

# The Clinical Outcomes in Routine Evaluation-Outcome Measure: A useful option for routine outcome monitoring in Latin America

*Clinical Outcomes in Routine Evaluation-Outcome Measure: Uma opção útil para o monitoramento de rotina dos resultados na América Latina*

*Clinical Outcomes in Routine Evaluation-Outcome Measure: Una opción útil para la monitorización rutinaria de resultados en Latinoamérica*

Clara Paz<sup>1,\*</sup>, Chris Evans<sup>2</sup>

Paz C  <https://orcid.org/0000-0003-1106-9567>

Evans C  <https://orcid.org/0000-0002-4197-4202>

**ABSTRACT:** Latin American mental health services are moving from the psychiatric hospital model to a community-based model. The effectiveness of these new services needs to be evaluated and that can be done through routine outcome monitoring. The present communication introduces the Clinical Outcomes in Routine Evaluation – Outcome Measure (CORE-OM), a free instrument, supported with rigorous psychometric exploration, and which has been translated to Spanish and Brazilian Portuguese that can be used for monitoring purposes across the region.

**Keywords:** CORE-OM; Latin America; Routine outcome monitoring; Psychotherapy research.

**RESUMO:** Os serviços de saúde mental latino-americanos estão mudando do modelo de hospital psiquiátrico para um modelo baseado em atendimento comunitário. A eficácia desses novos serviços precisa ser avaliada através do uso de monitoramento de resultados de rotina. Esta comunicação apresenta o *Clinical Outcomes in Routine Evaluation – Outcome Measure* (CORE-OM), um instrumento gratuito, suportado por rigorosos exames psicométricos, que foi traduzido para o espanhol e o português do Brasil e que pode ser usado com a finalidade de monitorar resultados na região.

**Palavras-chave:** CORE-OM; América Latina; Monitoramento rotineiro de resultados; Pesquisa em psicoterapia.

**RESUMEN:** Los servicios de salud mental latinoamericanos están moviéndose del modelo de hospital psiquiátrico a un modelo basado en la atención comunitaria. La efectividad de estos nuevos servicios necesita ser evaluada por medio del uso de la monitorización rutinaria de los resultados. La presente comunicación introduce el *Clinical Outcomes in Routine Evaluation – Outcome Measure* (CORE-OM), un instrumento gratuito, apoyado por rigurosas exploraciones psicométricas, el cual ha sido traducido al español y al portugués brasileño, y que puede ser usado con el propósito de monitorización de resultados en la región.

**Palabras-clave:** CORE-OM; América Latina; Monitorización rutinaria de resultados; Investigación en psicoterapia.

1.Universidad de Las Américas - Escuela de Psicología – Quito, Ecuador.

2.The University of Sheffield - Department of Psychology – Sheffield, United Kingdom.

\*Correspondence author: clara.paz@udla.edu.ec

Received: 18 Sept 2019 – Accepted: 22 Nov 2019

Section editor: Marcia Almeida Batista



In the last decades, Latin America countries have started to restructure their mental health systems. The principles used for the development of new policies in these countries are presented in the Caracas Declaration (Panamerican Health Organization & World Health Organization, 1990) which supports the movement from the psychiatric hospital model to a community-based model. The adoption of these principles has allowed the integration of mental health in primary care and also the development of community psychology in the region (Rodríguez, 2010). Lack of funding, low capacity for coordination among services, resistance from professionals and lack of human resources have all limited a full restructuring of the mental health systems in the region. However, development of research may support, with data, the value of the planned reforms (Caldas de Almeida, 2013). In Latin America the necessary evidence is not more randomized controlled trials in the classical paradigm of evidence-based practice, good for pharmacological interventions but illogical for psychosocial interventions; efforts should focus on routine outcome monitoring (ROM) and practice-based evidence.

ROM comprises the collection and use of outcome data generated in routine mental health services (Roe, Drake & Slade, 2015). In general, the implementation of ROM supposes the adoption of a whole system, adapted to the needs of each service or the purpose for which it is used. ROM can be used at different levels, starting from a therapist, a network of colleagues, a service, a hospital, and even at national levels (Wampold, 2015). The fundamental element of ROM is the use of an outcome measure that all clients are invited to complete on a sensibly spaced regular basis. The selection of the measure depends of the goals for which it is implemented and the aims of the service. Global outcome measures are preferred symptom specific measures, because they allow evaluation of a wide variety of symptoms and they are applicable for almost all type of clients. Rather than focusing on specific diagnoses or problem areas, global outcome measures evaluate broader constructs like psychological distress, general mental health or interpersonal problems (Tarescavage & Ben-Porath, 2014). One of the most affordable global outcome measures is the Clinical Outcomes in Routine Evaluation-Outcome Measure (CORE-OM).

