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Client Feedback and Group Therapy Outcomes for Adults with Co-occurring Mental Illness

and Substance Abuse

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Counseling, Clinical, and School Psychology

by

Alexis R. Stanley-Olson

Committee in charge:

Professor Merith Cosden

Professor Steve Smith

Professor Michael Furlong

Professor Ty Vernon

September 2017

The dissertation of Alexis R. Stanley-Olson is approved.

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Ty Vernon

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Michael Furlong

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Steve Smith

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Merith Cosden, Committee Chair

June 2016

This dissertation is dedicated to my family.

ACKNOWLEDGEMENTS

June 2017

EDUCATION

2017 (Expected)	**Doctor of Philosophy in Counseling, Clinical, and School Psychology** **Emphasis in Clinical Psychology** University of California, Santa Barbara (APA Accredited) Dissertation Title: *Client Feedback and Group Therapy Outcomes for Adults with*

Co-occurring Mental Illness and Substance Abuse
Dissertation Chair: Merith Cosden, Ph.D.

2014	**Master of Arts in Clinical Psychology** University of California, Santa Barbara Santa Barbara, CA
2012	**Bachelor of Arts in Psychology** **Minor in Applied Psychology** University of California, Santa Barbara Santa Barbara, CA

PROFESSIONAL PRESENTATIONS

3/2017	**HealthEast Care System, Brain Cancer Support Group** - St. Paul, MN Stanley-Olson, A. (March 2017). *Parenting and Grandparenting through Brain Cancer.*
2/2015 – 3/2015	**Santa Barbara County Juvenile Drug Courts** - Santa Barbara County, CA Trainings offered throughout the county on best practices for drug court teams.
3/2013	**Society of Personality Assessment** – San Diego, CA Stanley-Olson, A., & Norman, K. (March 2013). *The psychometric properties of the Philadelphia Mindfulness Scale and measures of psychiatric symptoms.*

CLINICAL EXPERIENCE

8/2016 – Present	**HealthEast Care Systems** Saint Paul, MN *Psychology Intern*

Neuropsychology Rotations
Outpatient Brain Injury, Concussion, and Dementia Clinics;
Inpatient Neuropsychological Consultation
Performed evaluation of individuals (adolescent through adulthood) with a wide range of acquired and congenital neurological disorders (e.g., Parkinson's, Alzheimer's, NPH, brain injury), interpretation of results, report writing, and provision of client feedback for the delivery of direct and ancillary patient care.
Supervisors: Samantha Glass, Ph.D., ABPP-CN; Jackie Micklewright, Ph.D., ABPP-CN, Katherine Fabrizio, Ph.D.

Outpatient Rotation
Outpatient Mental Health & Addiction Services
Provided outpatient clinical services to individuals exhibiting a wide range of emotional and behavioral difficulties, including mood disorder, substance abuse, and adjustment to a medical diagnosis.
Supervisors: Cindy Morey, Psy.D., ABPP, LP

Health Psychology
Evaluation, treatment planning, and monitoring outcomes in the primary care setting through consultation with primary care staff including physicians, nurse practitioners, nurses, pharmacists and social workers, including biopsychosocial assessments, individual therapy, and feedback sessions to patients and their families.

Oncology Psychology
Worked with patients and their families on the emotional and mental health aspects of living with cancer, including diagnosis, active treatment, survivorship, and end of life. Patients and their families are seen individually, in support groups, and in the palliative care clinic to conduct biopsychosocial assessments, psychotherapy, and psychoeducation.

Rehabilitation Psychology
Provided individuals presenting with a variety of medical and mental health concerns (e.g., TBI, respiratory care, complex medical care) with psychoeducation and behavioral management for

adjustment to disability, as part of an interdisciplinary team (e.g., OT, PT, Speech, MD) in outpatient and inpatient settings.

6/2016 – 8/2016	**Pacific Neuroscience Medical Group** Oxnard, CA *Neuropsychology Technician* Administered neuropsychological assessments and wrote reports to aid the resident neurologist in diagnostic clarification, with an emphasis in movement disorders and geropsychological assessment. *Supervisor: Kathleen Tingus, Ph.D.*
6/2015 – 8/2016	**Insight Neuropsychology** Camarillo, CA *Neuropsychology Technician* Administered in-home and in-office neuropsychological assessments to individuals from diverse backgrounds and presenting concerns, with an emphasis in geropsychological assessment and adult capacity evaluation. *Supervisor: Erik Lande, Ph.D.*
2/2015 – 8/2016	**Ventura County Adult Protective Services Rapid Response Team** Ventura, CA *Neuropsychology Trainee* Attended multidisciplinary consultation team meetings to determine how to best address the health, safety and well-being needs of dependent adults and the elderly within the community. Nurses, social workers, neuropsychologists, attorneys, and local law-enforcement were among those present on the consultation team. *Supervisor: Erik Lande, Ph.D.*

