this sense, it is imperative that even when using "enhancement strategies," instruments can easily be applied to the population to which they are oriented, and that they can be corrected and interpreted by the responsible professionals within a reasonable time.

Finally, within the current problems in psychometrics is the bias associated with belonging to subgroups, such as sex, age group, level of education, or belonging to an ethnic or geographic group.<sup>9</sup> However, the implementation of ever more complex methods of statistical analysis has been hindered by the gap between clinical and psychometrics researchers.<sup>10</sup>

Because of all of this, the validation and adaptation of instruments is a fascinating challenge and fruitful area of research that is ripe for investigation. This issue of SALUD MENTAL contains excellent articles which present validations and adaptations of tests, scales, and new versions of previously-used tests, both in specific populations and in different geographic areas. This will help to improve the availability of instruments in Spanish, and ultimately contribute to improving patients' prognosis.

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