## CORE-OM

The CORE-OM and its derivatives are a family of “copyleft” measures, which means that they can be used without any charge, but they cannot be modified or used to make profit out of it (Evans et al., 2002). All the CORE measures can be freely downloaded from the website <https://www.coresystemtrust.org.uk/>.

The CORE-OM is designed to capture psychological distress and its change in adults when they attend to a psychological intervention (Evans et al., 2000). As a “core” measure, it can be used alone or in combination with other specific measures. The creators designed it to be pantheoretical (not based in a specific theory) and pandiagnostic (not centered in specific symptoms). Then, a wide number of therapists can use it independent of psychotherapeutic approach or the symptoms presented by the client. The CORE-OM is the result of a careful research that included qualitative and quantitative data provided by clinicians and service users about what needed to be measured regarding psychological well-being and change in psychotherapy (Evans et al., 2000).

The CORE-OM includes 34 items which evaluate four domains:

- Well-being (4 items);
- Problems/symptoms (12 items);



- Functioning (12 items);
- Risk (6 items, four of them reflect self-harm risk and two harm-to-others risk).

All the items are scored in a five-point Likert scale scored from zero to four (0 = not at all, 1 = only occasionally, 2 = sometimes, 3 = often, 4 = most or all the time). Scores are the means across items, and they can be calculated for each dimension, for the overall measure, and for all the non-risk items. For all domains, including well-being, high scores indicate high levels of psychological distress (Evans et al., 2002). The frequency to invite clients to complete the measure should be adjusted to the clinical and service needs, but the authors recommend using it at least at the beginning and the end of any intervention, and, whenever possible, at any follow-up (Evans et al., 2002). For the use of repeated measurements during the psychological process on a session-by-session basis, shorter versions of the questionnaire can be used. There are two forms with 18 items (CORE-SFA and CORE-SFB) that can be alternately used in each session to avoid the effort of memorizing the items (Barkham et al., 2001). In addition, there is a smaller version, CORE-10, with only 10 items.

In the last three decades, the use of the CORE-OM and its derivatives has spread widely around the world. There are more than 20 approved translations of the CORE-OM which have complied with the guidelines and protocols of the CORE System Trust (2015) respecting the philosophy to provide translations that can be understandable and acceptable for a very heterogeneous population. The intention of the CORE creators is that all the translations of the measures has to be supported by rigorous psychometric exploration, as it has been done with the original English version used in United Kingdom. The psychometric exploration has been conducted for several translations (Kristjánssdóttir et al., 2015; Sales, Moleiro, Evans, & Alves, 2012; Trujillo et al., 2016) and, to this date, all of them show comparable psychometric properties with the original English version (Evans et al., 2002). For possible Latin American users there are one approved translation of the measure to Spanish (Trujillo et al., 2016) and one to Brazilian Portuguese (Santana et al., 2015).

## PSYCHOMETRIC PROPERTIES OF THE CORE-OM

The psychometric exploration of the original English version used in the United Kingdom with clinical and non-clinical samples shows that CORE-OM is a reliable and valid instrument (Evans et al., 2002). Internal consistency was good with Cronbach's alpha ranging from 0.75 to 0.94 for all domain scores (Risk domain presented the lowest score) and test-retest reliability as high as 0.91 (Spearman's  $r$  for one-week test-retest in a non-clinical student sample). In English-speaking British samples, the CORE-OM presented strong correlation with the Beck's Depression Inventory-II ( $\alpha = 0.85$ ) and the Symptom Checklist 90-Revised ( $\alpha = 0.88$ ) demonstrating good convergent validity. Critically, the instrument discriminated between the clinical ( $M = 0.76$ ,  $SD = 0.59$ ) and non-clinical ( $M = 1.86$ ,  $SD = 0.75$ ) populations, and the difference was statistically significant with large effect sizes. The measure was also sensitive to change when used in three settings offering psychological intervention: student counselling, counselling in primary care, and services of psychotherapy and counselling of the National Health Service, with highly significant improvements in scores from first to last session of treatment in all the three settings. The cut-off scores to differentiate from clinical to non-clinical populations were 1.19 for males and 1.29 for females.

The psychometric properties of the Spanish version has been tested in Spain (Trujillo et al., 2016) and they are comparable with the original version (Evans et al., 2002). The internal consistency was acceptable (Cronbach's range = 0.73-0.94), adequate test-retest reliability ( $r = 0.76$ -0.87) except for the Risk domain ( $r = 0.45$ ), and good convergent validity in clinical samples with the Beck's Depression Inventory-II ( $r = 0.83$ ) and the Symptom Checklist 90-Revised ( $r = 0.79$ ). The difference between



clinical ( $M = 1.62$ ,  $SD = 0.71$ ) and non-clinical ( $M = 0.77$ ,  $SD = 0.48$ ) populations were statistically significant. The cut-off scores to differentiate between the samples were 1.06 for males and 1.13 for females.