1/2013 – 8/2016	**Psychology Assessment Center** University of California, Santa Barbara, Santa Barbara, CA *Assessment Clinician* Completed and supervised adult and child comprehensive and multi-method psychological assessments of neuropsychological, cognitive, achievement, personality, and contextual factors. *Supervisors: Erik Lande, Ph.D., Jordan Witt Ph.D.* *Manager* Conducted phone screenings and referral of potential clients, as well as maintained a stocked and up-to-date assessment inventory. Provided regular training on test administration, scoring, and report writing to student clinicians. *Supervisors: Erik Lande, Ph.D., Jordan Witt, Ph.D.*
7/2014 – 5/2016	**Sanctuary Psychiatric Centers of Santa Barbara, Co-Occurring Disorders Program & Arlington Day Treatment Center** Santa Barbara, CA *Clinical Externship* Provided individual and group psychotherapy, and personality assessment to residential and outpatients with substance abuse and/or a psychiatric and substance abuse dual diagnosis. Group treatment was provided using Acceptance-Commitment Therapy and Matrix Model manualized treatment, with individual psychotherapy primarily from psychodynamic and cognitive-behavioral theoretical orientations. *Supervisors: Denise Mock, Ph.D.; Lisa Moschini, MFT*
1/2016 – 4/2016	**Hosford Counseling and Psychological Services Clinic** Santa Barbara, CA *Basic Practicum Peer Supervision Coach* Provided oral and written feedback to students to facilitate their growth as clinicians. Observed live pseudo-psychotherapy sessions of basic practicum dyads practicing foundational psychotherapy skills. *Supervisor: Andres Consoli, Ph.D.*
6/2015 – 9/2015	**Jodi House Brain Injury Support Center** Santa Barbara, CA *Meditation group leader* Provided group mindfulness-based interventions to individuals affected by traumatic brain injury.

4/2014 –	**Dr. Jordan Witt, Ph.D., Private Practice**
5/2014	Santa Barbara, CA
	Assessment Translator
	Provided real-time translation for Dr. Witt in his assessment work with the Spanish-speaking population.

6/2013 –	**Hosford Psychological Services Clinic**
5/2014	University of California, Santa Barbara, Santa Barbara, CA
	Doctoral Student Clinician
	Conducted individual psychotherapy using Cognitive-Behavioral, Family Systems, and Psychodynamic case conceptualization and interventions.
	Supervisor: Steve Smith, Ph.D.

TEACHING EXPERIENCE

9/2016 – 12/2016   **University of Minnesota, Twin Cities**
Teaching Assistant
Applied Advanced Diagnostics (Cindy Morey, Psy.D., ABPP, LP)

9/2016 – 12/2016   **University of Minnesota, Twin Cities**
Teaching Assistant
Introduction to Diagnostic Assessment (Cindy Morey, Psy.D., ABPP, LP)

6/2014 – 9/2016   **University of California, Santa Barbara**
Teaching Assistant
Psychological Assessment (Erik Lande, Ph.D.)

4/2016   **University of California, Santa Barbara** – Santa Barbara, CA
Guest lecturer on Dialectical Behavior Therapy for graduate level course.

3/2015 – 6/2015   **University of California, Santa Barbara**
Teaching Assistant
Personality Assessment (John Lewis, Ph.D.)

9/2014 – 12/2014   **Westmont College**, Montecito, CA
Adjunct Professor
Psychology 115: Child Development

9/2013 – 12/2013   **University of California, Santa Barbara**
Teaching Assistant
Neuropsychological Assessment (Erik Lande, Ph.D.)

1/2013 – 4/2013	**Boys & Girls Club, Santa Barbara**
	Afterschool Tutor and Activities Assistant
	Tutored elementary-aged children with homework assignments and provided them with recreational activities.

10/2008 – 5/2009	**San Luis Obispo Literacy Council**
	Reading Tutor
	Provided twice-weekly tutoring in literacy to adults, with an emphasis in individuals with English as a second language.

RESEARCH ACTIVITY

6/2016 – Present	**Assistant Researcher**
	Insight Neuropsychology
	Camarillo, CA
	Advisor: Erik Lande, Ph.D.

9/2011 – Present	**Undergraduate/Graduate Student Researcher**
	Department of Counseling, Clinical, and School Psychology
	University of California, Santa Barbara, Santa Barbara, CA
	Advisor: Merith Cosden, Ph.D.

Santa Barbara County Juvenile Drug Court
Data collection, entry, and analysis, database management, consulting with county and probation staff to facilitate data collection, and assisting with presentations.

Santa Barbara Children Affected by Methamphetamines Program
Funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) **Substance Abuse Treatment Court-SATC, (Drug Court)**
Data collection, entry, and analysis, database management, consulting with county and probation staff to facilitate data collection, and assisting with presentations.

9/2012 – 5/2014	**Graduate Student Researcher**
	Department of Counseling, Clinical, and School Psychology
	University of California, Santa Barbara, Santa Barbara, CA
	Advisor: Steve Smith, Ph.D.
	Data collection, entry, and analysis focused on researching mindfulness, mind-body connection, and performance psychology constructs.

9/2011 –	**Undergraduate Student Researcher**
12/2011	Department of Brain Sciences
	University of California, Santa Barbara, Santa Barbara, CA
	Advisor: David Hamilton, Ph.D.
	Data collection, coding, entry, and analysis focused on person and group perception from a social cognition perspective.

PROFESSIONAL DEVELOPMENT

2/2016	**Gottman Method Couples Therapy - Level 2 Clinical Training**
	Santa Barbara, CA
	Four-day training on treatment for couples experiencing conflict, using research-based assessments and effective interventions.
10/2015	**Gottman Method Couples Therapy - Level 1 Clinical Training**
	Santa Barbara, CA
	Two-day training on treatment for couples experiencing conflict, using research-based assessments and effective interventions.

COMMUNITY OUTREACH

3/2013 –	**Hosford Clinic Community Outreach Presentations -** Santa Barbara, CA
9/2015	*Mindfulness in Everyday Life,* multiple venues and demographics
	Jodi House Brain Injury Support Center
	Girls Rock Music Camp
	The Department of Alcohol, Drug, and Mental Health Services (ADMHS)
4/2011 –	**Meditation Assistant**
3/2013	Montecito, CA
	Assisted in organizing and leading mindfulness meditation groups and retreats for community members.
	Supervisor: Radhule Weininger, Ph.D.

