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ORIGINAL PAPER

Harnessing the Therapist Effect in Patient-Centered Mental Health Care Decision Making

James F. Boswell[1] · **Michael J. Constantino**[2] · **David R. Kraus**[3]

Abstract In this commentary, we address the critical importance of the research literature documenting therapist differences in skill and outcomes. In particular, we focus on the implications of therapist differences for patient-centered decision making, including the matching of patients to specific psychotherapists who have empirically-based track records of positive performance. In addition, we present preliminary results from a grant supported study of patients' values and preferences regarding the use of provider performance track records in routine mental health care decision making.

Keywords Therapist effects · Health care decision making · Psychotherapy outcome · Patient preferences

Scholars have long warned the field against perpetuating the uniformity myth that psychotherapy participants are interchangeable and function as the same social stimulus in all cases (Kielser 1966). Moreover, the counter position that patients and therapists are not all alike and should not be treated as such—in clinical practice or research—has been substantiated empirically. Based on decades of research, we can safely conclude that not all patients respond similarly to the same treatment, even when the delivery of treatment is highly standardized (Crits-Christoph et al. 2013).

Clinicians and researchers alike have become increasingly interested in "personalized medicine" and moderators of differential treatment response (Hamburg and Collins 2010). For example, DeRubeis et al. (2014) have embarked on an innovative approach to tailoring treatment. Specifically, patient-level variables (e.g., marital status, previous treatment, comorbidity) that have been associated with differential responses to similarly effective treatments for major depressive disorder in randomized controlled trials (RCTs) have been used to derive a "personalized advantage index" (PAI). These researchers found that when a clinically meaningful advantage for a particular patient was indicated, that patient would have experienced greater benefit had he or she received the identified "optimal" treatment.

Although arguably less well-accepted or known, the empirical reality is similar for psychotherapists; that is, not all providers are equally skilled in delivering interventions and promoting positive treatment outcomes for their patients (Castonguay and Hill 2016; Wampold and Imel 2015). This provider variability, or "therapist effect," has critical implications for mental health care practice and decision making (Boswell et al. 2015, 2016a). In order to fully appreciate the significance of the implications, it is important to briefly summarize the empirical basis for the conclusion that psychotherapist differences are real and clinically meaningful (see Constantino et al. 2016).

Granted, there are examples of efforts to identify and discuss outcome differences among psychotherapists that

✉ James F. Boswell
jboswell@albany.edu

Michael J. Constantino
mconstantino@psych.umass.edu

David R. Kraus
dkraus@outcomereferrals.com

[1] Department of Psychology, University at Albany, SUNY, 1400 Washington Avenue, Albany, NY 12222, USA

[2] Department of Psychological and Brain Sciences, University of Massachusetts, 612 Tobin Hall - 135 Hicks Way, Amherst, MA 01003-9271, USA

[3] Outcome Referrals, Inc., 1 Speen St., Framingham, MA 01701, USA

date as far back as the 1970s (e.g., Ricks 1974). However, robust support has been derived from studies in more recent decades employing multilevel modeling to more precisely identify the amount of patient outcome variance that is accounted for not only at the patient level (i.e., between patients within therapists), but also at the therapist level (i.e., between therapists). In both controlled and naturalistic treatment settings, this research has demonstrated that significant variability in both skill (e.g., competence in delivering an evidence-based protocol; Boswell et al. 2013; Imel et al. 2011) and outcome (Baldwin and Imel 2013; Barkham et al. 2016) exists between different psychotherapists. Furthermore, some therapists evidence caseloads of clients who have consistently demonstrated a pattern of deterioration in clinical outcomes.

As one example of this type of research on therapist effects, we investigated the naturalistic treatment outcomes over 12 problem domains (e.g., depression, anxiety, substance use, sleep, quality of life, interpersonal functioning) of 6960 patients being treated by nearly 700 clinicians (Kraus et al. 2011). Results demonstrated a differential pattern of provider performance depending on the problem domain; some providers demonstrated substantial effectiveness in reducing depression among their patients, while others evidenced particular effectiveness in the substance abuse domain. Moreover, correlations between a therapist's ranking on one domain and their ranking on other domains were small, which underscores the importance of measuring outcome multidimensionally to more precisely and fully appreciate therapist differences. Also in this study, many providers demonstrated effectiveness for their average patient over multiple problem domains, yet no providers demonstrated reliable effectiveness across all domains. A small, but notable 4% of the provider sample failed to demonstrate positive outcomes on *any* domain. Concretely, roughly 28 psychotherapists had patients who, on average, reliably deteriorated in their multidimensional clinical status with that specific provider. As should be clear, uniformity is clearly mythical when it comes to provider performance.

These results are consistent with Wampold and Brown (2005) who, among other consistent findings of therapist differences, also identified a subset of psychotherapists whose patients consistently demonstrated a pattern of deterioration on clinical outcomes. A more recent study focused on a Monte Carlo simulation to examine the impact of removing therapists with the worst outcomes, defined as performing in the bottom 5% of the sample (Imel et al. 2015). Extrapolated over 10 years, the authors found significantly higher response rates when the lowest performing therapists were removed and replaced with a random sample of therapists from the better performing population, translating into thousands of additional treatment responders over time.

