

## COMMENTARY

# A commentary on “The Communication-Relationship Outcome Matrix (CROM): A tool for measuring communication outcomes in everyday music therapy practice” written by Jenny Kirkwood

**Gustavo Schulz Gattino**

Aalborg University, Denmark

### AUTHOR BIOGRAPHY

**Gustavo Schulz Gattino**, PhD, is music therapist and Associate Professor in the Department of Communication and Psychology at the Aalborg University (Denmark). He is a teacher of the Bachelor, Master and PhD music therapy programs at the same university. He is accredited as a music therapist by the Portuguese Association of Music Therapy (APMT) and the country representative of Denmark in the European Music Therapy Confederation (EMTC). Dr Gattino is the editor of the Portuguese Journal of Music Therapy (RPM). He is a member of the International Music Therapy Evaluation Consortium (IMTAC) and of the Publications Commission of the World Federation of Music Therapy (WFMT). [[gattino@hum.aau.dk](mailto:gattino@hum.aau.dk)]

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This is a commentary on the article “The Communication-Relationship Outcomes Matrix (CROM): A tool for measuring communication outcomes in everyday music therapy practice.” The present publication, written by music therapist Jenny Kirkwood, presents a communication assessment tool developed within a service assessment protocol proposed by the author in 2015 to complement a master's degree in music therapy. In recent years, there has been a significant expansion of the field of assessment in music therapy, and different assessment tools or outcome measures have been created explicitly for the diverse needs of music therapists and their clients (Gattino, 2021; Lipe, 2015; Spiro et al., 2018; Waldon, 2016; Wheeler, 2013). This expansion is critical in order to specifically target assessment practices that benefit each music therapist and the quality of services offered to their patients. This is the focus of CROM: to ensure that music therapy services focusing on communication goals and outcomes reach the highest possible standards ..

This tool was developed for use when working with children with disabilities who have "severe communication difficulties" and "challenging behaviours" (criteria defined by the funder). This tool assesses eight dimensions of communication: 1) Sense of self/Self-identity, 2) Attention and engagement, 3) Look and facial expression, 4) Emotional expression, 5) Physical, 6) Use of voice, 7) Instrumental play, and 8) Interaction. Although there are other assessment tools in music therapy used within the context of disabilities (Baxter et al., 2007; Grant, 1995; Guerrero et al., 2014; Shoemark, 1993), this is one of the first tools that presents a detailed assessment of the different communication areas/domains from items (detailing the content of each domain) that can be easily understood by the assessor. When music therapists create an assessment proposal, they must think about the structure of items, the way to apply the test, and the conceptual definition and detailing of each of the

dimensions evaluated by this test (Gattino, 2021). One of the particularities of this instrument (CROM) is precisely the detailed descriptions of each of the communication domains. In other words, this article presents an excellent example of how to build an assessment instrument from conceptualization to creating the final version that will be used with patients.

CROM presents eight dimensions, and each of them is carefully evaluated according to eight different gradients (levels of assessment within the tool) that describe eight stages of development according to the quality of the relationship: Stage 1: Lack of contact / Refusal of contact / Pause, Stage 2: Contact - Reaction, Stage 3: Functional - Sensory – Contact, Stage 4: Contact with self / Sense of a subjective self, Stage 5: Contact with other people / Intersubjectivity, Stage 6: Relationship with others / Interactivity, Stage 7: Joint experience / Inter-affectivity, and Stage 8: Verbal - Musical space. These stages were directly influenced by the stages of relationship quality described by Karin Schumacher and Claudie Calvet-Kruppa in the Assessment of Quality of the Relationship (AQR) instrument (1999) and later updated by the same authors and Silke Reimer (Schumacher et al., 2019). The idea of establishing levels from different stages of development provides the assessor with a clear understanding that the higher the level, the greater the complexity of the patients' communicative responses. Furthermore, this developmentally centred perspective also informs that within typical development, there are different ways to demonstrate communication skills according to the various ages of a child (CDC, 2020). Using the same developmental levels for each of the eight CROM dimensions allows for a more objective understanding, allowing the music therapist to define what stage the patient is at in the music therapy process. In other words, even if the music therapist is assessing a different domain or area, their judgment and/or interpretation will always be related to specific developmental criteria. Even though the instrument is informed by the AQR (Schumacher & Calvet-Kruppa, 1999; Schumacher et al., 2019), I believe that the CROM proposal presents a more in-depth assessment mainly because it contains more domains (the CROM presents eight areas and the AQR four) and more developmental levels than the AQR (the CROM provides eight levels and the AQR six).

