



Practice-Oriented Research: An Introduction to New Developments and Future Directions

Louis G. Castonguay¹ · Dana Atzil-Slonim² · Kim de Jong³ · Soo Jeong Youn^{4,5}

Accepted: 8 March 2024

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2024

Abstract

Aimed at understanding and improving psychological therapies as they are conducted in clinical routine, practice-oriented research (POR) is now a well-established approach to the scientific foundations of mental health care services. Resting on the accumulation of a wide range of practice-based evidence related to treatment outcome and process, as well as factors associated with the participants of psychotherapy and its context, POR is ripe for new developments – regarding what to investigate and how to investigate it. This paper is the introduction of a series devoted to recent advances and future directions of POR as they pertained to routine outcome monitoring, technologies and artificial intelligence, the integration of constructs and methods from program evaluation and implementation science, and the investigation of populations with limited financial resources across various regions of the world. The series also includes commentaries from two leaders of POR.

Keywords Practice oriented research · Implementation science · Practice based evidence · Program evaluation · Routine outcome monitoring · Artificial intelligence · Underserved populations

In the field of psychological therapies, practice-oriented research (POR) is aimed at understanding and improving mental health care as it is provided in day-to-day practice. Whereas traditional research has been primarily conducted in controlled settings and mainly driven by researchers' interests, POR takes place in naturalistic settings, investigates clinical routine without imposing drastic change upon it, and attends closely to clinicians' interests – with some POR studies conducted by clinicians or in collaboration between clinicians, researchers, and other stakeholders of mental health care (Castonguay et al., 2021). As Barkham and Margison (2007) argued, these two types of research provide complementary (and at times convergent) evidence

and should be viewed as necessary and equipose sources of knowledge for the scientific foundations of psychosocial interventions.

POR has made substantial progress over the last decades. As documented by theoretical reviews (e.g., Castonguay et al., 2013; Castonguay et al., 2021), POR researchers have investigated variables related to many facets of the impact, process, participants, and context of psychological therapies. This broad and large amount of practice-based evidence have emerged from various clinical settings (e.g., private practice, training clinics, hospitals) across many countries. In addition, several papers (e.g., Castonguay & Muran, 2015; DeFife et al., 2015; Drill et al., 2019) have provided strategies and guidelines about how to conduct POR based on lessons from past experiences, while others have identified directions of research that would be particularly meaningful to providers and other mental health stakeholders (Tasca et al., 2015; Youn, et al., 2019). It seems fair to say that POR is not only firmly established, but also showing a readiness to grow. The time is ripe for new developments in POR, both in what to study and how to study it. The present paper serves as the introduction of a series aimed at fostering such developments. The series originally emerged from two structured discussions on POR that took place at the 2021 meeting of the Society for Psychotherapy Research, each of

✉ Louis G. Castonguay
Lgc3psu@gmail.com

¹ Department of Psychology, Penn State University, University Park, PA 16802, USA

² Department of Psychology, Bar-Ilan University, Ramat-Gan, Israel

³ Institute of Psychology, Clinical Psychology Unit, Leiden University, Leiden, The Netherlands

⁴ Reliant Medical Group, OptumCare, Worcester, MA, USA

⁵ Harvard Medical School, Boston, MA, USA

them co-chaired by two of the four editors. After years of collaboration between the four of us, as well as networking with many colleagues, it has evolved into a broader project. As it stands, the series is based on the work and recommendations of more than 40 researchers from different regions of the world.

The first paper, by McAleavey et al. (2024), focuses on current and future advances of one primary avenue of POR, i.e., routine outcome monitoring (ROM) and clinical feedback systems. Based on a concise review of the research literature, the authors argued that this technology has shown to have a positive impact on client's improvement, but that the findings supporting its effectiveness have been quite heterogeneous. The authors then describe recent trends in ROM and feedback research that may elucidate parts of such heterogeneity, as well as offer promising avenues to improve the benefits of this evidence-based practice. These trends include efforts to provide feedback that is more person-specific, optimize the match between therapist expertise and clients' problems, examine the impact of ROM and feedback on the process of therapy, as well as to investigate issues related to training and the mechanisms underlying the effects of ROM and feedback. Moreover, the authors offer recommendations for future research including going beyond the assessment of outcome, better understanding the impact of contexts and client's characteristics, as well as capitalizing on ROM and feedback to enhance health equity, contribute to data-informed psychological interventions, and foster autonomy and interpersonal relationships.

The second paper expands on the development of data-informed therapy raised by McAleavey et al. (2024) by focusing on advances in both technologies and artificial intelligence to improve and extend the delivery and impact of mental health care services in real world settings. After briefly describing these technological and statistical innovations, Atzil-Slonim et al. (2023) argue that their optimal implementation in clinical routine needs to be based on principles underlying POR, including the communication and collaboration of diverse stakeholders – thereby illustrating how scientific and professional domains can synergistically benefit from each other. A large number of studies are then described to illustrate how technical/statistical advances might help, now and in the future, attenuate clinical and empirical challenges as they pertain to issues before (e.g., prevention, accessibility, assessment, treatment selection) and during therapy (e.g., prediction of helpful interventions, increase understanding of the process of change). In addition to delineating clinical and training implications, the authors address the importance of aligning the implementation of technological/statistical advances with clients' needs and ethical concerns.