In our view, the evidence is compelling—based on routinely collected outcome data, we can identify more or less effective therapists. In theory, then, we should be able to use this evidence to steer patients toward therapists more likely to be effective for their presenting problems and away from therapists less likely to be effective for those problems (or less likely to be effective for any problem!). As noted, DeRubeis and colleagues, among others, are working to match patients to optimal *treatments*; we are concerned with the complementary approach of matching patients to optimal *providers*. Before the field springs into action, however, it is important to go beyond retroactively identifying patterns of therapist effectiveness by examining *prospectively* whether a given therapist's effectiveness is stable and predictable. In other words, can we say with confidence that a given patient is more likely to experience benefit from a future treatment if they are referred to a psychotherapist who has been identified as effective based on his or her past cases?

To address this question, we attempted to replicate and extend the results of Kraus et al. (2011) by examining therapist effects in another large naturalistic sample (Kraus et al. 2016). To do so, we applied a comprehensive random forest risk adjustment model that statistically accounted for the influences of many patient variables, such as initial severity in each of the same 12 problem domains of the Treatment Outcome Package (TOP; Kraus et al. 2005). Even after controlling for significant variance at the patient level, substantial outcome variability among psychotherapists' caseloads remained. Furthermore, hierarchical linear modeling-based correlations demonstrated stability in therapists' domain-specific performance across subsequent patients. Concretely, therapists who were particularly effective in reducing, for example, depressive symptoms in one wave of 30 patients in their caseload remained above average in their depressive symptom outcomes with a subsequent wave of 30 patients in their caseload.

In summary, psychotherapist performance differences are identifiable, stable, and largely predictable. In addition, across patients and time, such differences have a significant impact on mental health outcomes, families, and communities. Therefore, as mental health care stakeholders, it is incumbent upon us to consider and integrate provider performance information in routine mental health care decision making (Boswell et al. 2015). The potential implications and solutions are both broad and complex, and we cannot adequately address them all in this commentary. Rather, we will focus attention specifically on patient-centered care.

We believe that mental health care consumers should have knowledge of psychotherapist performance track

records when making decisions regarding their care—primarily, the decision to work with a particular psychotherapist versus another. As far back as 2007, the Institute of Medicine (IOM, 2007) recommended that consumers be granted access to provider performance data to inform treatment decisions. Mental health care has lagged behind other areas of health care that have established quality metrics that result in published provider report cards (Henderson and Henderson 2010) and hospital rankings (Scanlon et al. 2008). Many of these initiatives would be labeled as "passive" dissemination strategies. A parallel example can be found in discussions regarding the gap between clinical practice and research. Publishing one's findings in an academic journal and assuming that practicing clinicians will find and carefully read the article, and subsequently incorporate the information into their routine practice, is a method of passive dissemination (Boswell and McHugh 2016b). Perhaps not surprisingly, the passive dissemination of provider performance information has yielded mixed results at best (Ketelaar et al. 2011). To date, there is a lack of convincing evidence demonstrating that dissemination of provider performance has a direct impact on health care consumer decision making or outcomes. This is partly explained by the methodological limitations of existing research in this area (which is, admittedly, quite difficult to conduct), yet it is also likely that passive strategies alone will be insufficient to effect behavior change and ultimately individual patient outcomes.

In our view, a more fruitful approach might be to integrate provider performance information at appropriate points in the care decision-making process and provide opportunities for collaborative decision making [e.g., when being assigned to a therapist in a community mental health care center (CMHC)]. We believe these factors are important for several reasons. First, our own research has shown that there may be nuance in the therapist effect. Many psychotherapists in our studies demonstrate a relative pattern of strengths and weakness across diverse problem domains. Consequently, with the exception of those therapists with clients who demonstrate reliable deterioration across all domains, the relevant question is not whether or not a particular therapist is effective or ineffective; rather, the question is: under what conditions is a particular therapist more (or less) effective? These conditions, it should be noted, are not restricted to one type of parameter. For example, while in our studies the problem domain was a condition, in other studies the therapist mattered more with more severe patients (Saxon and Barkham 2012). It may be the case that, in general, effective therapists possess a certain degree of basic interpersonal skill (see Wampold et al. 2016). Yet, if a therapist with interpersonal skill does not have optimal skills to help patients control severely impulsive and dangerous behaviors, he/she may have poorer outcomes with, for example, substance abusing and/or violent patients.