OTHER POSITIONS

2/2016	**Faculty Selection Committee Student Representative**
	University of California, Santa Barbara, Santa Barbara, CA

Facilitated student involvement in the selection process of faculty candidates through arranging student-only interview sessions, soliciting attendance, and surveying student feedback on faculty candidates.

8/2015 – 6/2016	**Executive/Student Affairs Committee** University of California, Santa Barbara, Santa Barbara, CA Served as member and helped facilitate student affairs efforts.
8/2015 – 6/2016	**Diversity Committee** University of California, Santa Barbara, Santa Barbara, CA Coordinated diversity efforts within the department.
9/2013 – 1/2015	**Clinical Chat Hour Coordinator** University of California, Santa Barbara, Santa Barbara, CA Coordinated monthly speakers and topics for students within the clinical emphasis.
3/2013 – 4/2013	**American Psychological Association Re-Accreditation Assistant** University of California, Santa Barbara, Santa Barbara, CA Assisted in the coordination of the A.P.A. re-accreditation process through data management and organization, as well as arranged and executed the agenda for the site visit.

ABSTRACT

Client Feedback and Group Therapy Outcomes for Adults with Co-occurring Mental Illness

and Substance Abuse

by

Alexis Stanley-Olson

Individual and group therapy have been found to benefit from the use of client feedback—

brief assessments completed by the client each session to track client treatment outcomes and

therapeutic alliance. However, the use of client feedback has not been examined for the

population of individuals diagnosed with co-occurring mental illness and substance abuse.

This mixed-methods study was conducted with adults diagnosed with co-occurring mental

illness and substance abuse who attended group therapy at an outpatient day treatment

facility. A single-case reversal design was used to determine the effect of using client

feedback in group therapy on therapeutic outcomes and attendance. Further, this study

applied thematic analysis to interviews conducted with group therapy clients after they

experienced the client feedback intervention. Effect sizes were calculated for attendance and

outcome scores between each phase. A significant difference in attendance between control

and treatment conditions was indicated for the second intervention phase, however no other

significant differences were found. A number of themes emerged from thematic analysis of

the interviews, and are discussed in their relation to the utility of assessments in therapy and

future directions for the field of group therapy. Client characteristics among experimental,

interview, and pre-attrition groups and their effect on outcomes are also discussed.

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Chapter One: Introduction

Patient-focused research includes monitoring patient progress over time and providing that information to the client, clinician, or supervisor (Howard, Moras, Brill, Martinovich, & Lutz, 1996; Reese, Slone, & Miserocchi, 2013). Patient-focused research has become more popular in recent years, facilitating the development of continuous outcome measures. Continuous outcome monitoring is done using measures designed to be used frequently, as frequently as every session at times, to track the continuity of client outcomes (Davidson, Perry, & Bell, 2014). These are generally brief, easy-to-use measures that require little time to administer, score, and interpret. These instruments may examine client well-being in the areas of social or work functioning, the therapeutic alliance, or satisfaction with goals and tasks focused on in therapy.

Patient-focused research relies on *client feedback* (Miller, Duncan, Brown, Sorrell, & Chalk, 2006). Studies on client feedback typically examine how providing continuous assessment data on client outcomes to therapists impacts client outcomes, such as attendance, dropout, and clinically significant change (Reese, Toland, Slone, & Norsworthy, 2010; Schuman, Slone, Reese, & Duncan, 2014; Slade et al., 2008). A focus of client feedback is often repeated reflection on in-session measures of alliance and treatment outcome (Reese et al., 2010; Slone, 2013).

One reason for providing client feedback is that research has demonstrated that therapists are poor predictors of patient outcomes (Chapman et al., 2012; Hannan et al., 2005). Client feedback provides a formal check-in process that relies on client self-report rather than therapist intuition and corrects for some sources of error in therapist prediction of client well-being and potential deterioration. Client feedback is often used for flagging client

deterioration and risk of dropout. This is important because early intervention when treatment failure is a predicted outcome can lead to improved outcomes (Miller, 2006). Additionally, client feedback provides clients with the opportunity to see their own progress and to identify what works. Finally, client feedback also provides therapists with additional information about the client and may lead them to spend extra time thinking about that client and what does or does not work.

Studies vary in their use and support of directing client feedback to the therapist, to the client, or to both. Client feedback has been applied in individual therapy, couples therapy, and, more recently, group therapy. According to Robinson (2009), "each therapeutic encounter is a one-off encounter between a unique client with their unique theory of change, and a unique therapist with their unique response" (p. 62). Feedback is theorized to provide an opportunity for client and therapist to formally check in on alignment of therapist and client theory of change, and any potential issues surrounding the relationship. Miller, Hubble, and Duncan (2007) demonstrated in a study of "supershrinks" (p. 1) that the most effective therapists were hypervigilant to threats to the alliance with the client and check out even minor concerns. Instruments that monitor the client's experience of improvement, or lack thereof, and the therapeutic alliance, allow the therapist to work in a feedback-informed way towards executing therapeutic tasks. While verbal check-ins are likely a popular means of gathering feedback, they may introduce social desirability to the client's response, potentially leading to under-reporting misalignments between client and therapist or over-reporting of therapeutic gains (Hopwood, 2008). Self-report has been found to be more accurate for experiential symptoms (e.g., feelings of emptiness) than interview, but less accurate than interview for behavioral symptoms, such as impulsivity or self-harm (Hopwood, 2008). This

indicates the complementary nature of those approaches, and encourages their tandem use.

