CHAPTER 6

PRACTICE-BASED EVIDENCE – FINDINGS FROM ROUTINE CLINICAL SETTINGS

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Abstract

The goal of this chapter is to survey practice-based evidence (PBE) in the psychological therapies that has accumulated over the last decade. PBE, or practice-oriented research (POR), is complementary to studies that are conducted in controlled settings and are predominantly guided by researchers' agenda. In contrast to the more traditional paradigm of evidence-based practice, PBE is conducted as part of clinical routine practice and some studies involve clinicians' participation in the design, implementation and/or dissemination of empirical studies. The chapter provides examples of PBE studies implemented in different clinical settings, with various clinical populations, and by researchers and clinicians from diverse parts of the world and with different theoretical orientations. The studies address several aspects of the impact (therapist effects, effectiveness of single and multiple clinics) and process (alliance, therapist interventions, therapist and client experience) of psychological therapies, as well as participants' characteristics (e.g., expectations, interpersonal/attachment issues) and contextual factors (center and neighborhood effects, training and supervision) that contribute to therapeutic change. Other initiatives that are also aimed at closing the gap between science and practice are briefly discussed, along with new developments in POR. The chapter ends with a description of features that cut across PBE studies as well as some of the challenges and limitations of these investigations, the identification of various clinical, scientific, and policy contributions of past and current investigations of routine practice, the delineation of characteristics of high-quality PBE studies, and some recommendations to facilitate the conduct and impact of future PBE studies.

OVERVIEW

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Introduction

The first edition of the *Handbook of Psychotherapy and Behavior Change* featured a chapter titled "Clinical Innovations in Research and Practice." Written by Arnold Lazarus and Gerald Davison (1971), it was guided by the conviction that "many of our greatest advances in therapeutic theory and practice come through clinical experimentation and innovation, rather than through laboratory research or controlled field trials across large samples of cases" (p. 198). However, it was not until the sixth edition that a new chapter was devoted to research investigating the work conducted by clinicians in their practice (Castonguay et al., 2013). As stated in the first chapter of this volume, the history of the *Handbook* has paralleled the development of the field. As such, it could be argued that chapters on practice-oriented research (POR), or practice-based evidence (PBE), in the previous and current editions reflect the consolidation and growth of a new paradigm. This research paradigm is complementary to traditional studies that have either been conducted in controlled settings or have been implemented in naturalistic environments, but independently from routine clinical practice. It could also be argued that the long absence of a chapter in the *Handbook* on what clinicians do in day-to-day practice is symptomatic of the gap that for decades has existed between science and practice. In the 2013 version of this chapter, we suggested that this gap has been maintained in part because many of the efforts to foster the scientific practitioner model (including the identification and promotion of empirically supported treatments [ESTs] and empirically supported therapeutic relationships) represent a top-down approach: that is, science is transmitted, and potentially adopted, via researchers informing therapists about the issues that have been studied and the lessons that can be derived from the findings. For example, in the United Kingdom some of these findings, derived from traditional RCTs and related meta-analytic studies, largely determine the national treatment guidelines to which practitioners and services/clinics are required to adhere. In this chapter, we refer to these efforts as manifestations of the paradigm of evidence-based practice. Although such efforts have and will continue to provide useful information to therapists, they are not representative of wider practice and are giving privilege to one source of expertise in determining what should be studied and how it should be investigated in order to understand and facilitate the process of change.

POR is one of the possible ways to redress this imbalance, as well as to expand the scope of empirical research. It does so by investigating psychological therapies as they are being conducted in routine practice and, in some circumstances, by having clinicians actively engaged in the design and/or implementation of research protocols – on their own or in collaboration with researchers. Having research grounded in day-to-day clinical care reflects a bottom-up approach to building and using scientific knowledge. By emerging directly from the context in which therapists are working, POR is likely to be intrinsically relevant to their concerns and can optimally confound research and practice: that is, when clinicians perform activities that are simultaneously and intrinsically serving clinical and scientific purposes. Moreover, when designed and conducted in collaboration between clinicians and researchers, POR studies can be viewed as efforts toward creating new pathways of connections between science and practice in terms of both process and outcome. By fostering a sense of shared ownership and mutual respect, such studies can build on complementary expertise, compensate for limitations of knowledge and experience, and thus foster new ways of understanding, conducting, and investigating psychological therapies.

The chapter on POR in the previous edition of the *Handbook* (Castonguay et al., 2013) described three main approaches: patient-focused research, practice-based evidence (PBE), and practice research networks (PRNs). Whereas patient-focused research examines clients' patterns of change, PBE primarily focuses on factors that foster such change (e.g., therapists, treatment approaches, and services/clinics). In contrast, research carried out in PRNs is not defined by its research focus but rather by a process of partnership between clinicians, or between practitioners, researchers, and/or other stakeholders of mental health services. In this edition, patient-focused research is addressed in Chapter 4, while this chapter combines both PBE and PRN research. While they can be differentiated in terms of the level of practitioner involvement (who are typically more active in the design and implementation of research in PRNs), what they share in common is more important than what distinguishes them. In fact, we would argue that PRNs can generally be subsumed under PBE as a general type of research that is aimed at understanding and improving psychological therapies as they are regularly conducted in a diversity of naturalistic settings.

At the core of PBE studies are three defining features: (i) the data are collected as part of clinical routine practice; (ii) what is assessed reflects everyday practice; and (iii) what is investigated does not involve researcher-imposed constraints on day-to-day practice, such as prohibition or manipulation of interventions prescribed by external contingencies (e.g., researchers requiring participants to adhere to specific protocols that are not typically part of clinical routine). As mentioned above, some PBE studies are conducted by clinicians or are based on an active collaboration between them and other stakeholders (e.g., researchers, administrators, clients) in different aspects of design, implementation, and/or dissemination of studies – albeit with diverse levels of involvement adopted by clinicians in each or all of these aspects.

As such, PBE investigations are distinct from studies that are conducted in controlled settings, or settings created specifically for empirical investigations. These involve, but are not restricted to, RCT-based efficacy studies. They are also distinct from studies in naturalistic settings that are aimed at investigating a treatment program created primarily for research purposes. For example, studies that investigate variables (participant characteristics, process, outcome) of a specific therapeutic protocol that has been created or chosen by researchers, but that does not reflect what clinicians do in clinical routine. These involve, but are not restricted to effectiveness studies – even those that have involved the partnership of different stakeholders in the design and implementation of the studies (effectiveness studies are addressed in Chapter 5 of this *Handbook*). PBE

investigations are also distinct from studies carried out in naturalistic settings that require specific inclusion and exclusion criteria for research purposes. These involve, but are not restricted to, studies for which a clinical setting has been developed (as opposed to one already existing) to recruit a particular type of clinical population.

However, we would argue that PBE studies include the investigation of specific treatment protocols and/or treatment programs for a particular clinical population, as long as these have been created for clinical purposes rather than for the primary goal of conducting a limited set of studies. For example, this includes studies measuring the process and outcome of practitioners or clinics that specialized, as part of their clinical routine, in the implementation of a particular form of therapy and/or interventions for a particular clinical problem, as well as studies investigating new interventions – interventions developed or adopted by stakeholders, tested in daily practice, and aimed, presumably, at improving routine clinical practice.

Finally, we would point out that randomization is typically not a part of PBE, unless the randomization focuses on a component that is not directly related to the delivery of the routine practice (e.g., studies involving feedback provided to clinicians and/or clients). These studies may have an impact on treatment as usual, but do not require the implementation of a researcher-imposed protocol that would prevent clinicians from conducting therapy as they regularly do. A list of characteristics that define and distinguish PBE studies from traditional efficacy studies is presented in Table 6.1.

As was the case in the previous edition, this chapter does not stand as a comprehensive review. Rather, it provides

TABLE 6.1 Characteristics of Practice-Based Evidence

	Efficacy studies	**PBE studies**
Setting	Controlled	Uncontrolled
Philosophical approach	Conducted externally to the clinical setting and typically initiated by researchers	Conducted in clinical setting and at times initiated by or in collaboration with clinicians
Primary focus of investigation	Interventions derived from theory and/or research program	Services delivered in actual practice
Sampling	Selective recruitment	Naturalistic
Inclusion criteria	Study-guided to control for confounds to build internal validity	Routine clinical practice to build external validity
Exclusion criteria	Present	Absent (beyond clinical practice)
Treatment contents	Specific, manualized	Adherence to usual practice
Aim of treatment protocols	Research integrity, include therapist training	Clinical consistency, rely on existing expertise and professional development
Randomization	Focused on treatment conditions	Not used or not related to routine treatment delivery
Ethics	Randomization to conditions of controls requires informed consent	Often managed through quality assurance and de-identification of data

Note. PBE = Practice-based evidence

illustrative examples of PBE studies that have been conducted in a diversity of clinical settings. Most of the investigations presented in the 2013 edition focused on the impact of psychological therapies. By contrast, in addition to covering outcome studies, this chapter provides a more extensive coverage of PBE studies by giving greater emphasis to investigations related to the process of change, participant characteristics, and contextual variables. It also briefly addresses some additional initiatives that are aimed at fostering the link between research and practice.

Despite not being comprehensive, we hope that the chapter will show that as a paradigm aimed at re-privileging the role of the practitioner as a central focus and participant in research activity (Barkham et al., 2010), PBE can yield results at two broad levels: first, at the level of the individual practitioner whether working alone in private practice or within a community of practitioners in which the aim is to use data to *improve their practice*; and second, at a collective level in which the aim is to pool data such that it can contribute to and *enhance the scientific base* of psychological therapies. With these two central aims, practice-based evidence delivers anew to the scientist-practitioner agenda.

We hasten to say that we do not view the strategies of accumulation and dissemination of empirical knowledge described in this chapter (see also Chapter 4) as being superior to those typically associated with the evidence-based practice movement. Rather, we would argue for adopting a position of equipoise between these two complementary paradigms. Although traditional RCTs are often viewed as the gold standard within a hierarchy of evidence, this position has been challenged: "The notion that evidence can be reliably placed in hierarchies is illusory. Hierarchies place RCTs on an undeserved pedestal, for ... although the technique has advantages it also has significant disadvantages" (Rawlins, 2008).[2] Also, in relation to the potential of practice-based evidence, Kazdin (2008) has written that "[W]e are letting the knowledge from practice drip through the holes of a colander." The *colander effect* is a salutary reminder of the richness of data that are potentially collectable but invariably lost every day from routine practice. A position of equipoise would advocate that neither paradigm alone—evidence-based practice or POR/PBE research—is able to yield a robust knowledge base for the psychological therapies. Furthermore, it is important to recognize that the methods typically associated with these approaches are not mutually exclusive. As we describe later, for example, RCTs have been designed and implemented within the context of PRNs. Hence, rather than viewing these two approaches as dichotomous, a robust knowledge base must be considered as a chiasmus that delivers *evidence-based practice and practice-based evidence* (Barkham & Margison, 2007).

Outcomes

This section provides illustrative examples of the yield of PBE in terms of the effect of psychological therapies. We first focus on symptomatic/functioning outcomes, addressing three successive levels of routine clinical practice: the level of practitioners, then at the level of single clinics or centers, and finally, multiple clinics. Then we address two other types of impact: dropout and attendance.

Practitioner Level: Therapist Effects

As described in the 2013 chapter, the investigation of therapist effects has served as one way to correct an imbalance created by the predominant attention given to treatment effects in psychotherapy research. In that chapter, the description of several studies conducted in naturalistic settings led to conclusions that (i) differences between therapists account for 5–8% of the outcome variance, and that (ii) some therapists distinguish themselves from the majority of practitioners by being particularly effective in improving client symptoms. A large number of additional studies have since been conducted in clinical routine practice on therapist effects using multilevel modeling to account for the nesting nature of therapy data. This chapter presents examples of such studies for different client populations, and for diverse targets of change or dependent variables. A more comprehensive review of therapist effects is presented in Chapter 9, including the results of meta-analyses of the magnitude of the therapist effects in both controlled and naturalistic settings and a review of studies examining variables that can account for such effects – with many of these studies having been conducted in naturalistic settings.

Therapist Effects with Particular Client Populations

Since 2013, three studies have investigated differential levels of practitioners' effectiveness in psychological treatments provided to *clients with mild-to-moderate level of symptoms* (depression or anxiety) and problem complexity (Ali, et al., 2014; Firth et al., 2015; Green et al., 2014). The treatments in all three studies were provided by psychological well-being practitioners (PWPs) of various levels of clinical training. Low-intensity interventions (e.g., psychoeducation, computerized guided CBT interventions) were prescribed to clients in routine clinical practice as part of the English Improving Access to Psychological Therapies (IAPT) program. With a sample of 1,376 clients treated in a primary care mental health service by 38 therapists, the first study found small effect sizes varying from 0% to 3% (Ali et al., 2014). The second study examined therapist effects among 21 clinicians working with 1,122 patients across six sites (Green et al., 2014) and found that therapist effects accounted for 9%–11% of outcome variance. They also found that the more effective PWPs exhibited greater self-rated resilience (ability to cope with challenges, adversity, or stressors), organizational abilities, knowledge, and confidence. With the goal of addressing methodological limitations of these first two studies (e.g., possible confounds of unmodeled center effects), as well as to examine potential moderators of therapist effects, the third study investigated the effectiveness and efficiency of 56 practitioners treating 6,111 patients within one clinical setting (Firth et al., 2015). Therapist effects accounted for approximately 7% of patient outcome variance, which was moderated by higher initial symptom

[2] Sir Michael Rawlins was the first chairman of the United Kingdom's National Institute for Health and Care Excellence (NICE).

severity, treatment duration, and noncompletion of treatment. There was a twofold difference between clinically effective and less effective PWPs.

Also, as part of routine clinical practice, several recent papers have examined therapist effects with *racial/ethnic minority* (REM) clients. Larrison and Schoppelrey (2011) investigated such effects in two community mental health centers in the United States. Based on a sample of 14 therapists and 98 clients they found that therapist effects explained 28.7% of the outcome diversity between White and REM clients. Therapist effects were also observed in a larger study involving 62 therapists and 551 clients recruited in 13 community mental health centers (Larrison et al., 2011). Like in the Larrison and Schoppelrey's (2011) study, client race/ethnicity did not directly predict outcome. However, the relationship between client race and outcome was moderated by therapist differential effectiveness, "indicating that outcome differences did exist between white and black patients and that those differences were linked to clinicians" (pp. 528–529). While the authors assessed several factors that could contribute to differential outcomes (including therapist gender, race/ethnicity, education, burn out), only one was significant – namely, that higher levels of positive experiences and relationships with individuals different to their own race and ethnicity decreased outcome variability.

Research addressing this issue has also been carried out in university clinic settings where two studies also revealed that REM and non-REM clients had similar outcomes but that therapists differed in their effectiveness with these clients. The first took place in a single university training clinic in the US and involved 228 clients and 36 therapists (Hayes et al., 2015). Therapist effects explained 8.7% of the outcome variance, and 19.1% of these effects were explained by client race/ethnicity – indicating that some therapists were more effective with REM clients than others. Aiming to address several problems of previous research (e.g., relatively small number of therapists, relatively few clients per therapist, and frequently implemented in only one site), the second study was conducted as part of the Center for Collegiate Mental Health (CCMH) PRN – an infrastructure regrouping university counseling centers mostly situated in the US. This second study comprised 3,825 clients and 251 therapists across 45 university counseling centers (Hayes et al., 2016). Although therapist effects explained less of the outcome variance (3.9%) than in the first study, differences in therapist effectiveness were found and part of this difference was also explained by client race/ethnicity. Both studies found that some therapists are more effective with REM than with White clients, while others are more effective with White than with REM clients. Hayes et al. (2016) also investigated whether demographic and professional factors could predict therapist outcome differences (i.e., gender, race/ethnicity, age, highest degree, professional discipline, years of experience, staff position, and theoretical orientation), but none of them were significant.

