

Fidelity vs. flexibility in the implementation of psychotherapies: time to move on

In psychotherapy, treatment fidelity refers to the extent to which treatments are delivered as intended, and is considered to encompass adherence (the extent to which pre-specified interventions are used) and competence (the skill with which they are implemented).

Treatment fidelity is typically assumed to be positively related to outcome. This assumption rests on the drug metaphor – that there is a positive relationship between the “dose” of the “active ingredients” in any given treatment and the outcome. For instance, the extent to which therapists use specific theory-derived techniques and interventions, such as challenging automatic thoughts in cognitive-behavioural therapy or working with the transference in psychodynamic psychotherapy, should be directly related to better outcomes.

However, the most comprehensive meta-analysis to date suggests that fidelity may play very little, if any, role in explaining outcome across different treatment modalities¹. In defence of the fidelity hypothesis, this meta-analysis also found considerable heterogeneity in studies of the relationship between fidelity and therapeutic outcome. More recent studies and meta-analyses are similarly inconclusive.

The unreliability of fidelity assessments and the limited range of fidelity scores, as therapists tend to be carefully selected, trained and supervised in clinical trials, caution against premature conclusions. Moreover, the therapeutic alliance and patient characteristics are known to be important moderators of the fidelity-outcome relationship¹. Nevertheless, the lack of robust links between fidelity and outcome casts doubt on a core assumption of the dominant approach to the development of evidence-based psychotherapies, namely, that the use of specific techniques is vital to good outcome^{2,3}.

In response, more flexible, transdiagnostic and modular approaches have been developed, which may be at least as effective as “specialized” treatments focusing on a smaller number of problem-specific techniques and interventions^{4,5}. Others have argued for a bottom-up approach in developing evidence-based psychotherapies by carefully studying psychotherapy as it is delivered, and emphasizing competencies in factors such as creating a therapeutic alliance and providing a convincing treatment rationale³.

Yet, there are dramatic demonstrations of the importance of fidelity at the level of systemic implementation. The fidelity of programme delivery at the level of mental health care organizations (such as the UK’s Improving Access to Psychological Therapies programme) has been shown to enhance efficacy and explain 11–42% of the variance in outcome⁶. Longer-term psychotherapy for borderline personality disorder has been shown to be three times less effective, when poorly implemented, than optimal treatment⁷. Such findings stress the importance of fidelity not only at the level of the therapist, but also at the levels

of the therapeutic team, the management, and the broader sociocultural context⁸.

The ambiguous results concerning fidelity to treatment protocols highlight important challenges for the scientific development of psychotherapies. A key problem with research on fidelity is that patients do not readily fit into the clinical categories for which evidence-based psychotherapies are designated. Comorbidity is the norm, and demands flexibility if specialized therapies are to be administered effectively.

In addition, most specialized treatments focus on only a limited number of mechanisms of change in the face of significant heterogeneity within diagnostic categories. There is growing evidence that a general psychopathology (or “p”) factor may represent an as-yet-undefined facet of *all* mental disorders⁸.

From these perspectives, transdiagnostic, modular and common-factor approaches probably have a major advantage compared with models that emphasize a limited number of specific factors. Recent studies indeed suggest that adherence flexibility (the capacity of the therapist to flexibly adapt treatment to the patient, which may involve using interventions from other treatment approaches and modalities) may be associated with superior outcomes⁹.

By contrast, therapists using a specialized treatment may actually become more “adherent” to the specific treatment model with patients who are showing a poorer response. This may explain the negative relationship between fidelity and outcome reported in some studies, as these therapists may, by becoming more “adherent” to their treatment model, fail to address the specific problems of the patient simply because they are not targeted by that model¹.

In the absence of clear guidelines for adapting treatments to specific patient features, therapists tend to adapt treatment to their patients largely intuitively, using generic and specific therapeutic interventions “borrowed” from different treatment protocols. Such lack of specificity suggests the centrality of some common mechanisms in the action of therapies, which, after all, invariably rely on the possibility of change through social communication.

All effective treatments may incorporate elements which open up the individual to social learning that depends on trust in the person conveying information. The therapeutic alliance may be an important moderator of the fidelity-outcome relationship¹ because the therapist establishes epistemic trust that sets in motion a process of openness to adaptive learning in the treatment setting and beyond.