The following three papers rely on empirical traditions that are complimentary with but independent of POR to

foster its development. To begin with, Douglas et al. (2023) demonstrate the benefits that can be additive to POR by integrating concepts, models and practices derived from program evaluation (PE). The authors first define PE, its points of convergence and difference with POR, and how a particular model of PE (embedded evaluation) is consistent with core hallmarks of POR. After a concise description of core features of embedded evaluation (including the establishment of a partnership between program evaluators and practice stakeholders to foster bi-directional learning), the authors present a human-centered system approach to foster such embedded evaluation in clinical routine. They then illustrate this approach by describing clinical and research developments in routine outcome monitoring (which, as mentioned above, is an influential component of POR) that have been pursued in Australia and Norway. They also describe how this approach can facilitate future collaborations between diverse stakeholders of mental health care – and thus the growth of POR.

The next paper, by Youn, Boswell, and colleagues (Youn et al., 2023b) focuses on implementation science (IS), a scientific tradition that shares with POR the overarching goal of reducing the gap between research and practice. Adopting a structure similar to the previous paper, the authors define IS, its scope, components and reach. They then present broad and specific commonalities, divergences, and areas of complementarity between IS and POR – including the mutual emphasis on the engagement of and collaboration between stakeholders, which also characterizes PE. The paper presents conceptual and methodological contributions from IS that could help POR researchers to design and implement empirically valid as well as clinically relevant and sustainable studies. In addition, it describes a large-scale study on matching of therapist's expertise and client's difficulties (a research theme addressed in the first paper of this series by McAleavey et al., 2024) that combines both research traditions to address crucial questions about the effectiveness of such matching and its implementation in clinical routine. Tackling the delivery of service at an organizational level, the authors then rely on commonalities between IS and POR to propose a series of steps to create a culture of learning within healthcare systems.

By describing a large initiative to enhance POR by leveraging IS, the following paper complements the broad perspective offered by the previous one (Youn et al., 2023b). Specifically, Youn, Jaso and colleagues (Youn et al., 2023a) present a model of behavioral health care that has been developed and implemented within a practice-research network (PRN) to address the “treatment gap” (Kazdin, 2021) – the discrepancy between the need of effective mental health services and the availability of such services. As a key feature of POR, PRN is first and foremost defined by the active collaboration of numerous

stakeholders (Castonguay et al., 2021), which in this case involves clinicians, researchers, administrators, and information technology experts. Based on digital technology, the model is aimed at improving access to various evidence-based mental healthcare interventions at scale. In addition to describing the model and its implementation in clinical routine (including the use of a ROM system, and the personalized matching of clients with a particular digital intervention), the authors present an IS framework that has been used to facilitate its implementation, the evaluation of this initiative, as well as various and rapid changes made to the model in order to better address clinical needs that have surfaced as a result to the rigorous assessment of the model.

The treatment gap mentioned above is frequently associated with a paucity of research. Several populations who are underserved in terms of effective psychological treatments have also received insufficient attention from clinical researchers, adding to a double setback for the mental health care of many communities worldwide. Individuals with limited financial resources represent one of these general populations. The goal of the sixth paper (Fernández-Álvarez et al., 2023) of this series is to foster POR that focus particularly on these individuals. Rather than advancing POR by integrating contributions of “outside” traditions (such as PE and IS), this paper illustrates how it can grow within its own horizons of knowledge and action. Based on a range of POR experience across several countries (Argentina, Chile, Ecuador, Kenya, Spain, UK, and USA), the paper describes obstacles that have been encountered, ways that have been used to address them, and general recommendations for the future. Recognizing the influence of social and national contexts, the authors elaborate on these issues while highlighting factors that are specific to research conduct with (1) economically disadvantaged individuals living in low to middle economy countries, (2) economically disadvantaged individuals living in more wealthy countries, and (3) individuals who are not economically disadvantaged but who live in low to middle economy countries.

Following these six papers, the series ends with commentaries from two influential POR scholars: Ann Garland and Giorgio Tasca. Our hope is that combined together these papers and commentaries will open new pathways of research and action that could help improve mental health care in different parts of the world.

Funding The authors report no funding to disclose.

Declarations

Conflicts of Interest The authors report no conflicts of interest to disclose.

