RESEARCH ARTICLE

Group Session Rating Scale: Preliminary psychometrics in substance abuse group interventions

KELLEY QUIRK[1]*, SCOTT MILLER[2], BARRY DUNCAN[3], & JESSE OWEN[4]

[1]*Counseling Psychology, College of Education, University of Louisville, Louisville, Kentucky, USA,* [2]*The International Center for Clinical Excellence, Chicago, Illinois, USA,* [3]*Heart and Soul of Change Project, Jensen Beach, Florida, USA, and* [4]*Education and Counseling Psychology, University of Louisville, Louisville, Kentucky, USA*

Abstract
Background: Although ultra-brief outcome and process measures have been developed for individual therapy, currently there are no ultra-brief alliance measures for group therapy. *Method*: The current study examined 105 clients in group therapy for issues related to substance abuse or with issues related to the substance abuse of a significant other. We tested whether a newly developed group therapy alliance measure – the Group Session Rating Scale would be related to other commonly used group process measures (Working Alliance Inventory, Group Cohesion, Group Climate) and early change (change over the first four sessions of group therapy). *Results*: The findings provided support for reliability based on Cronbach alphas and test-retest coefficients. Additionally, the GSRS was a one-factor measure that was related to other group process measures as well as predicted early change. *Discussion*: Clinical implications for how to utilise ultra-brief outcome and alliance measures are provided.

Keywords: group therapy; alliance; therapy outcomes; group cohesion; group climate

Introduction

Practitioners need to make practical decisions in working with clients, one of which is modality of treatment. Both individual and group therapy formats have been supported as valuable means of assisting distressed clients (McRoberts, Burlingame, & Hoag, 1998). Indeed, group therapy is an efficient treatment modality, as it is possible to teach skills, present information, and engage many clients within the same time frame. Regardless of treatment format, therapists need to be able to identify clients who are at risk of negative therapy outcomes. Brief measures of therapy outcomes and therapy process that therapists can utilise to identify failing cases may enable them to modify treatment approaches to prevent poor outcomes. Ultra-brief outcome mea-sures have been developed for individual therapy, which can be administered session by session to assess therapy progress (e.g. Outcome Rating Scale (ORS); Miller, Duncan, Brown, Sparks, & Claud, 2003) and alliance (e.g. Session Rating Scale (SRS); Duncan et al., 2003). Indeed, several randomised studies examining the use of these measures have shown significant gains in treatment outcomes (Anker, Duncan, & Sparks, 2009; Reese, Norsworthy, & Rowlands, 2009; Reese, Toland, Slone, & Norsworthy, 2010). Although the ORS can be used for any modality of treatment including groups, the SRS has the limitation of focusing only on the individual's experience of the alliance.

Alliance is conceptualised as a collaborative experience, characterised by an agreement on treatment goals, methods used to obtain those goals, and

the relational bond between client and therapist (Bordin, 1979). Within group therapy, the alliance is influenced by the multiplicity of relationships that each individual develops within the context of other group members (MacKenzie, 1998; Yalom & Leszcz, 2005). Although therapy groups may differ in their purpose and/or population, common processes underlie most group therapies, such as group cohesion and conflict (Yalom & Leszcz, 2005). Thus, these group dynamics would need to be captured in an ultra-brief group alliance measure to adequately gauge whether individuals are forming positive alliances with the therapist as well as other group members.

In group therapy, the alliance resembles the constructs of group cohesion and group climate (Burlingame, McClendon, Theobald, & Alonso, 2011; Norcross, 2010). Group cohesion is a constructive interpersonal exploration through bonding and working together toward common goals, mutual acceptance, and identification with the group (Marziali et al., 1997). Group climate is conceptualised as the environmental force felt within a group, derived from the summation of individuals' engagement, degree of avoidance of change, and conflict (MacKenzie, 1983). Group cohesion and group climate are influential factors that can facilitate the attainment of clients' treatment goals (Kivlighan & Tarrant, 2001; MacKenzie, 1983).