There are unexplored reasons as to why written self-report and oral interviews may contrast. It may be that the psychological distance created by the assessment instrument provides the necessary space for clients to be more honest or introspective, as compared to verbal check-ins. Written prompts do not require immediate responses in the way that verbal prompts do. This provides the opportunity for reflection in a non-pressured atmosphere. It is also possible that clients who might otherwise take relationship dynamics for granted are prompted by the alliance-related assessment to inspect those dynamics for potential improvements or are prompted to simply be aware of their own experience of the relationship. Although it has not been studied directly, this type of inquiry-based intervention is an exercise in awareness, that has the potential to generalize behaviorally into other areas of the client's life, such as independently examining how their own relationship with significant others is being conducted or aligns with their values.

Feedback in therapy provides a unique insight into the client's perspective and theory of change, such that both client and therapist expectations of treatment can be managed. For example, if a client expects to have their presenting issues resolved in five sessions, the therapist is likely to get feedback by the third session that things are not progressing fast enough, and can examine the client's concept of change and mechanisms of change in order to modify treatment or client expectations (Harmon et al., 2007).

Humans may be poor historians, especially when there is a shift in their mood over time; for example, when presently in a good mood, recollections of the past are likely to be more positive than they were experienced at the time the memory was formed (Koster et al., 2010). Continuous feedback tracks progress and allows the client to experience their

trajectory graphically. While graphical and written, or verbal, forms of feedback combined have been found to be the most effective methods of feedback for eliciting consistent behavioral change, reasons for this effectiveness have not been explored (Alvero, Bucklin, & Austin, 2001). It is possible, though not yet investigated, that graphically representing a client's progress reinforces accurate perceptions of progress, or lack thereof, and lead to greater awareness and insight into dynamics influencing the client's trajectory.

Client feedback in a group setting provides group members the opportunity to reflect on group dynamics, in addition to client goals and the client-therapist relationship. Group therapy relies on similar constructs as individual therapy, but has added elements as well, such as cohesion and climate (Johnson, Burlingame, Olsen, Davies, & Gleave, 2005). These elements are able to be assessed formally through client feedback, clinician feedback, or coding schemes applied to session excerpts.

Currently, two studies examine the effects of directing feedback to therapists in individual and group therapy, both demonstrating positive results. Reasons for directing feedback only to therapists include maximizing procedural simplicity and empowering the therapist to respond to or reveal client feedback as they wish (Schuman, Slone, Reese, & Duncan, 2014; Whipple et al., 2003). Adding client-directed feedback offers the opportunity for discussion of client feedback so that the client may elaborate on responses, and active participation in interpreting the results, rather than the therapist acting on their own assumptions or more limited information (Hawkins, Lambert, Vermeersch, Slade, & Tuttle, 2004).

Using a sample of 981 individuals attending individual psychotherapy at a university counseling center, Whipple et al. (2003) provided feedback only to therapists using cut-off

scores to identify when a client was at risk for treatment deterioration (e.g., dropout or poor outcomes). The study utilized the Outcome Questionnaire (OQ-45; Lambert, Burlingame et al., 1996) on a weekly basis to monitor on-track (OT) or not on-track (NOT) client status. OT status indicated that the client was on track to good treatment outcomes, such as making progress, or plateauing at a high level of functioning, indicating it may be time to discontinue treatment. NOT status meant the client was at risk of not reaching a positive treatment outcome or of dropping out of treatment. If a client was NOT, researchers supplemented with clinical support tools (CST), a set of instruments administered to clients that were designed to measure a number of treatment characteristics, such as therapeutic alliance, and these data were provided to clinicians to inform treatment. Clinicians were provided with a list of potential interventions to engage in specific to the client's identified area of concern. They found significant gains in outcome for those in the feedback condition, regardless of if they were OT or NOT, relative to the no feedback condition.

A second study by Schuman, Slone, Reese, and Duncan (2014) examined the effects of administering the Group Session Rating Scale (GSRS; Duncan & Miller, 2007) to a sample of 263 soldiers affected by substance abuse attending group psychotherapy. The authors used feedback to communicate only to therapists those clients that were at risk of deterioration and dropout. Clinicians were not instructed on if or how feedback was to be utilized in session and clients were blind to the results of their feedback. The authors found the five-session intervention to significantly increase attendance rates, decrease dropout rates, and improve self- and other-reported outcome ratings (Schuman, Slone, Reese, & Duncan, 2014). The clinician-directed feedback studies demonstrate the effectiveness of feedback, even when the client is not involved.

The importance of increasing an individual's knowledge of their own performance using feedback has been found to be an effective way to promote behavioral change (Alvero, Bucklin, & Austin, 2001). Directing client feedback to both therapists and clients has been examined by a number of researchers, with mixed results. A study of client feedback in individual therapy by Hawkins et al. (2004) divided participants into *no feedback/TAU, feedback to only therapist*, and *feedback to both therapist and client* conditions, and utilized cut-off scores to flag treatment progress (OT or NOT). The authors examined a more severe, hospital-based outpatient population for similar parameters as Whipple et al., although they did not use CST. Hawkins et al. found significant improvement in outcomes for the feedback conditions compared to TAU, when comparing differences in pre/post OQ-45 scores; a subset of NOT individuals displayed no significant difference in outcomes. No significant differences were found in the number of individuals demonstrating clinically significant change—except when comparing TAU and feedback to therapist and client conditions. These findings indicate that feedback to therapist or to both therapist and client has an overall significant effect on outcomes, with feedback to both therapist and client offering significantly greater effect on outcomes as compared to feedback to therapist alone. No effect on clinically significant change was found across conditions, except for NOT individuals who are provided with feedback to both therapist and client. No effect on attendance was demonstrated, although significant differences between OT and NOT individuals were found.