Going a step further, one study examined therapist effects on the intersectionality of client race/ethnicity and gender (Kivlighan et al., 2019). Conducted at one of CCMH counseling centers, this study included 16 therapists and 415 clients. Based on session-by-session changes of general distress, results indicate that client racial/ethnic identity, gender, and their interaction did not differ in terms of change growth during treatment. As in previous studies, therapist effects were found for client REM status. In addition, such effects were observed with respect to client REM and gender intersectionality. As noted by the authors, "this finding suggests that therapists' effectiveness significantly differed between White Men, White Women, Women of Color, and Men of Color" (p. 125). Some therapists do appear to be more effective than others when working with REM clients, but such effectiveness may well be moderated by client gender.

Therapists also appear to have an impact on other types of treatment diversity between White and REM clients. One of them is client unilateral termination, which was investigated in a single university counseling center in the US by Owen et al. (2012). Based on a sample of 44 therapists and 332 clients, they found that the therapist variable explained a significant part (7.3%) of unilateral termination in the client sample as a whole. As predicted, REM clients reported higher rates of unilateral termination than White clients. Also, as predicted, this discrepancy varied significantly between therapists. As noted by the authors, "some therapists were more likely to have their REM clients report unilateral termination as compared with their White clients (and vice versa)" (p. 318). Interestingly, these therapist effects were found even when controlling for the quality of alliance, number of sessions, client's level of well-being, and ratio of White and REM clients in therapists' caseload. In another study conducted at a US university counseling center, Owen et al. (2017) replicated their previous finding showing that therapists vary in their rates of unilateral termination for REM and White clients. Based on a sample of 23 therapists and 177 clients, they further demonstrated that these therapist effects were in part due to therapist levels of racial/ethnic comfort – their ease when engaged in sessions with clients of diverse backgrounds.

Kivlighan et al. (2019) investigated client nonattendance at therapy sessions as yet another type of impact that therapists may have on the treatment of REM clients. A significant part of clients' nonattendance (14%) was explained by therapists' variability, replicating a finding of a study described below (Xiao, Hayes et al., 2017). Within the context of one university counseling center in the US (with a sample of 21 therapists and 616 clients), the study also found a therapist effect in varying rates of nonattendance between REM and White clients. Whereas REM clients of some therapists had higher levels of nonattendance than their White clients, the pattern was reversed for other therapists – yet for other therapists, there was no racial/ethnicity disparity in nonattendance rates.

Therapist Effects with Different Targets of Change or Types of Treatment Impact

Most of the studies on therapist effects have attempted to explain outcome variance using indices of general distress, which are typically assessed after many sessions or at the end of treatment. A number of investigations conducted since the 2013 review have examined the impact of individual practitioners on other variables, such as multiple outcome domains

(Kraus et al., 2016) and early change (Erekson et al., 2018). Here we focus on two other types of treatment impact: dropout and session attendance.

Three recent studies have examined the effect of therapist on *dropout*. In a German university outpatient clinic, and with a sample of 707 clients and 66 therapists, Zimmerman et al. (2017) found that therapists explained 5.7% of the variance in premature termination. With larger samples (10,521 clients and 85 therapists) drawn from 14 counseling and clinical service sites in the UK, Saxon et al. (2017) estimated that therapists accounted for 12.6% of the variance in client dropout. Also based on a large sample of clients (10,147) but with a substantially larger number of therapists (481), Xiao, Castonguay et al. (2017) found that therapist effects accounted for 9.5% of the observed variance for premature termination across US university counseling centers as part of the CCMH PRN infrastructure. Xiao and colleagues also assessed a number of therapist demographic variables (age, gender, professional background, level of experience, and theoretical orientation) that might explain therapist differences in dropout rates, but none of them were significant. As is the case for therapist effects on outcome (Wampold et al., 2017), such variables do not appear to be a proxy for therapist characteristics and behaviors that have an impact on the process of fostering or interfering with clients' engagement in and benefit from therapy.

Saxon et al. (2017) also investigated the impact of therapist effects on client *deterioration*. With a subset of clients used for their analyses on dropout (6,405 out of 10,521), they found therapists to explain 10.1% of the variance in client deterioration. Interestingly, therapist rate of dropout and deterioration were not significantly related.

Another study conducted within the CCMH PRN focused on *nonattendance* at therapy sessions (Xiao, Hayes et al., 2017). Based on samples of 5,253 clients and 83 therapists across 22 counseling centers, the findings revealed that therapist differences explained 45.7% of the variance for nonattendance late in treatment (after session 3). As might be expected from such large effects, rates of nonattendance varied extensively, from 0% to 35.1%. Interestingly, 26 therapists had no nonattendance, with 16 of them from the same counseling center. This suggests the possibility that this specific center might have implemented a particular routine clinical practice policy that fostered client engagement in therapy.

As a whole, the studies described in this practitioner level section show that in day-to-day routine clinical practice, therapists do make a difference, not only in terms of how a diversity of clients benefit from psychosocial therapies but also with regard to various types of impact. However, it should be acknowledged that at this point in time, such a conclusion relies substantially on datasets from US college students, indicating the need for PBE studies to further investigate the effectiveness of practitioners in a wide range of clinical settings.

Single Clinic Level in Routine Settings

A focus on therapist effects, as we mentioned above, has helped the field to pay attention to factors contributing to effectiveness other than treatment protocols. Practice-based research has further broadened the evidence base of the psychological therapies by examining whether routine clinical setting(s) – single or multiple – are effective. While it is important to know what treatment approaches work and whether therapists make a difference to client improvement, it is also highly relevant (clinically, empirically, and socially) to determine whether the professional agency where clients are receiving treatment is effective. Accordingly, single clinics are addressed in this section and multiple clinics are discussed in the next section.

When reviewing single clinic studies in the 2013 edition, the focus was on benchmarking. That is, the studies, most of which were conducted in the UK, not only reported outcome findings but also compared them to the results obtained in other clinical settings or randomized clinical trials. In this chapter, we have adopted a broader perspective with the goal of reflecting a larger variety of efforts that have been made recently to document the beneficial impact of routine clinical practice. Examples presented are grouped into two categories: theoretically based services/clinics and clinics serving particular clinical problems. While some of the retained studies used benchmarking, as a whole the studies described here represent a broad set of investigations conducted across different countries.

Theoretically Based Clinics

The robust empirical support upon which CBT currently rests (see Chapter 14) is in large part due to the prominence it has been given, for over three decades, in RCTs. In contrast, while frequently used in routine clinical practice, non-CBT treatments are underrepresented in the empirical and policy agenda driven by researchers. By targeting both non-CBT and CBT approaches, PBE investigations are not only complementing traditional research, they are also expanding the scientific basis of psychological therapies in an externally valid way.

Several studies have focused on *psychodynamic-oriented therapy* in different clinical settings (e.g., DeFife et al., 2015; Falkenström, 2010; Jankowski et al., 2019; Roseborough et al., 2012; Ward et al., 2013). One of them was conducted in US community mental health clinic involving 16 clinicians and approximately 15 graduate professionals in training (Roseborough et al., 2012). Over a period of four years, 1,050 clients filled out an outcome measure at baseline and then every three months afterward (up to 15 assessment points). The findings show a significant decrease in symptoms (with an effect size of 0.34) at the end of the first year, with the sharpest improvement having taken place within the first three months. Significant improvement was not observed between the first and second year of treatment. This appears to be explained, at least in part, by the fact that a large number of clients who had improved at the end of year 1 also terminated treatment then. While most of the clients who stayed in treatments for a second year maintained their treatment gains, the percentage of clinical deterioration from baseline scores also increased after one year. For the authors, the lack of improvement after the

first year could be viewed as an indication that the time might be ripe to consolidate the changes achieved or to consider terminating treatment sooner rather than later.

Falkenström (2010) assessed the outcome of a Swedish clinic delivering psychodynamic therapy to young adults. The author examined whether the inferior outcome, as compared to those in RCTs, of some naturalistic studies (e.g., Hansen et al., 2002; Hansen & Lambert, 2003) could have been due to different treatment lengths. When using an archival sample of clients (N = 416) who had at least two appointments at the clinic, the findings revealed a smaller number of sessions (mean = 7.5) and poorer outcome than those who participated in RCTs. In contrast, however, analyses conducted with a subsample (n = 101) of clients who completed assessment and began psychotherapy showed an average of 23 sessions with outcomes within the range of RCTs.

Despite its robust empirical basis, PBE researchers have not ignored the importance of measuring the effectiveness of CBT in routine clinical practice. For example, the outcome of CBT for depressive disorders in a German outpatient university training clinic has been compared with those from RCTs (Lutz et al., 2016). Specifically, the investigators matched 574 CBT clients (treated by 94 therapists) against comparable participants in the National Institute of Mental Health Treatment of Depression Collaborative Research Program (TDCRP). The results showed that when the clients in the naturalist setting were matched on inclusion/exclusion criteria of the RCT, as well as on a number of pretreatment variables potentially predictive of outcome using the nearest neighbor (NN) or caliper matching procedure, the outcomes of the two samples were comparable in terms of effect sizes (caliper matching: d = 1.44, 95% CI [1.02, 1.87]; NN matching: d = 1.72, 95% CI [1.31, 2.17] for the naturalistic sample, and d = 1.85, 95% CI [1.39, 2.40] for the RCT sample). In addition, there were no differences in recovery rates. The duration of treatment in routine care, however, was at least twice as long (i.e., 35 vs. 16 sessions).

One of the low-intensity treatments offered in the UK National Health System is a psychoeducational/self-help group CBT for anxiety disorders called *self-control*. The acceptability (via attendance rates) and effectiveness of this treatment was investigated in a sample of 2,814 clients attending a citywide IAPT service (Burns et al., 2016). The study involved 38 groups (with a mean size of 74 clients), each of them meeting for six 2-hour sessions that were facilitated by two PWPs. A total of 1,062 clients started treatment with a score above the clinical cutoff on at least one of the outcome measures, and were identified as clinical cases. The authors concluded that the treatment was acceptable and effective, with 73.3% of all clients, and 75.4% of clinical cases having attended at least three sessions, and 37% of the clinical cases recovered without receiving any other type of IAPT interventions. The findings also showed the odds of recovery increased with more sessions attended. Patients with higher pretreatment anxiety or depression showed the greatest amount of symptom change, but patients with comorbidity improved less than those with either anxiety or depression alone.

Specialized Clinics

Not surprisingly, clinics in many regions of the world have specialized in the treatment of particular psychological problems. Again, with the goal of broadening the empirical foundations of psychological therapies beyond RCT findings, examples of such clinics that have engaged in an assessment of their effectiveness are presented here. It should be noted that some of these clinics have based the provision of their services on treatment manuals previously tested in RCTs. As noted in the introduction of this chapter, the use of such manuals is not an exclusion criterion for PBE studies, as long as they, like any other structured treatment protocol, are implemented as part of the routine clinical practice (rather than for the sake of a research project that is separate from day-to-day practice).

A number of studies have focused on *eating disorders* clinics. One of them took place in a UK National Health Service that provides CBT (in line with published evidence-based manuals) as its routine treatment (Turner et al., 2015). The study comprised a sample of 203 patients and 11 therapists. Significant improvements were observed in eating disorder psychopathology (*tau* = 1.19), anxiety (*tau* = 0.63), depression (*tau* = 0.74), and general functioning (*tau* = 0.77). In addition, eating attitudes improved in the early part of therapy. Another study assessed the outcome of a transdiagnostic program for eating disorders provided in a German university affiliated center (Beintner et al., 2020). Part of regular care, the program involved three phases: (1) individual sessions devoted to assessment and treatment goals; (2) eight weeks of day treatment (involving group sessions conducted by a team of interdisciplinary practitioners with CBT, nutritional, and art therapy expertise, as well as individual therapy); and (3) follow-up outpatient individual therapy (CBT based). For this study, 148 consecutive clients who participated in the combined day treatment and follow-up individual sessions were included. The findings showed that clients significantly improved at the end of the day treatment in terms of their symptoms, as well as maladaptive cognitions and attitudes related to eating disorders. A significant increase in body mass index (BMI) was also reported for underweight clients at the end of the day treatment. Clients' improvements were maintained, on average, at 6, 12, and 26 months after the end of day treatment.

One research program has investigated the effectiveness of a treatment protocol for eating disorders delivered in a day hospital (DH) in Canada, as well as the effect of manipulating one specific aspect of this protocol (i.e., its intensity; Olmsted et al., 2013). Using a sequential cohort ABA design, data was collected from 1985–2009 to compare the same predominantly CBT interventions, provided either as a five-day weekly or four-day weekly treatment. A total of 801 patients were treated in three successive cohorts: five-day weekly, four-day weekly, and five-day weekly treatment (i.e., ABA order). While no differences between the two treatment intensities were observed with regard to BMI, the five-day weekly treatment was significantly more effective in terms of abstinence of bingeing and vomiting, body dissatisfaction, and depression. These results led the authors to conclude: "On balance, the increase benefits associated with the five-day DH outweigh the additional costs" (p. 285).

As part of a mental health stepped care program in Canada, one study assessed the effectiveness of treatments for borderline *personality disorder* (BPD) in two distinct specialized outpatient clinics (Laporte et al., 2018). Over a 15-year period, data were collected on 479 clients referred to a clinic providing short-term treatment (12 weeks), and 145 clients referred for longer treatment (6–24 months) in an extensive care clinic. Referrals were based on pretreatment level of symptoms chronicity and functioning, and both clinics offered a structured treatment integrating interventions from ESTs for BPD (e.g., dialectic behavior therapy, mentalization-based therapy). Pre- to posttreatment scores showed significant improvement in both clinics on a range of dependent variables, including measures of impulsivity, self-esteem, depression, and emotion dysregulation. Significant change in substance abuse, however, was achieved only in the extensive care clinic. Interestingly, clients in the extensive care clinic who completed the treatment in 18 or 24 months did not show higher symptomatic improvement than those who completed treatment in 6 or 12 months. As concluded by the authors, this study provides promising support for the effectiveness of short-term treatment provided as a first-step intervention in routine clinical practice for many BPD clients.

Preliminary effectiveness data was also reported for a clinic specializing in treating clients with *psychotic symptoms* (Jolley et al., 2015). The study was conducted over a period of 14 months at an IAPT service in the UK, where a CBT protocol for psychosis (designed for 16 to 30 sessions) is the routine treatment. Pre- to posttreatment findings of treatment completers revealed improvement in terms of affective (d = .6) and psychotic (d = 1.0) symptoms.

It should be noted that the evaluation of the effectiveness of single-level clinics has not been limited to those that are primarily defined by the implementation of a particular theoretical orientation or by the services provided to specific clinical populations. De la Parra and colleagues (2018), for example, described the development and evaluation of a model of care to guide the services provided at an adult psychotherapy unit attached to a University Medical Center in Chile. In another example, one clinician published the outcome data of 1,599 cases that they treated in their clinical practice over 45 years (Clement, 2013). And two studies conducted in separate university counseling centers have respectively compared the effectiveness of individual therapy, group therapy, and conjoint individual and group therapy (Burlingame et al., 2016), and examined the impact of psychological therapies on academic distress – an outcome focus that is particularly relevant to the clients served in this clinical setting (Lockard et al., 2019)

Multiple Clinics: Effectiveness of Psychological Therapies in Routine Settings

To demonstrate the impact of psychological therapies as practiced in clinical routine, it is important to show that their effectiveness extends beyond a single clinic or center. Relying on a variety of studies, from a meta-analysis to preliminary investigations in practice research networks, the 2013 edition of this chapter presented evidence that psychological therapies work across settings, that the outcome of different types of therapy are relatively equivalent, and that clients can benefit equally from treatments that differ in length. Examples of studies, again from different countries, that have addressed these three issues since the last chapter are described here. It should also be noted that the chapter in the previous edition also reviewed effectiveness studies, which investigate whether treatments found to be empirically supported in controlled environments are effective in natural settings. As mentioned above, unless the investigated treatments are implemented as part of routine clinical practice, these studies are not covered here. However, some of these studies are reviewed in Chapter 5 of this *Handbook*.