The current study examined the reliability and validity of a new measure of group alliance, The Group Session Rating Scale (GSRS; Duncan & Miller, 2007). We hypothesised that the GSRS would consist of one factor (hypothesis 1). Internal reliability alphas were expected to be approximately .80 (hypothesis 2). Given that the GSRS is a process measure test-retest correlations were expected to be moderate ($r = .50$; hypothesis 3). To assess concurrent validity, it was also hypothesised that the GSRS would be positively correlated with group cohesion, group climate, therapist-rated alliance, and client-rated alliance (hypothesis 4). Lastly, we posited that the GSRS would predict early change in psychological well-being (hypothesis 5).

Method

Participants

A total of 105 clients (61 women, 44 men) participated in the study from a treatment facility in Australia. Client ages ranged from 18–78 years ($M = 41.2$, $SD = 13.5$). Clients presented with two different types of problems: self-reported alcohol and/or other drug issues ($n = 51$) and self-reported concerns related to the substance abuse of a partner/parent ($n = 54$). Clients were primarily self-referred, although some were mandated to attend group therapy due to infractions related to their substance abuse. Individuals were excluded from participating in the group if they suffered from serious mental illness that would prohibit their ability to work appropriately in the group. All clients received outpatient group services facilitated by 21 leaders who ranged in age from 24–65 years old. Leaders' education ranged from certifications to masters' degrees in mental health-related fields. All leaders reported using an eclectic therapeutic approach.

Procedure

Five different types of open therapy groups treated substance abuse issues or coping with issues related to the substance abuse of a significant other. Group one ($n = 21$) and two ($n = 30$) were comprised of women and men with substance use issues, respectively. Group three ($n = 17$) was comprised of adult children of a parent(s) with substance abuse issues, those in group four ($n = 26$) were identified as parents of children struggling with substance abuse, and group five ($n = 11$) was comprised of individuals who were experiencing issues related to the substance abuse of a significant other. Each group was offered for 12 weeks. At the beginning of each group session the participants completed the ORS and were then guided through a ten-minute relaxation exercise. Next, participants were provided psycho-education pertinent to the specific issues of the group and the clients would then engage in an hour of group process therapy. Following each group session, leaders administered the GSRS and all other concurrent measures (described below). Between sessions, group leaders did not review clients' scores on these measures.

Ethical considerations

Group members completed an informed consent form prior to completing the measures for the study. Clients' responses on the measures were not linked to their clinical records. The study was approved through an Institutional Review Board committee.

Measures

Group Session Rating Scale (GSRS). The GSRS (Duncan & Miller, 2007), adapted from the SRS, is a four-item visual analogue scale, designed to be a brief clinical tool to measure group-therapy alliance. The items are presented as bipolar anchors requiring a response on the ten centimetre line. The 'relationship' aspect was assessed on a continuum of 'I felt understood, respected, and accepted by the leader and the group' to 'I did not feel understood, respected, and/or accepted by the leader and/or the group'. The 'goals and topics' aspect was assessed on a continuum of 'We worked on and talked about what I wanted to work on and talk about' to 'We did not work on or talk about what I wanted to work on and/or talk about'. The acceptability of the approach used in the group was assessed on a continuum of 'The leader and group's approach is a good fit for me' to 'The leader and/or group's approach is not a good fit for me'. A sense of overall fit was assessed on a continuum ranging from 'Overall, today's groups was right for me – I felt like a part of the group' to 'There was something missing in group today – I did not feel like a part of the group.' GSRS scores are obtained by measuring the marks made by the client and summing the lengths to the nearest centimetre on each of the four lines. Scores are summed out of a total possible score of 40.

Working Alliance Inventory–Client (WAI-C) and Therapist (WAI-T). We utilised two forms of the WAI; client- and therapist-rated alliance. Items were scored on a 7-point scale ranging from 1 (*never)* to 7 (*always)*. The WAI (Horvath & Greenberg, 1989) is a self-report instrument that assesses three aspects of the working alliance (goals, tasks, and bonds). Strong internal consistency and subscale consistency have been demonstrated in previous studies (Horvath & Greenberg, 1986). In this study, we utilised the total score.