Harmon et al. (2007) provided feedback in the form of progress graphs and written messages to 72 therapists treating 1,704 clients in individual psychotherapy at a university counseling clinic. All therapists were provided with client feedback, while only half of the 1,704 clients (687) were provided with client feedback. The authors used cut-off scores based

on weekly Outcome Questionnaire (OQ-45) scores to monitor OT and NOT status. If a client was NOT, they supplemented with CST. No instruction was given to clinicians on how to use the results of the CSTs. This study used archival data gathered at the same center in prior years to form an archival TAU condition. Relative to the archival TAU condition, the authors only found significant outcome score gains for the feedback condition if the individuals were NOT. No significant differences were found between the two feedback conditions. This study highlights the previous finding that compared to OT TAU, NOT individuals demonstrate improved outcomes and engage in more sessions when feedback is provided. The study does not support additionally providing clients with feedback as more effective than feedback to therapists only.

In a meta-analysis of three of their own studies, Lambert and Whipple (2003) found that relative to TAU, clients in the feedback conditions attended fewer sessions and resolved issues more quickly. Additionally, when examining OT versus NOT clients, NOT clients were found to attend a greater number of warranted sessions than OT clients. Shimokawa, Lambert, and Smart's (2010) meta-analytic and mega-analytic study of individual psychotherapy suggested that there is no statistically significant benefit to providing both clinician and client with continuous client feedback as compared to providing feedback to the therapist only. However, the mega-analysis included the study by Hawkins et al. (2004), which targeted a more severe, outpatient population, and demonstrated significant benefits to adding client-directed feedback. These studies support the idea that feedback directed to both client and therapist improves outcomes for individual therapy clients with more severe disorders or who are at risk of deterioration.

Relatedly, Slade et al. (2008) discovered that the use of immediate electronic written

and graphic feedback to 1,294 clients attending individual psychotherapy at a university counseling center increased outcomes as tracked by the OQ-45. Additionally, they found that delayed feedback had a significantly smaller effect on outcome. This demonstrates the importance of immediate feedback versus delayed feedback.

Couples therapy has also been shown to benefit from client feedback interventions directed at both therapists and clients (Anker, Duncan, & Sparks, 2009; Reese, Toland, Slone, & Norsworthy, 2010). Anker et al. (2009) administered a pair of in-session outcome and process assessments, at the beginning and end of the session, respectively, designed for immediate reflection by clients and therapist. Using a randomized sample of 453 couples seeking counseling in a community counseling center, they found feedback to significantly increase outcomes as compared to TAU: feedback quadrupled the rate of clients achieving clinically significant change, lowered rates of separation and divorce, and maintained gains advantage at six-month follow-up. Replicating the Anker et al. (2009) study, Reese et al. (2010) found a significant effect of client feedback on outcome when working with 46 couples at a university training clinic. Similar gains were found in the treatment condition as the Anker et al. study: significantly greater and more rapid improvement and the same four-fold increase in couples reporting clinically significant change by the end of treatment. These studies demonstrate that client feedback is of benefit to couples therapy, and that the effects of individual therapy extend to a multi-client setting.

Feedback in Group Therapy

Researchers have extended the evidence in support of using client feedback in individual and couples therapy to include group therapy. Continuous outcome measures have existed for individual therapy for decades, but none specific to group psychotherapy were

developed until recently. In most instances, researchers found these newly developed group

measures can have a positive effect on outcome, attendance, and dropout (Davies,

Burlingame, Johnson, Gleave, & Barlow, 2008; Quirk, Miller, Duncan & Owen, 2012;

Schuman, Slone, Reese, & Duncan, 2014; Slone, 2013).

One instrument designed for continuous administration in group psychotherapy is the

Group Session Rating Scale (GSRS); it was developed by Quirk, Miller, Duncan and Owen

(2012) using a sample of 105 individuals affected by substance abuse. In a separate study

designed to evaluate whether using client feedback enhances treatment outcome and

retention in group psychotherapy, the authors found administering the GSRS to a sample of

44 clients at a large university counseling center significantly increased attendance and

decreased dropout (Slone, 2013). Slone had clinician's administer and interpret the ORS and

GSRS in session, providing feedback to both therapist and clients. They allotted about five

minutes at the beginning and end of each session for those clients whose scores fell below

clinical cutoff to reflect en masse for five minutes each session on what could improve their

experience. The positive outcomes associated with the feedback intervention support the use

of client feedback in group therapy. No comparison to therapist-only feedback was

conducted, so it is unclear what additional advantage including group therapy clients in the

feedback process provides.

Only one study to date has demonstrated a negative impact of providing client

feedback. Davies et al. (2008) provided a less common form of feedback by using the Group

Climate Questionnaire - Short Form (MacKenzie et al., 1983; GCQ-S), which assesses group

engagement, avoidance, and conflict. Graphical feedback in the form of weekly-plotted

graphs was provided to both clinicians ($N = 14$) and clients ($N = 161$) attending group

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therapy in a university counseling center. The results of this study were surprising given many studies indicate a positive effect of client feedback. Davies et al. discovered a significant negative effect of feedback on outcomes when group ratings reflected higher levels of conflict. The authors offer several hypotheses for why this outcome: content of feedback may have been more germane to leaders than clients and feedback represented the aggregate and not individual clients. The authors explain that the feedback content was process oriented, and may not have been accessible to clients. Additionally, they offer that because individuals were not provided with person-level feedback data, they were not motivated by direct reflections of themselves and may have felt powerless to influence the group dynamic, even if it was not aligned with their own observations.