Practice-Based Studies of Treatment Outcomes in Multiple Settings

The investigation of multiple settings has been conducted in *different types of clinical services*. A recent study in Kenya assessed the effectiveness of psychological therapies delivered in two public hospitals (Kumar et al., 2018). The rationale of the study adheres to a key axiom of practice-based research, which is to assess the services that are actually provided in a particular region of the world before assuming that psychological therapies developed in another region can be transported and implemented beyond their original locale. Across the two hospitals, 345 clients who received psychotherapy or counseling by either a mental health professional (psychiatrist, clinical psychologist, psychiatric social worker, or mental health nurse) or a postgraduate intern (in mental health or nursing fields) were recruited. As part of routine clinical practice, outcome assessments were collected before each session to assess clients' improvement (along with a measure of alliance, which was collected after each session). The findings showed an improvement in general mental health, with an average reduction in CORE-OM score at each session as therapy progressed of 1.68 (95% CI [2.07, 1.30]).

Another study assessed the outcome of psychological therapies provided in primary care in two regions of Sweden (Holmqvist et al., 2014). Pre–post changes for 733 clients treated by 70 mental health professionals (social workers, psychologists, psychiatric nurses, occupational therapists) suggested that most of them benefitted from relatively short treatment (median number of sessions was 6) provided as part of routine care. While 43% showed remittance and 34% recovered, only 0.6% deteriorated.

McAleavey and colleagues (2019) examined the effectiveness of psychological therapies provided in university counseling centers across the United States. As part of the CCMH PRN infrastructure, the sample comprised 9,895 clients treated by 1,454 therapists in 108 university counseling centers. With the overall sample of clients, the results showed pre- to posttreatment on a diversity of symptoms measured in routine clinical practice with the percentage of reliable improvement ranging from 8.0% (for alcohol use) to 28.8% (for depression). In addition, the study assessed outcome change in terms of benchmarking comparisons with RCT findings and end-state normative comparisons. For clinically distressed clients, the

pre–post effect sizes were equivalent to those reported in RCTs, ranging from 0.93 for eating to 1.90 for depression. However, these clients had a lower probability of completing treatment within the range of normative functioning than clients with lower initial symptoms. As pointed out by the authors, despite the effectiveness of psychological therapies provided in counseling centers, additional treatment may be required for those with higher levels of distress.

In a different type of clinical setting, and with an even larger sample, another study reported the reliable recovery rates of patients treated as part of the day-to-day practice of 24 services in the UK IAPT program (Gyani et al., 2013). Based on routine outcome measures of depression and anxiety, 19,395 clients were identified as clinical cases at pretreatment. The majority of these clients received either high-intensity therapies (e.g., CBT, counseling) or low-intensity therapies (self-help interventions, guided or not guided) in line with the UK National Institute of Health and Care Excellence (NICE) treatment guidelines. By posttreatment, 63.7% were reliably improved, 40.3% were reliably recovered, and 6.6% were found to have reliably deteriorated. Interestingly, the rate of reliable recovery was lower for clients who received other treatments than the high- or low-intensity interventions identified in the NICE guidelines. Clients who received high-intensity interventions showed higher rates of reliable recovery than those who did not.

PBE studies involving multiple settings have not only been conducted in different types of clinical environments, they have also focused on *diverse types of treatments*. As a low-intensity treatment component of the stepped-care model implemented in the English IAPT program, the effectiveness of CBT psychoeducational group was assessed in five different health services (Delgadillo, Kellett et al., 2016). In this study, 4,451 clients received up to six didactic lectures on stress control, as part of 163 groups (varying from 4 to 111 members). The results confirmed the effectiveness of the treatment reported previously in the PBE studies involving single sites (Burns et al., 2016). The findings also revealed that in four of five sites, the outcomes were equivalent to a benchmarked effect size of guided self-help therapy (another low-level intervention routinely assigned to less distress and/or less complex cases in the IAPT model); the fifth site showed a significantly smaller effect size to the other sites and the same benchmark. Interestingly, group effects explained 3.6% of outcome variance. Other studies have investigated the effectiveness of mindfulness-based cognitive therapy provided as routine care in five mental health services in the UK (Tickell et al., 2020), and the impact of an integrative treatment for bereavement provided in diverse locations of Scotland by a community-based, nonprofit organization (Newsom et al., 2017).

Practice-Based Studies of Comparative Treatment Outcomes

The effectiveness of different treatment approaches was compared in two studies conducted in Sweden. The first one compared the outcome of three approaches: cognitive–behavioral, psychodynamic, or integrative/eclectic therapy, as identified by therapists at the end of treatment (Werbart et al., 2013). Based on data collected over a three-year period, the study involved 1,498 patients treated at 13 outpatient psychiatric care services. Analysis conducted on 180 patients (treated by 75 therapists) with pre- and posttreatment data showed no significant difference between treatments on outcome measures. The within-group effect sizes ranged from $d = 0.47$ for quality of life for the patients receiving CBT to $d = 1.54$ for self-rated health for patients receiving integrative treatment, which the authors note were comparable to those reported in RCTs and naturalistic studies. Interestingly, there was no evidence of therapist effects and, consistent with the Good-Enough Level model, duration of therapy was not associated with different outcomes.

Comparisons between treatment approaches were also reported in the study conducted in Swedish primary care centers described above (Holmqvist et al., 2014). While many clients received treatments that combined different approaches, 65% received a single type of therapy (as reported by therapists at the end of therapy). Analyses combining treatment of only cognitive, behavioral and/or CBT approaches (called directive therapy) at one end, and psychodynamic and/or relational approaches (called reflective therapy) at the other end, did not reveal significant differences in terms of outcome. Both directive and reflective therapies, however, were superior to supportive therapy. It should be mentioned that therapists who reported using supportive therapy also rated clients as less motivated, as well as lower in terms of reflective and alliance ability. As the authors suggested, since therapists decided which treatment was implemented for each of their clients, it may be that supportive therapy was used with clients who were perceived as being less likely to benefit from psychotherapy.

In a study conducted in UK health system, Pybis and colleagues (2017) evaluated the effectiveness of CBT and counseling based on a sample of 33,243 patients treated in 103 IAPT sites. The two treatments showed similar pre–post effect sizes; CBT: $d = .94$ (95% CI [0.92, 0.95]); counseling: $d = 0.95$ (95% CI [0.92, 0.98]). The rates of reliable and clinically significant improvement were also similar: 46.6% of patients for CBT and 44.3% for counseling. Multilevel modeling analyses also indicated that treatment type was not a significant predictor of outcome variance. These findings have meaningful implications for the health system within which they were obtained. As noted by the authors, "Our findings strongly suggest that, despite the very different recommendations for CBT and counseling in the NICE Guidelines for Depression in Adults, it would appear that the two therapies have a very similar impact in routine practice for the treatment of depression." (p.10). Interestingly, interaction effects were found with respect to treatment type and attended sessions. While CBT showed significantly higher recovery rates than counseling when clients received 18 or 20 sessions, the reverse was found at two sessions. These results also carried important implications:

> Given that the majority of patients in IAPT are being treated in fewer than ten sessions, this finding is of some significance and warrants further investigation as it could be argued that counseling is more efficient than CBT in

> treating depression. Such a finding could have positive cost implications for the NHS (p. 11).

Other Impacts of Psychological Therapies

In addition to symptom change, PBE studies have paid attention to a number of impact indices, positive and negative, that are meaningful to clinicians and other stakeholders of mental health services. Although not systematically addressed in the 2013 chapter, examples of studies examining dropout and attendance are presented here.

The rate of dropout or premature termination in routine clinical practice has varied quite substantially. A previously described study found a rate of 15.9% drop in a large PRN of university counseling centers (Xiao, Castonguay et al., 2017). A larger rate of 33.8% was reported in a study, also described above, conducted in several UK counseling and clinical services (Saxon et al., 2017). An even larger rate, above 60%, was observed in a study combining data from three university-based (associated with departments of psychology) training clinics, involving 524 clients and 75 therapists in training (Al-Jabari et al., 2019). Mixed results were also found in terms of predictors of dropout with regard to a wide range of variables across these three studies and another study previously mentioned (Zimmermann et al., 2017). These include clients' pretreatment severity, age, gender, ethnicity, and at risk of harming self or others. The different results between studies, both in terms of rates and predictors of dropout are likely to be explained by different clinical settings and populations, assessment measures, but also by different operationalizations of dropout adopted by researchers – for example, therapist judgment, nonattendance to last session, and failure to reach a specific level of symptom change (Xiao, Castonguay et al., 2017).

With regard to attendance, a previously described multiple-site study of CBT group psychoeducation treatment (involving up to six didactic lectures) found it to be associated with therapeutic change, with participants attending four to six sessions reporting the highest reduction in anxiety symptoms (Delgadillo, Kellett et al., 2016). In a study of student counseling (also described above), Xiao, Hayes et al. (2017) discriminated between two types of nonattendance – no-show appointments and cancellations – and two time points during therapy – before and after the third session. Controlling for pretreatment symptoms and length of therapy, no-shows (but not cancellation) were negatively and significantly associated with both the magnitude and the rate of symptom change as measured by the Counseling Center Assessment of Psychological Symptoms (CCAPS, Locke et al., 2011, 2012). Moreover, the negative impact, on both measures of symptom change, was substantially worse for no-shows before as compared to after the third session. It is worth noting that these findings were obtained while accounting for therapist effects.

Summary

With the goal of redressing the balance with RCTs and their primary focus on treatment effects, the 2013 edition demonstrated the contribution to outcome variance explained by therapist, as well as the effectiveness of psychological therapies provided in routine clinical practice, within both single clinic and multiple clinics. Studies reported here, as well as in Chapter 9 of this *Handbook*, have solidified the robustness of the therapist effect within routine clinical practice, including with diverse clinical populations, and as assessed by different types of dependent variables. Our current review has also provided further evidence that clients are benefiting from psychological therapies, as it is practiced daily in different countries (e.g., Canada, Chile, Germany, Kenya, Scotland, Sweden, UK, USA), in diverse settings (e.g., hospital, out-patient clinic, university counseling center, private practice), for a variety of clinical problems (e.g., psychotic, borderline personality and eating disorders), and via multiple approaches (e.g., psychodynamic, CBT, integrative). Over the last decade, PBE investigations have also continued to accumulate increasing evidence supporting the broad equivalence of major therapeutic approaches. It should further be noted that PBE studies have been conducted on the impact of treatment length or dosage of therapy, but this question is addressed in Chapter 5 of this *Handbook*.

Process

A relatively few practiced-based process studies were included in the 2013 chapter, most of them investigating empirically supported interventions within the context of PRNs. By contrast, this chapter pays more attention to different aspects of the process of change, including the alliance, therapist interventions, as well as client and therapist experiences.

Alliance

Many studies conducted in routine clinical practice have focused on the therapeutic alliance. In our review, we present illustrative examples of such studies that examine the alliance construct from new perspectives and/or via the application of more advanced statistical analyses. The studies are clustered within four themes: within-client analyses, client and therapist convergence, actor–partner analyses, and patterns of alliance.

Within-Client Analyses

A number of recent studies conducted in routine clinical practice have attempted to address a criticism that alliance is a consequence, rather than a cause, of symptom change (Falkenström et al., 2013, 2019; Fisher et al., 2016; Rubel et al., 2017; Zilcha-Mano & Errazuriz, 2015). As noted by Falkenström et al. (2013), alliance studies have typically relied on between-client statistics to assess how the variation between clients in terms of alliance rating predicts, on average, treatment outcome at the end of therapy. For these authors, such analyses fail to account for the fact that a positive correlation between alliance and outcome could be influenced by several client and therapist characteristics. They also point out that there is no guarantee that an overall positive correlation applies to a particular client. While not ruling out all potential confounds of causality (see Chapter 8 of this *Handbook*), within-client analyses can attenuate these problems by assessing how alliance for

a client predicts the outcome (of the same client) measured at a later point, and vice versa. The authors used such within-client analyses by relying on repeated measures of the alliance (after each session) and symptoms (before each session). The sample comprised 646 outpatients treated by 83 therapists (mostly social workers) in routine primary care psychotherapy across two geographic regions of Sweden. The findings provided support for reciprocal causation, with alliance predicting subsequent symptom change and symptom change predicting subsequent alliance. Interestingly, the alliance continued to predict subsequent symptom change even after controlling for the effect that the previous symptom change had on the alliance. In addition, there were individual differences, with stronger alliance–symptom relationships being evident among patients with personality problems.

Within the context of a study in Kenya previously discussed in the outcome section (Kumar et al., 2018), process analyses were conducted with the first goal of examining the generalization of findings related to the working alliance outside of Western higher-income countries (Falkenström et al., 2019). A second goal was to conduct within-client analyses based on improved statistical methods. Outpatients (N = 345) receiving routine care at the two public psychiatric hospitals completed measures of outcome and alliance at each session. Similar to findings in Western samples, session changes in the working alliance predicted subsequent changes in distress, which in turn affected the working alliance, thereby pointing to a degree of cross-cultural stability of session-by-session reciprocal effects.

Other studies have used within-client analyses to address complex questions about alliance and its relationship with different factors in psychological therapies. As in Falkenström et al. (2013), these studies used repeated assessments of both process and outcome on a session-by-session basis. Conducted within the day-to-day routine of a university training clinic in Israel, one investigation primarily focused on the impact of emotional experience in psychodynamic therapy (Fisher et al., 2016). With a sample of 101 clients and 62 therapists, the findings showed, as predicted, that increased client emotional experience was related to increased improvement, and vice versa. Also, as predicted, increase in the therapeutic bond was not only associated with increased emotional experience but also was indirectly related to symptom improvement via deeper emotional deepening. As noted by the authors, the latter result points to the contextual role of the alliance as "a fertile ground promoting other change processes, such as a deeper emotional experience" (p. 113). Inconsistent with the predictions of the authors, however, changes in emotional experience were not predictive of bond change.

Both therapeutic relationship and emotional experience were investigated in another recent study, but this time as part of the routine clinical practice of a cognitive behavioral training clinic in Germany and along with the assessment of clients' acquisition of coping skills (i.e., alternative ways of seeing self and the world, as well as adaptive ways of functioning; Rubel et al., 2017). Based on a large sample comprising 1,550 clients and 150 therapists, the authors conducted both within- and between-client analyses and did so for each process variable separately and in combination. The findings of within- and between-client analyses were largely consistent: In both cases, higher levels of alliance and coping skills separately predicted outcome, but when all three process variables were combined, only the acquisition of coping skills was positively and significantly associated with outcome.

However, while emotional involvement predicted change at the within-level analysis (indicating that when clients are more affectively engaged in one session compared to previous ones, they will subsequently experience less symptoms), increases in emotional involvement negatively predicted improvement at between-client analyses (indicating that clients who are more emotionally involved during the course of therapy will, on average, report more severe symptoms). Of note, results of between-level analyses also revealed a significant positive interaction between coping skills and emotional experience. That is, clients who experienced higher levels of coping skills showed further improvement when they also experienced higher levels of emotional involvement, suggesting that the greater level of session-by-session changes are to be expected for clients with higher levels of both coping skills and emotional engagement. Importantly, at the within-client level of analyses, the relationship between coping skills and outcome was moderated by the alliance, indicating that the learning of new cognitions and behaviors was more highly related to outcome when the alliance was stronger. As noted by the authors, the findings suggest that, at least in their clinical setting, while the alliance may not lead to improvement on its own in CBT, it does provide helpful conditions for the beneficial implementation of the interventions emphasized in this approach – or, as inferred by Fisher et al. (2016) above, it provides fertile ground for mutative action of other processes of change.