The current state of affairs reflects our lack of knowledge of how to shape treatment protocols to the particular social and psychological factors prominent in the history of any individual patient. Beyond this, the development of innovative psychosocial treatments awaits improved understanding of the

biopsychosocial mechanisms that underpin mental disorders. In marked contrast to physical illness, the overall prevalence of mental illness has not changed in the past 30-40 years. Therapies can reduce distress but they cannot cure, and there is a lack of established preventive interventions.

To conclude, the need to flexibly address particular underlying psychological mechanisms in a given patient may be a key factor explaining the loose coupling of fidelity and outcome in evidence-based psychotherapies. Such a flexible approach should ideally be embedded within a coherent, consistent and continuous organizational context.

More research is needed to identify transdiagnostic and trans-theoretical mechanisms that are involved in the causation and maintenance of psychopathology. In addition, translational efforts are needed to develop treatments grounded in newly emerging knowledge of these mechanisms.

Finally, training of therapists should incorporate a greater focus on adherence flexibility and tailoring treatment to individu-

al patient features. While this may make training more complex and lengthy, and thus more costly, it may improve effectiveness and reduce treatment costs.

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The Five Factor Model of personality structure: an update

The Five Factor Model (FFM) of general personality structure consists of the five broad domains of neuroticism (or emotional instability vs. stability), extraversion (vs. introversion), openness (or unconventionality), agreeableness (vs. antagonism), and conscientiousness (or constraint vs. disinhibition). Each of these domains includes more specific facets (e.g., gullible vs. cynical, meek vs. aggressive, soft-hearted vs. callous, and selfless vs. exploitative are within the domain of agreeableness vs. antagonism).

The FFM traces its roots to the lexical paradigm, which rests on the compelling premise that what is of most importance, interest or meaning to persons when describing themselves and others will be encoded within the language. Fundamental domains of personality emerge as persons develop more and more words to describe the gradations, variations and nuances of a respective domain. The natural, inherent structure of personality is provided by the empirical relationship among the trait terms, and the structure of the English language has converged well onto the "Big Five". The Big Five have also been replicated within the German, Czech, Dutch, Filipino, Hebrew, Hungarian, Italian, Korean, Polish, Russian, Spanish and Turkish languages, albeit the replication of neuroticism and openness is not as strong as the replication of the domains of agreeableness, extraversion and conscientiousness¹.

Empirical support for the FFM as a structural model of personality is substantial, including multivariate behavior genetics, childhood antecedents, temporal stability across the lifespan, cognitive neuroscience coordination, and cross-cultural replication¹. The FFM has also been shown across a vast empirical literature to be useful in predicting a substantial number of important life outcomes, both positive and negative². Cuijpers

et al³ compared the economic costs of FFM neuroticism (health service uptake in primary and secondary mental health care, out-of-pocket costs, and production losses) with the costs associated with common mental disorders (e.g., mood, anxiety, substance use, and somatic disorders). The economic costs of neuroticism were approximately 2.5 times higher than those of the common mental disorders.

Given that the Big Five account for virtually every trait term within the language, it is not surprising that the FFM accounts for every maladaptive personality trait, including those that define the personality disorder syndromes of the ICD and the DSM¹. The dimensional trait models included within the DSM-5 Section III and the ICD-11 are aligned explicitly with the FFM. The FFM also provides the temperament base and personality foundation for the widely cited Hierarchical Taxonomy of Psychopathology⁴, a dimensional structural model that covers much of all forms of psychopathology.

The ICD and DSM personality disorders are readily understood as maladaptive variants of the FFM, but this does not suggest that any measure of the FFM will fully account for every personality disorder. Most existing measures of the FFM do not assess for all of its maladaptive variants and therefore will not be able to account for all of the components and correlates of a respective personality disorder. For example, there are maladaptive variants for all ten poles of all five FFM domains, but existing measures typically fail to assess for the maladaptive variants of conscientiousness (e.g., compulsivity), openness (e.g., magical thinking), agreeableness (e.g., subservience), low neuroticism (e.g., fearlessness), and extraversion (e.g., dominance), thereby limiting the ability to cover traits central to the obsessive-compulsive, schizotypal, dependent, and psycho-