Group Climate Questionnaire (GCQ; MacKenzie, 1983). The GCQ consists of 12 items, which assesses members' perceptions of the group's therapeutic environment on a 7-point scale, ranging from 0 (*not at all)* to 6 (*extremely)*. The GCQ is comprised of three factor-analytically derived subscales: Engagement, Avoidance, and Conflict. The Engagement subscale assesses participants' perceptions of others' levels of self- disclosure, confrontation, and interaction. The Avoidance subscale assesses participants' perceptions of others avoidance of responsibility for change

processes. The Conflict subscale assesses interpersonal conflict and distrust within the group (MacKenzie, 1983). Support for the reliability (e.g. alpha > .85; Kivlighan & Goldfine, 1991) and validity (e.g. moderate correlations with therapy outcomes and other group process measures) have been demonstrated in previous studies (Kanas & Ziegler, 1984; Kivlighan & Goldfine, 1991).

Therapeutic Factors Inventory–Cohesiveness Scale (TFI-CS; Lese & MacNair-Semands, 2000). The TFI-CS was used to assess group cohesion. The full TFI scale is a self-report measure with 11 subscales designed to assess members' perceptions of the presence (or absence) of various therapeutic factors described by Yalom (1995). We only utilised the Cohesion subscale, which consists of nine items, - rated on a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Internal consistency of the TFI-CS has been supported in previous studies, alpha =.90 (Johnson, Burlingame, Olsen, Davies, & Gleave, 2005) and one-week test-retest reliability =.93 (Lese & MacNair-Semands, 2000).

Outcome Rating Scale (ORS; Miller et al., 2003). The ORS consists of four items, measured using a visual analogue scale that assesses how clients are doing within social, interpersonal, and individual domains. Clients respond to items by making a mark on each of the 10 cm lines. An overall score (general sense of psychological well-being) is then totalled, ranging from 0–40. Reliability of the ORS has been demonstrated in previous studies (alpha =.93, test-retest, $r =.66$; Miller et al., 2003). Concurrent validity of the ORS has also been shown through significant correlations with other therapy outcome measures (e.g. OQ-45; Lambert et al., 1996). Clients who change in a positive or negative direction by at least 5 points are regarded as having made reliable change or the degree of change that exceeds measurement error. Reliable change is one of two criteria proposed by Jacobson and Truax (1991) as indicative of clinically meaningful change. The second criterion requires a change in a client's score from one that is typical of a clinical population to one typical of a functional population. The cutoff score on the ORS is 25 (Miller et al., 2003).

Results

Table I provides an overview of the means and standard deviations for the variables. The present

Table I. Means and standard deviations for variables in the current study.

	Session 1	Session 2	Session 3	Session 4
GSRS	32.03 (6.79)	31.89 (6.23)	31.74 (7.34)	33.21 (6.05)
GCQ	5.15 (1.72)	4.77 (1.78)	4.81 (1.92)	4.56 (1.85)
TFI-CS	5.86 (0.90)	5.92 (0.83)	6.02 (0.86)	6.12 (0.90)
WAI-C	5.30 (0.88)	5.42 (1.49)	5.61 (0.92)	5.68 (0.90)
WAI-T	5.53 (0.81)	5.80 (1.21)	5.87 (0.80)	5.92 (0.73)
ORS	20.86 (7.44)	22.45 (8.52)	24.98 (7.95)	26.97 (7.98)

GSRS, Group Session Rating Scale; GCQ, Group Climate Questionnaire; TFI-CS, The Therapeutic Factors Inventory–Cohesiveness Scale; WAI-C, Working Alliance–Client Perspective; WAI-T, Working Alliance–Therapist Perspective

study hypothesised that the four-item GSRS scale would consist of one factor. To test this, an exploratory factor analysis (EFA) was conducted using principal axis factoring with direct oblimin rotation. We conducted four EFAs for each of the four sessions. The results showed that the items loaded on one factor for each of the four sessions, supporting hypothesis 1 (see Table II). The internal consistency was also supported as Cronbach alphas ranged from .86 to .90 over the four sessions, supporting hypothesis 2. Additionally, all administrations correlated with each other, ranging from .42 to 62 ($ps <.01$), large-sized effects (see Table III; supporting hypothesis 3).[1] Although the GSRS is only a four-item measure, our results support the notion that it represents a global internally consistent alliance factor.