For each dimension evaluated in the CROM, the music therapist must distribute 10 points among the eight stages describing the quality of the relationship. This way of scoring was inspired by the method of scoring developed by Nordoff and Robbins (2007) in the book *Creative Music Therapy: A Guide to Fostering Clinical Musicianship*. Within the CROM assessment tool, there is a general overview about how the client scored throughout the session, not only in a specific moment. From the scores obtained, the music therapist calculates an average score for each of the eight dimensions assessed and gets a total communication score for a given session. From the scoring system developed by the author, it is possible to think of graphs that compare the variation of the different dimensions in the same session and graphs that show the evolution of each dimension throughout the week, or even in comparison with other clients over time. In this sense, the idea of distributing the scores within the different levels allows an essential detailing of the test scores. In some assessment instruments, the music therapist assigns a score to the patient, but the relationship of this score to the other gradients in the same item or domain is not clear. In the CROM, the visualisation of the distribution of the different scores is clear to the music therapist, which allows for a better follow-up of the client's progress over time and comparison with other cases. Therefore, it is clear that it is not only important to make an accurate judgment about the patient's level, but also to understand what

their score means with regards to the other existing levels within the same domain or dimension that is being evaluated.

Something extremely relevant that the author pointed out is that the CROM tool can be laid out in a single spreadsheet or printed sheet. It can therefore be practically incorporated into existing clinical record-keeping, whether electronic or paper. Likewise, the author points out that the tool is easy and quick to apply. Music therapy is going through a time of transformation in the way we think about the systematisation of the application and recording of information in the context of assessment in music therapy (Gattino, 2021; Thane, n.d.; Waldon, 2016). More and more music therapists are seeking assessment practices that are more efficient and less time-consuming. Therefore, it is essential for music therapists to think of ways to facilitate, optimise and improve how they evaluate their patients.

Regarding the proposals and purposes for applying the CROM, the author clarifies that therapists should fill in a score for the relevant subcategories during the assessment process to define baseline measurements and then at critical points throughout the therapy process when a scored outcome measurement is needed. This can occur at the end of therapy, at regular intervals, at crucial moments in the therapy process, or even weekly, if appropriate. In this way, it is clear that the CROM can be used as a prescriptive proposal (focused on assessing the patient until the treatment plan is defined), as well as formative (focused on the assessment processes within the patient's treatment context) and also summative (focused on summarising the assessment practices performed throughout the music therapy process until the end of the process) (Waldon & Gattino, 2018).

One of the relevant topics described in the publication refers to possible criticisms of the assessment tool. These criticisms are described by the author and are directed at the following peculiarities of the assessment tool, as well as at the process of developing and presenting the tool: lack of musical elements (inclusion of musical themes or aspects in the items of the tool), difficulties for scoring the highest scores of the tool (scores/stages from six to eight), difficulties to understand subjective elements of the tool, difficulties in understanding the general purpose of the tool, and lack of data on validity and reliability (including the lack of information on video analysis) when using the tool. While I acknowledge the author's criticism of her developed assessment tool, I believe that these critiques can be considered more as peculiarities than possible weaknesses. I will comment on each of these points in the following paragraphs.

The fact that the assessment tool is not focused on musical elements is not a problem but rather a unique feature. According to Carpente and Aigen (2019), an assessment tool can be focused on musical elements, especially to highlight that the musical dynamics and processes that exist in the assessment context occur solely in the presence of musical experiences. At the same time, an assessment tool may be focused on using music as a tool or resource to facilitate the emergence of interaction or behaviour. I believe that the CROM fits the second description since I understand this tool is one that uses music to facilitate assessment and the emergence of communication dynamics/behaviours.

Regarding the difficulty of scoring the highest scores of the test (six to eight), I believe that this is not a limitation of the assessment tool but a peculiarity regarding the tool's sensitivity. In other words, the tool is more sensitive in order to detect lower scores. This also interferes with the tool's specificity, as it seems more suitable for patients with lower or average skill levels (Gattino, 2021).

It would be interesting in the future to see a version of this tool developed for patients with higher communication skills.

Regarding the bias topics described as "subjectivity" and "will others understand this?," I argue that every assessment instrument has subjective aspects (no matter how objective it is). I also understand that other peoples' understanding of an assessment instrument is always relative. There is no way to permanently solve the subjective aspects of the multiple interpretations of assigning and understanding scores. To at least mitigate this dilemma, the music therapist can try to define as best as possible the assessment tool's construct, domains and dimensions, and the contents reflected from the items of the tool. In this sense, the CROM does what it can to mitigate these difficulties related to subjectivity. This understanding will be even more significant with the use of the CROM within each music therapist's practice.

