We had two aims in the revision of our corresponding chapter from the last handbook (Burlingame, MacKenzie, & Strauss, 2004): (1) provide the best evidence-based recommendations for using specific group approaches to treat specific patient populations; and (2) highlight factors other than the treatment model that may explain additional outcome variance. Today’s group treatments are guided by structured protocols that have been submitted to rigorous empirical scrutiny. The typical research study identifies a particular disorder and then articulates specific group interventions that are proposed to lead to desired effects (e.g., reduction in depression). Indeed, in our previous review we criticized some areas of the group literature for lack of clarity in the desired effects and the interventions intended to produce these effects (e.g., groups for the elderly). Consequently, the bulk of the current chapter summarizes evidence about specific group interventions that lead to specific effects for specific patient populations. However, it is clear that study authors continue to struggle with outcome variance that is not explained by specific group interventions based on a theoretical model. We believe insufficient attention is given to well-known and measurable group properties and processes, which account for some part of this unexplained treatment variance.

There is a distinct difference in the group treatments reviewed in this chapter from those covered in past handbook chapters. Earlier group research was conducted by investigators who held group treatment as a major part of their professional identity. They were conversant with the group dynamic and process literature, built these properties into their protocols, and often tested them as mechanisms of change that were independent of the theoretical model guiding treatment. In contrast, most of the randomized clinical trials (RCTs) summarized in this chapter appear to be conducted by investigators who are specialists in either a particular psychiatric or medical disorder (e.g., depression) or theoretical orientation (cognitive-behavior therapy; CBT) with the research being an extension of one or both of these identities. Stated differently, being a group clinician or specialist in group dynamics does not seem to be a core part of the identity of the investigators producing recent group treatment research.

The state of the current literature and our own appreciation of the group dynamic literature led us to a choice point: criticize nearly all RCTs for not explicitly incorporating group properties, or present a heuristic to assist future investigations. Our fundamental objective is to use empirical knowledge regarding group properties to increase the effectiveness of group treatments. Hence, we provide a general model of evidence-based group properties later in the chapter and select a few properties to illustrate their relationship to patient outcomes. We urge both researchers and clinicians to become familiar with this part of the evidence-based group literature. We end with a discussion of a small but growing movement that uses sound measures of these properties to assist the clinician to maximize outcome in group treatment: practice-based group treatment.
CONCEPTUALIZING GROUP TREATMENTS

In 20041 (Burlingame et al., 2004), we introduced a model that identified the main sources that empirically explain patient improvement in group treatment (Figure 16.1). This model subsequently spawned new research and evidence-based summaries; given its apparent heuristic value, we reintroduce it with refinements as an organizational framework. An abbreviated summary follows and the interested reader is directed to our previous summary for more detail. The model begins with a general conclusion drawn from the research literature —group treatment facilitates client improvement—represented by the therapeutic outcomes of group treatment element. Below, we explore five sources of potential effects on these outcomes.

The first source—formal change theory—captures the mechanisms of change as tested by efficacy or effectiveness studies. Group formal change theories overlap with the general psychotherapy literature (e.g., psychodynamic, interpersonal, cognitive-behavioral, humanistic) but also include support, skills training, and psychoeducational groups. Information related to theories of change is the most prevalent in the literature and thus makes up the bulk of our review. The second source—principles of small group process—reflect group mechanisms of change that have been empirically linked to outcome and reflect the confluence of theory and research from the clinical and nonclinical group literatures (e.g., social psychology). In short, the therapeutic environment of the group is a potent source of change that is independent of formal change theory. We introduce a more detailed model of group process later to guide research and practice.

A third source is the patient. Typical patient factors considered by recent group RCTs are those related to the disorder (e.g., pretreatment severity of depressive symptoms). However, our model’s intent is to highlight group format characteristics that predict improvement or deterioration. For instance, interactions between patient personality characteristics (e.g., attachment style, maturity of interpersonal relations) in conjunction with type of group approach have been recently studied as predictors of benefit. The fourth source—group structural factors—takes into consideration logistical features of group such as dose (number and length of sessions), intensity of sessions (weekly, monthly, and bi-monthly), group size, setting, and cultural factors. Structural features can affect the size and durability of treatment effects, for example, studies of booster sessions and varying dosage are emerging as important.

The interconnection of all four sources is up to the group leader, who determines how these sources are integrated, whether the group is used as a vehicle of change or if individual therapy is conducted in a group setting without regard for group dynamic factors. In 2004 we documented excellent examples of how to modify interventions created for individual therapy to fit a group format (cf. Wilfley, Frank, Welch, Spurrell, & Rounsaville, 1998), noting that neglect of such considerations can actually lower effectiveness.

The complexity of group treatment emerges when these five sources interact. Structural properties can interact with small group process (e.g., increased size can decrease member interaction and cohesion), formal change strategies may compete with group process principles (e.g., in-depth individual exploration versus shared floor-time), and patient characteristics may interact with group processes (e.g., insecurely attached clients respond differently to cohesion). In short,

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1Summaries from our last handbook chapter are noted by the phrase “In 2004 we . . . .”
the group is comprised of multiple interactive parts and these multifaceted relationships change over time.

CHAPTER ORGANIZATION AND REVIEW APPROACH

This review includes studies from virtually every continent. It is encouraging that recent studies have begun to transfer group protocols developed in Europe, North America, or Australia to new cultures; likewise, new protocols being developed in Asia hold promise for Western application. The typical group continues to be time-limited (10 to 20 sessions) and of a diagnostically homogenous composition, but there is an increase in long-term (1 to 2 years) psychodynamically oriented groups with diagnostically heterogeneous membership. We see the increase in published research on these groups as a positive development because it examines actual clinical practice in many parts of the world.

The efficacy and effectiveness literature is presented first and is organized by five sections: (1) disorders where group is the primary or sole treatment (mood, social phobia, panic, obsessive compulsive and eating disorders); (2) disorders where group is an adjunctive to other treatments (substance and posttraumatic stress disorders); (3) groups offered in hospital/medical settings (cancer, pain/somatoform, inpatient); (4) groups for severe mental illness (schizophrenia and personality disorders); and, (5) studies comparing the differential efficacy of the group versus individual formats. We end this section with promising developments organized by the five sources noted in Figure 16.1. The second major section describes a model to assist the reader in understanding group mechanisms of change based on the group dynamic literature. We then select four mechanisms from this model to illustrate how robust empirical evidence can guide group practice and hopefully strengthen the effects described in the efficacy section. We end our chapter with a framework—practice-based group treatment (PBGT)—to illustrate how one might integrate the evidence-based protocols described in the efficacy section with measures of process to empirically guide group practice.

The studies reviewed in the efficacy section were located through a computer search of PsycInfo, Medline, PubMed, ERIC, and Google Scholar using the search terms group psychotherapy, counseling, treatment, and therapy producing thousands of abstracts. Each was carefully read and accepted for inclusion using the following criteria: published between January 2000 and June 2011; clinical populations; randomized clinical trials (RCTs) or effectiveness studies; and methodologically rigorous. Topics with sufficient research (> 5 studies) were supplemented with meta-analytic findings when available.

EVIDENCE FOR EFFICACY AND EFFECTIVENESS OF GROUP TREATMENT

Our primary interest in this section is to offer evidence-based recommendations to guide clinical practice. In doing so, we summarized the best efficacy and effectiveness studies that we could find in Tables 16.1 to 16.3. Efficacy studies are often fewer in number and provide an upper limit of the improvement one might expect when using a particular group treatment. Effectiveness studies are included to provide an estimate of pre-postimprovement one might see in daily clinical practice.

The studies in Tables 16.1 to 16.3 are classified across three domains; study and sample characteristics as well as the outcomes targeted for change. The study characteristics section begins with the percentage of studies employing a randomized clinical trial (%RCT) because experimental rigor rules out many confounds. Disorders employing a higher percentage of RCTs (e.g., adult substance abuse) may claim greater rigor and causal inference than those that primarily employ pre-post effectiveness designs (e.g., bipolar). We then note the percent of studies that use a conservative intent-to-treat (%ITT) versus completer analyses, which is especially important when there is either high or differential rates of attrition; the range of percent of attrition (%Attr) follows immediately thereafter. Finally, an indicator of durability of outcomes is reflected by the presence of and length of follow-up assessment.

The increased number of RCTs allowed us to identify several important sample characteristics including sample size in active (A) and control (C) conditions, which is important because smaller samples are more susceptible to confounds. We also list average age and gender ranges because both can moderate treatment effects. Finally, we identify the primary and secondary effects or outcomes targeted by treatment, indicating the
number of studies studying each effect. This is critical since it affects how one would communicate the expected benefits of treatment to a prospective patient.

**Group as Primary**

**Mood Disorders**

In 2004, we concluded that group treatment produced reliable improvement over wait-list controls; that cognitive-behavioral group therapy (CBGT) had the most convincing randomized clinical trial (RCT) support; that there was little support for differential efficacy based on the theoretical model guiding treatment; and that individual and group formats produced equivalent effects. These findings were replicated and extended in 17 new studies listed in Table 16.1. Two meta-analyses (McDermut, Miller, & Brown, 2001; Oei & Dingle, 2008, summarizing pre-2000 studies) yielded 28 unique RCTs, with group therapy producing large effects (1.03 and 1.10, respectively) relative to untreated controls. With some variation, the aggregate results from 14 studies showed equivalence between individual and group formats (see below). The most recent literature clustered around two distinct diagnostic groupings (Table 16.1).

Ten studies focused on major depressive disorder (MDD) with primary effects including depression (the Beck Depression Inventory—BDI—was employed in eight studies) and cognitive measures [dysfunctional attitudes (6) and automatic thoughts (3)]; quality of life (QoL) was the most studied secondary effect (3). Groups were closed, lasted between 10 and 12 sessions, and had CBGT as the primary model (8) although behavioral activation (Porter, Spates, & Smitham, 2004) and Eastern philosophy models (Hsiao et al., 2007) were also tested. Five teams extended CBGT models shown to be efficacious in past research to new populations (e.g., depressed treatment-resistant medication patients; Enns, Cox, & Pidulbny, 2002; Hsiao et al., 2007; Matsumaga et al., 2010; Porter et al., 2004; Wong, 2008). All studies reported statistically significant superiority for the active compared to control conditions on measures of depression and depressive thinking. Enns et al. (2002) found that higher levels of pretreatment self-criticism predicted less BDI improvement. Three teams explored the change process of CBGT groups. Swan and colleagues (2009) explored change on a quality of life measured with 212 MDD patients, finding that posttreatment QoL change was explained by both pretreatment levels of depression and QoL (21%) as well as by posttreatment change in depression (40%). Despite these high percentages, they concluded that QoL was not an epiphenomenon of depression and that QoL changes cannot be solely explained by reductions in depression.

Oei and colleagues (Furlong & Oei, 2002; Kwon & Oei, 2003; Oei, Bullbeck, & Campbell, 2006) conducted a series of studies to better understand changes in depression and cognition over the course of CBGT. The findings, in summary, called into question the cognitive component as a primary change agent, leading the authors to explore alternative explanations (e.g., group as positive reinforcement). Kelly, Roberts, and Ciesla (2005) noted sudden gains for more than 40% of CBGT members, with early gains (Sessions 1 to 5) being related to greater improvement; sudden gains were unrelated to cognitive change, suggesting another mechanism of action (e.g., common factors). Unfortunately none of these studies could empirically link any aspect of group treatment to changes in depression.