Table II. Group Session Rating Scale factor loadings, Cronbach alphas, and variance explained.

	Session 1	Session 2	Session 3	Session 4
Item 1	.72	.84	.78	.88
Item 2	.88	.82	.91	.85
Item 3	.86	.82	.93	.89
Item 4	.90	.90	.94	.92
Alpha	.86	.86	.90	.90
% Variance	71%	72%	79%	79%

Note. % Variance = percentage of the variance in the items that is explained by the factor for each session.

Table III. Group Session Rating Scale: Test-retest correlations.

	Session 1	Session 2	Session 3	Session 4
Session 1	–			
Session 2	.42**	–		
Session 3	.59**	.42**	–	
Session 4	.52**	.62**	.62**	–

Note. **$p <.001$

Concurrent validity for the GSRS was examined by calculating correlations among the GSRS, GCQ, WAI-C, WAI-T, and the TFI-CS subscales. Correlation coefficients between the GSRS and the individual alliance measures (WAI-C and WAI-T) ranged from .41 to .61 across the four sessions and were significant ($ps <.01$) with medium-to-large-sized effects (see Table IV). Correlation coefficients between the GSRS and the GCQ and TFI-CS, ranged from .31 to .60, which are medium-to-large effect sizes. These data indicate that the GSRS adequately assesses similar constructs as assessed by the GCQ, WAI-C, WAI-T, and the TFI-CS, supporting hypothesis 4.

Finally, it was hypothesised that GSRS scores would predict early change in psychological distress (as measured by the ORS). On average, clients started in the clinically distressed range (i.e. $M = 20.86$); however, at the fourth session, on average clients reported a mean ORS score of 26.97, which is above the clinical cut-off and is an increase of more than 5 points (which is an indicator of reliable change). We conducted three hierarchical multiple regression models predicting ORS scores at the fourth session. In all three models, ORS scores from intake were entered in the first step as a control variable. In the second step, we entered GSRS scores from session 1–3, respectively (Models 1–3 in Table V).

Table IV. Group Session Rating Scale: Correlations with Working Alliance, Group Cohesion, and Group Climate.

	Session 1	Session 2	Session 3	Session 4
WAI-C	.41**	.60**	.55**	.61**
WAI-T	.48**	.54**	.55**	.41**
TFI-CS	.34**	.44**	.60**	.46**
GCQ	.31**	.30**	.41**	.42**

Notes. **$p <.001$, WAI-C, Working Alliance Inventory–Client form; WAI-T, Working Alliance Inventory–Therapist form; TFI-CS, Therapeutic Factors Inventory–Cohesiveness Subscale; GCQ, Group Climate Questionnaire

Table V. Predicting ORS–fourth session by GSRS after controlling for ORS at intake.

	Model 1: Session 1		Model 2: Session 2		Model 3: Session 3	
	B (SE)	B	B (SE)	B	B (SE)	B
ORS-pre	0.33 (.12)	.31**	0.31 (.12)	.30*	0.30 (.10)	.27**
GSRS	0.26 (.13)	.22*	0.15 (.16)	.11	0.59 (.11)	.50***

Note. *$p <.05$, **$p <.01$, ***$p <.001$.