The author says that one of the biases of her publication was that she did not present the validity and reliability evidence from the video analysis of the CROM applications. I believe that this is not a bias but rather a characteristic of the article presented. Many music therapy articles only describe the assessment tool and then present evidence of validity and reliability. In this sense, this article allows the reader to understand what the assessment tool consists of first, and evidence of validity and reliability second. Thus, the option that the author provides seems to be more attractive in didactic terms.

In summary, the CROM is a very interesting, detailed, and innovative tool developed to assess patients with disabilities using well-structured dimensions and scores for different levels of development. I hope that it will be possible to discover different validity and reliability evidence about this assessment tool in the future, as well as have translations of this tool available in other languages.

## REFERENCES

- Baxter, H., Berghofer, J., MacEwan, L., Nelson, J., Peters, K. & Roberts, P. (2007). *The individualized music therapy assessment profile: IMTAP*. Jessica Kingsley Publishers.
- Carpente, J. A., & Aigen, K. (2019). A music-centered perspective on music therapy assessment. In G. E. McPherson, M. Silverman & D. J. Elliott (Eds.), *The Oxford handbook of philosophical and qualitative assessment in music education* (pp. 243-256). Oxford University Press.
- Centers for Disease Control and Prevention (CDC) (2020). Developmental Monitoring and Screening. <https://www.cdc.gov/ncbddd/childdevelopment/screening.html>
- Gattino, G. S. (2021). *Essentials of music therapy assessment*. Forma e Conteúdo Comunicação Integrada.
- Grant, R.E. (1995). Music therapy assessment for developmentally disabled clients. In T. Wigram, B. Saperston & R. West (Eds.), *The art and science of music therapy: A handbook* (pp. 273-287). Routledge.
- Guerrero, N., Turry, A., Geller, D., & Raghavan, P. (2014). From historic to contemporary: Nordoff-Robbins music therapy in collaborative interdisciplinary rehabilitation. *Music Therapy Perspectives*, 32(1), 38-46. <https://doi.org/10.1093/mtp/miu014>
- Lipe, A. W. (2015). Music therapy assessment. In B. Wheeler (Ed.), *Music therapy handbook* (pp. 76-90). Guilford Publications.
- Nordoff, P., & Robbins, C. (2007). *Creative music therapy: A guide to fostering clinical musicianship*. Barcelona Publishers.
- Shoemark, H. (1993). *Music therapy assessment of communication and self-expression preferences and capabilities in children with severe to profound disabilities* [Paper presentation]. International Symposium, Temple University, Philadelphia, P.A., United States of America.
- Schumacher, K., & Calvet-Kruppa, C. (1999). The "AQR"—an analysis system to evaluate the quality of relationship during music therapy: Evaluation of interpersonal relationships through the use of instruments in music therapy with profoundly developmentally delayed patients. *Nordic Journal of Music Therapy*, 8(2), 188-191. <https://doi.org/10.1080/08098139909477974>
- Schumacher, K., Calvet, C., & Reimer, S. (2019). The AQR tool: Assessment of the quality of relationship. In S. L. Jacobsen, E. G. Waldon & G. Gattino (Eds.), *Music therapy assessment: Theory, research, and application* (pp. 197-214). Jessica Kingsley Publishers.
- Spiro, N., Tsirig, G., & Cripps, C. (2018). A systematic review of outcome measures in music therapy. *Music Therapy Perspectives*, 36(1), 67-78. <https://doi.org/10.1093/mtp/mix011>
- Thane, E. (n.d). *Meet in the music (MITM): Connect to a child with autism through music*. <https://www.mundopato.com/mitm>
- Waldon, E. G. (2016). Clinical documentation in music therapy: Standards, guidelines, and laws. *Music Therapy Perspectives*, 34(1), 57-63. <https://doi.org/10.1093/mtp/miv040>

- Waldon, E., & Gattino, G. (2018). Assessment in music therapy: Introductory considerations. In S. L. Jacobsen, E. G. Waldon & G. Gattino (Eds.), *Music therapy assessment: Theory, research, and application* (pp. 19-41). Jessica Kingsley Publishers.
- Wheeler, B. (2013). Music therapy assessment. In R. F. Cruz & B. Feder (Eds.), *Feders' the art and science of evaluation in the arts therapies: How do you know what's working* (2nd ed., pp. 344-382). Charles C. Thomas Publishers.