Yet another recent practice-oriented study investigated whether positive changes in the alliance predicted improvement of symptoms, using both within and between-level analyses while also controlling for previous improvement (Zilcha-Mano & Errazuriz, 2015). The authors also explored client, therapist, and treatment variables that might moderate the relationship between alliance and outcome. The study was part of an RCT conducted at an outpatient mental health care clinic in Chile involving 547 clients and 28 therapists. Without imposing significant changes to clinical practice, the RCT compared the impact of different conditions of clinical feedback provided to therapists through routine outcome monitoring. Although both within- and between-client analyses revealed a significant and mutual relationship between quality of alliance and improvement of outcome, the between-therapist analysis did not. Examining the duration of reciprocal effects, the authors found that while symptom fluctuation predicted alliance variation for one subsequent session, alliance changes predicted symptom fluctuations over two sessions. A number of significant moderator effects were also observed. Specifically, the authors found that the alliance was more predictive of symptom improvement for clients with higher levels of symptoms at pretreatment and who had more sessions. This was also the case when treatment was provided by integrative therapists in contrast with clinicians adhering to a particular orientation,

and when therapists received feedback on the alliance as opposed to when they did not.

Client and Therapist Convergence

The therapeutic alliance is a construct that can be meaningfully measured by both client and therapist. Thus, by its nature, ratings of the therapeutic alliance can vary depending on the perspective on which they are based. Several recent studies conducted in naturalistic settings have used advanced statistical analyses (such as truth and bias model, and polynomial regression response surface analyses – see Rubel et al., 2018 for description) to investigate a number of questions related to this issue.

Atzil-Slonim et al. (2015) examined temporal convergence and directional discrepancy of client and therapist ratings of the therapeutic bond, as both factors fluctuate session by session. Whereas temporal convergence refers to how much ratings of the participants correlate, directional discrepancy reflects mean differences (and their directions) in the same ratings. The authors also investigated the moderating effects of symptom severity (measured at pretreatment and at every session) and a diagnostic of personality disorder (assessed at pretreatment) on the indexes of agreement/disagreement. Patients were 213 individuals treated by trainee therapists at a German University Outpatient Clinic with a cognitive behavioral focus. As predicted, the findings revealed a significant and positive temporal congruence, indicating that therapist ratings of the bond converge with, or accurately track, clients' ratings session by session. A significant directional discrepancy was also observed, which, as predicted, showed that therapist ratings were generally lower than patient ratings. Also predicted, temporal convergence was significantly and positively correlated with directional discrepancy, suggesting that therapists who have a more negative bias in rating the bond tend to track more accurately clients' views of the relationship. For the authors, this set of findings reflects a "better safe than sorry" attitude – an attitude that may allow therapists to be particularly attuned to alliance ruptures. While pretreatment severity and personality disorder did not emerge as significant moderators, session-by-session symptom severity did – whereupon higher level of symptoms experienced by clients was associated with a further decrease in both therapist ratings of the bond and congruence with their clients.

Studies examining whether congruence is linked with different types of outcome have yielded mixed results. Marmarosh and Kivlighan (2012) reported two such studies within a single paper. The first was conducted in two university counseling centers in the United States (involving 36 client-therapist dyads) and assessed whether alliance congruence was related to two measures of session impact: smoothness and depth (Stiles & Snow, 1984). The second study aggregated samples from a university-based mental health clinic and a university counseling center (with a combined sample of 63 client-therapist dyads) and explored whether alliance congruence predicted outcome (using the SCL-90-R). The findings of the two studies suggest that when therapist and client agree on the quality of the alliance at session three, a high rating of such an alliance is a predictor of therapeutic progress, as measured in terms of smoothness (at the third session) and symptom improvement (at the of treatment). Across the two studies reported by Marmarosh and Kivlighan (2012), interesting results were also obtained when participants disagreed in their rating of the alliance. In the first study, clients scored the session as being smoother when they rated the alliance higher than their therapist, as compared to when their therapist rated the alliance higher than they did. In line with Atzil-Slonim et al. (2015), this points to the importance of therapists being aware of relationship problems experienced by clients that, unless adequately addressed, may have a negative impact on treatment. In the second study, the overall disagreement between client and therapist rating of the alliance was positively related to symptom improvement.

Another investigation examined whether client and therapist alliance congruence at the end of one session predicted symptoms a month later (Zilcha-Mano et al., 2017). Conducted within the routine clinical practice of a psychodynamic training center in the US, the study involved 127 dyads. Consistent with some of Marmarosh and Kivlighan's (2012) findings, when client and therapist agreed and the alliance ratings were high, the symptoms were lower than when therapist and client agreed and the alliance ratings were moderate. Interestingly, however, high agreement and moderate ratings were also associated with higher symptoms than high agreement and low ratings of the alliance – perhaps indicating that a mutual recognition of problems in the relationship might foster collaborative engagement to repair alliance ruptures, which may lead to later benefit. In contrast with findings from Marmarosh and Kivlighan (2012), however, disagreement between client and therapist ratings of the alliance was not related to symptom scores.

A recent study investigated the link between alliance congruence and outcome by combining several of the methodological features of the three studies above (Rubel et al., 2018). Like Atzil-Slonim et al. (2015), the authors assessed the alliance and symptoms at every session in the same training clinic but with a much larger sample (580 patients). They also used a new and sophisticated (within dyad) statistical analysis that both Marmarosh and Kivlighan (2012) and Zilcha-Mano et al. (2017) used to assess the relationship between alliance congruence and outcome. Furthermore, because discrepancies have been found between previous studies on this relationship, most of them using between-dyad analyses, they assessed it using both within- and between-dyad levels of analyses. Consistent with both Marmarosh and Kivlighan (2012) and Zilcha-Mano et al. (2017), the results showed that when therapist and client within the same dyad agreed and the bond was rated highly, the symptoms of the client decreased at the next session. The predictive value of agreement was also supported by the between-dyad analyses, which showed that on average the temporal convergence (or correlation) between clients and therapist ratings of the therapeutic bond was associated with symptom improvement at the end of treatment. Similar to findings from Atzil-Slonim et al. (2015) and Marmarosh and Kivlighan (2012), between-dyad analyses also provided support for the importance of the therapist being attentive to relationship

problems – showing that moderately lower ratings of the bond by a therapist, compared to client ratings, was related to lower posttreatment symptoms.

Actor–Partner Analyses

A number of studies have investigated the client and therapist experience of the therapeutic relationship from an actor–partner interdependence model (Kenny & Cook, 1999), where the ratings of process measures from the client and the therapist perspective are linked to the rating of impact measures either by the same perspective (actor) or the other one (partner) (Kivlighan et al., 2016; Markin et al., 2014). These investigations have revealed a wide range of associations with outcome, as well as various patterns of interdependence and influence. For example, in a study conducted at two university clinics in the US (involving a total of 87 clients and 25 therapists), Markin et al. (2014) found that while clients' ratings of session quality were only predicted by their ratings of the real relationship, therapists' ratings of session quality were predicted by both their ratings and the client ratings of the real relationship. The findings were replicated in a study conducted in a department of psychology clinic (with 74 clients and 23 therapists), suggesting that therapists' assessment of a session is influenced by their view of the relationship as well as their understanding of clients' perceptions of the relationship (Kivlighan et al., 2016). Markin et al. (2014) also found that the therapist ratings of session impact were predicted by an interaction between ratings of the real relationship and session numbers. That is, both client and therapist ratings of the real relationship were significantly and positively related to the therapist rating of the session quality early in therapy but not later in therapy – suggesting that the focus of therapy might have shifted during the course of treatment, from the establishment of a good relationship to the decrease of symptoms. Interestingly, Kivlighan et al. (2016) found the opposite, with the client rating of the real relationship significantly and positively related to the therapist rating of session quality only in the middle and late part of therapy. As noted by Kivlighan et al. (2016), this discrepancy could be due to the fact that the two studies differed substantially in treatment length (mean of less than 5 sessions vs. more than 40). Clearly, more research is indicated to clarify these mixed findings.

Patterns of Alliance

While studies on alliance have typically used a single measurement point, a recent investigation has examined patterns of scores across treatment sessions. Based in a study conducted in Sweden primary care settings described previously (see Holmqvist et al., 2014), 605 clients treated by 79 therapists filled out alliance and outcome measures at every session. The authors investigated the prevalence and the linkage with clients' improvement as reflected in three specific patterns of alliance: no rupture identified during therapy, rupture(s) identified in the course of treatment but not repaired, and a course of treatment characterized by alliance rupture(s) and repair (Holmqvist, Larsson et al., 2018). The findings revealed that the first pattern (no rupture) was the most prevalent (74.5%), and that the other two did not differ significantly from each other in terms of prevalence (10.7% and 14.7%, respectively). As predicted, the pattern of alliance rupture without repair was associated with worst outcomes. Also, as predicted, the pattern of alliance rupture and repair was associated with significantly higher improvement than the pattern of no rupture in longer treatment. These findings suggest that the repair of alliance breaches may not always have an immediate impact on client symptoms, but that when there is sufficient time for therapists and clients to work on their relationship problems, these breaches may provide corrective experiences, allowing clients to learn and benefit from resolving interpersonal difficulties. More studies are needed to investigate further how these and other patterns of alliance are related to treatment outcome.

Therapist Interventions

A wide diversity of PBE studies has investigated therapist interventions. We present illustrative examples of such studies, which we have grouped within single-skill and multiple interventions categories.

Single Skill

The complexity and therapeutic role of therapist empathic accuracy were investigated in a psychodynamic university training clinic in Israel (Atzil-Slonim et al., 2019). Clients (n = 93) filled out session-by-session measures of their symptoms, as well as their positive and negative emotions. At each session, therapists (n = 62) reported their own emotions (positive and negative) and their perception of their clients' emotions. As predicted, the results showed that while therapists correctly captured the fluctuations of clients' emotions, they tracked their negative emotions more accurately than positive emotions. Also, as predicted, therapists rated clients' negative emotions more strongly than their clients did, and rated clients' positive emotions less strongly than the client. Importantly, higher therapist accuracy of client positive emotions was associated with subsequent positive outcome. As noted by the authors, focusing on such positive emotions can be a springboard for interventions that could foster therapeutic improvement.

Multiple Interventions

Two studies investigated the use of evidence-based interventions in a PRN-based training clinic in the US. The first study examined whether the helpfulness of therapy sessions is related to complex interactions between these interventions, therapists' theoretical orientation, and their supervisors' orientation (McAleavey et al., 2014). The interventions (reported by therapists) and session helpfulness (rated by clients) were measured after each session. Based on 328 sessions (from 26 clients and 11 therapists), the results failed to confirm the authors' prediction that higher levels of helpfulness would be associated with the use of techniques that are consistent with therapists' theoretical orientation. Contrary to such a prediction, high levels of process-experiential therapy techniques were associated with less-helpful sessions when used by humanistic-oriented therapists. In addition, unexpected, high levels of psychodynamic

therapy techniques were associated with less helpful sessions when therapists were supervised by psychodynamic supervisors. Adding complexity or nuance to the results, high levels of cognitive therapy techniques predicted session helpfulness, but only when the theoretical orientation of both the therapist and supervisor was cognitive therapy.

The second study, this time involving 401 sessions with 31 clients and 16 therapists, investigated whether broad types of theoretical techniques (exploratory vs. directive) are differentially related to clients' acquisition of insight (McAleavey & Castonguay, 2014). As in the previous study, unexpected and complex findings were obtained. While sessions with higher levels of exploratory or insight-oriented interventions were associated with less insight, higher levels of directive techniques were linked with more insight. Interaction effects, once again, added nuance to the findings. Therapists who reported using more directive interventions had clients reporting more insight, but only when these therapists did not report using high levels of exploratory interventions. In addition, directive interventions were linked with insight, but only when they were used in sessions with high levels of common factors or relationship-enhancing interventions.

Mindful of the complexity of the process of change, Kivlighan et al. (2019) relied on a sequential model of change to examine the degree to which symptom outcomes were affected by therapist techniques and the working alliance. Interestingly, the authors used the same measure of treatment interventions as in the two previous studies (Multitheoretical List of Therapeutic Interventions; McCarthy & Barber, 2009). However, they focused only on psychodynamic techniques and assessed them from an observer rater perspective (in contrast to a therapist self-report perspective). The study was conducted in a psychodynamic-oriented university training clinic in the US and involved 40 clients and 14 therapists, all of them having completed a measure of the alliance at each session. Therapists' use of psychodynamic techniques was assessed by independent judges on one session from the middle of treatment. As predicted by various components of their model, the results showed that the quality of the alliance was directly associated with subsequent improvement of outcome, and that higher levels of psychodynamic techniques correlated positively with subsequent alliance. In addition, higher levels of the same techniques were indirectly related to a subsequent decrease in symptoms via the mediating role of the alliance. For the authors, this suggests that therapists should pay less attention to how their interventions may have an impact on symptoms than to how they might affect the therapeutic relationship.

A programmatic series of studies related to therapist interventions has resulted from a partnership between researchers and clinicians called the Practice and Research: Advance and Collaboration (PRAC; Garland et al., 2006). Based on the active contribution of clinicians in the research design and implementation, as well as interpretation of findings, this POR program has focused on the treatment of children with disruptive behavior problems (DBP). One of the studies, involving 96 psychotherapists and 191 children/families, examined the extent to which elements of evidence-based practices (interventions common to ESTs for DBP) are present in routine clinical practice (Garland et al., 2010). Data were collected for up to 16 months in six publicly funded outpatient clinics in the US. All treatment sessions conducted during this period of time were videotaped and 1215 of them (randomly selected from 3,241) were coded by independent judges on several clinical strategies (techniques or content focused) associated with one or more theorical approaches. Some of these strategies were identified as evidence-based interventions and some were not. The results showed that therapists used a large variety of strategies, leading the authors to argue that although relatively few of them (i.e., 25%) identified as eclectic, eclecticism prevailed in their actual practice. The results also show that while some strategies in line with evidence-based practice occur in a high percentage of the sessions, such as using positive reinforcement (83%), others were more infrequently applied, including assigning/reviewing homework (16%). On average, all strategies associated with ESTs were implemented at a low level of intensity (in terms of time spent and thoroughness of implementation).

Interestingly, however, the level of intensity of some of these evidence-based interventions related positively with parents' perceived treatment effectiveness, as measured four months after the beginning of treatment (Haine-Schlagel et al., 2014). Clinical strategies investigated by Garland et al. (2010) were aggregated into four composites of evidence-based interventions and four composites of non-evidence-based interventions. Of these eight composites, child evidence-based techniques (including positive reinforcement, role-plays, assigning/reviewing homework) was the only composite that predicted treatment effectiveness. These findings were based on the coding of 538 videotaped sessions (involving 75 therapists and 157 children/families) conducted within the first four months of treatment.

As a whole, the studies above suggest that some interventions associated with a diversity of approaches may have multiple impacts (on symptom change, but also on session helpfulness, perceived treatment effectiveness, insight, and alliance) when used as part of routine clinical practice. The potential effect of these interventions, however, is not always consistent with the model they are associated with, nor does it reflect a simple and direct relationship between treatment components and indexes of change.

Client and Therapist Experience

A great deal of emphasis in psychotherapy research has been placed on clients' experiences (emotional, cognitive, behavioral) during therapy (see Chapter 7). Particular attention has been given to such experiences in process studies that have been conducted within RCTs as attempts to examine mechanism of change (see Chapter 8). The examples of PBE studies presented here focus on perspectives that have received somewhat less empirical attention: client and therapist mutual experience and therapist experience.