Seven studies focused on bipolar disorder (BD) with only two using RCT designs. Most (5) tested psychoeducational groups (PEG) on diverse effects including recurrence and length of manic/depressive episodes (3), depression (5), mania (2), medication compliance (2), and general functioning (2). PEG length varied widely, from 4 sessions in an open inpatient group to 21 sessions in an outpatient setting. Patients ranged from mild or euthymic to acute and requiring hospitalization. In short, there was little coherence in the treatments offered, patients served, and effects studied. The strongest effects came from the RCTs. Colom and colleagues (2003) showed that PEG led to a reduced number of recurrences and hospitalizations, with gains maintained at 5 years (Colom et al., 2009); patients with more than seven previous episodes, however, did not show the same improvement (Colom et al., 2010). Simon and colleagues (2005) tested a multicomponent systemic care management program (e.g., telephone monitoring, feedback to treatment team) that included a two-phase PEG (disease management for five sessions followed by biweekly maintenance sessions) for 212 patients versus 229 TAU controls. More than half completed both phases (59% and 52%, respectively) leading to fewer manic episodes, less intense symptoms, and more medication management visits; gains were maintained.
<table>
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<tr>
<th>Study Characteristics</th>
<th>Sample Characteristics</th>
<th>Effects Related to Different Outcome Criteria</th>
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<tbody>
<tr>
<td><strong>MOOD DISORDERS</strong></td>
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<td><strong>Major Depressive Disorder:</strong> Enns et al., 2002; Furlong and Oei, 2002; Hsiao et al., 2007; Kelly et al., 2005; Kwon and Oei, 2003; Matsunaga et al., 2010; Oei et al., 2006; Porter et al., 2004; Swan et al., 2009; Wong., 2008</td>
<td>20 20 8–26 3–12 m 12–176 13–159 36–45 44–100</td>
<td>Depressed mood (9), cognitive (7), quality of life/well-being (4), general distress/functioning (3), anxiety (1)</td>
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<td><strong>Bipolar Disorder:</strong> Castle et al., 2007; Colom et al., 2003, 2009; de Andres et al., 2006; Michalak, Yatham, Wan, and Lam, 2005; Patelis-Siotis et al., 2001; Pollack et al., 2001; Simon et al., 2005, 2006</td>
<td>22 22 15–41 6–60m 9–212 60–229 34–44 57–82</td>
<td>Depression (5), episode recurrence/length (3), mania (2), medication compliance (2), general symptoms (2)</td>
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<td><strong>SOCIAL PHOBIA</strong></td>
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<td><strong>CBGT:</strong> adults:** Ashbaugh et al., 2007; Borgeat et al., 2009; Delsignore, 2008; Fogler et al., 2007; Gaston et al., 2006; Gruber et al., 2001; Herbert et al., 2005; Hofman, 2004; Hofman and Suvak, 2005; Hofman et al., 2006; Kingsep et al., 2003; Marom et al., 2009; McEvoy, 2007; McEvoy et al., 2009; McEvoy and Perini, 2009; Mörtberg et al., 2005, 2006; Moscovitch et al., 2005; Rapee et al., 2007; Rosser et al., 2004; Stangier et al., 2003; Van Ingen and Novicki, 2009</td>
<td>45 23 0–48 2–12m 17–219 17–84 21–39 33–60</td>
<td>Social phobia symptoms (20), depression (9), general anxiety (2), general psychopathology (2)</td>
</tr>
<tr>
<td><strong>CBGT:</strong> children and adolescents:** Baer and Garland, 2005; Gallagher et al., 2002; Garcia-Lopez et al., 2006; Hayward et al., 2000; Joormann and Unneweh 2002; Liber et al., 2008</td>
<td>83 16 0–43 3w.–5yrs 6–127 6–65 8–16 40–100</td>
<td>Social phobia symptoms (6), depression (3)</td>
</tr>
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PANIC
Austin et al., 2008, Bohni et al., 2009; Clerkin et al., 2008; Erickson, 2003; Erickson et al., 2007; Galassi et al., 2007; Norton, 2008; Oei and Boschen, 2009; Otto et al., 2000; Roberge et al., 2008; Rosenberg and Hougaard, 2005; Rufer et al., 2010; Sharp et al., 2004

Effectiveness:
Braga et al., 2005; Cordioli et al., 2002; Fenger et al., 2007; Himle et al., 2001; Meier et al., 2006

Comparative studies:
Aigner et al., 2004; Anderson & Rees 2007; Cordioli et al., 2003; Fineberg et al., 2005; Jaurrieta et al., 2008; McLean, 2001; Sousa et al., 2006

| 38 | 23 | 0–42 | 0–24m | 18–396 | ?? | 33–43 | 56–79 | General anxiety (11), panic (9), depression (8), functioning (6), bodily sensation (2) |

OCD

Effectiveness:
Braga et al., 2005; Cordioli et al., 2002; Fenger et al., 2007; Himle et al., 2001; Meier et al., 2006

Comparative studies:
Aigner et al., 2004; Anderson & Rees 2007; Cordioli et al., 2003; Fineberg et al., 2005; Jaurrieta et al., 2008; McLean, 2001; Sousa et al., 2006

| 0 | 20 | 6–28 | 3–49m | 24–89 | None | 29–40 | Not Reported | Y-BOCS (5) depression (2), functioning (2) anxiety (1) |

| 86 | 43 | 14 | 1–24m | 17–55 | 17–55 | 32–40 | Not Reported | Y-BOCS (7) depression (5) anxiety (4), functioning (3), QOL (3) |

(continues)
### TABLE 16.1 (Continued)

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<tr>
<th>Study Characteristics</th>
<th>Sample Characteristics</th>
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<tr>
<td>Study</td>
<td>%RCT</td>
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<tr>
<td>EATING DISORDERS</td>
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<tr>
<td>Bulimia Nervosa (BN)</td>
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<td>Bailer et al., 2004; Bogh et al., 2005; Chen et al., 2003; Jacobi et al., 2002; Leung et al., 2000; Nevonen &amp; Broberg, 2006; Openshaw et al., 2004; Peterson et al., 2004; Shapiro et al., 2010</td>
<td>44</td>
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<tr>
<td>Binge Eating Disorder (BED)</td>
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<td>Ashton et al., 2009; Duchesne et al., 2007; Friederich et al., 2007; Gollings and Paxton, 2006; Gorin et al., 2003; Kenardy et al., 2002; Munsch et al., 2007; Nauta et al., 2000, 2001; Paxton et al., 2007; Peterson et al., 2001; Renjilian et al., 2001; Safer et al., 2010; Schlup et al., 2009; Shapiro et al., 2007; Shelley-Ummenhofer and MacMillan, 2007; Tasca, Ritchie, et al., 2006, Tasca, Balfour, et al., 2007; Telch et al., 2000, 2001; Wilfley et al., 2002</td>
<td>76</td>
</tr>
</tbody>
</table>

**Effects Related to Different Outcome Criteria**
- BN symptoms (4); B&P frequency (2); eating-related cognitions (2). Comparative studies demonstrated equivalence of effects (see text)
- BE symptoms (11); depression (9); BE frequency (7); abstinence (5); eating-related attitudes/concerns (4); self-esteem (3); mood regulation (3); emotional eating (3); weight (1)
at the 2-year follow-up (Simon, Ludman, Bauer, Unutzer, & Operskalski, 2006) but no differences on depression were noted between PEG and TAU. These results are promising given that medication compliance is likely linked to reduced frequency and intensity of recurrences. The two RCTs underscore the relapse prevention potential of PEG, but additional rigorous research is needed before we can move our evaluation from promising to efficacious.

Social Phobia. In 2004 we detailed “compelling evidence” for the efficacy of a single model—CBGT—developed by Heimberg and Becker (2002). This model, along with two similar group approaches (Clark & Wells, 1995; Rapee & Heimberg, 1997), was the focus of 28 outcome studies published over the past decade (Table 16.1). A recent meta-analysis (Powers, Sigmarsson, & Emmelkamp, 2008) summarizing a portion of these studies estimated identical effectiveness for group ($d = .68$) and individual treatments ($d = .69$). The typical group was closed, and consisted of 5 to 10 patients who participated in weekly sessions of varying duration (90 to 240 min.). Patients were between 30 and 40 years old with equal gender representation.

Overall, the effects of CBGT have been confirmed related to primary outcomes of social phobia symptoms (commonly based on the Liebowitz Social Anxiety Scale) as well as on depression and several secondary outcomes (e.g., general anxiety, perfectionism, post-event processing; Ashbaugh et al., 2007; McEvoy, Mahoney, Perini, & Kingssep, 2009). A subset of studies looked at the effectiveness of successfully transferring manualized CBGT from a research setting to private practice or community clinics (e.g., Gaston, Abbot, Rapee, & Neary, 2006; Marom, Gilboa-Schechterman, Aderka, Weizman, & Hermesh, 2009; McEvoy, et al., 2007, 2009). Other studies summarized in Table 16.1 revealed CBGT to be effective for specific populations (Kingsep, Nathan, & Castle, 2003, Van Ingen & Novicki, 2009), other settings (e.g., intensive treatment, Mörterberg et al., 2005, 2006), combined with adjuncts (e.g., antidepressants; Rossor, Erskine, & Crino, 2004) or showed effects of CBGT depending on other variables (e.g., prior treatment; depression; Delsignore, 2008; Fogler, Tompson, Steketee, Hofmann, 2007; Marom et al., 2009).

We found nine other studies testing the differential effects of CBGT with other treatments (e.g., exposure therapy, self-help groups with and without therapist assistance, individual CBT) or in combination with other interventions (e.g., social skills training or attention training), most (8) were RCTs. Many of the studies that were located defined easy classification other than being on social anxiety and involving group. Although all studies are related to the CBGT manuals, the literature reveals a general lack of cohesion or focus on systematic programmatic research. One study (Sangier, Heidenreich, Peitz, Lauterbach, & Clark, 2003) found individual more effective than group; however, the manual was not modified for the group setting, an omission shown to lower group effectiveness (Burlingame et al., 2004).

In view of recent epidemiological studies showing that social phobia/anxiety is common (lifetime prevalence 4% to 14%) and begins early (11 to 13 years), it is not surprising that recent research included children and adolescents. A Cochrane Review for anxiety disorders in children and adolescents (James, Soler, & Weatherall, 2005) showed a remission rate of 56% for CBT versus 28% for different control conditions, and observed that individual, family and group formats produced similar results (cf. Garcia-Lopez et al., 2006; Silverman, Pina, & Viswesvaran, 2008). Six recent studies tested CBGT for children and adolescents aged 8 to 16 years (Table 16.1). Most (5) were RCTs, although sample sizes were relatively small. All six studies indicated positive effects of the active treatment on primary (social anxiety) as well as secondary outcomes (depression, $n = 3$). Social anxiety was usually assessed with the Social Phobia and Anxiety Inventory or the Anxiety Disorders Interview Schedule for Children. There were positive effects of CBGT on social anxiety in a community-based setting (Baer & Garland, 2005) and in non-English–speaking countries (Joormann & Unnewehr, 2002). One study supported the equivalence of the individual and the group formats (Liber et al., 2008).

In summary, although there is increasing evidence supporting CBGT as an efficacious treatment for social phobia, not all patients benefit. One study examined whether the active ingredients of CBT were responsible for improvement: Rapee, Abbot, Baillie, and Gaton (2007) showed that self-help groups were more effective in reducing social phobia symptoms than wait lists and that self-help groups augmented with minimal therapist assistance produced gains similar to CBGT. This does not nullify the effects of the high-quality CBGT but encourages future research to explore mechanisms of change.
Chapter 16 / Change Mechanisms and Effectiveness of Small Group Treatments

The past decade of research has put group treatment of social phobia on an even stronger foundation—particularly CBGT. It must be said that for many patients this has not proved to be sufficient. Recent studies have attempted to refine and supplement this already effective treatment by augmenting it with other interventions (e.g., acceptance and commitment therapy), by transferring it from laboratory to naturalistic settings and extending it to adolescents with both remedial and prevention goals. Moreover, there is some evidence for the additive value of several interventions (e.g., exposure, social skills training, self-help groups, and relaxation training). Research is still needed regarding alternative approaches for patients who do not benefit from CBGT. Knijnik, Kapczinski, Chachamovich, Margis, and Eizirik (2004) have systematically tested a manualized psychodynamic approach that may prove useful. The handful of studies with adolescents is promising but more comparisons would clarify potential preventive and economic value.

Panic Disorder

In 2004, we noted CBGT as the dominant model for treating panic disorder and of the 13 new studies included (Table 16.1), all used CBGT. Approximately 40% were RCTs with the average patient being a female of 30 to 40 years of age who had suffered for 6 to 15 years with panic disorder and a comorbid anxiety or depressive disorder. The typical study had between 20 and 50 subjects; general anxiety and panic symptoms were the primary outcomes, depression, and general functioning served as secondary effects. The Mobility Inventory for Agoraphobia and the Beck Anxiety Inventory were the most frequently used measures (3 and 4 studies, respectively) with the dominant models being Barlow and colleagues’ panic control treatment and Clark’s cognitive therapy (Barlow, Craske, Cerny & Klosko, 1989; Clark, 1986). Most patients were on medication (SSRI and tricyclic), which, when combined with CBGT, has been shown to produce the greatest and most durable changes (Roy-Byrne, Craske, & Stein, 2006). The primary focus across studies was the clinical application and refinement of CBGT.

The largest group of studies focused on naturalistic open trials, testing the feasibility and effectiveness of transferring CBGT protocols from RCTs into clinical practice (Austin, Sumbundu, Lykke & Oestrich, 2008; Galassi, Quercioli, Charismas, Niccolai, & Barciulli 2007; Oei & Boschen, 2009; Rosenberg & Hougaard, 2005; Rufer et al., 2010); all tended to have weak methodologies and pre- to posteffect sizes were smaller compared to previous RCTs (.12 – .69). Oei and Boschen’s (2009) large retrospective study of routine clinical practice in Australia is noteworthy for its sample size (n = 396); the study demonstrated variability of outcome by domain in pre- to postcomparisons with general anxiety post- higher gains (d = .64) than panic or depression (d = .32 – .55 and d = .12 – .69, respectively).

A second group of studies investigated how change takes place in CBGT. In an RCT, Bohni, Spindler, Arendt, Hougaard, and Rosenberg (2009) tested for differential improvement when a 12-session CBGT group was offered weekly over 12 weeks or in a massed 3-week protocol (4-hour daily sessions in Week 1, two 2-hour sessions in Week 2, one 2-hour session in Week 3). Both posted equivalent results with moderate to large pre–posteffects (.67 – 1.47). Clerkin, Teachman, and Smith-Jamank (2008) studied sudden gains in CBGT, noting that those occurring in Session 2 or after (20% of members) were associated with better improvement by termination; this agrees with sudden gains in individual CBT for panic disorder (Tang, DeRubeis, Hollon, Amsterdam, & Shelton, 2007).

Obsessive-Compulsive Disorder (OCD)

In 2004 we noted exposure and response prevention (ERP) as the dominant treatment but expressed caution since it was supported by only a single RCT (Fals-Stewart, Marks, & Schafer, 1993). The past decade produced six RCTs and four pre-post studies (Table 16.1); the Yale-Brown Obsessive Compulsive Scale (YBOCS) continues to be the primary outcome scale, making direct effect size comparisons possible; secondary outcomes include depression, anxiety, general functioning and QoL. CBT protocols that include ERP emerged and reflect the majority of protocols tested. The average patient was in his or her late 30s, suffering from chronic OCD (average duration 17 years) with high co-morbidity (anxiety and depressive disorders), treated in a group lasting an average of 12 sessions (range = 7–20).