In sum, client feedback can be a beneficial addition to individual, couples, and group therapy. These studies also demonstrate that in order to increase the effectiveness of a client feedback intervention, parameters may involve directing feedback to both client and therapist, or to individuals experiencing more severe disorders, on an individual rather than aggregate/group level, and be given as immediately as possible.

Adults with Co-occurring Disorders

The effect of continuous client feedback in group psychotherapy has not been examined for clients with co-occurring mental illness and substance abuse problems. The use of continuous assessment feedback with this population seems appropriate given the cognitive impairment in executive function and memory typical of adults with co-occurring mental illness and substance abuse (Brady & Sinha, 2014). Neurocognitive impairment, such as memory or set-shifting difficulties, is a well-established phenomenon associated with severe mental illness (Hinkelmann et al., 2009). In a review of related literature, Green, Kern,

Braff, and Mintz (2000) found five out of seven articles reported significant associations between immediate memory and functional outcome for severely mentally ill populations. Research that has examined the direct relationship between neurocognitive impairment in severe mental illness and psychotherapy outcomes found therapy to be negatively impacted by neurocognitive impairment (Aleman, Agrawal, Morgan, & David, 2006; Kemp, 1996). Fortunately, certain interventions have been developed that improve neuropsychological functioning for the severely mentally ill, such as Cognitive Remediation Therapy (Delahunty & Morice, 1993; Wykes et al., 2007); however, effectively adjusting therapy practices to accommodate known cognitive issues is uncommon (Delahunty & Morice, 1993; Wykes et al., 2007).

Individuals affected by severe mental illness are about ten times as likely to be affected by substance abuse as those without a mental illness, yet only 7.9% of people affected by co-occurring mental health and substance use disorder receive treatment for both conditions (National Institute of Health, 2014). Adults with co-occurring mental illness and substance abuse have been shown to benefit from therapy that is integrated, since such populations are associated with diverse negative outcomes, which include higher rates of relapse, hospitalization, violence, incarceration, homelessness, and serious medical conditions (Regier et al., 1990). Integrated treatment addresses these concerns without preconditions for treatment, such as sobriety or mental stability (Drake, O'Neal, & Wallach, 2008); however, this model of treatment is under debate, with an eclectic approach posed as a potential solution (Cherry, 2008). The effect of group therapy for individuals with more severe mental illness depends on diagnosis: thought disorder, inpatient, and outpatient populations demonstrated smaller effect sizes than depressed or substance abuse populations,

but larger effect sizes when compared to neurotic and criminal populations (Burlingame, Furiham, & Dosier, 2003). Pfammatter, Junghan and Brenner (2006) found people with schizophrenia benefit from a variety of approaches, each with distinct outcomes. Group psychotherapy as a form of treatment has been popular for this population. A number of reasons can be given for this, including socializing effects, affordability and sustainability. Antisocial features among the severely mentally ill are a common target of remediation efforts (Mueser et al., 2012). Groups provide a context where social skills can be instructed and practiced, formally or informally. In part, utilizing group therapy has been driven by financial concerns; individual therapy can be expensive and time consuming relative to group therapy (Anderson & Rees, 2007). Considering a population of low- to no-income individuals, group therapy becomes a solution touted by program sponsors in lieu of more costly one-on-one sessions. Whether this is because group therapy is an effective alternative to individual therapy is not clear. Some studies have found group therapy to evince inferior, though still effective, rates of change when compared to individual therapy (Anderson & Rees, 2007; Craigie & Nathan, 2009). Additionally, treatment compliance among adults with co-occurring disorders is often low and relapse nearly inevitable (Flynn & Brown, 2008). Open group policies, which allow clients to enter and leave groups at will, are common to COD treatment programs, but not well researched (Burlingame, Fuhriman, & Mosier, 2003).

Current guidelines are unclear on when to intervene with feedback, although literature supports providing feedback interventions early in therapy, such as the first few sessions (Whipple et al., 2003). Research varies in supporting the claim that intervention should only occur when client deterioration is indicated (Harmon, 2007; Hawkins, 2004). Most importantly, the point of timing becomes moot when applying it to adults with chronic

mental illness, where clinically significant change is unlikely. High rates of recidivism and re-admittance to treatment creates disjointed client timelines. The question becomes one of whether feedback improves or sustains outcomes when implemented across the course of treatment.

Additionally, feedback provided in client feedback interventions typically includes a written description of predicted outcomes based on the standing of the client relative to prior time points. For adults with co-occurring disorders, high rates of recidivism and relapse make predictions of outcomes likely to be inaccurate. For example, in a less severe population a clinician might view a plateau over a number of weeks as an indication that the client is ready for treatment termination. However, in a COD population the same plateau would be interpreted very differently, say, as a sign that the client is not engaging fully in therapy or lacks insight into their condition.

Purpose of This Study

The purpose of this study was to evaluate the effect of providing continuous in-session client feedback on treatment outcome and retention in group psychotherapy among a sample of individuals diagnosed with co-occurring mental illness and substance abuse. The current study targeted clinician and client knowledge for intervention by providing both the clinician and client with weekly self-reported outcome and group process data on each client via graphical and verbal formats. The intervention provided clinicians with client self-report data. Additionally, the focus was on providing clients and clinicians with feedback in the form of a timeline graph charting client self-report scores in the domains of group process and individual functioning.