Chui et al. (2016) examined therapist and client affect before sessions as well as their affect change during sessions. Data related to 1,172 sessions (conducted by 15 therapists and 51 clients) were collected as part of the nonmanualized routine of a psychodynamic-oriented training and research clinic associated with a university in the US. The findings suggest some processes of emotional matching, such as changes in therapist

affect were predicted by client affect (at pre-session, as well as changes during sessions) and vice versa. Pointing to factors that may contribute to therapist effects, high quality of sessions (as measured by the clients) was associated with therapist positive affect before the sessions and positive change in therapist affect during sessions. In contrast, low quality of both sessions and alliance (also measured by clients) was associated with therapist negative affect before the sessions and negative change in therapist affect during sessions.

A more direct investigation of mutual experience has been conducted at a university training clinic in Israel, with a sample of 109 clients and 62 therapists (Atzil-Slonim et al., 2018). The study examined whether client and therapist experience similar emotions during sessions, and whether emotional congruence predicted outcome (symptoms and level of functioning wise) in subsequent sessions. As in a previously described study on the alliance (Atzil-Slonim, 2015), emotional convergence was measured in terms of temporal similarity and directional discrepancy. As predicted, temporal convergence was observed for both positive and negative emotions, indicating that clients and therapists experience similar emotions as they fluctuate across treatment sessions. In partial support of one of the authors' hypotheses, therapists experienced less-intense positive emotions than their clients (but not less intense negative emotions). Further, as predicted, lack of emotional congruency, for both positive and negative emotions, was associated with worse symptoms at the next session. Worse outcome in terms of client level of functioning was also predicted by incongruency in positive emotions but not in negative emotions.

The experience of a therapist during psychotherapy was the focus of an intensive single case study that involved both quantitative and qualitative analyses of significant therapeutic events (Krause et al., 2018). Conducted in Chile, the study was based on the treatment of a client with depression seen for 21 sessions by a systemic-oriented therapist. All sessions were videotaped and coded by independent raters on four types of significant events: episodes of change (defined as modifications of "client's subjective theory and explanatory schemes"), episodes of being stuck (characterized by "the reiteration of the problematic issues of the patient and the lack of construction of new meanings," p. 267), alliance ruptures, and repair of alliance ruptures. The videotaped events were later reviewed by the therapist and a researcher who, after each event, asked the therapist about their experience during the event, their understanding of the event, and rationale for their interventions during the event. As a final step, the therapist's responses were analyzed using grounded theory qualitative analysis. Forty-three episodes were identified throughout the therapy: 10 change episodes, 22 stuck episodes, 9 rupture episodes, and 2 resolution episodes. In their integration of the therapist's experience across significant events, the authors highlighted how therapist emotions and perceptions of client emotions (such as fear), as well as their expectations as a therapist, influenced the type of interventions they used (such as listening or avoiding reacting when they view the client as testing them or resisting treatment). They also emphasized that the emotions experienced by the client and therapist, as well as the use of interventions, were closely linked to fluctuations in the therapeutic bond over the course of treatment.

In addition to the use of two research methodologies, Krause et al.'s (2018) study is noteworthy in its actualization of crucial features of POR: The collaboration of clinician/researchers in different components of empirical investigations, as well as the simultaneous integration of research and practice activities. Providing clear examples of such actualization, the authors pointed out that the therapist involvement in the analysis of the therapeutic event allows researchers to gain feedback about the research method and the treatment progress. Reciprocally, the principal investigator provided information about the findings, with the goal of improving the clinician's practice.

Summary

Embracing and pushing forward the clinical and empirical interests of many practitioners (see Tasca et al., 2015; Young et al., 2019), recent PBE studies have investigated various facets of psychotherapy process. Such investigations have provided additional support for the direct and indirect role of the alliance in clients' improvement. In doing so, they have demonstrated how the link between alliance and outcome defies simple associations between single sets of measurement, but rather manifests itself differentially across multiple patterns of alliance development, diverse dimensions of concordance, and interdependence in client and therapist perception, as well as various types of relationship with interventions and participant variables. Recent studies based on within-client analyses have also provided some of the building blocks upon which the link between alliance and outcome can be viewed with increased confidence as one of reciprocal causality (see Chapter 8 for a more comprehensive review of such blocks of evidence). PBE investigations presented here have also revealed complex and at times unexpected associations, both positive and negative, and between treatment impact and both single and multiple technical interventions associated with different theoretical perspectives. Moreover, they have shone a light on the importance, and again complexity, of client and therapist emotional experience with regard to their congruence, link with outcome, and guide for therapeutic interventions.

Participants' Characteristics

As was the case with process variables, only a limited number of findings related to participants' pretreatment characteristics were presented in the chapter from the sixth edition of the *Handbook*. Although not comprehensive, more systematic attention has been given to these variables here. First, examples of them are grouped into six clusters of clients' characteristics: demographics; level of symptoms/severity; diagnostic/clinical problems; expectations and preferences; interpersonal/attachment issues; and mixed variables.

Following the discussion of these six clusters of variables, this section presents some PBE findings related to client and therapist matching. Therapist variables have received considerable attention in the last decade, but most of them have been examined as predictors of therapist effects rather than outcome. Accordingly, these variables are reviewed in Chapter 9 of this *Handbook*.

Demographics

Although not their primary aim, some of the studies described in the previous sections reported findings related to client demographic variables. For example, an investigation of psychotherapeutic care in Kenya hospitals revealed that while most patients were young males, women experienced higher initial distress than men, and older patients showed slower levels of improvement during treatment (Kumar et al., 2018). In contrast, other PBE studies have been conducted to specifically investigate such variables. Lockard et al. (2013), for instance, examined whether racial/ethnic identity of college students was related to academic distress at intake and to the decrease of such distress during therapy. Conducted within the CCMH PRN infrastructure, the sample comprised 1,796 undergraduate students (541 African Americans, 541 European Americans, 436 Hispanics/Latinos(as), and 278 Asian Americans) who received counseling across 65 university counseling centers in the US. At intake, the authors found that Asian American clients showed a higher level of academic distress than European American and African American clients. They also found that Asian American students showed significantly less improvement than European American and Hispanics/Latino (a). The results also indicated that pre–post outcome changes were significantly predicted by treatment length and even more strongly by pretreatment level of academic distress.

Level of Symptoms/Severity

Broader measures of initial severity than academic distress have been examined in studies described above, where, for example, a higher level of symptoms was found to be associated with lower probability of reaching normative level of functioning (McAleavey et al., 2019) and lower rates of reliable recovery (Gyani et al., 2013). Contrasting with Lockard's (2013) findings, however, in both of these studies a high level of symptoms was associated with higher pre–post symptomatic change. This lack of consistency may reflect different targets of change and/or the mixed relationship generally found between outcome and initial problems when such a construct is measured in terms of symptom severity (as opposed to functional impairment or problem/symptom chronicity; see Chapter 7 this *Handbook*).

Two recent studies examined early symptoms in treatment, each of them highlighting informative facets of therapeutic change. Interestingly, while the routine care data used in these studies was collected in different clinical settings, let alone regions of the world, and from theoretically different treatments, both studies compared their findings with those obtained in controlled studies. In the first study, Persons and Thomas (2019) examined three statistical models predicting client failure to remit from cognitive therapy for depression:

1. The full model included the client BDI score at pretreatment, the change in BDI score between pre-treatment and week four of treatment, and the BDI score at week four of treatment.
2. The second model included only the rate of change in BDI score from pre- to week four of treatment.
3. The simplest model considered only the BDI score at week four.

These predictive models were tested on two samples. The first sample involved 82 clients treated by one of 18 therapists in private practice in the US, where nonmanualized CT is conducted in clinical routine. The second sample involved 158 clients who received CBT treatments within one of six RCTs. The primary difference between these two samples was that clients seen in the private practice received less treatment before and after week 4.

In both samples, the results showed that the third, most simple model was as predictive as the more complex ones, indicating that the severity of client BDI at week 4 alone is a moderate predictor of remission in CT for depression. Also, in both samples, results showed that clients in the severe range of the BDI at week 4 had a 90% or greater probability of not recovering at the end of treatment.

The second study examined whether early symptoms in treatment could predict sudden gains. Such gains refer to substantial decreases in symptoms following a specific session, which are then maintained for a number of sessions afterward. While standing as robust predictors of outcome, finding reliable predictors of sudden gains has been shown to be difficult (Shalom et al., 2018). Guided by the view that sudden gains represent extreme fluctuations of symptoms, Shalom and colleagues have demonstrated that a client's intraindividual symptom variability during the early sessions of treatment was predictive of sudden gains in three data sets. Two of these data sets were from RCTs (investigating treatments for PTSD and OCD, respectively), while the other derived from a naturalistic setting. The latter data set, involving 106 clients, was collected as part of the clinical routine of a university-based psychodynamic training clinic in Israel that has served as a source of studies previously described (e.g., Atzil-Slonim et al., 2018). As was the case for Persons and Thomas's (2019) study, the convergence of findings across research methodologies enhances the confidence that one can have toward the robustness and generalizability of observed results.

Diagnostic/Clinical Problems

Related but yet distinct from symptom severity are the clinical disorders or problems experienced by clients. Two studies investigating these constructs have been conducted in the UK IAPT health system. In a previously described study based on the clinical routine of 24 services, higher rates of reliable recovery were found for individuals diagnosed at pretreatment with an episode of depression, generalized anxiety disorder, mixed anxiety and depressive disorder, or PTSD (Gyani et al., 2013).

Linked to a single primary care service but involving 28,498 clients, the other study assessed the potential impact of long-term medical conditions (including severe mental health problems) on psychological treatment for depression and anxiety related problems (Delgadillo, Dawson et al., 2017).

Clients received routine care following the stepped-care model adopted in the IAPT system, with high- or low-intensity interventions provided to match clients' difficulties at the beginning or during treatment. Based on data collected over five years, the results showed that clients with chronic illnesses such as musculoskeletal problems, chronic obstructive pulmonary disease, diabetes, and psychotic disorders had worse post-treatment outcomes compared to patients with no long-term medical conditions. Particularly relevant to delivery and costs of services in a stepped care model, results also show that while clients with a number of chronic conditions were more likely to be provided with high-intensity interventions, such interventions were associated with a high level of symptoms at the end of treatment. As noted by the authors, this suggests that clients with long-term medical conditions did not necessarily benefit more from such treatment than from low-intensity interventions.

Expectations and Preferences

A considerable number of studies have examined whether clients' expectations (of outcome and treatment) and preferences (of activities, treatment, therapists) are predictive of outcome (see Chapter 7 of this volume). Here we present examples of PBE studies that complement this empirical literature, in terms of types of expectations/preferences and/or targets of prediction. One of these investigations focused on clients' attendance at their initial appointment (Swift et al., 2012). Recruited in two US university training clinics, the study involved a sample of 57 clients. As predicted, outcome expectations, when combined with other pretreatment variables, such as distress level before treatment, were associated with first session appointment. Interestingly, while outcome expectations did not uniquely predict attendance, other variables did (i.e., previous therapy and shorter waiting time before beginning of treatment).

Client pretreatment expectations about treatment duration and premature termination were the foci of the first study conducted in a PRN involving six training clinics associated with psychology departments in the US (Callahan et al., 2014). A combined group of 216 clients were randomly assigned within each site into either an experimental group (as part of which clients were provided before treatment with information about the average number of sessions and percentage of clients recovering in psychotherapy) or control group (in which this information was not provided). Importantly, randomization, as noted earlier, can be involved in PBE studies as long as it focuses on a component that is not *directly* related to the delivery of the routine clinical practice. No significant difference was found between the groups in terms of clients' estimates about duration of treatment (measured at pretreatment), actual treatment duration, and rate of premature termination. When all the clients were combined, however, client expectations about the length of therapy predicted the number of treatment sessions attended, as well as outcome at the end of therapy, even when controlling for pretreatment distress and actual numbers of sessions attended.

Crits-Christoph, et al. (2017) created a measure to assess clients' preferences of treatment attributes (e.g., side effects, having to share personal information) associated with pharmacotherapy and psychotherapy for depression. Recognizing the importance of their voices as stakeholders, they secured input from 99 clients in developing their measure. They then assessed client preference of 193 depressed clients seen in one of three nonprofit community mental health clinics, and obtained information about the treatment they received and its duration. Interestingly, a substantial number of clients (19.2–43.5%, depending on assessment methods) actually received a nonpreferred treatment. Contrary to the prediction, clients receiving nonpreferred treatments did not predict dropout. It was, however, associated with longer treatment duration, perhaps reflecting that when client preferences are not systematically considered, more time is required before treatment is attuned to their needs. Receiving nonpreferred medication also increased the probability of clients switching medication right after intake, as compared to receiving preferred medication.

Interpersonal/Attachment Issues

With the attention given to early relationships and maladaptive relational patterns across a client's life, it is not surprising that psychodynamic-oriented clinicians would be interested in investigating issues related to attachment and interpersonal problems. In a preliminary study mentioned above, for example, DeFife et al. (2015) found that clients with high levels of both anxious and avoidant attachment showed slow rate of change in long-term psychodynamic therapy, compared to clients with low scores on both of these insecure attachment styles. Interestingly, related constructs have been investigated in two studies conducted in a residential treatment clinic in the US that has implemented CBT interventions to specifically address hostility problems experienced by adolescent and young adult substance abusers. Both studies, which were based on the same sample of 100 clients and 15 therapists, derived from an active collaboration between clinicians, administrators, an outcome measure developer, and researchers (faculty members and graduate students).

The first study was aimed at assessing the alliance – another construct that has been historically associated with psychodynamic therapy – and its interaction with adolescent-caregiver attachment style (Zack et al., 2015). As expected from previous literature (see Chapter 8), results show that alliance significantly predicted outcome improvement at the end of treatment. As predicted, both the alliance and outcome were negatively related to clients' poor level of attachment history. The results further confirmed the authors' hypothesis that the relationship between the alliance and outcome would be moderated by client attachment. Whereas such a relationship was significant for clients with lower attachment levels at baseline, it failed to be so for clients with higher attachment levels. These findings were in line with the theory that a good alliance can play a particularly significant corrective emotional experience for adolescents who, based on their interpersonal history, are likely to have difficulty in building such an alliance.

The second study examined client current interpersonal problems, which, like attachment style, were measured at pretreatment (Boswell et al., 2017). As a first step, two types of interpersonal sub-types were identified based on the Inventory of Interpersonal Problems (IIP-64; Horowitz et al., 2000): vindictive (individuals who are overly cold and dominant with others) and exploitable (who tend to be overly warm and submissive). Analyses were conducted to investigate their relationship with alliance and outcome trajectories (linear and quadratic time effects) during treatment. For both the alliance and outcome, no main effect of IIP sub-type was found. However, significant interaction effects were observed with respect to outcome trajectories and interpersonal sub-type: whereas vindictive clients tend to change in a steady and incremental way over the course of long treatments, exploitable clients show an initial improvement that is followed by a significant decrease in gains across the course of treatment of similar duration. These latter clients, as suggested by the authors, might benefit from longer and or alternative treatments.