With one exception (Himle et al., 2001), most pre-post studies involved small samples (Table 16.1). Pre-posteffect sizes reflecting improvement on the YBOCS vary between 0.91 (Fenger, Mortensen, Rasmussen & Lau, 2007) and 1.74 (Cordioli et al., 2002); changes in anxiety and depression measures were moderate. A
low withdrawal rate (6%, Cordioli et al., 2002) suggests high acceptance of CGBT. In the study by Braga, Cordioli, Niederauer, and Manfro (2005), 35% of the sample relapsed at the 1-year follow-up. The strongest predictors for not relapsing were rapid improvement and full remission (YBOCS < 9) by the end of treatment; onset age, comorbidity, initial symptom severity, and intensity of obsessions were unrelated to relapse. In a Danish study of CBGT effectiveness (Fenger et al., 2007), a pregroup session to develop individualized treatment goals was added. Smaller effect sizes were explained by higher levels of comorbidity. In a German study (Meier, Fricke, Moritz, Hand, & Rufer, 2006), it was noted that comorbid dependent personality disorder was a risk factor for worse outcome. The largest open trial (Himle et al., 2001) experimentally contrasted the dose (7– versus 12-session) of an earlier group ERP model (Krone, Himle, & Nesse, 1991). No differences on the YBOCS or depression measures were found, and they surmised that 12-week patients simply paced themselves slower than 7-week patients.

The past decade also saw a number of comparative studies. Two teams (Anderson & Rees, 2007; Jaurrieta et al., 2008) noted the differential efficacy of group (G) versus individual (I) formats, replicating the equivalence finding of Fals-Stewart et al. (1993). CBGT was also compared to wait-list control, ERP and medication. Cordioli et al. (2003) reported similar gains on the YBOCS as Anderson and Rees (2007) for a 12-session CBGT (ES = 1.3). Modest improvement was found for quality of life but none found for anxiety. McClean, Whittal, Thordarson, and Taylor (2001) examined the differential efficacy of ERP against a contemporary CBGT protocol. Both ERP and CBGT outperformed the wait-list control on the YBOCS (ES = 1.6 versus 1.0, respectively) and when differences in medication use were controlled, ERP proved superior to CBGT. Surprisingly, both active treatments posted equivalent improvement on only one of three cognitive measures, suggesting ERP and CBGT produced identical cognitive gains; a 2-year follow-up supported these findings (Whittal, Robjichaud, Thorardarson, & McLean, 2008). Aigner, Demal, Zitterl, Bach, and Lenz (2004), in a nonrandomized comparative study, examined the effectiveness of CBGT with and without medication (SSRI).

Finally, Sousa, Isolan, Oliveira, Manfro, and Cordioli (2006) studied the differential gains for a 12-session CBGT and sertraline. Both CBGT and sertraline posted reliable pre–postimprovement on YBOCS (ES = 1.6 and 1.2, respectively), anxiety, depression, general functioning and QoL measures. When complete remission was used as the outcome criterion, CBGT was more effective and demonstrated greater gains in clinician-rated general functioning.

The comparative RCT of Fineberg, Hughes, Gale, and Roberts (2005) tested if CBGT effects could be attributed to the active ingredients or the nonspecific effects of participating in a group. Following Fals-Stewart et al. (1993), they used a relaxation therapy (RT) as a placebo attention condition to compare the effects of treatment on OCD symptoms, depression, anxiety, adjustment and general functioning measures. CBGT interventions were contrasted with progressive muscle relaxation, imagery, meditation, reflexology, aromatherapy, and breathing interventions in the RT group. No differences were found on any outcome measure or in attitudes toward treatment although there was a higher dropout rate for RT; patients with a more recent history of OCD responded better to CBGT.

There is now ample evidence for the efficacy of ERP and CBGT when compared to waitlist control—a different conclusion from our last review. Indeed, a recent meta-analysis of 13 studies (Jonsson & Hougaard, 2008) produced an average effect size of 1.1 on the YBOCS for both treatments when compared to wait-list controls. Interestingly, a few investigators have argued for group ERP and individual CBT (McLean et al., 2001; Whittal et al., 2008) although the collective evidence does not support a differential preference. The findings of the single placebo attention group study, while intriguing, have been criticized for a high differential dropout (Jonsson & Hougaard, 2008). Similarly, the paucity of comparisons with medications makes conclusions about differential effects impossible to draw at this time. Nearly every study noted the power of group dynamics in increasing attendance and involvement relative to alternate treatments (but without offering a specific estimate of this effect), and they also highlighted the economic advantage of group treatments.

**Eating Disorders (EDs)**

Research on group therapy for EDs has burgeoned since our last review, especially regarding
Binge-eating disorder (BED) (Table 16.1). We previously concluded that there was strong evidence for the effectiveness of CBGT for bulimia nervosa (BN). Recent studies have reinforced this conclusion, addressed mechanisms of change, and expanded treatment to areas of patient functioning beyond ED. Despite a high rate of dropout, CBGT had consistent effects on BN symptoms and frequency of bingeing and purging (BAP) in intent-to-treat analyses. Three pre-post studies examined refinements of CBGT (Leung, Waller, & Thomas, 2000; Shapiro et al., 2010); one included controls (Peterson et al., 2004). Refinements included variations of session frequency or contracting for abstinence from purging (Peterson et al., 2004; found no effects for either), and the use of nightly text messaging as a means of monitoring BAP (Shapiro et al., 2010, report positive effects). These studies offered initial tests of key principles of CBT theory, that is, the association of core beliefs, attitudinal distortions, or behavioral monitoring to recovery from BN.

Three comparative studies, all employing RCT designs, ITT analyses, and follow-up, tested for differential efficacy by comparing CBGT with guided self-help (Bailer et al., 2004), individual therapy (Chen et al., 2003), or with fluoxetine or combined treatment (Jacobi, Dahme, & Dittmann, 2002). Equivalence across conditions was the rule regardless of post-treatment outcome measure. However, Bailer et al. (2004) observed higher remission rates for CBGT at 1-year follow-up, Chen et al. (2003) recorded larger effects for group therapy on impulsivity and state anxiety by 3- and 6-month follow-up, and Jacobi et al. (2002) found that CBGT alone resulted in greater abstinence than combined treatment at post-treatment and follow-up. These studies provide evidence for maintenance of benefits from CBGT for BN.

Three studies examined the effectiveness of CBGT incorporating elements of psychodynamic and psycho-educational models (Bogh, Hagedorn, Rokkedal, & Valbak, 2005) or interpersonal therapy (IPT; Nevenon & Broberg, 2006; Openshaw, Waller, & Sperlinger, 2004). Dropout rates were low (~12%), perhaps due to a more relational focus in group sessions. Effects were evident on ED and general symptoms, with rates of remission/recovery ranging between 21% and 58%. Bogh et al. (2005) noted that early reductions in BN behaviors were predictive of better outcome. Openshaw et al. (2004) reported reliable change of 28% to 45% on ED symptoms and depression but lower rates of recovery from BN and no effect for anxiety. The effectiveness of integrated group treatments for BN appears promising; more controlled and comparative trials are needed.

Most research focused on BED with CBGT as the dominant model. These studies demonstrated strong rigor, with RCT designs, ITT analyses, follow-up, and attention to power and clinical significance. Thirteen studies compared CBGT against alternative approaches and with related conditions (e.g., subclinical BED, body dissatisfaction and disordered eating). Dropout rates varied considerably around an average of 20% and did not differ between treatments. Alternative modes of delivery such as video (Peterson et al., 2001), CD-ROM (Shapiro et al., 2007), or the Internet (Gollings & Paxton, 2006; Paxton, McLean, Gollings, Faulkner, & Wertheim, 2007) proved equivalent to CBGT with both outperforming controls, though Paxton et al. (2007) noted larger effects for group on ED-related attitudes, depression, and self-esteem. Gorin, Le Grange, and Stone (2003) found no additional benefit when spouses were involved in group sessions. Three studies examined CBGT versus a behavioral weight control group (Munsch et al., 2007; Nauta, Hospers, & Jansen, 2001; Nauta, Hospers, Kok, & Jansen, 2000); consistently, the latter was more effective for weight loss but the former had larger, more comprehensive effects on ED symptoms and behaviors. Finally, four studies compared CBGT against IPT (Wilfley et al., 2002), psychodynamic (Tasca, Ritchie, et al., 2006; Tasca, Balfour, Ritchie, & Bissada, 2007), or nondirective groups (Kenardy, Mensch, Bowen, Green & Walton, 2002). Equivalent effects on BE behaviors, BED-specific and general symptoms, self-esteem and social functioning were common findings. Kenardy et al. (2002) reported greater effects for CBGT on BE at 3-month follow-up; patients in the “nonprescriptive” group had shown relapse. Tasca, Ritchie, et al. (2006) reported mode-specific differential effects, with the dynamic-interpersonal group superior on depression and CBGT superior on attitudes and susceptibility to hunger.

Two studies reported positive effects for adaptations of CBGT (Ashton, Drerup, Windover, & Heinberg, 2009; DuChesne et al., 2007). Three studies addressed protocol refinements (Friederich et al., 2007; Schlup, Munsch,
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Meyer, Margraf, & Wilhelm, 2009; Shelley-Ummenhofer & MacMillan, 2007), with clear findings, that is, twice-weekly sessions were less effective, booster sessions were associated with continued improvement over follow-up. Further studies of modifications of CBGT for BED are expected and necessary before clinical recommendations become possible.

Group as Adjunct

Substance-Related Disorders

Burlingame et al. (2004) saw limited support for the effectiveness of group treatment with substance-related disorders since formal change theories did not sufficiently explain variations in outcome. We located six studies testing the comparative efficacy of group treatments, three studies that compared group and individual formats, and seven studies concerning group treatments for adolescents (Table 16.2). Among the comparative studies, groups varied from very short (1 to 5 sessions, Tross et al., 2008) to relatively long interventions (26 sessions, Litt Kadden, Cooney, & Kabela, 2003). Almost all groups were closed with a few studies treating only males (Easton et al., 2007) or only females (Tross et al., 2008), but most had mixed gender with females in the minority (30% to 50%). The mean age of the participants varied between 38 and 45 years. The primary outcome was substance-related (i.e., substance use and related problems, abstinence, and urinalysis); secondary effects included mood, violent behavior, and HIV risk behavior (Table 16.2).

One study contrasted CBGT with interpersonal groups (Litt et al., 2003), yielding equivalence on abstinence rates and improved coping skills, and raising the question of specific versus nonspecific effects explaining outcomes. The other comparative studies tested specific group programs for specific populations. Weiss et al. (2007, 2009) contrasted an integrated group (IG) therapy for patients with dual diagnosis (bipolar disorder, substance abuse) with group counseling and reported a moderate advantage for IG on substance-use outcomes. Easton et al. (2007) conducted a RCT with CBGT designed for domestic-violence offenders. CBGT was superior to a 12-step group control only on substance use at the end of treatment but differences disappeared at follow-up. Similarly, a study comparing contingency management (CM) with a 12-step control in patients with HIV infection showed early advantages for CM, which also disappeared at follow-up (Petry, Weinstock, Alessi, Lewis, & Dieckhaus, 2010). Although most protocols produced positive results compared to no treatment, effect sizes were small to moderate when specific group programs were compared to other control conditions ($d = 0.3–0.7$; e.g., Liddle, Rowe, Dakof, Henderson, & Greenbaum, 2009; Petry et al., 2010), supporting our previous conclusions.

As with social phobia, group treatments for adolescent substance abuse emerged as a promising intervention (Waldron & Turner, 2008). The typical adolescent study treated a high proportion of males (75% to 80%) with an average age of 15 years. Most had multiple substance abuse problems (illicit drugs, mainly marijuana), and less commonly alcohol dependency, alcohol/drug-related problems, and/or behavioral problems/delinquency. Groups were primarily closed, ranged between 8 and 20 sessions (usually weekly), and tested a wide array of interventions including feedback and motivational interviewing (Smith, Hall, Williams, An, & Gotman, 2006), psychoeducation (Burleson & Kaminer, 2005), social learning (Battjes et al., 2004) and CBGT components (Dennis et al., 2004; Liddle et al., 2004, 2009). Some multimodal approaches embedded individual and/or family sessions into the program (Dennis et al., 2004; Smith et al., 2006).

Five studies compared family-based group interventions, with two showing advantages for a multidimensional family therapy compared to peer group treatment on primary outcomes of substance abuse, substance use problems, and delinquency (Liddle et al., 2004, 2009) and three finding few significant differences between approaches (Battjes et al., 2004; French et al., 2008; Smith et al., 2006). The only nonrandomized study of a group based on social learning theory reported positive effects on marijuana abuse, but not alcohol abuse and delinquency (Battjes et al., 2004).

