# Experimental design outweighs statistical tests: Caveats on "Conformity to Prototypical Therapeutic Principles and Its Relation with Change in Reflective-Functioning in Three Treatments for Borderline Personality Disorder" (Kivity, et al., 2019)

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May 5, 2020

#### Abstract

This Letter to the Editor presents two caveats pertaining essential features of the paper "Conformity to Prototypical Therapeutic Principles and Its Relation with Change in Reflective-Functioning in Three Treatments for Borderline Personality Disorder". One of it is considering mentalizing ability as a mediator of change in Transference-Focused Psychotherapy; the other regarding the use of statistical tests to determine temporality of two key variables measured in the study.

Keywords : mediator; mechanism of change; experimental design; statistical tests

## Experimental design outweighs statistical tests: Caveats on Conformity to Prototypical Therapeutic Principles and Its Relation with Change in Reflective-Functioning in Three Treatments for Borderline Personality Disorder (Kivity, et al., 2019)

The study by Kivity, et al.<sup>1</sup> is brilliant; they succeeded to provide evidence that Transference-Focused Psychotherapy has strategies and techniques that are not shared with Dialectical Behavior Therapy or Supportive Psychodynamic Therapy —i.e. has specific strategies and techniques. Notwithstanding, some caveats must be highlighted.

The first has to do with the concept of mentalizing. Although not clearly stated, it is implicit in the paper that they consider mentalizing ability —operationalized as reflective-functioning—as a mediator of change because they stated that "the unique effect of TFP on mentalizing compared to other models is exciting and promising in elucidating *how* TFP might work" and "having established that TFP has a specific effect on mentalizing, the next step is to identify the active ingredients that bring about changes in patient mentalizing that *subsequently* make change in outcome possible"<sup>1</sup>; this could be misleading to the readers. It is true that mentalizing has met some criteria to be consider a mediator<sup>2</sup> in Transference-Focused Psychotherapy —i.e., strong association, specificity, consistency and coherence.<sup>3,4,5</sup> Unfortunately, to my knowledge, it has never met the necessary timeline criterion because when measured, it has only been measured at the outset and at the end of the studies, with no in-between measures<sup>3,4</sup>; thus, it cannot be consider a mediator but only an outcome.

The second caveat has to do with their conclusion that adherence to the Transference-Focused Psychotherapy prototype predicted larger increases in reflective-functioning during treatment, even suggesting a doseresponse relationship.<sup>1</sup> Nevertheless, this inference cannot be drawn from the experimental design of their study because it is possible that the improvement in reflective-functioning has occurred before the time the investigators measured adherence to the therapy prototype. They did perform statistical tests to examine the possibility of reverse causation but as contended by Kazdin that is not sufficient: "the timeline is only established by the experimental design"<sup>2</sup>, namely, experimental design outweighs statistical tests.

From my perspective, the outstanding contribution of this study is the evidence that Transference-Focused Psychotherapy has specific strategies and techniques not shared with other kinds of psychotherapies, but the question remains open: Is mentalizing ability a mediator in transference-focused psychotherapy? And if so, through which steps, or mechanisms of change, it produces outcomes? In order to answer these questions and meet the urgently needed change in psychotherapy research practice to improve the care of patients, future research must privilege experimental design over statistical tests.

### Compliance with Ethical Standards

The author declare that he has no conflicts of interest

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