LETTER TO EDITOR

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The Contribution of the Reciprocal-Engagement Model as a Theoretical Framework of a Portuguese Scale for Quality Assessment of Genetic Counseling

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We read the seminal article "Coming full circle: a reciprocal-engagement model of genetic counseling practice" (McCarthy Veach et al. 2007) that resulted from the process of defining a model of genetic counseling and practice normalization, encompassing contributions from previous models. The Reciprocal-Engagement Model (REM) proposed by the authors served as the theoretical-practical foundations of the recently developed Portuguese scale for quality assessment of genetic counseling (Paneque et al. 2018).

To develop the new scale, we carried out a careful analysis of the REM, of its construction process, and of the principles on which it was based. The REM represents a valuable proposal for the interrelationship among theory, research, and practice in genetic counseling. The model is successful in defining the key areas of the genetic counseling process, delineating the provision of information as a fundamental part of that process; defining relationship as an integral part of counseling; and describing autonomy support and the value of counselees' resilience and emotions along the process (McCarthy Veach et al. 2007).

Given that we were designing a scale focused on the genetic counseling process as a whole and not only on its potential effect, we needed to find a model that could serve as framework and allow us to make conceptual and methodological choices. The Reciprocal-Engagement Model and its main components were undoubtedly an indispensable reference in the configuration of the basic structure of our scale and in the determination of the dimensions to be included. Several components of the REM influenced the construction of our scale, but the most important was the understanding of the mutual relationship between counselor and counselee—that is, as the center of the counseling process (McCarthy Veach et al. 2007).

However, the main value of the Reciprocal-Engagement Model is to constitute the first proper model of genetic counseling practice. Previous to its proposal, the profession was based on models of mental health and medicine (McCarthy Veach et al. 2002), such as the client-centered model of Rogers (Marks 2003), the Counseling model, and the Teaching model (Kessler 1997).

In Portugal, recent studies on counselees' and professionals' views highlighted the need for supporting instruments and quality indicators of genetic counseling (Guimarães et al. 2013; Paneque et al. 2015b). In response, a novel tool for quality assessment of genetic counseling using the REM model as a theoretical-practical foundation was developed. The definition of an initial pool of items and their organization were based on the literature review, the identification of the main genetic counseling dimensions, and the theoretical dimensions of the REM. After a pre-test validation, the scale was submitted to psychometric validation using a sample of genetic healthcare professionals who evaluated 81 counseling sessions carried out at main national services.

Psychometric validation of the scale was performed through the study of psychometric properties as sensibility, reliability, the analysis of principal components, and correlational analysis. The final product was a version with 50 items that comprises five dimensions and its respective sub dimensions: education (provision of genetic information, patient understanding, and establishment of mutual agenda), the

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counselees' characteristics as part of the process (their emotional experience and motivations, and decision-making support), relationship between the counselor and the counselee (therapeutic relationship, empathy, reflexive practice, and professionalism), potential effects of the process on the counselee (empowerment), and services provision (organization of services and preparation of counselee for the genetic counseling session). The methodological design, preliminary validation, results, and challenges faced along the development process of this first Portuguese instrument are reported in Paneque et al. (2018).

Besides being a pioneer tool in Portugal, the constructed scale is perhaps the first practical application of the Reciprocal-Engagement Model in the context of genetic services in Europe (Paneque et al. 2018). Thus, we would like to point out the remarkable reaction of interest from Portuguese professionals towards the REM. Throughout the process of psychometric validation of the scale, the main public genetic services of the country were contacted and several meetings were organized with multidisciplinary teams. During those contacts, and as part of the explanations provided regarding the procedures for participation in the psychometric validation, the pivotal article of McCarthy Veach et al. (2007) was presented (Paneque et al. 2018). The professionals involved in the validation process highlighted as very relevant for practice assessment the association of each genetic counseling principle with specific goals, strategies, and behaviors in the REM. Their interest in the REM may in part be explained by the insufficient training of genetic healthcare professionals regarding counseling skills, as previously reported (Mendes et al. 2013; Paneque et al. 2015a, b), but it may be also due to the absence of professional recognition of genetic counselors in our country, and the deficient integration of the few professionals already trained in the National Health system (Paneque et al. 2015a). The discussion of the article in which McCarthy Veach et al. presented the REM was a learning opportunity to several Portuguese genetics healthcare professionals.

We believe that the dissemination of the Reciprocal-Engagement Model and its use in educational programs and in research are highly recommended. As such, the model began to be applied in evidence-based research, evaluating its articulation with the Motivational Interview as a method for genetic counseling sessions (Ash 2017; Hartmann et al. 2015) as well serving as a framework for patient-centered outcomes identification (Redlinger-Grosse et al. 2016). Very recently, Schmidlen et al. (2018) proposed a framework of counseling components and strategies that operationalizes the Reciprocal-Engagement Model for the scalable delivery of genomic results. The authors incorporated the assessment of patient preferences before, during, and after genomic testing to increase efficiency of practice (Schmidlen et al. 2018). In contrast, a decade after its proposal, the Reciprocal-Engagement Model

lacks applications in European studies. Whereas genetic counseling principles and goals of practice are quite universal and it seems to be a correspondence of core components and roles between international certification agencies such as ABGC and EBMG (Fiddler et al. 1996; Ormond et al. 2018), a critical and careful integration of the REM in European countries like ours remains pending. Further investigation would contribute to a better understanding of the applicability of the model, of the appropriateness of the strategies and behaviors proposed by the model for other cultural contexts, considering the enormous diversity of services organization, the level of integration of genetic counselors at multidisciplinary teams, and the different routes and levels of genetics healthcare professionals' education.

Research on quality assessment of genetic counseling practice using the Portuguese new scale will in turn inform on the applicability of the Reciprocal-Engagement Model to our national context and others. We have already verified that genetic counselors from Norway, Spain, and France have an interest in cross-cultural adaptation and validation of the scale and this would also inform the international applicability of the REM. Therefore, we acknowledge here the contribution of the Reciprocal-Engagement Model, not only in the construction of this instrument, but also in the potentialities it has for professional practice monitoring, professional education, and genetic counseling research.

Compliance with Ethical Standards

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