Collectively, groups for substance abuse (and comorbid disorders) postmoderate positive effects for both adolescents and adults. There are minor differences in effectiveness between specific formal change theories and these often disappear over time. Accordingly, several studies explored factors that might explain additional variance. A family history of alcohol abuse, specific combinations of gender and ethnicity (e.g., female and non-Caucasian) and social anxiety appear to be hindering factors (Book, Thomas, Dempsey,
### Table 16.2 Group as Adjunct Efficacy and Effectiveness Research

<table>
<thead>
<tr>
<th>Study Characteristics</th>
<th>Sample Characteristics</th>
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<tr>
<td>Study</td>
<td>%RCT</td>
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<td><strong>SUBSTANCE ABUSE</strong></td>
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<tr>
<td>Comparative studies with adult patients: Easton et al., 2007; Litt et al., 2003; Petry et al., 2010; Tross et al., 2008; Weiss et al., 2007, 2009</td>
<td>100</td>
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<tr>
<td>Studies comparing individual vs. group treatment: Panas et al., 2003; John et al., 2003; Sobell et al., 2009</td>
<td>67</td>
</tr>
<tr>
<td>Group treatments for adolescent substance abuse: Battjes et al., 2004; Burleson and Kaminer, 2005; Dennis et al., 2004; French et al., 2008; Liddle et al., 2004, 2009; Smith et al., 2006</td>
<td>86</td>
</tr>
</tbody>
</table>
TRAUMA/PTSD

Amaro et al., 2007; Bradley and Follingstad, 2003; Chard, 2005; Classen et al., 2011; Cloitre and Koenen, 2001; Creamer et al., 2002; Donovan et al., 2001; Dorrepal et al., 2010; Falsetti et al., 2001; Gatz et al., 2007; Ginzburg et al., 2009; Gorey, Richter, and Snider, 2001; Hébert and Bergeron, 2007; Kibler and Lyons, 2008; Kreidler, 2005; Lau and Kristensen, 2007; Layne et al., 2001; Lundqvist et al., 2009; Lundqvist and Öjehagen, 2001; Lundqvist et al., 2006; Möller and Steel, 2002; Morrison and Treliving, 2002; Mueser et al., 2007; Rieckert and Möller, 2000; Ruzek et al., 2001; Ryan et al., 2005; Saltzman et al., 2001; Schnurr et al., 2003; Sharpe et al., 2001; Sikkema et al., 2004, 2007, 2008; Spiegel et al., 2004; Toussaint et al., 2007; Vaa et al., 2002; Wallis, 2002; Westwood et al., 2010; Zlotnick et al., 2003

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<tr>
<th>32</th>
<th>29</th>
<th>0–41</th>
<th>2–60m</th>
<th>12–181</th>
<th>11–177</th>
<th>12–55</th>
<th>0–100</th>
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<tr>
<td>Trauma symptoms (21), depression (16), general psychiatric symptoms (13), PTSD diagnosis (6), self-esteem (6), anger (5), anxiety (5), coping/avoidance (5), guilt (4), assertiveness (3), social function (3), alcohol/drug severity (2), HIV risk behavior (2), grief (2), GPA (2)</td>
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were native paraprofessionals trained by the CVT Leonean refugees in Guyanese camps. Leaders 10-week support/process groups to 4,000 Sierra tims of Torture (CVT) of Minneapolis offering group (Harper, Richter, & Gorey, 2009). A large limited the effect of a problem-solving support are needed. Comorbidity with eating disorders but more consistent evaluations of outcome guilt feelings, and self-esteem were observed, 16%). Effects on depression and other symptoms, these groups recorded few dropouts (< 5-month systemic group (solution-focused, with Kristensen (2007) reported positive effects for survivors in either a 12-month analytic group or a 50-session dynamic group for survivors with or without chronic mental illness (CMI); all patients showed improvement on trauma symptoms, distress, and depression, but most CMI patients remained in the dysfunctional range. Lau and Kristensen (2007) reported positive effects for survivors in either a 12-month analytic group or a 5-month systemic group (solution-focused, with psychoeducation); effect sizes on global and social functioning, distress, and quality of life were larger for the more structured, briefer group. Finally, no differential effects were observed when dynamically oriented “trauma-focused” and “present-focused” groups were compared (Ginzburg et al., 2009; Spiegel et al., 2004), and both outperformed wait-list controls.

The majority of studies featured CBGT. A trauma-focus was often paired with cognitive restructuring (e.g., Classen et al., 2011) but not consistently (e.g., Ruzek et al., 2001); the latter study reported no effects of treatment, suggesting trauma-focused groups are insufficient without a cognitive component. Skills training was standard in present-focused groups. Both approaches used 10 to 20 session formats and often incorporated psychoeducation and attention to group process. Methodological rigor was high with some studies being state-of-the-art (Classen et al., 2011; Schnurr et al., 2003). Target populations were heterogeneous (female CSA survivors, e.g.,
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Classen et al., 2011; male veterans with chronic PTSD, e.g., Kabler & Lyons, 2008). Studies provided strong evidence for effectiveness on trauma symptoms, depression and remission of PTSD (e.g., Chard, 2005). Secondary outcomes (anger, dissociation, anxiety, guilt) also improved. CBGT lowered HIV-related risk behavior with a “present-focused” (Classen et al., 2011) being more effective than a trauma-focused (Sikkema et al., 2008) group approach.

Integrated treatments for co-occurring trauma and substance abuse (SA) melded CBT skills-training, psychoeducation, psychodynamic, and interpersonal-process group techniques, often within residential or day treatment programs. Research included multisite studies (Women, Co-occurring Disorders and Violence Study; Giard et al., 2005) and evaluations of mental health systems-level effects (Morrisssey et al., 2005). The Seeking Safety (Najavits, Weiss, Shaw, & Muenz, 1998) and Trauma Recovery and Empowerment (TREM; Harris, 1998) programs were evaluated for women with a history of trauma and SA (Amaro et al., 2007; Gatz et al., 2007; Toussaint, VanDeMark, Bornemann, & Graeber, 2007; Zlotnick, Najavits, Rohsenow, & Johnson, 2003), while the Transcend program (Donovan, Padin-Rivera, & Kowaliw, 2001) was evaluated for male veterans with co-occurring PTSD and SA. All programs impacted positively on trauma symptoms or the PTSD diagnosis (Toussaint et al., 2007). However, three studies observed no incremental effects for SA severity relative to TAU (Amaro et al., 2007; Gatz et al., 2007; Toussaint et al., 2007), though Amaro et al. (2007) reported greater abstinence at 6- and 12-month follow-up. Two studies also reported long-term effects for SA (Zlotnick et al., 2003; Donovan et al., 2001). Finally, two comparative studies (Creamer, Forbes, Biddle, & Elliott, 2002; Ryan, Nitsun, Gilbert, & Mason, 2005) and two effectiveness studies (Vaa, Enger, & Sexton, 2002; Westwood, McLean, Cave, Borgen, & Slakov, 2010) showed promising results when CBT and psychodynamic techniques were combined. Integrated models show definite promise for the treatment of trauma and related conditions.

Groups Within Medical Settings

Breast Cancer

In 2004, we concluded that a variety of group treatments had small to moderate effects for cancer patients on anxiety, depression and psychological distress, and that phase of disease was a critical consideration. We noted smaller effects for educational interventions, mixed effects on survival and a link between therapist experience and improvement. Twenty-three studies were located testing breast cancer treatments for different phases of the illness (Table 16.3).

Eight of nine studies employed a RCT design using an inert control group to test the efficacy of supportive expressive group therapy (SEGT) that typically consisted of 6 to 10 women participating in 90-minute weekly sessions for at least 1 year. The format was slow open (e.g., members added as space becomes available) with a supportive environment to confront problems, express emotions, strengthen relationships and find life meaning. The inert control primarily (88%) involved a self-directed educational intervention that included access to various media regarding relaxation and nutrition. SEGT’s attrition ranged from 8% to 38% and few studies (4) tested power a priori (range .89–.99). ITT analysis was used by half, with five primary effects: distress, quality of life, survival, coping, and pain.

Psychological distress, assessed most frequently (4) by the Profile of Mood States (POMS; McNair, Lorr & Droppleman, 1992), was improved in four studies (Bordelau et al., 2003; Goodwin et al., 2001; Kissane et al., 2007; O’Brien, Harris, King & O’Brien, 2008). Classen et al. (2001) noted a marked increase in POMS distress shortly before death, when these individuals were excluded, SEGT showed more improvement than controls. The sole primary breast cancer study (Classen et al., 2008) used an abbreviated SEGT protocol (12 weeks) and found no differences suggesting that it may be ineffective, too short, or that primary breast cancer women are insufficiently distressed for treatment to have an effect.

Mixed findings resulted on the same QoL measure (EORTC QoL C-30) with Kissane et al. (2007) reporting an increased QoL for SEGT and Bordelau et al. (2003) finding no effect. Two studies (Giese-Davis et al., 2002; Kissane et al., 2007) supported SEGT’s effect on adjustment to cancer on distinct measures, while Classen et al. (2008) failed to find an effect with primary breast cancer patients. SEGT’s effect on QoL is unclear but there are three studies treating metastatic patients supporting SEGT’s effect on adjustment to the disease. Three new studies tested the survival advantage of SEGT (Goodwin et al., 2001; Kissane et al., 2007; Spiegel et al., 2007) and the collective results from 514 women is that there is
### Table 16.3  Efficacy and Effectiveness Research for Groups With Medical, Hospital, and Seriously Mentally Ill Patients

<table>
<thead>
<tr>
<th>Study</th>
<th>%RCT</th>
<th>%ITT</th>
<th>%Attr</th>
<th>Follow-Up</th>
<th>A</th>
<th>C</th>
<th>% Females</th>
<th>Effects Related to Different Outcome Criteria</th>
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<tbody>
<tr>
<td><strong>BREAST CANCER</strong></td>
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<tr>
<td>Supportive-expressive group therapy</td>
<td>89</td>
<td>44</td>
<td>8–24</td>
<td>12–24m</td>
<td>56–178</td>
<td>41–179</td>
<td>48–54</td>
<td>100 Distress (6), quality of life (4), survival (4), coping (5), pain (4)</td>
</tr>
<tr>
<td>Bordeleau et al. 2003; Butler et al., 2009; Classen et al., 2001, 2008; Giese-Davis et al. 2002; Goodwin et al., 2001; Kissane et al., 2007; O’Brien et al., 2008; Spiegel et al., 2007</td>
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<tr>
<td>Cognitive Behavior Therapy</td>
<td>75</td>
<td>50</td>
<td>15–29</td>
<td>2–9m</td>
<td>17–102</td>
<td>37–107</td>
<td>50–56</td>
<td>100 Distress (4), quality of life (2), coping (2), physical (1)</td>
</tr>
<tr>
<td>Antoni et al., 2006; Cohen and Fried, 2007; Dolbeault et al., 2009; Hunter et al., 2009</td>
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<tr>
<td>Psychoeducational groups</td>
<td>60</td>
<td>20</td>
<td>3–32</td>
<td>2–6m</td>
<td>25–116</td>
<td>25–77</td>
<td>53–54</td>
<td>100 Distress (4), quality of life (3), social support (1) physical (1)</td>
</tr>
<tr>
<td>Fukui et al., 2000; Heiney et al., 2003; Helgeson et al., 2001; Hosaka et al., 2001; Sherman, et al., 2010</td>
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<tr>
<td>Related studies</td>
<td>83</td>
<td>??</td>
<td>0–35</td>
<td>3–12m</td>
<td>15–154</td>
<td>19–149</td>
<td>46–51</td>
<td>100 Distress (5), family functioning (3) support (2) coping/adjustment (2), physical (1)</td>
</tr>
<tr>
<td>Andersen et al., 2004; Bultz et al., 2000; Kissane et al., 2003; Lane and Viney 2005; Manne et al., 2005, 2007</td>
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PERSONALITY DISORDERS

**Outpatient**

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<thead>
<tr>
<th>Study (year)</th>
<th>N</th>
<th>Age range</th>
<th>Duration</th>
<th>Duration</th>
<th>Range</th>
<th>Outcome measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ben-Porath et al., 2004; Blum et al., 2002, 2008; Bos et al., 2010, 2011; Farrell et al., 2009; Gratz and Gunderson, 2006; Harned et al., 2008; Harvey et al., 2010; Huband et al., 2007; Kliem et al., 2010; Koons et al., 2001; Linehan et al., 2002, 2006; McMain et al., 2009; McQuillan et al., 2005; Turner, 2000; van den Bosch et al., 2002; Verheul et al., 2003</td>
<td>78</td>
<td>22</td>
<td>0–39</td>
<td>4–12m</td>
<td>10–90</td>
<td>10–90</td>
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</table>

**Day Treatment**

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<tr>
<th>Study (year)</th>
<th>N</th>
<th>Age range</th>
<th>Duration</th>
<th>Duration</th>
<th>Range</th>
<th>Outcome measures</th>
</tr>
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<tr>
<td>Bateman and Fonagy, 2001, 2003, 2008; Davies and Campling, 2003; Hulbert and Thomas, 2007; Karterud et al., 2003; Petersen et al., 2008; Reisch et al., 2001; Warren et al., 2004</td>
<td>33</td>
<td>44</td>
<td>16–38</td>
<td>3–96m</td>
<td>22–1244</td>
<td>19–60</td>
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**Inpatient**

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<th>Study (year)</th>
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<th>Outcome measures</th>
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<th>Study Characteristics</th>
<th>Sample Characteristics</th>
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<tr>
<td><strong>Range</strong></td>
<td><strong>Age</strong></td>
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<tr>
<td><strong>SCHIZOPHRENIA</strong></td>
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<tr>
<td><strong>Cognitive-behavioral group therapy (CBGT):</strong> Barrowclough et al., 2006; Bechdolf et al., 2005, 2010; Borras et al. 2009; Granholm et al., 2006, 2007, 2008, 2009; Halperin et al., 2000; Kingsep et al., 2003; Klingberg et al., 2010; Knight et al., 2006; McCay et al., 2006; Patterson et al., 2006; Roberts et al., 2010</td>
<td>80</td>
</tr>
<tr>
<td><strong>Psychoeducation:</strong> Bäuml et al., 2007; Burlingame et al., 2007; Chien &amp; Wong 2007; Haller et al., 2009</td>
<td>50</td>
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<tr>
<td><strong>Multifamily groups (MFG):</strong> Chien and Chan, 2004; Dyck et al., 2002; Hazel et al., 2004; McDonell et al., 2003, 2006</td>
<td>100</td>
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</table>

CBCBGT = Cognitive Behavioral Group Therapy, MFG = Multifamily Group, PEG = Psychoeducational Group, SEGT = Supportive Expressive Group Treatment
Evidence for Efficacy and Effectiveness of Group Treatment

no evidence for this effect. The research team that replicated Spiegel, Kraemer, Bloom, and Gottheil's (1989) survival effect (Fawzy et al., 1993) used a shorter intervention with a different cancer population, and survival benefits were not maintained at 10-year follow-up (Fawzy, Canada, & Fawzy, 2003). In short, SEGT does not improve survival and there are alternative explanations for past findings to explain the discrepancies (Coyne, Hanisch, & Palmer, 2007).