Clients' current interpersonal problems were also the focus on another recent study, this time conducted in a private center in Argentina (Gómez Penedo et al., 2019). Like Zack et al.'s (2015) investigation, the goal was to determine whether interpersonal difficulty serves as a moderator of the relationship between alliance issues and outcome. A total of 96 clients with emotional disorders (mood and/or anxiety disorders) were treated by eight therapists using, as part of routine clinical practice, solution-focused brief therapy – an integrative treatment based on systemic orientation. After their first session, clients filled out the IIP-64, based on which the investigators identified two profiles of interpersonal problems: cold (with limited expression of emotion and positivity toward others) and overly nurturant. Parallel to the sub-types identified by Boswell et al. (2017), those in the cold profile were more vindictive and those in the overly nurturant were more exploitable compared to each other. After each of their first four sessions, clients also filled out the Outcome Questionnaire (OQ.45, Lambert et al., 1996) and a measure of alliance negotiation approaches, which assessed the therapist and client ability to resolve alliance ruptures. Their findings revealed a moderation effect, showing that the relationship between negotiation of alliance and the rate of change over four sessions was stronger with overly nurturant clients. As noted by the authors, the expression and integration of negative experiences toward the therapist and therapeutic process may foster early change in clients who tend to be too dependent on others.

Mixed Client Variables

A number of studies presented in previous sections have examined the relationship between various client pretreatment variables and diverse types of impact. For example, as part of their investigation of long-term psychodynamic therapy in an outpatient community mental health clinic, Roseborough et al. (2012) found two moderators of outcome: client age and initial distress. Specifically, clients aged over 60 began treatment with lower level of distress, but also showed a greater level of improvement than younger clients after one year of therapy. Clients with elevated levels of distress at baseline showed greater change, as well as stronger initial treatment response than other clients – a response that was maintained for a year during therapy. In their study conducted in multiple service sites in the UK, Saxon et al. (2017) found that both risk of harming self and unemployment were predictive of deterioration. Interestingly, however, younger clients who completed therapy were less at risk of deteriorating. In a university outpatient clinic in Germany, dropout was predicted by a number of variables such as gender (male), high level of pretreatment impairment, low level of education, and low level of expectations toward treatment (Zimmermann et al., 2017).

Other PBE studies have focused primarily on pretreatment characteristics, while also targeting different types of impacts. One of these investigations was conducted within a national PRN regrouping several US private residential treatment centers and outdoor behavioral healthcare programs (Tucker et al., 2014). The study examined whether gender, presenting problems (e.g., substance abuse, trauma history, conduct disorders, anxiety), and history of sexual abuse predicted clinically significant improvement at posttreatment. It involved 1,058 adolescents who participated in one of 15 programs. Results indicated that for outdoor programs, females were more likely to achieve clinically significant change than males. Surprisingly, while trauma history was negatively related to clinically significant improvement in residential treatments, the reverse was observed for history of sexual abuse. Although these contradictory findings may be due to measurement issues, they also point out the need for precise assessment of clients' problems in order to provide attuned treatment.

Delgadillo, Moreea et al. (2016) examined various pretreatment characteristics of 1,347 clients to predict poor response to psychological therapies, as delivered in a primary care service of the UK IAPT program. Using a cross-validation design, the authors first identified six predictors of reliable and clinically significant improvement (RCSI) – some of them demographic variables (disability, employment status, age), while others reflecting distress (functional impairment) and cognitive (outcome expectancy) factors. These predictors were then combined in different profiles to derive a risk index, the levels of which (mild, moderate, high) were found to be associated with rates of RCSI, treatment completion, posttreatment outcome, and markers (not-on-track sessions) of problematic trajectory of change and potential deterioration. As an indication of its prognostic value, the risk index predicted up to 9% of the outcome variance, even as initial severity, early response, and treatment length were controlled for. Within the context of the IAPT stepped care system, the availability of this risk index at pretreatment could provide useful information, on a case-by-case basis, to assign clients to the most appropriate levels of interventions (high vs. low intensity).

Client characteristics were investigated to predict dropout in a specialized outpatient clinic for eating disorder in Germany, which used manualized cognitive behavior therapy in routine care (Schnicker et al., 2013). The study involved 104 clients with bulimia nervosa (BN) and anorexia nervosa (AN) seen at the clinic within a period of more than five years. For clients

with BN, higher level of depression and presence of comorbidity at pretreatment were predictive of premature termination. For clients with AN, dropout was predicted by drive for thinness, unemployment, and not living with a partner.

Two studies conducted within the CCMH PRN infrastructure relied on various client pretreatment variables for different purposes. The goal of the first study was to identify profiles of clients in counseling centers that could alert clinicians about the likely course of treatment (Nordberg et al., 2016). Latent-profile analyses conducted on two samples, each of 19,247 clients, led to 16 distinct and reliable profiles based on the baseline level of several types of distress (e.g., depression, eating concerns, substance use, hostility). These profiles differed in terms of demographics, psychosocial history, and diagnostic. More helpful, clinically, they also differed in terms of serious risk (suicide, self-harm, hostility toward others), as well as treatment length and outcome. These 16 profiles were then rationally grouped into nine types based on underlying clinical problems (e.g., primary eating concerns, primary substance abuse, family concerns, and hostility), highlighting similarities and differences between clients that could inform case formulations and treatment plans. For example, four profiles of eating concerns were identified, which were divided in two groups – one with and one without substance abuse. In both groups, one profile showed high level of mood symptoms and the other not. The finding suggests that what hampered the reduction of eating problems for the clients in these profiles was not the level of mood or eating disorder distress, but rather the high level of substance use.

The second study was aimed at predicting clients who, before their first session in a counseling center, are likely to return for additional therapy after the completion of their first treatment episode (Kilcullen et al., 2020). Machine learning analyses were applied to a dataset comprising 8,329 clients treated at one of 52 university counseling centers. The results showed that 30% of clients returned for one more course of treatment. Interestingly, a return to treatment was not predicted by variables related to demographics (gender, race/ethnicity, sexual orientation), problem chronicity (history of trauma, history of sexual abuse, suicidal ideation, nonsuicidal self-injuries), or prior utilization of mental health services (counseling, psychiatric medication, or psychiatric hospitalization). Perhaps even more interesting, pre-to-post changes in all (seven) types of distress that were measured failed to emerge as significant predictors. In contrast, a high level of some specific types of distress at initial treatment course either increased (social anxiety) or decreased (academic distress and alcohol use) the likelihood of further treatment. In addition, clients' perceived social support was associated with the probability of returning for additional therapy. While recognizing that different reasons can explain why some clients will or will not return to therapy, the authors argued that their findings could be used to inform decisions related to important issues in day-to-day routine clinical practice, including referral and length of treatment provided. If made actionable and retainable, such findings could be helpful to clinicians and administrators in addressing the high demand for services, severity of distress experienced by many clients, and limited resources that characterize current care in counseling centers.

Client and Therapist Matching

In a study conducted with Axis I mood disorder clients treated at a US hospital outpatient clinic, Bhati (2014) tested the hypothesis that self-identified gender matching was predictive of the quality of the alliance early in therapy – but only in the initial phase of treatment. Based on a sample of 92 dyads (49 gender matched, 43 gender nonmatched), results revealed what the author refers to as a "female effect." The alliance ratings of female clients–female therapist dyad were significantly higher, not only early in therapy but across different phases of treatment, than dyads with male therapists. In addition, the findings revealed that alliance ratings of female therapist–male client dyads were superior to male therapist–male client dyads. In a previously mentioned study, Al-Jabari et al. (2019) also found that self-identification gender matching was associated with lower rates of premature termination in three university psychological training clinics, but the effect size was very small.

Another example of a PBE study on matching did not focus on similarity between client and therapist but rather on their complementarity (Marmarosh et al., 2014). Guided by the actor–partner interdependent model (see Process section above), the investigators examined interactions between self-reported client and therapist attachment styles (anxiety and avoidant) on the alliance, as rated by both participants between sessions three and five. Specifically, they predicted that complementary (opposite) styles on both dimensions of attachment would foster the process of change early in treatment. Recruited from two routine practice sites in the US (a university-based community mental health clinic and a university counseling center), the sample included 46 client–therapist dyads. In line with authors' predictions, higher levels of alliance were associated with dyads where therapist anxiety attachment was low and client anxiety attachment was high, and lower levels of alliance were associated with therapists high in anxiety attachment working with clients also high in levels of anxiety attachment. However, these significant findings were observed only when the client rated the alliance. Furthermore, no complementarity with respect to avoidant attachment was supported. Nevertheless, the study suggests that some type of matching between client and therapist may facilitate the building of a secure base at the beginning of therapy.

Summary

Going beyond the search for treatments that work, studies conducted as part of clinical routine have examined a host of client pre- or early treatment variables that explain, sometime in combination with therapist characteristics, some impact of therapy. As in traditional RCT, these variables include symptoms, diagnostics, and demographics. While having received less empirical attention, others map onto issues that most clinicians would find relevant in developing their case formulations and treatment plans, such as chronic medical conditions, history of trauma and sexual abuse, distinct profiles of distress, risk index of poor response, past and current maladaptive

patterns of relationships, various facets of treatment expectations and preferences, and moderators of alliance and outcome relationship. The studies described above have also focused on the prediction of several consequences or concomitants of therapy. In addition to pre- and post-symptom changes, these include less typical targets of inquiry such as attendance to first session, treatment duration, dropout, failure to remit, deterioration, severe risk to self and others, alliance and outcome trajectories, sudden gains, and return to future episode of treatment. Taken together, the breath of relationships between predictors and effects revealed in recent PBE studies can be viewed as a rich source of information about treatment courses and outcomes, some beneficial and some not.

Contextual Variables

Whereas there were relatively few studies on either process or participants' factors reported in the 2013 chapter, even less attention was given to contextual variables that might contribute to the effect of psychological therapies. This was due, in part, to the paucity of studies conducted on such issues. Reflecting a growing interest in organizational factors within which treatments are provided, a number of studies are presented here. They are grouped within three clusters: center/clinic/service effects, neighborhood effects, and training/supervision.

Center/Clinic/Service Effects

Several studies investigating the potential impact of services have been conducted within the UK health care system. One of them, which we previously described, examined the relationship between service characteristics and client recovery rates (Gyani et al., 2013). Based on data collected in 24 IAPT services, the study found higher rates of reliable recovery to be associated with larger services, higher number of sessions, higher proportion of clients who began treatment with low-level intensity interventions and were then stepped up to high-intensity interventions, and a larger number of experienced staff. This study, however, did not account for the nested nature of client, therapist, and center variables.

In contrast, the next three studies all used multilevel modeling analyses to account for such nesting. In a study also described above, Delgadillo, Kellett et al. (2016) examined the effectiveness of CBT group therapy delivered in five different IAPT services. In addition to group effects, the authors reported that the outcomes in one of the clinics were significantly lower than the other four. Such a difference, however, was accounted for by group (e.g., treatment length) and case mix variables (e.g., number of participants from low socioeconomic areas/neighborhoods). Service differences were examined in another previously described study that investigated the effectiveness of CBT and counseling across 103 IAPT sites (Pybis et al., 2017). The results indicated that clinic effects explained 1.8% of the outcome variance. These findings, controlling for client variables and session attended, reflect meaningful differences in clients' improvement. For instance, the mean recovery rates of the clinics that were reliably more effective than others (approximately 15% of the clinics) was 59% compared to 43% for a similar percentage of the total clinics that were reliably less effective. Consistent with observations regarding therapist effects (see Chapter 9), the findings also showed that clinic differences were greater with higher levels of baseline severity.

Service and therapist effects were simultaneously investigated in 30 clinics, also in the UK (Firth et al., 2019). With a sample of 26,888 patients and 462 therapists, the results revealed service effects at 1.9% that were similar to those observed by Pybis and colleagues. These effects were smaller than the therapist effects (3.4%), which in turn were smaller than those that have been typically observed in naturalistic settings. As noted by the authors, this could reflect the fact that therapist effects were, in contrast to previous investigations, controlled for by service effects. The study also investigated variables that could explain services and therapist effects, as well as overall outcome variance. Differences between clinics, but not between therapists, were mostly explained by two client-level variables, namely baseline severity and employment status, and two clinic-level variables, namely sector of care provision and ethnic composition. Specifically, the finding that some clinics had lower outcomes then others was explained by the high level of severity and unemployment of the clients they served, as well as for being a secondary care service (a sector that is more likely to serve more complex cases) and for treating a smaller proportion of White clients. These, as well as other client variables (age, ethnicity, session attendance, interaction between severity and employment status), also explained a large part of the overall outcome variance. The findings further showed that initial severity was a particularly strong predictor of improvement, and that its relationship with outcome was moderated by a client's therapist.

Clinic effects and some of the factors that might explain them were examined in psychological therapies provided to university students (Carney et al., in press). Conducted within the CCMH PRN infrastructure, the study involved 58,423 clients, 2,362 therapists, and 116 university counseling centers in the US. Also relying on multilevel modeling analyses to account for data nesting, differential effectiveness of centers was assessed with respect to magnitude and rate of change, both controlling for baseline severity at the client- and center-levels. Using posttreatment outcome, an average center effect of 1.9% was found across seven measures of distress – findings that are consistent with both Pybis et al. (2017) and Firth et al. (2019). A higher average of 3.2% was found, however, when predicting clients' rate of change during treatment. Particularly relevant for student college clients, center effects were the highest for substance abuse (2.6% for posttreatment outcome and 6.9% for rate of change). In their attempt to explain clients' outcome differences, the authors examined six potentially actionable center-level factors, in terms of procedures and policy changes: presence or absence of session limits, session frequency, number of clients served annually, center provision of noncounseling services (e.g., psychiatric treatment, neuropsychological testing), center accreditation status from the American Psychological Association [APA], as well as center accreditation status from the International Accreditation of

Counseling Services. While these variables explained a substantial part of the center effects, only one of them significantly accounted for the total variance of outcomes across different types of distress. Specifically, centers where clients received more frequent sessions had better outcomes. Consistent with Firth et al. (2019), client-level baseline distress explained the largest part of the outcome variance in general.

Neighborhood Effects

As noted above, Firth et al. (2019) found that a small proportion of White clients seen at a clinic explained part of clinic effects and overall outcome variance. The authors hypothesized that these findings reflect the impact of deprivation. More direct evidence for neighborhood effects has been provided by Delgadillo, Kellett et al.'s (2016) study, which, as previously discussed, found that service effects were accounted by a number of group and client variables, including the level of deprivation of a client's neighborhood. As noted by the authors, more socioeconomically deprived areas were associated with poorer posttreatment outcomes.

Further evidence has come from data collected in IAPT services across England involving 293,400 individuals who were referred to treatment, with 110,415 of them accessing therapy and providing outcome data (Delgadillo, Asaria et al., 2016). In line with the previous results, this study showed that poorer areas in the UK were associated with lower recovery rate from treatment for depression and anxiety. Consistent with empirical evidence that poverty is linked with a higher prevalence of mental health problems, a greater level of area deprivation was also predictive of higher levels of referrals. The results further show that area level of deprivation did not predict the caseload sizes, that is the number of clients who were referred to therapy, who got access to treatment and were discharged. Reflecting crucial issues to guide the improvement of mental care in the UK and wider afield, the authors argued that this finding "could be explained by the detrimental influence of deprivation on the likelihood of starting therapy after being referred, insufficient healthcare resources in services working in poor areas, or a combination of both" (p. 430).

Training/Supervision

Early in practitioners' professional development, and sometimes at different phases of their career, psychological therapies are conducted within the structure of training and/or supervision. As such, formal mentoring, consultation, and guidance from others represent meaningful contextual variables that are aimed at improving treatment. Although training and supervision are the focus of an entire chapter in this *Handbook* (Chapter 10), we present here a few examples of PBE studies that have recently been conducted on these topics.

One study assessed clients' outcomes of therapists at different, cross-sectional, stages of training. Conducted in a single university counseling center in the US, it involved 1,318 clients treated by 64 therapists (Budge et al., 2013). These therapists were either students in beginning doctoral practicum, students in advanced doctoral practicum, predoctoral interns/postdoctoral fellows, or licensed psychologists. The findings revealed a mixed picture about the effect of training. While interns/postdoctoral fellows show greater effectiveness in terms of clients' life functioning than advanced graduate students, they were also found to be more effective than licensed psychologists with regard to life functioning and symptoms change.

