



Contributions of health scales as tools that influence decisions in caring for patients

Alba Luz Rodríguez-Acelas¹, Wilson Cañon-Montañez²

History

Receipt date:

01 de diciembre de 2017

Approval date:

18 de diciembre de 2017

¹ Doutora em Enfermagem. Programa de Pós-Graduação em Enfermagem, Universidade Federal do Rio Grande do Sul. Porto Alegre, Brasil. Autor de Correspondência. E-mail: alra1900@yahoo.com

² Doutor em Epidemiologia. Programa de Pós-Graduação em Epidemiologia, Universidade Federal do Rio Grande do Sul. Porto Alegre, Brasil; Programa de Enfermería, Facultad de Ciencias de la Salud, Universidad de Santander. Bucaramanga, Colombia.

Over time, it is possible to find an increase of scales or so-called instruments or questionnaires in the health setting, representing a great contribution to areas of research, education, and practice, as well as to management and extension settings, given their important participation in different scenarios.

It is estimated that development of new scales depends on the constant search for evidence that help professionals in decision making, hence, it is considered a current theme of discussion by researchers using Evidence-Based Practice¹.

Likewise, while scientific knowledge and new treatment and diagnosis techniques evolve, patient dissatisfaction increases regarding health care. Said feelings apparently point to the difficulty in creating a harmonious relationship between scientific progress and the prioritizing of the human being concerning care based on technology, given the broad discussion on technologies related to the health sector because the use of scales is considered in literature as a light-hard technology that encompasses knowledge in a more structured manner².

In relation to nursing, its participation in developing these technologies stems from research and emerges in the distinct areas of care, showing growth of disciplinary knowledge and benefiting the quality of life and security of patients and of the different processes. In spite of this, it is burdened with the stigma that technologies condition professional reasoning, limit the patient-nurse interaction, and – hence – conditions access to care.

How to cite this article: Rodríguez-Acelas AL, Cañon-Montañez W. Contribuciones de las escalas en salud como herramientas que influyen en las decisiones en el cuidado de los pacientes. *Rev Cuid*. 2018; 9(1): 1949-60. <http://dx.doi.org/10.15649/cuidarte.v9i1.498>



©2018 Universidad de Santander. This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial (CC BY-NC 4.0). This license lets others distribute, remix, tweak, and build upon your work non-commercially, as long as they credit you for the original creation.

However, it is valid to highlight that the work carried out for the construction and validation of a scale is vast and requires major commitment and knowledge by the researcher, which start from a literature search to make sure an equal scale exists or one with similar purposes and, thus, justify its development³. In case of finding a scale that fulfills the criteria desired, it is pertinent to perform a transcultural validation by following a methodological rigor to incorporate such into the discipline.

Within the current context, several scales have been developed, translated, adapted, and/or validated to measure or identify situations in which it is possible to use them systematically and effectively⁴. In that logic, diverse investigations exist focused on specific groups of patients with determined characteristics. Among the best known and most used scales, there are: the Braden⁵ and Norton⁶ Scale to predict the risk of pressure ulcers; the Morse⁷ Scale to assess the risk of falls; the Visual Analog Scale⁸ with valid approach to measure pain; the Glasgow Coma Scale⁹ evaluates the state of consciousness and its progress, among other scales, which still have not had enough diffusion.

In that perspective, whether it is a new scale, translated or validated, it makes multiple contributions in the different fields; thus, this editorial seeks to describe the principal contributions made by the scales, bearing in mind that knowing of them promotes teaching in academic environments, adds value to the work of researchers and encourages their use in clinical practice.

Regarding the clinical practice, the development and/or validation of scales brings along the possibility of in-depth studies on an essential aspect in health care, like the relationship between the influence of technology and the care provided by health professionals². One of the most-recurrent aspects in the bibliography falls on the excessive technification that exerts control over humans, leading them to rational automatism¹⁰.

In this respect, some professionals see the application of scales as an additional task to perform during care, bringing with it an additional investment of time and workload. In all, this turns out to be a somewhat biased appreciation and far from a vision linked to improving standards of care for patients and institutions.

Conversely, the contributions by the scales in the clinical environment are diverse. These help in the evaluation, stratify risk, guide in prioritizing interventions, and accompany the patient's evolution, among other uses; favoring the quality of care and optimization of time by health professionals, which has positive repercussions in patient and institutional security. Nevertheless, these are general contributions; each of them is determined for groups of patients with specific characteristics.

Thereby, classification of patients through scales privileges care areas in psychobiological and psychosocial dimensions, helping health professionals to focus on their priority needs, which contributes to the elaboration of an effective care plan¹¹.

In research, the construction and/or validation of scales as measurement instruments in the scientific-academic environment has been increasing in recent times, demonstrating acceptability by students and professors, principally in relation to the benefits with the standardization of the methodology used in their development. The aforementioned permits measuring health phenomena and increasingly generalizes the clinical validity of these instruments as health care technologies, which represent in the contexts of practice the possibility of systematizing the task of nursing¹².