A woman’s coping with her illness (measured with the Impact of Event Scale; IES; or the POMS) is enhanced by SEGT (Classen et al., 2001; Giese-Davis et al., 2002; Kissane et al., 2007; O’Brien, et al., 2008). There was however no effects on the IES with primary breast cancer patients (Classen et al., 2008). Three studies addressed effects of SEGT on pain management. Although all patients in Goodwin et al.’s (2001) study reported pain worsening as cancer progressed, SEGT patients reported less worsening than controls. Butler and colleagues (2009) found a similar effect (only when they eliminated assessments proximal to death), no effect was found with primary breast cancer patients (Classen et al., 2008). SEGT’s small effect on pain requires one to think in terms of less worsening rather than absolute reductions.

Three rigorous studies tested CBGT with early stage (I–II) breast cancer women between 50 and 56 years of age, participating in a closed group lasting 6 to 10 sessions. The unanimity of findings across eight self- and rater-completed measures supports CBGT’s efficacy in reducing psychological distress. There were mixed effects on QoL (Cohen & Fried, 2007; Dolbeault et al., 2009), but improved coping and reduced stress (Antoni et al., 2006; Cohen & Fried, 2007).

Five studies tested psychoeducational groups (PEG) with four using a model originating with F. Fawzy and Fawzy (1994) with several modifications (e.g., PEG provided via telephone conference call, Heiney et al., 2003). All but two (Hosaka et al., 2001, and Sherman, Heard, & Cavanagh, 2010) used a RCT design, with attrition ranging from 8% to 32%. A closed format (six to eight sessions) was used for women, age 26 to 65, with early breast cancer. Primary effects included distress, QoL, and social support. Uniform results across studies were shown for psychological distress (Fukui et al., 2000; Heiney et al., 2003; Hosaka et al. 2001). Helgeson, Cohen, Shulz, and Yasko’s study (2001) is noteworthy because peer support groups facilitated by poorly trained leaders led to suboptimal effects. Fukui et al. (2000) found no effects for depression and anxiety but reported improvement on two QoL measures, as did Heiney et al. (2003) and Sherman et al. (2010). The uniform findings on psychological distress suggests PEG’s efficacy on this variable. There is promising but less definitive support for improvement in QoL.

Eight related studies extend the above findings. Andersen and colleagues (2004) conducted a RCT for early breast cancer with a two-phase 26-session group intervention. The 4-month intensive phase includes 18 weekly sessions focusing on psychosocial interventions (relaxation, coping, social support) and health strategies (diet, exercise, adherence); the maintenance phase involved monthly sessions. The intensive phase led to reduced distress, improved immune functioning, better coping and health behavior, and reduced risk of disease recurrence and death (Andersen et al., 2007, 2008). Two explanations for improvement were offered: (1) those with the greatest reduction in distress and physical symptoms practiced relaxation more frequently, highlighting the link between daily stress and health, and (2) higher levels of group cohesion were related to change on psychological, behavioral and physical health measures. Kissane et al.’s (2003) 20-session cognitive-existential group for early stage breast cancer reduced anxiety and improved family functioning; experienced psychologists emerged as more effective leaders. Lane and Viney’s (2005) eight-session personal construct group with a similar population resulted in greater improvement on anxiety, death anxiety, depression, and hope measures. Two teams (Bultz, Speca, Brasher, Geggie & Page, 2003; Manne et al., 2005) studied PEGS for partners of breast cancer patients and showed improvement on psychological distress, depression, wellbeing and marital satisfaction.

The results from all 23 studies (Table 16.3) did not vary by analysis and compared to our last review, studies were more rigorous, better powered, and produced more conclusive findings. The most reliable effect for SEGT, CBT, and PEG was improved emotional distress; what is less clear are the conditions when this effect is not realized, although it may be related to the patient’s initial level of distress. Both SEGT and CBT produced reliable increases in coping with the illness, which was not seen in PEG. SEGT groups may have an edge in improving life adjustment, although it is more costly. Finally, there is
virtually no support for the conclusion that these group treatments extend life.

Promising developments include the moderator analysis by Manne et al. (2005) who showed greater benefit on depression for women with greater impairment and unsupportive partners. There was a single study (Antoni et al., 2006) that experimentally separated the effect of information from group effects finding group produced more improvement on psychological distress \(d = 0.33\) to \(0.74\) and coping \(d = 0.55\) than information dissemination alone. Kissane et al.’s (2003) link between experience and outcomes underscores our previous conclusion and the protocol modifications based on culture are a promising step toward accommodating diversity (e.g., Dolbeault et al., 2009; Fukui, et al., 2000; Hosaka et al., 2001). Finally, several studies (e.g., Bulz et al., 2000; Heiney et al., 2003; Lane & Viney, 2005) noted group processes as an important component, but the size of effect associated with these processes is unknown.

**Pain and Somatoform Disorders**

Systematic reviews summarizing behavioral treatment for chronic pain concluded that study methodology was poor (only 25% of studies reached a threshold for high quality, e.g., van Tulder et al., 2001). In contrast to individual psychotherapy (mostly CBT), research on group treatment in this area is limited but shows potential.

RCTs dealing with irritable bowel syndrome all indicate that CBGT is effective in reducing pain and psychological symptoms, as well as increasing quality of life (Blanchard et al., 2006). CBGT is provided to patients with heterogeneous chronic pain symptoms (e.g., White, Beecham, & Kirkwood, 2008) or specific pain (e.g., myofascial, Bogart et al., 2007; low-back, Lamb et al., 2010) with positive effects on pain intensity, functional impairment, depression and anxiety. CBGT in primary care also appears to be cost-effective (Lamb et al., 2010). On the other hand, a recent meta-analysis on CBT techniques for distress and pain in cancer patients concluded that individual was more effective than group treatment, both for pain \(d = 0.61\) versus \(0.20\) and distress \(d = 0.48\) versus \(d = -0.06\). As innovative manualized group treatments for pain emerge (e.g., Nickel, Ademmer, Egle, 2010), we expect an increase of studies in the future.

**Inpatient Groups**

In European health care systems, group therapy has always been a primary treatment for psychotherapy inpatients. Groups are usually delivered to mixed populations comprising affective, anxiety, eating and personality disorders. The only systematic summary available in our last review was a meta-analysis by Burlingame, Fuhriman, and Mosier (2003), concluding that outpatient group \(ES = 0.55\) outperformed inpatient group therapy \(ES = 0.20\) when both were compared to waitlist controls. One limitation of this conclusion was that it rested on only 6 inpatient studies.

In a more recent meta-analysis, Kösters, Burlingame, Nachtigall, and Strauss’s (2006) estimated the effectiveness of inpatient group therapy based on 24 controlled and 46 effectiveness studies published between 1980 and 2005. Beneficial effects for inpatient group emerged in controlled studies \(d = 0.31\) as well as effectiveness studies \(d = 0.59\). Greater improvement was exhibited in patients with affective and anxiety disorders compared to samples of mixed, psychosomatic, PTSD or schizophrenic disorders.

We did not locate any RCTs that were not included in the Kösters et al. (2006) meta-analytic review. Instead, effectiveness studies suggested that greater attendance in inpatient group psychotherapy can improve inpatient outcomes (Page & Hooke, 2009) and that CBGT might be related to a reduction in readmissions as well as improvement in patients’ personal and work satisfaction (Veltro et al., 2008). Other studies have focused on process-outcome questions (e.g., Dinger & Schauenburg, 2010), or on the influence of specific patient characteristics on outcome (e.g., attachment, Strauss et al., 2006; alexithymia, Spitzer, Siebel-Jürges, Barnow, Grabe, & Freyberger, 2005).

**Groups for Severe Mental Illness Schizophrenia**

In 2004 we described a large number of studies testing the efficacy of one of four models for group treatment of schizophrenia: social skills (SS), psychoeducation (PEG), cognitive-information processing and cognitive-behavioral therapy (CBGT), as well as multi-family groups (MFG). Over the past decade, 27 new studies either tested modifications to the above models or introduced innovative approaches (e.g., Motivational Group Interventions, Beebe et al.,
Evidence for Efficacy and Effectiveness of Group Treatment

Table 16.3 summarizes 24 studies testing differential effects of CBT approaches with a wide array of specific interventions (e.g., social skills training, cognitive therapy, functional adaptation skills-training and cognitive restructuring), along with PEG and MFG studies. Groups are typically closed with the number of sessions (8 to 45) and treatment duration (2 to 24 months) varying widely. Samples are heterogeneous on age and gender and consist predominantly of outpatient populations; inpatient studies are primarily from European settings (e.g., Klingberg et al., 2010).

There was a sizeable increase in CBGT studies (Lawrence, Bradshaw, & Mairs, 2006). In contrast to our previous review, where most studies used the UCLA-Social and Independent Living Skills program or integrated psychological therapy, recent CBGT studies were much more heterogeneous with regard to treatment components, target populations, and outcomes. The majority were RCTs comparing CBGT with standard care or other active treatments (e.g., psychoeducation, social-skills training). Psychopathological symptoms were assessed as primary or secondary outcomes in most (10) studies, but these did not always change following CBGT (e.g., Barrowclough et al., 2006; Bechdolf, Köhn, Knost, Pukrop, & Klosterkötter, 2005). Other effects included self-esteem (Barrowclough et al., 2006; Borras et al., 2009; Knight, Wykes, Hayward, 2006), social anxiety (Halperin, Nathan, Drummond & Castle 2000; Kingsep et al., 2003) and cognition and coping (McCay et al., 2006; Roberts, Penn, Labate, Margolis, & Sterne, 2010), functional adaptation and skills training (Granholm et al., 2007; Patterson et al., 2006), and quality of life (Bechdolf et al., 2010; Kingsep et al., 2003; Klingberg et al., 2010).

Granholm et al. (2006, 2007, 2008, 2009) describe a series of studies for older persons (> 50 years) with schizophrenia, showing positive results for social and living skills as well as neuropsychological functioning. One study (Klingberg et al., 2010) focused on relapse prevention and reduction of rehospitalizations using a complex CBGT program. CBGT successfully lengthened time-to-relapse compared to standard care but did not reduce rehospitalizations.

The four studies testing PEGs commonly used patient symptoms and/or functioning and parameters of service utilization (reduced rehospitalizations/total days in hospital) as primary outcomes in pre–poststudies or studies comparing PEG with standard care. Chien and Wong (2007) found that a PEG targeting family members reduced family burden and also improved patient functioning and reduced rehospitalization rates. Bäuml, Pitschel-Walz, Volz, Engel, and Kissling (2007) examined the 7-year follow-up outcomes for the Munich Psychosis Information Project Study and noted higher survival rates as well as lower rates of rehospitalization and hospital days for the PEG when compared to the control group. This study is noteworthy since recent evidence suggests a 25-year reduction in expected life span for this clinical population (Parks, Svendsen, Singer, & Foti, 2006). Similarly, Haller et al. (2009) found that PEGs decreased psychotic symptoms and improved QoL. Finally, Burlingame et al. (2007) found that intense training of nurses in running PEGs was unrelated to symptom improvement, failing to replicate earlier work (Burlingame, Fuhriman, Paul, & Ogles, 1989).

We previously concluded that multi-family groups (MFG) à la McFarlane, Link, Dushay, Marcial, and Crilly (1995) produced equivalent improvement in symptoms, social and vocational functioning as well as treatment compliance when compared to single family therapies. Consequently, MFG may be a more cost-efficient treatment with respect to primary outcomes and relapse rates, a vexing challenge with this population. Interestingly, the number of new MFG studies over the past decade decreased, with only five new studies found. All were RCTs comparing MFG with standard care (4) or PEG (1); results were mixed. Two (Dyck, Hendryx, Short, Voss, & McFarlane 2002; McDonell, Short, Berry, & Dyck, 2003, report a decrease in rehospitalizations with a third (McDonell, Short, Hazel, Berry, & Dyck, 2006) reporting a parallel increase in outpatient service which partially offset cost-efficiency. As per previous research, patients in MFG groups did not differ in symptom reduction with one exception (Chien & Chan, 2004). Thus, while MFG produced comparable symptom and functioning improvement, it appears to have an advantage for stress reduction, improved family functioning and reduced rates of rehospitalization (Hazel et al., 2004; McDonell, Short, Berry, & Dyck, 2003).