Three other studies assessed the improvement of trainees using longitudinal designs. Hill et al. (2015) examined whether doctoral student trainees improved over 12 to 42 months during an externship at a US psychodynamic/interpersonal university clinic. With data collected over a period of six years, the sample comprised 23 therapists and 168 clients. Based on both quantitative and qualitative analyses, the results indicate that while trainees showed significant improvement with respect to some important clinical skills (e.g., client and therapist rated working alliance, therapists' perceived ability in case conceptualization and helping skills), they did not show significant change with regard to judge-rated use of psychodynamic techniques. Furthermore, with the exception of significant increment in clients' interpersonal functioning, no improvement was found with various types of treatment impact (dropout after intake and eight sessions, client and therapist-rated session outcome, and symptom change) during therapists' training at the clinic.

In a larger study, Owen et al. (2016) investigated the increment in effectiveness using a sample of therapists that varied in their stage of training. The study was based on 2,991 clients treated at one of 47 US university counseling centers by 114 therapists, who were either practicum students, predoctoral interns, or postdoctoral fellows when they saw their first client in the study. They found that clients' outcomes of trainees showed small but significant increases over a period of at least 12 months (mean of 45.3 months). They also found that improvement in therapist effectiveness was moderated by client initial distress: such improvement, contrary to the authors' prediction, was only significant for less-distressed clients. Also inconsistent with one of the authors' predictions, the stages of training (practicum students vs. predoctoral interns/postdoctoral fellows) was not significantly related to client outcome change over time. Supporting another of their predictions, however, therapists varied in terms of patterns of effectiveness over time: The performance of some therapists increased, decreased, or stayed the same during different periods of their training. Such variability, the authors argued, is evidence that the effect of training fails to be uniform.

The third longitudinal study assessed whether therapists improved as they moved through distinct stages of training: as doctoral students, psychology interns, postgraduate psychology residents, and licensed professional psychologists (Erekson et al., 2017). The study involved 22 therapists who treated 4,047 clients at the same university counseling center in the US for a minimum of two stages of training. With respect to magnitude of a client's change, the results showed no improvement in therapist outcome performance in later training stages. A significant effect was found, however, in terms of rate of change, with the fastest rate of changes observed at the doctoral level and the slowest at the licensed level. As noted by the

authors, more training does not seem to make therapists more effective or efficient in reducing client distress.

Supervision has failed to show more merit than training in general, at least with respect to clients' improvement, in a study conducted at a private nonprofit community-based counseling clinic in Canada (Rousmaniere et al., 2016). Data collected over a period of five years led to a sample of 6,521 clients, 175 therapists in training (pre or post master's degree), and 23 supervisors (master's- or doctoral-level) with diverse theoretical orientations. As part of the day-to-day clinic routine, each trainee received one hour of individual and two hours of group supervision weekly, provided by only one supervisor at a time. Analyses accounting for the nesting data of clients, therapists and supervisors, revealed that supervision explained only a very small part of client outcome (0.04%). Moreover, no supervisor characteristics that were assessed (level of education, years of experience in providing supervision, and professional field) predicted client outcomes. In addition, the results failed to confirm the authors' hypothesis that supervision effects would be moderated by trainees' level of experience (i.e., the differential impact of supervisors on client outcomes would be stronger with pre- than with post-master's therapists).

Summary

Recent PBE studies have suggested that some aspects of the context within which psychological therapies are conducted have an impact on client outcome. The findings presented here indicate that where clients are treated – and, perhaps more importantly, where they live – matters. Relatively small, but yet robust and meaningful service/clinic/center effects have been observed in different care settings. At least some of these effects, however, may be reflective of the impact of poorer areas. Social deprivation intrinsic to such areas does appear to put at risk individuals not optimally utilizing and/or being adequately provided with therapy, and for not fully benefiting from treatment. In contrast, other contextual variables, assumed to be necessary for effective practice, have not been shown here to have a strong and reliable effect on clients' improvements. Notwithstanding results obtained with less-distressed clients, studies in this section suggest that the focus, structure, and implementation of training and supervision conducted in the real world could be improved. Considering the importance and the complexity of these issues, optimal ways to foster such improvement might call for the collaboration of many stakeholders, including clinicians, supervisors, trainees, administrators, policy makers, and clients.

Other Initiatives to Close the Science–Practice Gap and New Developments in Practice-Oriented Research

In the 2013 edition, we presented a number of efforts aimed at reducing the scientific–practice gap, efforts that are complementary to practice-based evidence accumulated via research in routine clinical practice. These efforts included recommendations, some early (e.g., Goldfried, 1984; Stricker & Teierweiler, 1995) and some more recent (e.g., Baker et al., 2009; Beck et al., 2014), to foster the integration of research in the clinical training of doctoral students. We also identified peer-reviewed journals that encouraged and are still encouraging clinicians' contributions to, and assimilation of, empirical knowledge (*Journal of Clinical Psychology*: *In Session*; *Pragmatic Case Studies in Psychotherapy; Psychotherapy*). Since then, a new section in the *Journal of Psychotherapy Integration*, has been pursuing the related goal of deriving clinical implications from basic findings in psychology.

As ways to increase the clinical relevance of research, the chapter in the previous edition mentioned attempts to give voice to clinicians about the applicability of research in day-to-day practice. This included an initiative that allowed and has continued to allow clinicians to provide input on the problems and difficulties encountered when attempting to implement ESTs in their practice (e.g., McAleavey et al., 2014). Also going beyond the view of clinicians as passive recipients of research, a recent collaborative project has enabled the exchange of distinct but complementary expertise between researchers and experienced clinicians (Castonguay et al., 2019). While the researchers provided a list of empirically based principles of change from an extensive review of literature, the clinicians described how they typically implement such principles in their day-to-day practice. With the goal of creating new directions of knowledge and action, both group of scholars then engaged in dialogues about these and other clinically derived principles of change.

The chapter in the previous edition also referred to papers describing clinicians' experiences in participating in research. This topic, however, has received extensive attention in the last decade and can be viewed as a primary focus of new developments in practice-oriented research. These developments have in common a commitment, most often in collaboration with researchers, that parallels Sullivan's therapeutic stance of participant-observer (Sullivan, 1953), where clinicians have demonstrated their willingness and/or ability to engage in research and have reflected on this engagement. One special issue of *Counseling Psychology Quarterly* (Paquin, 2017), for example, aimed at illustrating the tensions and benefits experienced, the support needed, as well as the work conducted by scholars involved in the dual tasks of being practitioners and researchers. Two other journal issues, one in *Psychotherapy* (2019, volume 56, issue 1) and one in *Psychotherapy Research* (Castonguay & Muran, 2015), have been devoted to the process of building clinician-researcher partnerships and conducting research in routine clinical practice – together with providing a pool of lessons and recommendations for future POR across a diversity of settings and regions. Similar manifestations of collaborative commitment have been the focus of yet another special issue, this one published in *Revista Argentina de Clinical Psicologica* (Fernández-Alvarez & Castonguay, 2018), where clinical scholars from Europe, Latin America, and North America joined to provide reflections about the role of practice-based evidence in building scientific knowledge about psychological therapies, to describe the development of practice-oriented infrastructures, and to present various studies conducted in routine clinical practice.

In addition to these journal issues, several single publications have described the experience of clinical researchers in collecting and making use of empirical data. For example, two recent articles have presented challenges and ways to address them, first in initiating (DeFife et al., 2015) and then in maintaining (Drill et al., 2019) research studies on long-term psychodynamic therapy, as practiced in a public hospital clinic and training site in the US. The observations and guidelines highlighted in these papers are likely to be helpful to many psychotherapists interested in contributing to scientific knowledge as they have been derived from settings where research time is not funded, where the staff and their time to conduct such research are limited, and where, to a significant extent, clinicians and researchers "are one and the same" (DeFife et al., 2015).

Other recent papers have focused on settings and/or clinical issues that are not associated with traditional territories of psychological therapies. For example, Craner et al. (2017) have described the design and development (based on guidelines of implementation science) of a data collection system in a behavioral health program that is integrated within five primary care clinics in the US. The fruits of a research partnership involving multiple stakeholders, this system has been built to serve numerous purposes (e.g., clinical decisions, program development, training, research) via the tracking of several aspects of psychological therapies, including their utilization, effectiveness, and the use of principles linked to empirical supported treatments. Sales et al. (2014) have also described the international collaboration, within a practice-based research network, of researchers and clinicians in the development and implementation in clinical practice of a personalized health measure. Addressing the need for a nonmainstream but socially crucial segment of mental care, Steen and Mellor-Clark (2019) have described the early development of a collaborative learning network aimed at promoting the value and improving the practice of third-sector organizations. These organizations (e.g., voluntary and community services, charities) provide a range of support, including for female victims of domestic violence and women on low incomes. Involving a network of six organizations in the UK, this initiative has relied on sharing and generating practice-based knowledge, mentorship support, and integration of outcome monitoring in clinical routine. The initial year of operation has provided evidence for the benefits of such collaborative partnership in terms of improved data collection, as well as better understanding of session nonattendance, unplanned ending of treatment, and outcome trajectories.

Another recent development has been the publication of surveys of clinicians that were created within three PRNs for the sake of guiding research in their respective infrastructure. Two of them asked similar questions assessing the importance or usefulness of specific topics of research for the practice of psychotherapy (Taska et al., 2015; Youn et al., 2019). Interestingly, despite the fact that these surveys assessed different groups (more than 1,000 participants, mostly Canadian clinicians practicing in a diversity of settings; more than 600 clinicians, trainees, and administrators working in university counseling centers), the most important area of research reported in studies was the process of change and/or the therapeutic relationship. Another survey asked a more fundamental question: what makes it possible for clinicians to participate in research (Thurin et al., 2012)? The survey was completed by 36 clinicians who were participating in a study focused on the outcome and process of psychotherapy in natural settings. Importantly this collaborative initiative took place in France, a country where, as noted by the authors, empirical research on psychotherapy has been faced with hostile reactions. The survey (and the discussions it generated among clinicians in the PRN) pointed out the value of a peer group, meetings to identify and address obstacles, online support, and opportunities to reflect on treatment interventions. Capturing a broader level of learning, the authors stated that the discussion of the survey findings highlighted benefits that can be derived from an engagement in research with regard to understanding of psychological therapies.

The last type of development to be briefly covered here reflects a particularly strong form of collaborative engagement within POR: The creation and development of PRN infrastructures aimed at creating empirical and actionable knowledge via the synergistic integration of multiple sources of expertise. A substantial number of PRNs were identified in the original chapter, clustered around clinician and researcher partnerships that belong to diverse professional organizations, specialize in the treatment of various clinical problems, or work in diverse clinical settings. Several of the PRNs that were described in the previous chapter have shown extensive developments (e.g., Castonguay, Pincus, et al., 2015; Garland, et al., 2015; Huet, et al., 2014; McAleavey et al., 2015; West et al., 2015). Other PRNs were not covered, some new, some not, including several already mentioned in the current chapter (e.g., Callahan et al., 2014; Sales, 2014; Tasca et al., 2015; Thurin, et al., 2012; Tucker et al., 2014). Like several initiatives described in this chapter, additional PRNs have been developed to advance knowledge within zones of practice that have received less than optimal attention, for example, spirituality (Richards et al., 2015) and systemic orientation (Vitry et al., 2020).

The initiatives presented in this section, some of them having been built on earlier work while others having opened new areas of exploration, are likely to foster the expansion of practice-base evidence and the growth of POR partnerships around the world. More broadly, they represent worthwhile efforts toward the solidification of the scientific practitioner model and the growth of the scientific basis of psychological therapies.

Conclusion

PBE studies are, by definition, anchored in routine clinical practice. Their aim is to understand and improve psychological therapies as they are actually conducted – not as prescribed for a primary empirical reason – and the goal of this chapter has been to provide illustrative examples of PBE studies conducted since the chapter in the previous edition. Even when combined, these two chapters fail to provide a comprehensive review of the extent and diversity of research. As a case in point, a recently published review identified more than 250 studies

conducted in psychological training clinics between 1993 and 2015 (Dyason et al., 2019). It is also important to remind the readers that a large number of practice-oriented studies, under the umbrella of patient-focused research, has been covered elsewhere in Chapter 4 of this *Handbook*. Yet, the sections above give a sense of the variety of empirical investigations that have been conducted with respect to the impact and processes of therapy, as well as to the participants and contextual variables that contribute to them. This breadth is not surprising considering the complex set of factors mapping on to the realities of day-to-day practice, especially when it is investigated by researchers and clinicians working in different countries, clinical settings, with diverse clinical populations, and from different theoretical orientations. The diversity of findings presented is also not surprising considering the multiplicity of methods that have been used, including correlational and experimental designs, multilevel modeling, case study, and qualitative analyses. Some of the topics covered by PBE studies overlap with those typically harvested in RCTs, which can contribute to science by assessing the clinical validity of results observed in controlled settings and/or by increasing the robustness of findings obtained by different empirical approaches. But many of the PBE studies also investigated issues outside of well-paved routes of inquiries, conceptualization, and action.

It should be mentioned that with the conduct of PBE studies there frequently comes a number of methodological and pragmatic challenges, some of them having been briefly mentioned in the section above. An extensive description of such challenges and obstacles has been derived from the experience of 11 researcher and clinician partnerships across three continents (Castonguay, Youn et al., 2015). These include *concerns that practitioners* may have about the study's clinical value (will it provide me with helpful information?), negative impact (will it affect the therapeutic relationship?), feasibility (can the research tasks be easily integrated in my day-to-day routine?), and the use of the data collected (will it be used to assess my performance?); *problems of communication and collaboration* that are likely to emerge when professionals who speak different languages and live in different worlds are working together; *pragmatic barriers* such as lack of time and financial support; and *costs* experienced by all stakeholders (e.g., additional responsibilities, loss of income, interference with pressure to publish). Fortunately, strategies to address these challenges have also been generated across the same partnerships, such as designing research tasks that provide immediate information about a client and/or treatment; regularly collecting feedback about the applicability and relevance of protocols; recognizing and building on unique needs, expectations, and expertise of a diversity of stakeholders; and using strategies to ease the learning and remembering of research protocols. Such strategies may not only facilitate the implementation of PBE studies, they may also help researchers and clinicians to identify research goals that are directly addressing key issues in the delivery of mental health services.

As with any type of research, including RCTs, a number of limitations have been identified with studies conducted within the paradigm of practice-oriented research (see McMillen et al., 2009; Parry et al., 2010). Some of these, especially with regard to internal validity, are not likely to be addressed in future investigations. For example, it is neither possible nor advisable for clinicians to have every prospective new client assigned to repeated and blind assessments before and after treatment so that a reliable judgment of the diagnoses of research participants can be ascertained. However, improvements have been made to address other limitations. For example, as a whole, practice-based research can be challenged for the lack of assessment of therapists' treatment adherence and competence, thereby precluding confident statements about what interventions therapists used and how well they implemented them in studies investigating or comparing different forms of therapy. However, although no doubt costly in terms of time and expertise, observer assessments of therapists' delivery of therapy have been used in some studies (e.g., Garland et al., 2010; Kivlighan et al., 2019) and should be considered in future investigations. Other POR studies have relied on the therapist reports of techniques conducted session-by-session (e.g., McAleavey & Castonguay, 2014). While subject to their own biases, self-report measures used in these studies have been shown to be predictive of session impact. Crucially, when integrated into routine clinical practice they can be actionable, thereby delivering on the confounding of research and practice activities. Clinicians could compare their assessment of the techniques they used during a session with the client's evaluation of the impact of the same session to derive information about what interventions appear to be more or less responsive to the particular needs of the client.