The results from model 1 were statistically significant, and specifically at step 2 the ΔR^2 was .044, $F(1,77) = 4.11$, $p = .05$. The relationship between GSRS scores and ORS-fourth session was $sr = .23$, $p = .04$, suggesting that the GSRS accounted for approximately 5.3% of the variance in early change. The results for model 2, using GSRS scores from session two, were not statistically significant and specifically at step two the ΔR^2 was .011, $F(1, 68) = 4.36$, $p = .35$. The semipartial correlation between GSRS-second session and ORS-fourth session (after controlling for ORS at intake) was $sr = .11$, $p = .35$, suggesting that the alliance accounted for 1.2% of the variance in early change. Finally, GSRS third session scores significantly predicted ORS-fourth session, after controlling for ORS at intake. The ΔR^2 was .242, $F(1, 74) = 22.42$, $p < .001$, $sr = .56$, $p < .001$. It is not surprising that the session right before the measure of early change would be a stronger predictor and in this case the third session alliance accounted for 31.4% of the variance in early change. Collectively, these results partially support our hypothesis 5.

Discussion

Brief, reliable and valid measures of therapy processes and outcomes can be an efficient way to gain feedback from clients to guide the therapy process. Here, we have provided initial support for a new brief measure for group therapy – the GSRS. Specifically, we found the four items of the GSRS can be thought of as a measure of global alliance within group therapy, which has adequate reliability (both alpha estimates and test-retest correlations). GSRS scores were also found to correlate with other measures that assess similar key group processes, thus providing evidence for concurrent validity. This conceptualisation is consistent with group theory literature that emphasises the commonality underlying all group processes (Yalom & Leszcz, 2005). Although other measures are longer and may directly tap individual elements of alliance, the GSRS seems to capture key aspects in a brief and reliable format.

Tracking the relationship between alliance and therapy outcomes is a gold standard in providing support for the predictive validity of alliance measures. Although we did not have information regarding therapy outcomes at the end of therapy, we were able to assess early change (change in distress from first to fourth session), which is a strong indicator of therapy outcomes (Anker et al., 2010). On average,

clients started in the clinically distressed range (ORS score of 20.86), but reported less distress (i.e. 27) by the fourth session and this degree of change was related to clients' GSRS scores. Clients' first and third session GSRS scores were found to be predictive of early changes in distress. Counter to our expectations, GSRS second session scores were not predictive of distress without clear reason as to why this session would produce different results. Despite this incongruity, scores from session one and three lend support for the value of the GSRS in the prediction of early psychological change.

The merits of our study should be considered in concert with methodological limitations. Although the overall sample size was fairly large, the small number of groups coupled with the open group format limits more nuanced interpretations of specific group differences. Future studies may be able to address this shortcoming by utilising groups from a variety of settings, with larger numbers of participants. Also, the groups utilised were specific to self or other alcohol/addiction issues, which may limit generalisability of the results to other types of groups or populations. Although we cannot be certain how the GSRS functions within other clinical settings, addiction-related therapy groups are common and group processes have been found to underlie most therapy groups (Yalom & Leszcz, 2005).

We relied on client and therapist self-reports of the group process, which is a common limitation of many alliance-based studies (Horvath et al., 2011). While the use of therapist-ratings is an asset, future research may want to extend the examination of the GSRS to external observer-ratings of the group process (Chapman et al., 2010). Finally, the current study only assessed early psychological changes in distress, which limits our ability to predict whether these changes would extend over longer periods. However, consistent with current research, a large majority of change in psychological functioning occurs during early phases of therapy (Baldwin et al., 2009).

Several important implications can be drawn from the current study. The GSRS provides group leaders with information about the alliance as it pertains to both the group and the leader, simultaneously. The brevity of the measure allows leaders to use scores as a barometer for how each group member feels about the group process. In a closed interpersonal process group leaders can utilise the GSRS as a way to generate discussion about the here-and-now. For example, if three of the eight group members are

reporting moderate alliances as compared to the high alliances of the other five members, then the leaders can utilise this information to spark discussion about what dynamics are occurring for some members to not feel as connected to the group and how these dynamics may relate to their goals for therapy. Dialogue about general scores or the presence of low scores could be used as a way to encourage members to express frustrations about the group, thereby increasing the possibility of altering the group to better fit members and perhaps increasing group cohesion as well.