Group treatment for schizophrenia has good to excellent support. CBGT was dominant and
shown to be effective across a wide range of outcomes. MFG and PE studies have decreased in number; the disappearance of traditional verbal therapies for schizophrenics continues (Burlingame et al., 2004).

**Personality Disorders**

Group interventions for patients diagnosed with personality disorders (PDs) was an active area of research since our last review. Studies consistently targeted Borderline PD (BPD) and central problems of the disorder: suicidality, parasuicidality, depression, hopelessness, and hospitalization. Studies at each level of care primarily tested the effectiveness of “treatment packages” comprising multiple interventions. The outpatient orientation is uniformly cognitive-behavioral (CBT); day treatment/residential and inpatient programs combined CBT and psychodynamic approaches.

Outpatient dialectical behavior therapy (DBT) received more attention than any other approach; studies were frequently RCTs. DBT uses a skills-training group (2.5 hours/week for the usual year of treatment) that complements twice-weekly individual therapy and telephone coaching to address emotion regulation, distress tolerance, and interpersonal behavior. A dismantling study did not find the group component effective when added to ongoing, non-DBT individual therapy (Koerner & Linehan, 2000), but a recent RCT found a DBT group alone more effective than a dynamic group on retention, psychiatric symptoms, lability, and anger (Soler et al., 2009). Further study is needed to establish if skills training can be effective on its own, and if the three DBT components function synergistically.

Two lines of evidence supported DBT’s effectiveness with BPD. First, a RCT of DBT versus community treatment by experts (CTBE) offered a highly credible control that accounted for multiple therapist, treatment, and contextual factors (Linehan et al., 2006). Both DBT and CTBE had effects on depressive symptoms, but DBT also impacted suicide attempts, crisis or inpatient service use, and drop out. Second, a meta-analysis (Kliem, Kröger, & Kosfelder, 2010), four RCTs (Koons et al., 2001; McMain et al., 2009; Turner, 2000; Verheul et al., 2003), and two pre–poststudies (Ben-Porath, Peterson, & Smee, 2004; McQuillan et al., 2005) conducted by independent researchers also supported DBT’s efficacy. Consistent effects on suicidal ideation, self-harm, or problematic emotional states were demonstrated. The Kliem et al. (2010) meta-analysis highlighted effects on suicidal and self-harm behaviors but noted these are reduced when the comparison treatment is also BPD-specific. McMain et al. (2009) showed that DBT versus psychiatric management conducted in line with practice guidelines (American Psychological Association [APA], 2001) had equivalent effects for a majority of clinical outcomes. Verheul et al. (2003) observed that DBT was especially effective for patients with a history of more frequent self-harm.

The efficacy of DBT for BPD with comorbid SA was shown in two of three RCTs (Harned et al., 2008; Linehan et al., 2002; van den Bosch, Verheul, Schippers, & van den Brink, 2002) although a third of patients failed to complete DBT. Recent adaptations include DBT for adolescent (Fleischhaker et al., 2011), community mental health center (Comtois, Elwood, Holdcraft, Smith, & Simpson, 2007), and inpatient groups (Bohus et al., 2004; Kleindienst et al., 2008; Kröger et al., 2006).

**Systems Training for Emotional Predictability and Problem-Solving** (STEPS) was introduced in a pre-post study of the 20-week group for 52 BPD patients (Blum, Pföhl, St. John, Monahan, & Black, 2002). STEPS consists of CBGT emphasizing skills training for emotion and behavior management and a PEG for key members of the patient’s support network. The study noted a decline in BPD symptoms. Four rigorous trials (Blum et al., 2008; Bos, van Wel, Appelo, & Berbraak, 2010, 2011; Harvey, Black, & Blum, 2010) showed strong effects on BPD symptoms, global functioning and QoL. Bos et al. (2011) showed that STEPS benefited patients with either a “subsyndromal” or full BPD diagnosis; deterioration was noted for 29% of TAU but only 4% of STEPS patients. Later studies used STEPS as a primary treatment, reflecting confidence in the model, but a higher dropout rate (21% to 36%) than TAU (11% to 26%) is an issue.

Small-scale RCTs of other treatments for PDs tested schema-focused (Farrell, Shaw, & Webber, 2009), acceptance-based (Gratz & Gunderson, 2006), and problem-solving group therapy (Huband, McMurran, Evans, & Duggan, 2007). These studies recruited samples with a high proportion of male BPD patients and reported positive effects on BPD symptoms.

Several day treatment models for PDs have been tested. The 18-month Mentalization-Based
Day Treatment (MBDT; Bateman & Fonagy, 1999) was compared to TAU for 38 severe BPD patients and proved superior on self-harm, suicide attempts, health services use, and medication use. Results were maintained at 18-month and 8-year follow up (Bateman & Fonagy, 2001, 2008). MBDT was associated with reductions in emergency room visits and admissions relative to TAU, with the savings offsetting the costs of MBDT itself (Bateman & Fonagy, 2003). All MBDT patients attended a weekly maintenance group after discharge, but only a third of TAU patients sought similar therapy.

Four pre-post and two naturalistic clinical trials (Peterson et al., 2008; Warren, Evans, Dolan, & Norton, 2004) evaluated traditional day treatment (DT) programs. Samples involved a range of PDs with BPD predominant. Karterud et al. (2003) is notable for recruiting 8 DT programs and over 1,200 patients. Programs reflected a cognitive orientation (Reisch, Thommen, Tschacher, & Hirshbrunner, 2001) or, more commonly, a package of cognitive, dynamic, and process groups. These studies used a diverse array of outcome measures, but demonstrated substantial effects on psychiatric symptoms, hospital admissions, social functioning and QoL.

Inpatient settings also featured applications of group treatment. The Cassel Hospital study targeted a mixed PD sample (predominantly BPD). Using a naturalistic trial design, a one-stage, 12-month analytically-informed inpatient milieu, plus twice-weekly individual therapy, was contrasted with a two-stage “step-down” program involving 6 months of inpatient treatment followed by 12 to 18 months of outpatient dynamic group therapy and 6 months of outreach nursing (Chiesa & Fonagy, 2000, 2003). Premature terminations were frequent in both inpatient groups (47%) but the rate of early dropout was higher for the one-stage program. Both programs outperformed TAU (medication and case management in the community) on measures of social functioning, global functioning, psychiatric symptoms, and clinical indicators. There was greater benefit in the two-stage program with differences maintained at 24-month follow-up. Twice as many two-stage patients showed reliable and clinically significant change at 24 (Chiesa, Fonagy, Holmes, & Drahorad, 2004) and 72-month follow-up (Chiesa, Fonagy, & Holmes, 2006). Costs were offset by reduced health and social service use in the year after treatment termination (Chiesa, Fonagy, Holmes, Drahorad, & Harrison-Hall, 2002). The outpatient group appeared to help patients make the transition to the community while the one-stage program had regressive effects following discharge.

Two studies (Leirvåg, Pedersen, & Karterud, 2010; Wilberg et al., 2003) evaluated different outpatient groups following intensive DT. The step-down approach for severe PDs makes clinical sense—it appears to be critical to the success of MBDT—but there remain issues with patient compliance and retention and as yet no definitive picture regarding treatment effects.

### Group Versus Individual

The comparative effectiveness of the group versus individual format was extensively reviewed. We concluded that the collective evidence would “strongly support the no difference conclusion in the aggregate but is weak with respect to format by diagnosis interactions” (Burlingame et al., 2004, p. 652). During the past 10 years, several meta-analyses have been published that dealt with specific diagnoses. In addition, we found 23 single studies comparing the two formats related to a wide variety of target problems.

The “no difference conclusion” is more or less confirmed for mood disorders (Baines, Joseph, & Jindal, 2004; Cuijpers, van Straten, Andersson, & van Oppen, 2008; Lockwood, Page, & Conroy-Hiller, 2003; Nevonen & Broberg, 2006). Exceptions occur including Nevonen and Broberg’s (2006) finding at 1-year follow-up that effects on most measures were larger for individual. Renjilian et al. (2001) reported that CBGT was more effective than individual CBT for weight loss in BED patients, but the formats proved equivalent regarding symptom improvement; patient preference for either treatment had no impact. Equivalence was also shown for substance related disorders: One study (Panas, Caspi, Fournier, & McCarty, 2003) used archival data (n > 7,000 cases) and showed an increased likelihood of treatment completion and goal achievement for patients treated “heavily” in groups (i.e. > 2/3 of sessions in groups). Of course this finding was not based on random assignment. John, Veltrup, Driessen, Wetterling, & Dilling (2003) tested a
motivational intervention provided as individual counseling or as a 2-week group program and noted differences, but these disappeared at 12-month follow-up with equivalence on the primary outcome of abstinence. The Sobell, Sobell, and Agrawal (2009) study randomly assigned alcohol and drug dependent patients to short-term individual versus group treatment (4 sessions) with equivalent outcomes but an economic advantage for group (41.4% less therapist time).

The picture is less clear with social phobia, where reviewers come to contradictory conclusions noting advantages of individual therapy on effect sizes and attrition rates (Aderka, 2009; Stangier et al., 2003) or equivalence (Powers et al., 2008). Similarly, contradictory results were found for trauma-related disorders (advantages of individual treatment for political prisoners suffering from PTSD, Salo, Punamäi, Qouta, & Sarraj, 2008; equivalence or economic advantages of group treatment for childhood sexual abuse survivors, Ryan et al., 2005; McCrone et al., 2005).

Among the OCD studies, format equivalence has been shown on YBOCS and depression measures (Anderson & Rees, 2007; Jaurrieta et al., 2009; O'Leary, Barrett, & Fjermestad, 2009). Interestingly, in one study superior outcomes for individual were reported in the completer analysis but equivalence in the ITT analyses, underscoring the importance of both types of analysis (Jaurrieta et al., 2008). A recent study (Belloch et al., 2011) showed comparable effects on depression and tendencies to worry. Individual treatment was more effective than group treatment in decreasing dysfunctional beliefs and the use of suppression as a thought control strategy. Nevertheless, coupling these findings with Fals-Stewart et al. (1993), we find sufficient evidence to conclude format equivalence. O’Connor and colleagues (2005) findings contradict this conclusion but their results are based on nine group members, liberally analyzed (i.e., completer-analysis) with a high refusal rate. Most studies calculated the economic advantage of group at a 3:1 to 5:1 savings (cf. Jonsson & Hougaard, 2008).

From the remaining studies, the majority support the equivalence hypothesis (Bastien et al., 2004; Rose, O’Brien, & Rose, 2009; Shechtman, 2004; Turner-Stokes et al., 2003). One study indicates an advantage for group (related to coping with HIV infections; Heckman et al., 2011) while another supports the individual format in a mixed clinical sample (Bachar, Canetti, Yonah, & Bonne, 2004), but economic advantages for group are constant.

Two teams went beyond the prosaic acknowledgement of the group’s cost-effectiveness by employing distinct methods to estimate cost and effectiveness. Otto Pollack, and Maki (2000) compared group, individual, and psychopharmacology costs for patients treated for panic disorder. Absolute costs ranked group lowest ($523) followed by individual ($1,357) and medication ($2,305). Using clinician ratings, group was found to be most cost effective ($246), followed by medication and individual therapy ($447 and $565, respectively). Roberge, Marchand, Reinharz, and Savard (2008) compared 14-session individual and group treatments with a brief 7-session individual CBT that did not include in vivo exposure for patients with panic disorder, on a composite index made up of six panic, anxiety, and depression measures. Absolute costs ranked the brief approach as lowest ($154) followed by group and standard individual therapy ($249 and $376, respectively). However, when cost-effectiveness was included in the equation, group was more effective and somewhat less costly while the brief individual therapy was less costly and slightly less effective.

General Conclusions Regarding Effectiveness

We have summarized more than 250 studies that estimated the efficacy and/or effectiveness of group therapy for 12 disorders/patient populations (Tables 16.1 to 16.3). Taken together, the last decade of research demonstrated greater rigor and continued to provide clear support for group treatment with good or excellent evidence for most disorders reviewed (panic, social phobia, OCD, eating disorders, substance abuse, trauma-related disorders, breast cancer, schizophrenia, and personality disorders) and promising for others (mood, pain/somatiform, inpatient). Comparisons of different models often produced equivalent outcomes and, when differences were shown, they were small; thus, the clinician has choice. Although there may be some disorders where the individual format seems more promising (e.g., specific trauma-related disorders), format equivalence is convincingly supported, as are the economic advantages. Indeed, there are now empirically derived cost-effectiveness estimates supporting group over individual treatment.

Several new trends emerged. There is an increasing number of dismantling studies testing
whether theorized treatment mechanisms indeed explain change (e.g., mood, social phobia, and OCD). In some instances they did not, leading investigators to explain change by common effects, that is, group properties and processes. Once again, the bulk of research tested the efficacy of specific formal change theories, predominately CBT, but also interpersonal (breast cancer), psychodynamic (personality, eating disorders), and integrated models. Protocols were tested for their feasibility and transportability into clinical practice (e.g., social phobia and panic), providing the clinician with an empirical gauge on their likely impact. We saw an increased focus on groups for relapse prevention in populations that suffer from high relapse rates (e.g., bipolar and schizophrenia), as well as models transferred to adolescent populations to attenuate or prevent an illness (e.g., social phobia and substance).