Similar to the study performed by Schuman, Slone, Reese, and Duncan (2014),

clinicians in the current study engaged in a brief formal training on how to administer assessments and assist clients in interpreting the timeline results. In line with existing structured intervention systems, the training directed clinicians to encourage reflection on positive and negative change or stability, and to clarify perceived reasons for gains, losses or plateaus in outcome ratings. On-going monitoring of clinician intervention quality was conducted through monthly questionnaires.

There were two proposed hypotheses.

Hypothesis 1

It was hypothesized that statistically significant differences would be observed in psychotherapy outcome scores, as rated on the Outcome Rating Scale (ORS; Miller & Duncan, 2000), for feedback periods as compared to control periods.

Hypothesis 2

It was hypothesized that statistically significant differences would be observed between feedback phases and control phases with regards to overall session attendance and dropout, and that the feedback phase would demonstrate higher rates of attendance and lower dropout rates.

Qualitative analysis

Qualitative analysis were used to further develop an idea of how clients perceive self-report feedback, particularly whether they experienced it as helpful or not helpful in facilitating therapy. An examination was conducted into what group therapy clients take with them from the feedback, make use of outside of therapy, and how it impacts their recovery overall.

Chapter 2: Review of Selected Literature

Client feedback has been demonstrated to be an effective intervention in individual and group psychotherapy, but has not yet been examined for its effectiveness for individuals with co-occurring mental illness and substance abuse. The following review of selected literature will examine in more depth the characteristics of adults with co-occurring mentally ill and substance abuse (COD), how group therapy approaches apply to COD, measurement of outcomes related to group therapy, and approaches to feedback.

Co-occurring Disorders Population

In 2014, 3.3% of all adults in the United States had both mental illness (MI) and substance use disorders (SUD) in the past year (SAMHSA, 2014). While assigning a diagnosis aims to streamline treatment for COD, the presentation of any particular COD client may vary wildly (Weiss, Mirin, & Frances, 1992). Mental disorder is more commonly reported as occurring prior to any substance disorder, and research has found the strongest associations between mental illness and substance use disorders involve externalizing mental disorders and alcohol-drug dependence (Kessler, 2004). Further, Kessler (2004) identified that "mental disorders are associated with alcohol-drug use, problems among users, dependence among problem users, and persistence among people with lifetime dependence" (p.1). He goes on to state that both types of disorders, in respect to co-occurring mental illness and substance abuse, are severe and persistent, and often associated with nicotine dependence. Additionally, being an adult with COD puts one at higher risk of a variety of negative life experiences: suicide, psychiatric hospitalization, legal difficulties and incarceration, homelessness, and more (Room, 1998).

Theoretical models of COD vary as they try to account for the multitude of factors

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that influence the etiology of COD. An older article by Mueser, Drake, and Wallach (1998) reviewed four models: common factor models, secondary substance use disorder models, secondary psychiatric disorder models, and bidirectional models; evidence did not support one model above the rest, yet the authors' conclusion suggested benefits in identifying subtypes among individuals with co-occurring disorders. More current models under continued debate are the common factors model, the supersensitivity model, and the self-medication model. Common factor models put forth the idea the shared vulnerabilities to both disorders accounts for their high rates of comorbidity (Hamilton, 2014). These models consider genetic transmission, Antisocial Personality Disorder (APD), SES, and lower cognitive functioning as operating in concert with multiple risk factors in the development of COD. Swendsen et al.'s (2010) 10-year longitudinal study found higher later-life SUD onset for those diagnosed with bipolar and PTSD. The supersensitivity model is comprised of biological sensitivity to stress brought on by genetic and early environmental events encountering environmental stressors. The idea has been proposed that negative consequences of substance use due to sensitivity, rather than use alone, is what differentiates patients with SMI from the general population. The self-medication model proposes the use of drugs to assuage bad feelings, which is then followed by the addiction cycle. In this model, the individual will tolerate a higher degree of adverse effects, so long as the specific ameliorating effect still occurs.

Interestingly, improved outcomes among individuals diagnosed with SMI following drug use have been found; this may be attributed to better premorbid function when compared to individuals who experience non-drug-induced onset of SMI (Løberg & Hugdahl, 2009). Ceasing substance use has been linked to greater positive outcomes and

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associated with social skills and potential protective chemical effects (Sara, 2014). Of note, the ongoing debate as to "whether substance use causes mental health problems or vice versa preoccupies clinicians and academics, [but does] not appear to concern clients to the same degree" (Hamilton, 2014). This causal relation can be utilized within treatment if treatment providers view it as "milestones in their journey, particularly what initiated substance use, what maintains it and what is likely to promote recovery" (Hamilton, 2014). There is a contrast between clinicians and clients in the understanding as to why clients use drugs, with clinicians preferring the self-medication hypothesis and clients stating they use for social reasons or to feel even better. This difference in opinion may prevent meaningful conversations, as both parties attempt to treat differing reasons for the disorder. Understanding the client's perspective has been theorized as an important point of treatment.