Second, consumer health care preferences are multidimensional, including where care is sought, type of treatment, provider characteristics, and role in the treatment. Some research indicates that mental health care patients value functional outcomes and quality of life more highly than symptom-based outcomes (Shumway et al. 2003). A meta-analysis of psychotherapy outcome studies found that patients who received their preferred treatment were significantly less likely to prematurely terminate treatment and experienced significantly better posttreatment outcomes ($d = 0.31$; Swift et al. 2011); however, preference type [role, provider, treatment (supportive vs. directive therapy)] was not a significant moderator. Mental health care preference research to date has largely focused on comparisons of pharmacotherapy and psychosocial treatment options. Several studies have demonstrated that consumers endorse a preference for psychological treatments over medication for major depression (Churchill et al. 2000; van Schaik et al. 2004); furthermore, women and racial and ethnic minorities more strongly endorse such a preference (Cochran et al. 2008; Givens et al. 2007). However, *treatment* preferences can and should be separated from *provider* preferences and selection (Adams and Drake 2006), and therapist choice should be a key component of patient-centered health care and shared-decision making.

We are unaware of research that has directly examined the relative valuing of psychotherapist characteristics by mental health care consumers, or that has specifically examined values and preferences related to, or in comparison with, psychotherapist performance information. Patient perspectives on the value of psychotherapist performance data are sorely lacking (Henderson and Henderson 2010), yet are vital given the growing emphasis on performance assessment in developing new delivery and payment models. In addition to basic questions (e.g., Do patients *value* having access to therapist performance data to inform their treatment decisions?), little is known about patient preferences regarding mechanisms of therapist performance information access or dissemination, or the relative value patients place on therapist outcomes compared to other therapist variables (e.g., demographic match, location, Medicare/Medicaid participation).

With grant support from the Robert Wood Johnson Foundation, we are conducting a study to address these critical questions using a mixed-methods approach. In CMHC settings, we are investigating mental health care consumers' (a) attitudes and preferences regarding the use of provider outcome/performance information, and (b) the relative values placed on providers' performance track records compared to other provider/treatment characteristics.

Specifically, we are utilizing semi-structured consumer interviews and focus groups, as well as a survey methodology that integrates an adapted delay-discounting paradigm (Critchfield and Kollins 2001; Swift and Callahan 2010).

We have, thus far, collected survey data from 209 routinely presenting CMHC patients (*M* age 38 years; 62.7% Female; 54.5% White, 15.3% Hispanic, 14.8% African-American, 12% multi-racial, 2% Asian, and 1.4% Native American). Preliminary results demonstrate that patients reported having an average of 5.10 different psychotherapists and 4.00 different medication prescribers in their lifetime to date. Approximately 59% reported experiencing difficulty finding a mental health care provider who they were confident could help them. In addition, 77% reported that they do not believe that all mental health providers are capable of helping them, 60.3% endorsed never receiving a specific recommendation regarding what mental health care provider they should see, and 74.2% endorsed never having a professional discuss with them the pros and cons of choosing one provider versus another.

When asked if they would use a list of mental health care providers' track records in helping people with issues similar to their own, 88.5% of patients endorsed "*Yes*." Furthermore, 90.4% reported that they would feel more confident about their care options if their primary care doctor had reviewed provider track records in helping people similar to them prior to making a recommendation. Finally, over 90% of patients endorsed the beliefs that mental health care consumers should have access to the performance track records of providers in their local area, that access to such track records would increase the likelihood of benefiting from treatment, and that matching a patient with a provider who has a track record in helping people with similar issues would increase the likelihood of that patient being helped by treatment.

Using this consumer input, we are now embarking on a randomized clinical trial (RCT) where the treatment-as-usual control group will be assigned to therapists in the normal CMHC approach that is most often based on clinician availability. In the experimental group, patients will be assigned to a scientifically well-matched therapist according to presenting problem. The match will be informed by a baseline period in which therapists will treat patients as usual, and outcomes will be tracked with a multidimensional outcome measure. This will lead to a computer-generated list of therapists at each center (or in a geographical region of nearby centers) that can be matched to patients who have conditions for which a given therapist appears to be reliably effective. Outside of the match manipulation, treatment will be natural and both patient and therapist will be blind to whether they were in the intervention or control group. Simulations of the approach suggest that treatment effect sizes can be quadrupled.

When discussing therapist effects, the focus tends to be, appropriately, on the therapist. However, the purpose of "harnessing" the therapist effect is to improve patient outcomes. It is difficult to conceive of a therapist effect implication that does not at some level involve issues of selection, matching, and tailoring to individual patients. Consequently, a more thorough understanding of patient values and preferences, and the value they place on therapist performance track records compared to other therapist characteristics, may help patients and other mental health care stakeholders make more personalized and informed treatment decisions, which, in turn, could lead to increased treatment engagement, retention, and better treatment outcomes. Although our various studies discussed previously are being conducted in the United States, we suspect that the notion of patient-therapist empirical matching reflects system-level clinical responsiveness that can be readily adapted for referral/assignment systems in any nation. And given that the extent research on therapist effects has established this clinical reality across multiple countries, the need to test prospectively strategies for harnessing the therapist effect would seem to be an international cause.

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Compliance with Ethical Standards

Conflict of interest Dr. Boswell declares that he has no conflict of interest. Dr. Constantino declares that he has no conflict of interest. Dr. Kraus declares that he has no conflict of interest.

Ethical Approval All procedures performed involving human participants were in accordance with the ethical standards of the University at Albany, SUNY and University of Massachusetts, Amherst Institutional Review Boards, and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in this study.

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