Several studies refined past efficacious protocols to see if a more intense yet smaller dose led to similar outcomes; results were mixed. Patient change is now a topic of study with sudden gains showing different patterns by disorder (e.g., MDD, panic, social phobia). This has relevance for practitioners who track patient change using sensitive outcome measures.

Despite these positive developments, improvements are needed. Greater consistency in the outcomes assessed would increase comparability across studies. We attempt to highlight this challenge in the effects column of the tables because, fundamentally, clarity regarding expected effects is what the practitioner and client need. Fortunately, with some disorders (YBOCS in OCD, LSAS in social phobia), standard measures of outcome have been established that facilitate the aggregation of results. Methodologically, most studies are still using liberal completer analyses. We read several studies where results were reversed when ITT analyses were applied. As we noted last time, only a few teams addressed within-group dependency effects and power, both of which are essential to derive unambiguous conclusions. Baldwin, Murray, and Shadish (2005; Baldwin, Stice, & Rohde, 2008) have empirically demonstrated that a small (0.05) level of group dependency and/or not analytically nesting members within groups leads to a predictable inflation of Type I error. This means our group studies may be declaring significant effects when none exists. Given that these effects were unaddressed in most studies, the above effectiveness conclusions are likely inflated; we just don’t know how much.

Promising Developments

There have been several noteworthy developments over the past decade. Some advance research noted in our last review while others reflect new developments. We briefly summarize this research by the five sources in Figure 16.1.

Formal Change Theories: Treatment Integration

An interesting trend is the integration of heretofore “competing” approaches (e.g., CBGT + dynamic or IPT) for the treatment of certain disorders (e.g., trauma and ED). Clinicians treating these disorders are dealing with complex conditions and integrating multiple treatments is an attempt to address several effects. In a related manner, evidence-based treatment models shown efficacious for specific disorders are being applied to new disorders. For example, DBT, originally developed to treat BPD, is increasingly and successfully applied to BED (e.g., Safer, Robinson, & Jo, 2010; Telch, Agras, & Linehan, 2000, 2001), shifting the theory behind treatment from distorted beliefs/attitudes to emotion regulation.

Structure: Mixed Group Composition

A reality for many clinicians is the difficulty composing diagnostically homogeneous groups. Previously, we noted a single RCT that targeted a diagnostically heterogeneous group and praised it on clinical relevance. Several studies have advanced this cause by examining the effects of mixed diagnosis (MD) groups for mood and anxiety (Lorentzen, Raud, Baldwin, & Hoglend, 2011; McEvoy & Nathan, 2007; Rief, TrenKamp, Auer, & Fichter, 2000), anxiety and posttraumatic stress (Dunn et al., 2007), mixed anxiety (social phobia, generalized, OCD and panic) and co-occurring disorders (trauma and substance use). Results were invariably positive; for example, Norton and Hope (2005), and Norton and Whittal (2004) showed that patients suffering from either social phobia (48%) or panic disorder (42%) had equivalent improvement in general anxiety (d = 1.06). Similar results were posted by Erickson, Janeck, and Tallman (2007), Lumpkin, Silverman, Weems, Markham, and Kurtines (2002) and van Ingen et al. (2009). Lorentzen and colleagues showed no differential benefit between short- and long-term analytic group treatment, although results were moderated by the presence of a personality disorder. Studies of group interventions for mixed eating disorder (MED) samples have also encompassed
all levels of care (outpatient, day treatment, inpatient) and were weighted more toward evaluative than hypothesis-driven research (Newns, Bell, & Thomas, 2003; Ro, Martinsen, Hoffart, & Rosenvinge, 2003). Generally, studies integrated CBGT with other approaches for mixed ED with promising results. However, only two provided a control condition (Crafti, 2002; Kong, 2005), making causal inferences premature.

**Patient Characteristics: Focus on Attachment Styles**

As in other treatment formats, constructs from attachment theory play an increasing role in the group literature (Markin & Marmarosh, 2010; Strauss, 2012). Existing studies provide evidence that attachment functions as a predictor of outcome in group psychotherapy (e.g., Strauss et al., 2006) and as a mediator/moderator of cohesion, group climate (e.g., Kirchmann et al., 2009), interpersonal perceptions (Mallinckrodt & Chen, 2004), and self-disclosure (Shechtman & Rybko, 2004). There are an increasing number of studies focusing on attachment to the therapy group using measures of group avoidance and group dependency (e.g., Marmarosh et al., 2006). Studies from social psychology addressing the relationship between attachment and processes in nonclinical groups have been recently reviewed (Mikulincer & Shaver, 2007).

**Leader: “Virtual Leaders” and Online Groups**

Research is now evaluating the augmentation of existing group treatments through technology, that is, online modes of delivery. Group treatment has been combined and contrasted with both asynchronous (e.g., email from therapist) and synchronous contact (e.g., real time). The most thorough testing of asynchronous therapy was conducted by a Swedish team that developed a nine-module web-delivered program (ICBT) for social phobia. The first RCT tested ICBT combined with two live exposure group sessions. Large improvements in social phobia symptoms resulted, compared to a waitlist control ($ES = .87$); however, nearly half failed to attend both exposure sessions (Andersson et al., 2006). ICBT was then tested without group exposure and produced similar results (Carlbring, Furmark, Steeczko, Ekselius, & Andersson, 2006), calling into question the value of group exposure. Next, ICBT was tested with and without a 10-minute weekly telephone call to increase module completion (Carlbring, et al., 2007). A large average effect size on social phobia symptoms resulted when compared to waitlist ($ES = .95$, range $0.39–1.3$); 93% completed all modules. Next, ICBT was tested with and without a five-session group exposure (Tillfors et al., 2008) with both conditions producing similar improvements ($ES = 1$); definitive conclusions are difficult because nearly 40% failed to attend a single exposure session. Finally, ICBT for panic disorder was contrasted with traditional CBGT (Bergström et al., 2010) with equivalent outcomes and costs favouring ICBT over traditional CBGT at a 1:4 ratio.

**Synchronous online treatment** was examined in a naturalistic study (Golkaramnay, Bauer, Haug, Wolf, & Kordy, 2007) using real-time chat rooms composed of 8 to 10 members lasting 12 to 15 weeks following inpatient care. Low dropout (9%) and high attendance rates (85%) with small gains on symptom distress and well-being resulted ($ES = .27–.32$). Subsequent research confirmed that treatment gains were maintained (Haug, Sedway, & Kordy, 2008; Haug, Strauss, Gallas, & Kordy, 2008) and recent research (Bauer, Wolf, Haug, & Kordy, 2011) found lower relapse rates compared to controls. Other studies focused on PTSD (Morland et al., 2010), depression (Houston, Cooper, & Ford, 2002), or body dissatisfaction and disordered eating (Heinicke, Paxton, McLean, & Wertheim, 2007); all of these posted reliable improvements. Lieberman, Wizlenberg, Golant, and Di Minno (2005) examined heterogeneous versus homogeneous internet support groups for patients suffering from Parkinson’s disease, showing homogenous groups were significantly more committed and posted better depression outcomes. A Dutch study compared asynchronous and synchronous treatment (Blankers, Koeter, & Schippers, 2011) using a three-arm RCT to test a self-guided ICBT approach that included motivational interviewing (MI) for problematic alcohol drinkers. Using the same manual, the self-guided ICBT was compared to a synchronous seven-session 40-minute chat group or waitlist control. All groups showed a reduction in alcohol consumption and the two active treatments outperformed the waitlist but at 6-month follow-up the synchronous condition showed a greater reduction in consumption; effect sizes were modest. We see this study as an exciting advancement for online treatment and encourage future research to explore differential outcomes of online approaches.
Small Group Process: Attempts to Integrate Relationship Constructs

One of the more exciting developments over the past decade is the conceptual clarity that has resulted from studies of the therapeutic relationship in groups. Previously, we offered a set of instruments “as a ‘beginning’ process assessment battery” (Burlingame et al., 2004, p. 679) to address the lack of conceptual and measurement clarity regarding the therapeutic relationship in groups. Our measurement proposal was tested and refined in a series of studies from Europe and North America. The first study (Johnson, Burlingame, Davies, & Gleave, 2005) estimated the conceptual and empirical overlap of four commonly used cohesion, climate, working alliance and empathy measures by having 662 members of 111 counseling center and personal growth groups complete a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each. A 2-dimensional model resulted with the groups completing a copy of each.

The robust factor structure from four distinct group populations (personal growth, counseling center, outpatient analytic and inpatient psychodynamic) and countries was sufficiently promising to develop a 40-item Group Questionnaire (GQ) using two criteria: (1) empirical fit with the aforementioned model and (2) content linked to specific group interventions to address relationship problems (cf. Burlingame, McClendon, & Alonso, 2011). Krogel (2009) replicated the model using the GQ with 485 members drawn from three group populations (personal growth, counseling center, and state psychiatric hospital), finding that 30 items were sufficient. A recent study replicated Krogel’s (2009) work with 438 inpatient psychodynamic group members and demonstrated good criterion validity with well-known German relationship measures studies (Bormann, Burlingame & Strauss, 2011). Finally, Thayer (2012) replicated Krogel’s factor analysis with 219 group members drawn from 65 groups conducted at four U.S. university counseling centers and demonstrated good criterion validity with the original measures used by Johnson et al. (2005), to create the GQ. Most recently, the GQ subscales have been linked to leader interventions, providing clinicians with evidence-based action steps to improve the therapeutic relationship in groups (Burlingame et al., 2011).

UNDERSTANDING GROUP-LEVEL MECHANISMS OF CHANGE

After reviewing group effectiveness across 12 disorders and populations we’ve offered conclusions regarding specific outcomes being causally linked to specific models. In other cases, outcomes were linked to unspecified group properties by study authors. Defining these unspecified group properties has been a challenge for past reviewers. To illustrate, we’ve noted that cohesion, a ubiquitous group property, is assessed by no fewer than 23 measures (Burlingame et al., 2011). This lack of clarity has led some to introduce new group properties and discard old ill-defined ones (Hornsey, Dwyer, Oei, & Dingle, 2009). Our previous response (Burlingame et al., 2004) was to highlight research programs that carefully defined and tested these group properties. While useful, such research tends to be highly specific and takes decades to develop. Conclusions are often too narrow for clinicians to apply broadly in their practice. In this section we provide an alternative.

The organizational scheme shown in Figure 16.2 is an expansion of the small group process and structure domains found in Figure 16.1. It identifies distinct group properties and processes that have been extensively studied (Burlingame, Strauss, Bormann, & Johnson, 2008). Indeed, entire chapters have been devoted to summarizing the research on single components such as cohesion (cf. Burlingame et al., 2011). The model is based on Berne’s (1966) analogy that knowledge of group dynamics for a group leader is as essential as knowledge of physiology for a physician. Living organisms are composed of anatomical form and physiological functions.
Anatomical structure often sets limits on physiological function. Likewise, our model identifies the form (structure) and function (processes) of small groups. We believe it is essential for group leaders to be knowledgeable about group form and function. Too many RCTs end with authors speculating that unaccounted for outcome variance might be explained by group properties. While we acknowledged the likelihood that many group investigators do not come from a group dynamic identity, we believe future progress must include measures of well-known group properties to at least rule them in or out as potential mechanisms of change. Such research would also positively impact clinical practice; see Burlingame et al. (2008) for more detailed description.

Anatomy of a Group—Structure

In our model, anatomy refers to the form of a group (Figure 16.2) and relates to leader actions that create the group—imposed structure. Similarly, member actions can also affect form—emergent structure. The components of imposed structure range from (a) how a leader selects (b) and prepares group members before and in (c) early group sessions to (d) how they compose the group. Pregroup preparation and structure have sufficient empirical depth to produce evidence-based guidelines; the interested reader is referred to past handbook chapters. Expertise in group dynamics is not required to recognize that all groups develop a unique “personality.” Emergent structure describes how
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this personality is formed with three constructs: development, subgroups, and norms. Most theories of group development describe it as an emergent property of closed groups that reflects temporal patterns of work and climate. Norms are formal and informal rules that develop in the first sessions while subgroups form more gradually over time. We highlight a single component of each type of structure.

**Imposed Structure—Composition**

The impact of group composition has been a presence in the clinical literature for decades. The accepted principle that “the therapist strives for maximum heterogeneity in the clients’ conflict areas and pattern of coping, and at the same time strives for homogeneity of the clients’ degree of vulnerability and capacity to tolerate anxiety” (Yalom & Leszcz, 2005, pp. 272–273) is counterbalanced by limited empirical findings over the past decade. Two meta-analyses (Ang & Hughes, 2001; Burlingame, Fuhriman, & Mosier, 2003) identified heterogeneous group composition, based on problem focus or gender, respectively, as more effective. The former summarized 18 studies of social-skills groups for antisocial youth and found mixed groups (combined anti- and prosocial youth) produced more improvement at posttreatment \( d = .70 \) versus \( .55 \) and follow-up \( d = .46 \) versus \( .30 \). Similarly, Burlingame et al. (2003) concluded that mixed-gender groups were more effective than single-gender groups, relative to wait-list controls \( d = .66 \) versus \( .40 \). Shechtman, Goldberg, and Cariani (2008) varied the ethnic composition of counselor trainee groups in Israel and found that Arab students in ethnically heterogeneous groups demonstrated greater engagement, more disclosure, and less regret after disclosure than their Arab counterparts in homogeneous groups.