For inpatient group therapies (or open groups) the therapeutic focus typically targets changes that be altered within the current session (Yalom, 1983). The use of GSRS in these types of groups may help identify members who did not benefit from the group experience and accordingly, therapists can follow up with these clients to help address their concerns related to the group process and possibly their current distress. Ultimately, the use of the GSRS will vary from group to group; however, it is a tool that enables leaders to better identify group members who do not feel the group experience is assisting them to reach their goals and consequently could prevent therapeutic failures and/or drop-outs (Duncan, 2010; Lambert, 2010).

On a pragmatic level, therapists can administer the GSRS, which takes approximately two minutes to complete, near the end of each group therapy session. Leaders can instruct clients to respond to statements about how it felt to be in group today by placing a mark on the line closest to the statement they agree with. The leaders can then score the GSRS after the session to assist in processing the group dynamics. At times, leaders may want to follow up with group members if GSRS scores are very low, which may be indicative of low engagement in the process. In subsequent sessions, the leaders can decide whether it would be beneficial to discuss general scores or impressions at the initial check-in. Hopefully, through the process of attending to the group alliance for each member therapists will be better equipped to understand and utilise the dynamics unfolding in front of them.

Note

[1] There were no differences between types of groups (i.e. self-alcohol problem versus other-alcohol problem) ($p = .46$).

References

Anker, M. G., Duncan, B. L., & Sparks, J. A. (2009). Using client feedback to improve couple therapy outcomes: A randomized clinical trial in a naturalistic setting. *Journal of Consulting and Clinical Psychology*, *77*, 693–704.

Anker, M. G., Owen, J., Duncan, B. L., & Sparks, J. A. (2010). The alliance in couple therapy: Partner influence, early change, and alliance patterns in a naturalistic sample. *Journal of Consulting and Clinical Psychology*, *78*, 635–645.

Baldwin, S. A., Berkeljon, A., Atkins, D. C., Olsen, J., & Nielsen, S. (2009). Rates of change in naturalistic psychotherapy: Contrasting dose effect and good-enough level models of change. *Journal of Consulting and Clinical Psychology*, *77*, 203–211.

Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy*, *16*, 252–260.

Burlingame, G. M., McClendon, D. T., Theobald, D., & Alonso, J. (2011). Cohesion in group therapy. *Psychotherapy*, *48*, 34–42.

Chapman, C. L., Baker, E. L., Porter, G., Thayer, S. D., & Burlingame, G. M. (2010). Rating group therapist interventions: Validation of the Group Psychotherapy Intervention Rating Scale. *Group Dynamics: Theory, Research and Practice*, *14*, 15–31.

Duncan, B. L., Miller, S. D., Reynolds, L., Sparks, J., Claud, D., Brown, J., … Johnson, L. D. (2003). The session rating scale: Psychometric properties of a "working" alliance scale. *Journal of Brief Therapy*, *3*, 3–12.

Duncan, B. L. (2010). *On becoming a better therapist*. Washington, DC: American Psychological Association.

Duncan, B. L., & Miller, S. D. (2007). *The Group Session Rating Scale*. Jensen Beach, FL: Author.

Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology*, *36*, 223–233.

Horvath, A. O., & Greenberg, L. S. (1986). The development of the Working Alliance Inventory. In W. M. Pinsof (Ed.), *The psychotherapeutic process: A research handbook* (pp. 529–556). New York: Guilford Press.

Horvath, A. O., Del Re, A. C., Flückiger, C., & Symonds, D. (2011). Alliance in individual psychotherapy. *Psychotherapy*, *48*, 9–16.

Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, *59*, 12–19.

Johnson, J. E., Burlingame, G. M., Olsen, J., Davies, D. R., & Gleave, R. L. (2005). Group climate, cohesion, alliance, and empathy in group psychotherapy: Multilevel structural equation models. *Journal of Counseling Psychology*, *52*, 310–321.

Kanas, N., & Ziegler, L. (1984). Group climate in a stress discussion group for medical interns. *Group*, *8*, 35–38.

Kivlighan, D. M., & Goldfine, D. C. (1991). Endorsement of therapeutic factors as a function of stage of group development and participant interpersonal attitudes. *Journal of Counseling Psychology*, *38*, 150–158.