The publication of the psychometric properties of the Brazilian version is in progress, as well as some psychometric studies of the Spanish version of the CORE-OM in several countries of Latin America including Ecuador, Chile, Colombia, Peru, and Uruguay. Researchers from these countries are creating a collaborative research and practice network of outcome research in psychotherapy using the CORE-OM. Clinicians and researchers from Latin America interested to be part of the network can contact the author for further information.

## AUTHORS' CONTRIBUTION

Writing — Original draft, Paz C; Writing-review-editing, Paz C and Evans C.

## REFERENCES

- Barkham, M., Margison, F., Leach, C., Lucock, M., Mellor-Clark, J., Evans, C., ... McGrath, G. (2001). Service profiling and outcomes benchmarking using the CORE-OM: Toward practice-based evidence in the psychological therapies. *Journal of Consulting and Clinical Psychology*, 69 (2), 184-196. <https://doi.org/10.1037//0022-006X.69.2.184>
- Caldas de Almeida, J. M. (2013). Mental health services development in Latin America and the Caribbean: Achievements, barriers and facilitating factors. *International Health*, 5 (1), 15-18. <https://doi.org/10.1093/inthealth/ihs013>
- CORE System Trust (2015). CORE System Trust (CST). Retrieved from: <https://www.coresystemtrust.org.uk/>
- Evans, C., Connell, J., Barkham, M., Margison, F., McGrath, G., Mellor-Clark, J., & Audin, K. (2002). Towards a standardised brief outcome measure: Psychometric properties and utility of the CORE-OM. *British Journal of Psychiatry*, 180 (1), 51-60. <https://doi.org/10.1192/bjp.180.1.51>
- Evans, C., Mellor-Clark, J., Margison, F., Barkham, M., Audin, K., Connell, J., & McGrath, G. (2000). CORE: Clinical Outcomes in Routine Evaluation. *Journal of Mental Health*, 9 (3), 247-255. <https://doi.org/10.1080/jmh.9.3.247.255>
- Kristjánsdóttir, H., Sigurðsson, B. H., Salkovskis, P., Ólason, D., Sigurdsson, E., Evans, C., ... Sigurðsson, J. F. (2015). Evaluation of the Psychometric Properties of the Icelandic Version of the Clinical Outcomes in Routine Evaluation-Outcome Measure, its Transdiagnostic Utility and Cross-Cultural Validation. *Clinical Psychology & Psychotherapy*, 22 (1), 64-74. <https://doi.org/10.1002/cpp.1874>
- Panamerican Health Organization, & World Health Organization. (1990). *The Caracas Declaration. Conference on Restructuring Psychiatric Care in Latin America within the Local Health Systems*. Retrieved from <https://www.globalhealthrights.org/wp-content/uploads/2013/10/Caracas-Declaration.pdf>
- Rodríguez, J. J. (2010). Mental health care systems in Latin America and the Caribbean. *International Review of Psychiatry*, 22 (4), 317-324. <https://doi.org/10.3109/09540261.2010.500863>
- Roe, D., Drake, R. E., & Slade, M. (2015). Routine outcome monitoring: An international endeavour. *International Review of Psychiatry*, 27 (4), 257-260. <https://doi.org/10.3109/09540261.2015.1070552>

Sales, C. M. D., Moleiro, C. M. M., Evans, C., & Alves, P. C. G. (2012). Versão Portuguesa do CORE-OM: tradução, adaptação e estudo preliminar das suas propriedades psicométricas. *Revista de Psiquiatria Clínica*, 39 (2), 54-59. <https://doi.org/10.1590/S0101-60832012000200003>

Santana, M. R. M., Silva, M. M., Moraes, D. S., Fukuda, C. C., Freitas, L. H., Ramos, M. E. C., ... Evans, C. (2015). Brazilian Portuguese version of the CORE-OM: cross-cultural adaptation of an instrument to assess the efficacy and effectiveness of psychotherapy. *Trends in Psychiatry and Psychotherapy*, 37 (4), 227-231. <https://doi.org/10.1590/2237-6089-2015-0002>

Tarescavage, A. M., & Ben-Porath, Y. S. (2014). Psychotherapeutic outcomes measures: A critical review for practitioners. *Journal of Clinical Psychology*, 70 (9), 808-830. <https://doi.org/10.1002/jclp.22080>

Trujillo, A., Feixas, G., Bados, A., Garcia-Grau, E., Salla, M., Medina, J. C., ... Evans, C. (2016). Psychometric properties of the Spanish version of the clinical Outcomes in routine evaluation–Outcome Measure. *Neuropsychiatric Disease and Treatment*, 12, 1457-1466. <https://doi.org/10.2147/NDT.S103079>

Wampold, B. E. (2015). Routine outcome monitoring: Coming of age-with the usual developmental challenges. *Psychotherapy*, 52 (4), 458-462. <https://doi.org/10.1037/pst0000037>