In counterpoint, three studies demonstrated greater effectiveness for homogeneous groups. The Burlingame et al. (2003) meta-analysis identified groups homogeneous for problem focus as more effective than heterogeneous groups, relative to wait-list controls \( d = .36 \) versus \( .25 \) and in terms of pre-post change \( d = .82 \) versus \( .42 \). In Lieberman et al.’s (2005) aforementioned study of online support groups for Parkinson’s disorder patients, homogeneous groups demonstrated greater improvement than heterogeneous groups on depression and symptom severity. Greenfield et al. (2008) demonstrated greater effectiveness for a women-only group treatment for substance abuse (Women’s Recovery Group) relative to a mixed-gender treatment (Group Drug Counseling), but only among women having greater symptom severity.

More complex composition effects based on the proportional representation of certain patient variables were also studied. Wade and Gold- man (2006) examined the gender composition of 2-week, 6-hour groups aimed at promoting forgiveness of actions by others that members felt were harmful (e.g., relationship break-up, abuse). As the proportion of men in the group increased, women showed greater declines in the desire for revenge while men became less empathic towards their offender. We highlighted Piper and colleagues’ work on composition in our last chapter because they had identified an interaction between an aptitude (quality of object relations—QOR) reflecting interpersonal maturity and type of treatment (interpretive versus supportive groups; Piper, McCallum, Joyce, Rosie, & Ogrodniczuk, 2001). More recently, Piper, Ogrodniczuk, Joyce, Weideman, and Rosie (2007) composed groups using the QOR variable; homogeneous groups were predicted to outperform heterogeneous groups but this was not supported. Instead, the proportion of high-QOR patients predicted better outcomes for all members, regardless of a member’s QOR or the treatment approach. These studies raise the intriguing question of the optimal proportion (men, high-QOR patients) needed to maximize outcomes.

The diversity of findings regarding composition suggests that there is no simple rule to follow, requiring group leaders to be conversant with relevant research findings. Gender provides a good example: For certain topics (e.g., shared traumatic experience, gender-specific issues), homogeneity can be a boon, but for others (e.g., relational problems with the opposite gender) heterogeneity would be preferred. Patients’ needs and deficits and the group’s purpose and focus are important elements of the context, and there are likely additional parameters that require consideration in order to facilitate composition effects.

**Emergent Structure—Group Development**

Group development posits that closed groups pass through recognizable temporal stages that affect work and emotional climate. Recent reviews (Johnson, Burlingame, Strauss, & Bormann, 2008; McClendon & Burlingame, 2011b) argue that our
empirical knowledge rests upon use of MacKenzie’s Group Climate Questionnaire (GCQ; MacKenzie, 1983) and this trend continued over the past decade. Two studies tested MacKenzie’s (1994) stage model of group development with the GCQ in CBGT versus IPT groups for inpatients with eating disorders (Tasca, Balfour, et al., 2006) or social phobia (Bonsaksen, Borge, Sexton, et al., 2011). The Engagement subscale captures affective group bonds and is commonly regarded as an indicator of cohesion. Both studies documented a linear increase in CBGT but a fluctuating (Tasca, Balfour, et al., 2006) or linear decline (Bonsaksen et al., 2011) in the interpersonal-dynamic group. Tasca et al. (2006) suggest the fluctuations captured an alliance rupture-repair cycle while Bonsaksen et al. (2011) ascribed the decline to a focal shift from intra- to extra-group relationships. The high-low-high pattern described by MacKenzie (1994) was not supported. The Conflict subscale reflects the level of distrust, anger, and friction in the group with a high-low-low sequence expected. Tasca et al. (2006) reported a linear decrease in both groups; Bonsaksen et al. (2011) found support for the phasic pattern in both groups but only after the removal of extreme outlier scores (7.5% of the sample). The Avoidance subscale reflects members’ efforts to conform to perceived expectations. Tasca, Balfour, et al. (2006) reported stability throughout the IPT and a linear decrease in CBGT; Bonsaksen et al. (2011) found no temporal changes in either group. Finally, both studies found that linear growth in Engagement, a group-level effect, was associated with individual-level treatment outcome (see also Ogrodniczuk & Piper, 2003; Ryum, Hagen, Nordahl, Vogul, & Stiles, 2009).

These studies, while limited in number, agree with past research (cf. Johnson et al., 2008; McClendon & Burlingame, 2011) and suggest that characteristics of the patient (diagnosis), treatment approach (focus on skills-training versus interpersonal process), setting (outpatient, inpatient), and possibly culture (North American versus Scandinavian) may influence patterns of group development in complex ways. In turn, there is evidence that group climate can mediate the impact of therapist intentions and interventions on eventual outcome (Kivlighan & Tarrant, 2001). Attention to moderators of the group developmental sequence and the impact on outcome are worthy aims for further research and critical for practitioners to be aware of to effectively harness group-level mechanisms.

Physiology of a Group—Emergent and Foundational Processes

Physiology reflects function and we’ve argued that group function is best articulated by considering member interaction as a primary mechanism of change (Burlingame et al., 2008). The five components in emergent processes describe empirically tested member/leader interactions (interpersonal feedback, self-disclosure, leader interventions) or byproducts (cohesion and therapeutic factors) that have been linked to outcome. The six foundational social processes reflect social and organizational psychology principles that have relevance to group treatment. We highlight a few relevant findings to raise reader awareness.

Emergent Processes—Cohesion

As noted earlier, greater clarity has been achieved in measuring the group therapeutic relationship, but what about the relationship between cohesion and outcome? Heretofore, two challenges with the construct of cohesion have created active debate on what we can conclude: (1) some studies empirically link cohesion with outcome while others do not, and (2) the sheer number of measures makes it impossible to know what is meant when a writer uses the construct. We believe the findings of a recent meta-analysis address both challenges (Burlingame et al., 2011).

A weighted and significant aggregate correlation between cohesion and outcome of $r = .25$ (95% confidence range of .17–.32; a medium effect) was estimated from 40 studies published between 1969 and 2009. A high level of heterogeneity was present, necessitating a moderator analysis; 5 moderators were detected. Interpersonal groups posted the highest relationship ($r = .58$) followed by psychodynamic ($r = .25$) and CBT ($r = .18$); but all coefficients were significant. Groups with five to nine members posted a stronger relationship ($r = .35$) than smaller or larger groups ($r = .16$), groups of more than 12 sessions posted a stronger relationship ($r = .36$) than those of 12 or fewer sessions ($r = .18$), and groups emphasizing member interaction, irrespective of orientation, posted a higher cohesion-outcome relationship than those with a problem-specific focus ($r = .38$ and $r = .21$, respectively).

Finally, groups composed of younger members had a higher cohesion-outcome relationship ($r = -.63$). Interestingly, the cohesion-outcome relationship varied by measure (.04–.58) but most defined cohesion by the positive bond between the member and group. The overall conclusion
is that cohesion predicts outcome across the most common theoretical orientations and that the size of this relationship varies by measure; further, moderators may exist that suggest specific leader actions (e.g., group size and member interaction).

**Foundational Social Psychological Processes**

The last component attends to the impressive array of studies conducted by social and organizational psychologists. The components delineated represent a subset of the available basic science and field research studies that focus upon small group functioning. We encourage group clinicians to become acquainted with the foundational theories and findings by consulting excellent textbooks (e.g., Forsyth, 2010). In these texts, constructs such as entitativity (Yzerbyt, Corneille, & Judd, 2004) capture member perception of “groupness,” a potential barometer for when a therapist should increase the importance given to group properties in their treatment groups.

Emergent social psychological processes such as conformity, power, and the management of conflict are relevant to clinical groups. For example, ample direction is available in models related to conflict development, escalation and resolution (e.g., Lewicki, Saunders, & Barry, 2006). All groups, including treatment groups, have specific goals and there is an impressive literature on group performance and decision making that has not been translated to the field of psychotherapy. For example, some social psychology studies give guidance on increasing member involvement to reduce social loafing (DeMatteo, Eby, & Sundstrom, 1998). The organizational psychology literature provides a wide range of theories and research on leader style such as situational leadership theory (Hersey, Blanchard, & Johnson, 2001). This theory assumes that an effective leader must display at least four different leadership styles as groups move through different phases, that is, directing, coaching, supporting, or delegating. The theory fits well with models of process-related leadership in groups. Finally, how and to what extent members identify with their group (social identity theory) is a critical consideration regarding emergent structure and group process. It is still an incompletely answered question about which factors (e.g., categorization, identification) transform group membership into a social (group-related) identity. As we have stated elsewhere (Fuhriman & Burlingame, 1994), there is an enormous potential for improving our conceptual and empirical understanding of clinical groups in the theories and empirical literature of social and organizational psychology.

**Becoming an Evidence-Based Group Practitioner**

We end by sharing our view of an evidence-based group leader. Our context is important; we operate in an era of accountability with evidence-based practice (EBP) being a fundamental component of contemporary mental health care worldwide (McClendon & Burlingame, 2011a). This context can generate substantial clinician resistance since it can be experienced as interfering with professional autonomy. As Kobos and Lescsz (2012) pointed out, three vectors of evidence-based practice have been articulated:

1. The use of empirically supported therapies (ESTs; APA, 2006).
2. Practice-based evidence and the acquisition of ongoing data regarding patients in treatment via standardized measures.

Several sections of this chapter report on RCTs that test group ESTs for specific disorders, revealing a solid foundation of support. Two major initiatives of the American Group Psychotherapy Association (AGPA) during the past decade specifically addressed the latter two vectors; namely the revision of the AGPA CORE Battery (Burlingame et al., 2006; Strauss, Burlingame, & Bormann, 2008) and the publication of clinical practice guidelines (CPGs) that synthesize the best available research evidence, coupled with clinical expert consensus (Bernard et al., 2008). Each is briefly described.

In the early 1980s, the AGPA sponsored the development and dissemination of a CORE Battery consisting of outcome instruments commonly used in group research and shown to be sensitive to change. The aim of the CORE was to assist practitioner-members in evaluating the effectiveness of their groups and to augment clinical perception (MacKenzie & Dies, 1982). A task force to expand and revise the CORE was created in 2003 and produced a revised CORE Battery consisting of three types of measures: (1) group selection and principles for starting a group, (2) group-level processes, and (3) outcomes. The measures were selected by an international task force based on their psychometric soundness and ability to assist group leaders at all stages of their
TABLE 16.4 Summary of Measures and Handouts in CORE-R (Strauss et al., 2008)

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<td>Group selection and Pregroup preparation</td>
<td>Handouts for group leaders and members</td>
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<td>Presenting group therapy to clients</td>
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<td>How to get the most out of group therapy</td>
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<td>Information regarding group therapy</td>
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<td>Methods for group selection</td>
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<td>Group Selection Questionnaire (GSQ)</td>
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<td>Group Questionnaire*</td>
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<td>Working Alliance Inventory (WAI)</td>
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<td>Empathy Scale (ES)</td>
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<td>The Group Climate Questionnaire-Short Form (GCQ-S)</td>
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<td>Inventory of Interpersonal Problems (IIP-32)</td>
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<td>Rosenberg Self-Esteem Scale (SES)</td>
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<td>Target Complaints Scale (TCS)</td>
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* Not included in the CORE-R manual but derived from recommended measures (see promising development section on group process).

TABLE 16.5 Key Domains of Practice Guidelines for Group Psychotherapy (Kobos & Leszcz, 2008)

1. Creating Successful Therapy Groups (client referrals, administrative collaboration)
2. Therapeutic Factors and Therapeutic Mechanisms (change mechanisms, group cohesion)
3. Selection of Clients (inclusion/exclusion, composition of groups, instruments)
4. Preparation and Pregroup Training (objectives, methods, procedures, impact and benefits)
5. Group Development (models, developmental stages)
6. Group Process (social system, group as a whole, subgroups and splits, roles)
7. Therapist Interventions (different functions, transparency)
8. Reducing Adverse Outcomes and the Ethical Practice of Group Psychotherapy
9. Concurrent Therapies
10. Termination of Group Psychotherapy

group work. Table 16.4 provides an overview of the recommended material and methods for each section. A very recent application of these recommendations in clinical practice is provided by Jensen and colleagues (2012).

AGPA also impaneled a Science to Service task force composed of notable group practitioners, educators, and researchers to develop evidence-based Clinical Practice Guidelines (CPG; Klein, 2008; Leszcz & Kobos, 2008). A
The working assumption of the CPGs is that the principles reflect evidence-based factors accounting for patient change in group therapy. The CPGs were written to supplement clinician judgment rather than to supplant it. Their aim is to serve as a guide to the practice of effective, ethical and clinically sound group treatment. Table 16.5 summarizes the 10 key domains of the CPGs.

In 2008, the *Journal of Clinical Psychology* published a special issue on evidenced based group treatment. The caricature in Figure 16.3 was used to describe the key components of an evidenced based group clinician (Burlingame & Beecher, 2008) including the use of: (a) a research supported protocol (EST), which make up the bulk of this chapter; (b) practice guidelines which are described in both Figure 16.2 and Table 16.5; (c) practice-based assessment or using measures summarized in Table 16.4 to guide practice; and (d) multicultural competence, evidenced in part by the growing number of group protocols that have been tested with different cultures and ethnic groups. There is much more to effective group treatment than simply applying an EST to a group of patients with the “same disorder.” We see promising advances in the past decade in all four areas and encourage group leaders to inform their practice with these bodies of evidence.

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Chapter 16 / Change Mechanisms and Effectiveness of Small Group Treatments


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Queries in Chapter 16
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