References

- Atzil-Slonim, D., Gomez Penedo, M., & Lutz, W. (2023). Leveraging novel technologies and artificial intelligence to advance practice-oriented research. *Administration and Policy in Mental Health and Mental Health Services Research*. <https://doi.org/10.1007/s10488-023-01309-3>
- Barkham, M., & Margison, F. (2007). Practice-based evidence as a complement to evidence-based practice: From dichotomy to chiasmus. In C. Freeman & M. Power (Eds.), *Handbook of evidence-based psychotherapies: A guide for research and practice* (pp. 443–476). Wiley.
- Castonguay, L. G., & Muran, C. (2015). Fostering collaboration between researchers and clinicians through building practice-oriented research: An introduction. *Psychotherapy Research*, 25(1), 1–5. <https://doi.org/10.1080/10503307.2014.966348>
- Castonguay, L. G., Barkham, M., Youn, S., & Page, A. C. (2021). Practice-based evidence—Findings from routine clinical settings. In M. Barkham, W. Lutz, & L. G. Castonguay (Eds.), *Bergin and Garfield’s handbook of psychotherapy and behavior change (50th Anniversary ed., pp. 191–222)*. John Wiley & Sons.
- Castonguay, L. G., Barkham, M., Lutz, W., & McAleavey, A. (2013). Practice-oriented research. In M. J. Lambert’s (Ed.), *Bergin and Garfield’s Handbook of psychotherapy and behavior change (6th ed., pp. 85–133)*. John Wiley & Sons.
- DeFife, J., Drill, R., Beinashowitz, J., Ballantyne, L., Plant, D., Smith-Hansen, L., Teran, V., Werner-Larsen, L., Westerling, T., III., Yang, Y., Davila, M., & Nakash, O. (2015). Practice-based psychotherapy research in a public health setting: Obstacles and opportunities. *Journal of Psychotherapy Integration*, 25(4), 299–312. <https://doi.org/10.1037/a0039564>
- Douglas, S., Page, A., Moltu, C., Kyron, M., & Satterthwaite, T. (2023). The connections matter: Bi-directional learning in program evaluation and practice-oriented research. *Administration and Policy in Mental Health and Mental Health Services Research*. <https://doi.org/10.1007/s10488-023-01304-8>
- Drill, R., Drinkwater, R., Ernst, J., Gill, A., Hunnicutt, P., McIntyre, S., Potter, C. M., Richardson, H., & Beinashowitz, J. (2019). The vicissitudes of conducting psychodynamic research in a naturalistic setting. *Psychotherapy*, 56(1), 126–133. <https://doi.org/10.1037/pst0000181>
- Fernández-Álvarez, J., Molinari, G., Kilcullen, J.R., Delgado, J., Drill, R., Errázuriz, P., Falkenström, F., Firth, N., O’Shea, A., Youn, S., & Castonguay, L. G. (2023). The importance of conducting practice-oriented research with underserved populations. *Administration and Policy in Mental Health and Mental Health Services Research*. <https://doi.org/10.1007/s10488-023-01337-z>
- Kazdin, A. E. (2021). Extending the scalability and reach of psychosocial interventions. In M. Barkham, W. Lutz, & L. G. Castonguay (Eds.), *Bergin and Garfield’s handbook of psychotherapy and behavior change (50th Anniversary ed., pp. 763–789)*. John Wiley & Sons.
- McAleavey, A. A., de Jong, K., Nissen-Lie, H., Boswell, J. F., Moltu, C., & Lutz, W. (2024). Routine outcome monitoring and clinical feedback in psychotherapy: Recent advances and future directions. *Administration and Policy in Mental Health and Mental Health Services Research*. <https://link.springer.com/article/10.1007/s10488-024-01351-9>
- Tasca, G. A., Sylvestre, J., Balfour, L., Chyurlia, L., Evans, J., Fortin-Langelier, B., Francis, K., Gandhi, J., Huehn, L., Hunsley, J., Joyce, A. S., Kinley, J., Koszycki, D., Leszcz, M., Lybanon-Daigle, V., Mercer, D., Ogrodniczuk, J. S., Presniak, M., Ravitz, P., ... Wilson, B. (2015). What clinicians want: Findings from a psychotherapy practice research network survey. *Psychotherapy*, 52(1), 1–11. <https://doi.org/10.1037/a0038252>

- Youn, S., Xiao, H., McAleavey, A. A., Scofield, B. E., Pedersen, T. R., Castonguay, L. G., Hayes, J. A., & Locke, B. D. (2019). Assessing and investigating clinicians' research interests: Lessons on expanding practices and data collection in a large practice research network. *Psychotherapy*, *56*(1), 67–82. <https://doi.org/10.1037/pst000019>
- Youn, S., Jaso, B., Eyllon, M., Sah, P., Hoyler, G., Barnes, J. B., Jarama, K., Murillo, L., O'Dea, H., Orth, L., Pennine, M., Rogers, E., Welch, G., & Nordberg, S. S. (2023a). Leveraging Implementation Science to Integrate Digital Mental Health Interventions as part of Routine Care in a Practice Research Network. *Administration and Policy in Mental Health and Mental Health Services Research*. <https://doi.org/10.1007/s10488-023-01292-9>
- Youn, S., Boswell, J. F., Douglas, S., Harris, B. A., Aajmain, S., Arnold, K. T., Creed, T. A., Gutner, C. A., Orengo-Aguayo, R., Oswald, J. M., & Wiltsey Stirman, S. (2023b). Implementation science and practice-oriented research: Convergence and complementarity. *Administration and Policy in Mental Health and Mental Health Services Research*. <https://doi.org/10.1007/s10488-023-01296-5>

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.