Nonetheless, it should be highlighted that to be considered significant, the measurement scale must be valid and reliable, with validity being the degree to which an instrument truly measures the variable it seeks to measure and reliability involving the internal consistency of the items, inter- or intra-evaluator reproducibility, and the level of agreement among observers¹³.

Several forms of validity exist for a scale, with predominance of face, content, construct, and criterion validation. Each of these methods evaluate different aspects of the instrument and must be considered as part of a process¹⁴. However, some divergences still exist, especially in that referring to face validation, regarding the level of evidence. With respect to the determination of statistical tests, these parameters must be defined in keeping with the study objectives, researcher criteria, and experience¹⁵.

Hence, to consider a scale valid, it requires rigorous methods in its construction, which permit validating its applicability and which enables

systemic collection of data and quantitative evaluation of the phenomena in well-founded manner, further permitting the feasibility of correlating its variables through statistical tests.

Upon going through its distinct stages, a scale is deemed valid to be implemented in the practice, allowing transfer of knowledge and, thus, avoiding the lag frequently found between theory and practice¹⁴. Nevertheless, it is generally found that many investigations do not overcome this stage.

In reference to education, scales should be used as tools in the undergraduate and graduate careers as a way of encouraging students to delve into their knowledge and application, bearing in mind that they are low-cost technologies to measure different health phenomena.

Thus, it is important to highlight the contribution of scales to different fields of action, given that – increasingly – professionals are using these technologies in health care¹⁶ to make nursing care more humane, technical, scientific, and sound¹⁷.

Conflict of interest: The authors declare no conflict of interest.

REFERENCES

1. Schaffer MA, Sandau KE, Diedrick L. Evidence-based practice models for organizational change: overview and practical applications. *J Adv Nurs*. 2013; 69(5): 1197-209. <http://dx.doi.org/10.1111/j.1365-2648.2012.06122.x>
2. Almeida CM, Almeida FN, Escola JJ, Rodrigues VM. The technological influence on health professionals' care: translation and adaptation of scales. *Rev. Latino-Am. Enfermagem*. 2016; 24:e2681. <http://dx.doi.org/10.1590/1518-8345.0990.2681>
3. Streiner DL, Norman GR. Health measurement scales. A practical guide to their development and use. Cuarta ed. New York: *Oxford University Press*; 2008.

4. **Dennis CL, Faux S.** Development and psychometric testing of the Breastfeeding Self-Efficacy Scale. *Res Nurs Health.* 1999; 22(5): 399-409.
5. **Bergstrom N, Braden BJ, Laguzza A, Holman V.** The Braden scale for predicting pressure sore risk. *Nurs Res.* 1987; 36(4): 205-10.
6. **Norton D.** Preventing pressure sores of heels. *Nurs Times.* 1961; 57: 695-6.
7. **Morse J.** Preventing patient falls. *Thosand oaks:* Sage; 1997.
8. **Carlsson AM.** Assessment of chronic pain. I. Aspects of the reliability and validity of the visual analogue scale. *Pain.* 1983; 16(1): 87-101.
9. **Teasdale G, Jennett B.** Assessment of coma and impaired consciousness. A practical scale. *Lancet.* 1974; 2(7872): 81-4.
10. **Silva RC, Ferreira MA.** The technology in health: a psychosociological applied perspective to the care of nursing. *Esc Anna Nery.* 2009; 13(1): 169-73.
<http://dx.doi.org/10.1590/S1414-81452009000100023>
11. **Pagliari FC, Perroca MG.** Uso de instrumento de classificação de pacientes como norteador do planejamento de alta de enfermagem. *Acta paul. enferm.* 2008; 21(3): 393-7. <http://dx.doi.org/10.1590/S0103-21002008000300002>
12. **Feitosa MC, Soares LS, Beleza CMF, da Silva GRF, Leite IRL.** Uso de escalas/testes como instrumentos de coleta de dados em pesquisas quantitativas em enfermagem. *SANARE, Sobral.* 2014; 13(2): 92-7.
13. **Orozco-Vargas LC.** **Medición en salud.** Diagnóstico y evaluación de resultados. Un manual crítico más allá de lo básico. 1 ed. Bucaramanga: *División de Publicaciones UIS*; 2010.
14. **Sherman H, Castro G, Fletcher M, Hatlie M, Hibbert P, Jakob R, et al.** Towards an International Classification for Patient Safety: the conceptual framework. *Int J Qual Health Care.* 2009; 21(1): 2-8.
<http://dx.doi.org/10.1093/intqhc/mzn054>
15. **Keszei AP, Novak M, Streiner DL.** Introduction to health measurement scales. *J Psychosom Res.* 2010; 68(4): 319-323. <http://dx.doi.org/10.1016/j.jpsychores.2010.01.006>
16. **Rodríguez-Acelas A, Cañón-Montañez W.** Caminos metodológicos: validación y desarrollo de diagnósticos de enfermería. *Rev Cuid.* 2015; 6(1): 879-81.
<http://dx.doi.org/10.15649/cuidarte.v6i1.248>
17. **Correa ML.** La humanización de la atención en los servicios de salud: un asunto de cuidado. *Rev Cuid.* 2016; 7(1):1227-31.
<http://dx.doi.org/10.15649/cuidarte.v7i1.300>