The Factor Structure of Outcome Questionnaire–45.2 Scores Using Confirmatory Tetrad Analysis–Partial Least Squares

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Abstract
The researchers employed a confirmatory tetrad analysis (CTA) using partial least squares–structural equation modeling (PLS-SEM) with Outcome Questionnaire–45.2 (OQ-45) data, examining the measurement model of the OQ-45 scores with a sample of male adult clients (N = 1,558) receiving individual therapy at a university-based community counseling and research center (UBCCRC). Using CTA-PLS, this study examined the reflective and formative nature of each of the OQ-45 items and dimensions. These results identified the innovative second-order formative–formative three-factor model as a best alternative measurement model to represent and calculate the scores of OQ-45 scale.

Keywords
confirmatory tetrad analysis, Outcome Questionnaire–45.2, psychological assessment, structural equation modeling

Attempts to monitor mental health treatment efficacy and improve quality of service delivery led to researchers using self-reported outcome measures of psychological functioning (Kim, Beretvas, & Sherry, 2010). In response to the need to measure clients’ progress in therapy, Lambert and colleagues (1996) developed the Outcome Questionnaire–45.2 (OQ-45) to gauge psychological disturbances and treatment efficacy through clinically significant change. Specifically, the OQ-45 grew to become one of the most used therapeutic outcome measures in research and clinical practice because of the assessment’s ability to reflect clinical transformation during interventions, such as psychotherapy (Hatfield & Ogles, 2004; Kim et al., 2010). Furthermore, since the initial OQ-45 publication (Lambert, Lunnen, Umphress, Hansen, & Burlingame, 1994), therapists have used the OQ-45 in a wide range of clinical settings, ranging from inpatient care to outpatient counseling centers (Lambert, Hansen, & Finch, 2001). As such, therapists have used the OQ-45 as a feedback mechanism to track clients’ progress, treatment,