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# Psychometrics is needed in Nursing Research

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As is already known, in the nursing research field there are two consolidated methodological approaches, which are the qualitative and quantitative. The qualitative methodology is based on philosophical foundations, such as phenomenology, ethnomethodology, hermeneutic and phenomenography that leads the actions of this methodology (The Institute Joanna Briggs, 2014). In contrast, quantitative methodology is based mainly on statistical procedures by which have the capacity to infer results, therefore, the ability to generalize it for the population of the studied sample [1-4]. According to the purpose of study, this method can be experimental and non-experimental (Polit & Beck, 2003) [4].

In quantitative research there are several factors involved as the characterization of the study population, the sample size, the data collection procedure and the instrument for data collection.

Thus, the measuring instrument that the researcher is using, such as a questionnaire, form, inventory, scale, test, etc. needs to actually measure what it is intended to measure (Polit & Beck, 2003) [4]. Among the instruments used there are those who assess directly and indirectly observable variables. For the last ones, that determine an individual's behavior by mental processes, psychometrics is used.

Psychometrics is the science that deals with the assessment of the attributes of an instrument in relation to the type of information, accuracy and validity of the data (Furr & Bacharach, 2013) [1], and provides reliable resources for research in nursing and clinical practice. The psychometric properties that every instrument must have are the validity and reliability (Pasquali, 2009) [3].

However, in nursing research is common observe only the verification of the reliability of the instrument which ensures precision, but not necessarily the validity, consequently the instrument can be consistent in their results, but not measure what it is intended, compromising results.

The validity assess the degree to which the instrument measures the phenomenon of interest. For this, the instrument must provide evidence of: content validity, apparent or face validity, criterion validity and construct validity (Furr & Bacharach, 2013; Polit & Beck, 2003). Therefore, the researcher must prefer to use the instrument with more evidence of validity, which ensures that it will measure what is intended to be measured in fact.

On the other hand, in cases of cross-cultural adaptation of instruments, is required the assessment of the psychometrics properties of the instrument, in order to verify the preservation of its properties.

Although psychometrics is widely used in psychology and education, their integration into nursing is recent. Thus, knowledge on some psychometric methodologies in healthcare is vitally important to strengthen research in nursing, assisting in the construction of knowledge based on higher quality results. Therefore, it is recommended the inclusion of psychometrics in nursing courses.

## References

1. Furr M, Bacharach VR (2013) Psychometrics: an introduction. (2ndedn), Los Angeles: SAGE Publications.
2. (2014) The Institute Joanna Briggs. Joanna Briggs Institute Reviewers' Handbook: 2014 edition.
3. Pasquali L (2009) Psychometry. Magazine USP School of Nursing. 43 (Esp), 992-999.
4. Polit DF, Beck CT (2003) Nursing Research: principles and methods. (7thedn), Philadelphia: Lippincott Williams & Wilkins.

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