Beyond the limitations of specific studies, two broad limitations related to POR in general, and PBE evidence resulting from this paradigm, need to be highlighted. First, a substantial number of investigations have been conducted with university student samples. While there is evidence that this population is experiencing significant distress and impairment (Xiao, Carney et al., 2017), it cannot be assumed that findings derived from it will generalize to other populations without clear supporting evidence. What this means is that more studies need to be conducted with non-college samples and more efforts should be made to compare findings across these populations, including benchmarking studies (e.g., McAleavey et al., 2019). It is perhaps not surprising that a large portion of POR has emerged from university training clinics and counseling centers. Operating as a single site or as part of networks, these are embedded in an environment that emphasize research and frequently have the resources and expertise to conduct such research (including faculty members, graduate students, as well as statistical and technological assistance). These resources and expertise are not likely to be easily accessible in other clinical settings, especially within single sites. Fully addressing the first broad limitation of POR might thus require the creation of new organizational frameworks, such as large PRN infrastructures (similar to CCMH) and national programs (similar to IAPT), that will encourage and facilitate research in a wide range of clinical milieux, including hospitals, residential facilities, and private practice. Moreover, given that a significant proportion of evidence derives from the CCMH and IAPT sources, it is a frustration that these two data sources do not share a common measure – a hallmark of practice-based

evidence. A clear challenge would be to test out the extent of the commonality between the CCMH and IAPT populations via the adoption of, for example, the key elements of the IAPT minimum dataset within a test sample in the CCMH PRN. In this way, we might then be able to both test the generalizability of CCMH data and also move to a higher-level of internationally shared data sources.

The second broad limitation is that the current status of PBE is characterized by a wide range of studies, with a limited number of them focusing on particular topics or questions (with the notable exceptions of therapist effects and the alliance). This is reflecting, at least in part, the fact that POR is driven more by a diversity of issues faced in day-to-day work and less by the strong academic pull toward accumulating knowledge to support, or disconfirm, a specific construct or method. Unfortunately, the paucity of efforts toward replication limits the possibility of deriving robust conclusions about most aspects of psychosocial therapies investigated in POR. In the spirit of setting up a further challenge to the field, we hope that enough POR studies will be generated in the next five to seven years to allow for systematic reviews and/or metanalyses on specific topics of investigation to be conducted.

Clinical, Scientific, and Policy-Making Contributions

Practice-oriented research has offered contributions to the field that are beneficial to therapists and their clients and should be recognized both by psychotherapy scholars and by policy makers. At a clinical level, the main message that should emerge from this and the chapter in the previous edition is that clinicians can learn from what they and others are doing in their clinical practice. They do not have to restrict themselves to textbooks, training in graduate school, supervision, and results of RCTs to guide their interventions. Another source of knowledge is the empirical findings that come from investigations of how therapy is actually conducted in different types of settings. Because of the external validity of these investigations, clinical implications could be derived from virtually all PBE studies. At the minimum, these implications should be directly applicable to the setting where the data has been collected. Unless the routine clinical practice changed substantially after the completion of a study, its findings can be used to improve how care is provided (e.g., see Adelman et al., 2015). Among the countless clinical implications that can be derived from the studies described in this chapter, we highlight five here:

1. *Clinicians should be aware that they may be more effective with White than with REM clients (or vice versa), and that they may be more effective than most of their colleagues when working with White or REM clients*. Until the field provides a clear picture of who is more effective, clinicians should monitor and pay attention to the outcomes (as well as dropout and session attendance) of clients of diverse ethnicities and reflect on what they may do differently if patterns of discrepancies emerge.
2. *Clinicians are likely to benefit from monitoring alliance and outcome on a session-by-session basis, using reliable and valid measures*. Such tools may help them recognize the incidence and recurrence of alliance ruptures, which should be acted on. Tracking the fluctuation of alliance and its potential impact may also help clinicians in assessing and responsively adjusting their attempts to repair these ruptures, which, if successful, may provide their clients with experiences in how to solve interpersonal difficulties.
3. *When monitoring the alliance, therapists might find it helpful to assess and compare their clients and their own perspectives*. Higher ratings on their part may be a cause of concern, as this has been related to lower session and treatment impact – perhaps indicating a lack of proper attention to alliance problems.
4. *Clinicians may increase their effectiveness by fostering complementary processes of change*. Examples are the acquisition of coping skills when conducting CBT and the deepening of emotional change in psychodynamic treatment. Clinicians should also be aware that a strong alliance is likely to provide an optimal condition for activating the therapeutic value of these processes.
5. *A reliable and valid self-report assessment of clients' past and current interpersonal difficulties is likely to improve clinicians' case formulations and treatment plan*. The assessment of such problems can help clinicians predict not only who is likely to require longer treatment but also who is likely to benefit more from corrective experiences that a good therapeutic relationship can provide.

At a scientific and policy-making level, the studies reported in this chapter (as well as those on outcome monitoring and feedback describe in Chapter 4) set out both the yield and potential of an overarching paradigm that goes part way to redressing the balance with trials methodology as well as promoting a strategy for ensuring better capture and use of data from routine practice; that is, addressing the colander effect (Kazdin, 2008). The combination of large data sets and multilevel modeling to reflect the hierarchical structure of such data has reprivileged practitioners in demonstrating their impact with diverse client populations, such as REM clients and clients with a mild-to-moderate level of symptoms. PBE studies have also generated evidence for the effectiveness of clinics (single and multiples) varying across a rich diversity of theoretical orientations, specializations of care, and locations across multiple regions. Yet, studies involving large number of clinics have also identified a robust clinic effect: many clinics are indeed effective, but some more so than others. In addition to who the client sees and where they are seen, studies on neighborhood effects have shown that where they live matters. These factors are hardly suitable for RCT trials but they do explain meaningful parts of outcome variance. In addition, data collected in routine clinical practice can be used to address treatment delivery issues that have not been frequently investigated by, or that are not amenable to, trials methodology. For example, identifying those clients who are more likely to return to therapy can help clinicians and administrators managed services utilization. While most trials focus on one episode of therapy, a substantial number of clients come back in the setting where they were seen to receive additional treatments.

Frequently based on large amounts of data with a wide range of client populations, PBE studies have also demonstrated a unique ability to identify distinct profiles of distress and risk that are predictive of treatment course and response.

Furthermore, studies reviewed in this chapter have also shown that therapist effects are related to practitioners' abilities to retain patients rather than dropping out, as well as to keep them engaged in treatment, which may in turn be more crucial than differences between treatment orientations for those patients completing treatment. Also based on multilevel modeling methods, as well as other sophisticated statistical analyses, some PBE studies on the process of change have helped the field get closer to establishing the causal effect of the alliance on therapeutic change. Other studies have revealed the complex and clinically helpful nature of therapist and client emotional experiences, while still others have suggested that some types of interventions can have unexpected positive or negative impacts – and that such impacts may depend on the theoretical orientation of the therapists, of their supervisors, as well as the relational context within which they are being implemented.

Taken as a whole, these examples indicate that PBE studies are increasingly able to capture and analyze data that reflect the complex structure and processes involved in delivering psychological therapies in the real world. This evidence base from routine clinical practice needs to be considered in conjunction with RCT evidence by bodies informing national policies to realize the full potential from the chiasmus of evidence-based practice and practice-based evidence.

Recommendations for Future Research

More issues remain to be investigated, and further scientific, as well as clinical, advances are likely to be achieved with increased utilization of a diversity of research methods. Among the numerous recommendations that can be made for future research, a few appear particularly worthy of attention. First, practice-oriented collaborators might be encouraged to conduct more studies exploring the interaction of participant (i.e., client and therapist) characteristics, relationship variables (e.g., alliance), and technical factors (common to several forms of psychological therapy or unique to particular approaches). Further examination of the moderating and mediating roles that some of these elements may have on treatment outcome could well capture intricate details of the change processes in applied settings. Second, and complementing these advanced quantitative analyses, we would also suggest that more emphasis be given to extensive qualitative analyses of significant events or episodes during therapy.

As can be seen in other chapters of this *Handbook*, similar recommendations for future investigations have been made toward research conducted outside PBE. Such convergence should be viewed as a warning sign of a possible false dichotomy between traditional (i.e., evidence-based) and practice-oriented research paradigms. Not only do these lines of research share important goals – including, as mentioned above, the quest to better understand and improve psychological therapies – but they can also focus on similar issues and use similar research methods, including randomized clinical trials (e.g., Callahan et al., 2014; Zilcha-Mano & Errazuriz, 2015).

As mentioned early in the chapter, some PBE studies are designed and conducted by clinicians while others are based on an active collaboration between researchers and clinicians in different aspects of research. By having practitioners involved in deciding what to investigate and how to do so, such studies can provide practitioners with an active voice in "setting the research agenda" (Zarin et al., 1997) and a vehicle for shaping the empirical evidence upon which practice could be based. Recognizing the importance and value of the clinician's voice means that the recommendations for future research mentioned above should be viewed as tentative suggestions. Yet it is important to recognize that numerous PBE studies (such as those based on IAPT datasets) use routinely collected data but are driven by researchers, with little or no input from clinicians. What is shared by these different facets of PBE, however, is the investigation of psychosocial therapy as it is being conducted in routine clinical practice.

In terms of future directions, we believe that two issues are more important than what topics need to be investigated. The first one is: What are the characteristics that define optimal PBE studies? We believe that it is time to delineate criteria of clinical relevance and scientific rigor, both to assess the quality of PBE studies and to inform the design and conduct of future studies. As a step toward the construction of a quality scale to serve these dual purposes, we are proposing a list of characteristics related to clinical helpfulness, feasibility, methodological, and statistical sophistication (see Table 6.2).

Table 6.2 Characteristics of Higher-Quality Practice-Oriented Studies

(A) Clinical Helpfulness

The study provides evidence of, and/or helpful information for improving the:
- impact of therapy (e.g., outcome, retention, engagement, sudden gains, reduction of deterioration)
- utilization of services
- assessment and/or case formulation, and/or treatment plan
- implementation of interventions
- establishment and development of therapeutic relationship, and/or repair of relationship problems

The study provides information to better understand the:
- effect of psychotherapy
- process of therapy
- client and/or therapist characteristics
- contextual variables impacting psychotherapy

(Continued)

TABLE 6.2 (CONTINUED)

The information provided by the study is available and actionable as the data is being collected.

(B) Feasibility
- The study does not impose drastic or substantial changes in routine clinical practice.
- The study requires minimum burden in terms of time and/or additional tasks to routine clinical practice.
- The research tasks are easily or seamlessly integrated into the clinical care.
- The research tasks are retainable as part of clinical care, even when the study is completed.

(C) Methodological and Statistical Sophistication
- The study involves a large sample of clients.
- The study involves a large sample of therapists.
- The study involves a large number of sites.
- The study involves repeated assessments of key constructs, outcome, and/or process.
- The study relies on statistical analyses to account for the nesting of the data at multiple levels, including client, therapist, center.
- The study uses within and between clients (and/or therapists) analyses.
- The study investigates moderator variables.
- The study investigates mediator variables.
- If investigating the effects of therapist, the study involves large number of therapists and large number of clients seen by each therapist.
- If investigating the effects of center, the study involves large number of centers, large number of therapists per center, and large number of clients seen by each therapist.
- If investigating the effects of therapy, the studies assess both the magnitude and the rate of change.
- If investigating the effects of therapy, the study uses methodological designs that increase internal validity of findings (e.g., randomization in clinically valid conditions; cohort design).
- If investigating the process of change, the study uses statistical or methodological designs that increase internal validity or decrease the impact of confounding factors on cause and effects relationship (e.g., assessing process and outcome, by measuring outcome change between time of assessment of a process variable and end of treatment, while controlling for change in outcome before assessment of the process variable).
- If investigating the process of change, the study allows for examination of convergence and/or complementary of client and therapist experience of process and outcome.

There is a second crucial issue regarding future directions: What can be done to generate more PBE studies and to foster their impact on the field? On this, we can only provide a glimpse of ideals that could be pursued. On a pragmatic level, it would be beneficial to foster the following initiatives:

1. *Embed practice-oriented research during training*. This could be facilitated by implementing repeated measurements and the use of feedback within clinical training and supervision (see Chapters 1, 4, and 5), as well as by providing opportunities for students to do research that is not only clinically relevant but that also interfaces with their clinical experiences.
2. *"Ask and tell" by surveying clinicians about what they want to know and what kind of study they would like to build and implement with others*. Then publish the results of these surveys to inform and stimulate the field into action. As described above, this has recently been implemented within the context of North American PRNs (Taska et al., 2015, Youn et al., 2019). Assessment of clinicians' knowledge priorities, however, should be expended and regularly repeated – just as recommendations for future research are frequently published by and for academic researchers.
3. *Encourage clinicians to conduct studies in their own work environment*. As shown in this chapter, a large number of studies can now serve as examples. There are also detailed guidelines for developing and maintaining a research program in a variety of settings, including private practice (Koerner & Castonguay, 2015), residential treatment (Adelman et al., 2015), community centers (Garland & Brookman-Frazer, 2015), practice and training clinics (Fernández-Alvarez et al., 2015), university counseling centers (McAleavey et al., 2015), and hospitals (Drill et al. 2019).
4. *Work locally but collaborate globally*. Being engaged in scientific activities can be more rewarding, process and outcome wise, when it is carried out in connection with others. For example, the creation of networks between smaller groups of clinicians and researchers collecting data on the same variables at different sites can enrich scientific projects, both in terms of diversity of expertise and sample sizes.
5. *Design studies that can lead to actionable and retainable findings*. PBE findings can even be immediately relevant to the conduct of therapy, as when the data collected simultaneously serve both research and clinical purposes – thereby seamlessly integrating or confounding science and practice.
6. *Close clinical and empirical loops*. This can be done by (a) using clinical practice to collect data; (b) changing administrative or therapeutic procedures based on the results of this data collection; and (c) testing the impact of such changes on the provision of care delivery in the clinical practice where the data have been collected.
7. *Use data that are already available – that is, archived or secondary data sets*. Many studies can be carried out by taking advantage of archival data open to researchers.

8. *Make the research for and by clinicians count*. There is a robust argument to be made to funders and policy makers to ensure that the evidence derived from practice-oriented research contributes in equal measure to the development of national, local, and professional guidelines. Methodologists within the wider discipline of public health have argued, "if the health professions and their sponsors want more widespread and consistent evidence-based practice, they will need to find ways to generate more practice-based evidence that explicitly addresses external validity and local realities" (Green & Glasgow, 2006, p. 128). We would also argue that this is a two-way street. Although it is clear that our understanding and conduct of psychological can be improved by the scientific contributions of PBE studies, clinicians are more likely to engage in designing, implementing, and disseminating studies if there is clear evidence that the merit and impact of these studies will be fairly considered and duly recognized by scholars, researchers, and policy makers.

Abbreviations

APA	American Psychological Association
BMI	body mass index
BPD	borderline personality disorder
CBT	cognitive behavioral therapy
CCAPS	Counseling Center Assessment of Psychological Symptoms
CCMH	Center for Collegiate Mental Health
DBP	disruptive behavior problems
DH	day hospital
ESTs	empirically supported treatments
IAPT:	Improving Access to Psychological Therapies
IIP	Inventory of Interpersonal Problems
NICE	National Institute of Health and Care Excellence
OQ	outcome questionnaire
PBE	practice-based evidence
POR	practice-oriented research
PRAC:	Practice and Research: Advance and Collaboration
PRNs	practice research networks
PWPs	psychological well-being practitioners
RCSI	reliable and clinically significant improvement
RCTs	randomized controlled trials
REM	racial/ethnic minority
SCL-90-R	Symptom Checklist-90-Revised
TDCRP	Treatment of Depression Collaborative Research Program
UK	United Kingdom
US	United States

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