Kivlighan, D. M., Jr., & Tarrant, J. M. (2001). Does group climate mediate the group leadership-group member outcome relationship? A test of Yalom's hypotheses about leadership priorities. *Group Dynamics: Theory, Research and Practice*, *5*, 220–234.

Lambert, M. J. (2010). *Prevention of treatment failure: The use of measuring, monitoring, & feedback in clinical practice*. Washington, DC: American Psychological Association Press.

Lambert, M. J., Burlingame, G. M., Umphress, V., Hansen, N. B., Vermeersch, D. A., Clouse, G. C., … Yanchar, S. C. (1996). The reliability and validity of the Outcome Questionnaire. *Clinical Psychology and Psychotherapy*, *3*, 249–258.

Lese, K. P., & MacNair-Semands, R. R. (2000). The Therapeutic Factors Inventory: Development of a scale. *Group*, *24*, 303–317.

MacKenzie, K. R. (1983). The clinical application of group measure. In R. R. Dies & K. R. MacKenzie (Eds.), *Advances in group psychotherapy: Integrating research and practice* (pp. 159–170). New York, NY: International Universities Press.

MacKenzie, K. R. (1998). The alliance in time limited group psychotherapy. In J. D. Safran & J. C. Muran (Eds.), *The therapeutic alliance in brief psychotherapy* (pp. 193–215). Washington, DC: American Psychological Association.

McRoberts, C., Burlingame, G. M., & Hoag, M. J. (1998). Comparative efficacy of individual and group psychotherapy: A meta-analytic perspective. *Group Dynamics*, *2*, 101–117.

Marziali, E., Munroe-Blum, H., & McLeary, L. (1997). The contribution of group cohesion and group alliance to the outcome of group psychotherapy. *International Journal of Group Psychotherapy*, *47*, 475–497.

Miller, S. D., Duncan, B. L., Brown, J., Sparks, J., & Claud, D. (2003). The Outcome Rating Scale: A preliminary study of the reliability, validity, and feasibility of a brief visual analog measure. *Journal of Brief Therapy*, *2*, 91–100.

Norcross, J. C. (2010). The therapeutic relationship. In B. L. Duncan, S. D. Miller, B. E. Wampold, & M. A. Hubble (Eds.), *The heart and soul of change: Delivering what works in therapy* (2nd ed., pp. 113–141). Washington, DC: American Psychological Association.

Reese, R. J., Norsworthy, L. A., & Rowlands, S. R. (2009). Does a continuous feedback system improve psychotherapy outcome?. *Psychotherapy*, *46*, 418–431.

Reese, R. J., Toland, M. D., Slone, N. C., & Norsworthy, L. A. (2010). Effect of client feedback on couple psychotherapy outcomes. *Psychotherapy*, *47*, 616–630.

Yalom, I. D. (1983). *Inpatient group psychotherapy*. New York, NY: Basic Books.

Yalom, I. D. (1995). *The Theory and Practice of Group Psychotherapy* (4th ed.). New York: Basic Books.

Yalom, I. D., & Leszcz, M. (2005). *The theory and practice of group psychotherapy* (5th ed.). New York, NY: Basic Books.

Biographies

Kelley Quirk, MA, is a graduate research assistant in the Counseling Psychology Program at the University of Louisville. Her areas of research include individual, group and couple psychotherapy processes as well as romantic relationship risk factors.

Scott D. Miller, PhD, is Cummings Professor of Behavioral Health and the Chief Science Officer, International Center for Clinical Excellence

Barry Duncan, PsyD, is the Director of the Heart and Soul of Change Project (www.heartandsoulof change.com). He is the author of 15 books and over 100 articles and chapters addressing systematic client feedback, consumer rights, the power of relationship, and a risk benefit analysis of psychotropic medications.

Jesse Owen, PhD, is an associate professor in the Counseling Psychology Program at the University of Louisville. His research interests include psychotherapy process, couple interventions, and commitment in romantic relationships.