Overall, prognosis is poorer for adults with COD than those with either type of disorder alone (Dausey & Desai, 2003; Kessler et al., 1996). Treatment outcomes have been shown to vary within adults with COD depending on type of mental illness and substance abuse (Hättenschwiler et al., 2001), as have rates of relapse (Bradizza, Stasiewicz, & Paas, 2006). Women were found to stay in treatment longer than men (Choi, Adams, Morse, & MacMaster, 2015) and to have higher levels of mental illness and distress, although men were found to have higher rates of substance abuse (Substance Abuse and Mental Health Services Administration, 2015). Age at admission was found to influence treatment dropout, but only for men (Choi, Adams, Morse, & MacMaster, 2015). In one study, the highest rates of co-occurring disorders were found (in descending order) among African-American (47.6%), White (28.1%), and Hispanic (15.7%) ethnic groups, among individuals presenting for substance abuse treatment (Watkins et al., 2004). Ethnic minority individuals with co-

occurring disorders are less likely to receive treatment than Caucasians with co-occurring

disorders, may experience more severe symptomatology, less social support, and fewer

resources—all factors which are speculated to influence treatment outcomes (Alvidrez &

Havassy, 2005; Havassy et al., 1995; Jerrell & Wilson, 1997). Greater self-efficacy predicted

less substance use following six months of residential substance abuse treatment (Warren,

Stein, & Grella, 2007). Survey respondents with substance use disorders were found to be

more likely to obtain treatment if they had co-occurring disorders than if they only

experienced substance abuse issues (Kessler et al. 1994; Regier et al., 1990). However,

service utilization for adults with COD is found to be influenced by referral source, with

individuals referred from a mental health service system ultimately obtaining more services

(i.e., mental health services, mental health day treatment, transitional residential care, case

management, and other outpatient services) than those referred from a substance abuse

treatment system (Havassy, Alvidrez, & Mericle, 2009). Therapy variables reflecting

adherence to treatment, global outcome, and level of psychopathology were found to vary

specific to co-occurring mental illness (Hättenschwiler et al., 2001).

Research supports integrated mental health and substance abuse treatment, such as

groups that address both mental health and substance abuse concerns (Drake, Mueser,

Brunette, & McHugo, 2004). While traditional treatment models were more popular in the

1980s (e.g., Twelve Step programs), efforts to address the complex needs of the COD

population produced assertive outreach and motivational interviewing, among other

treatment models (SAMHSA, 2001). Integrated treatment is implemented using multiple

phases, where specific interventions are used to target phase-specific constructs. For

example, motivational interviewing might be used at the persuasion phase of treatment in

order to usher the individual into the active treatment phase.

Manualized treatment programs have been developed that address both SUD and MI, as well as other sub-populations (McGovern, 2008). These treatments often are influenced by the original Twelve Step models, however they rely as well on various other approaches. Given the high comorbidity of PTSD and SUD, trauma-informed treatments have been developed and were found to be successful when compared to SUD-focused treatment alone (Morrissey et al., 2005). Trauma-informed treatment appears to achieve results faster, and these gains are maintained at follow-up similar to TAU.

Additionally, substantial customization of treatment is necessary in order to address the varied needs of each individual with COD (Drake, Mueser, Brunette, & McHugo, 2004). Four components of effective treatment of adults with COD emerged via a literature review by Sun (2012): ensuring effective transition into the community from residential treatment centers or detention facilities, increasing resources and acquiring government entitlements, acquiring housing even before treatment, and engaging in COD treatment.

SAMHSA's (2001) Treatment Improvement Protocol states six principles to keep in mind when treating individuals with COD: (a) employ a recovery perspective, (b) adopt a multi-problem viewpoint, (c) develop a phased approach to treatment, (d) address specific real-life problems early in treatment, (e) plan for the consumer's cognitive and functional impairments, and (f) use support systems to maintain and extend treatment effectiveness. Recovery from SUD and MI is viewed as an on-going process; therefore, treatment goals are designed to provide clients with the skills and support necessary to maintain on-going sobriety, to recover from relapse, and to manage symptoms of MI. Relapse is viewed as inevitable, so return to treatment is welcomed rather than viewed as failure, and focused on

as a means of identifying which skills the client needs to learn in order to maintain recovery next time. On-going life skill assistance, such as case management or social work, is often provided commensurate with the client's level of functioning.

Research has examined the dose-effect relationship, indicating that greater number of sessions attended are associated with improved treatment outcomes, especially when the course of treatment is shorter in duration (Howard et al., 1986; Reardon, Cukrowicz, Reeves, & Joiner, 2002). Efforts to increase attendance are diverse; those found to be most effective targeted client choice of appointment time or therapist, motivational interventions, preparation for psychotherapy, informational interventions, attendance reminders, and case management (Oldham, Kellett, Miles, & Sheeran, 2012). Attendance and dropout has been found to vary across client characteristics. Among a population with severe mental illness, attendance correlated positively with age and education, and negatively with hostility and psychotic symptoms (McGuire et al., 2013). Motivation for treatment has been found to be associated with severity of drug use; further, client motivation and jail time are known predictors of completion of court-based drug treatment (Cosden et al., 2006). Dropouts were found to have lengthier criminal histories, lower treatment motivation, more severe employment and psychiatric problems, and higher drug use at intake (Evans, Li, & Hser, 2009). The same study found dropouts were less likely to receive residential treatment and that they had shorter retention. While in treatment, dropouts received a higher number of services per day, particularly when addressing psychiatric problems.

Legal offenses often lead to court-mandated treatment, which is pressure applied by the criminal justice system to participate in treatment programs, and is often provided as an alternative to incarceration or as a condition of pretrial release, probation, or parole (National

Institute on Drug Abuse, 2014) Low treatment motivation (46.2%) and the difficulty of the

Proposition 36 program (20.0%) were the reasons for dropout reported by court-mandated

clients. Treatment court models appear to improve treatment outcomes when compared to

treatment as usual (TAU). Court-mandated drug treatment programs have been linked to

lower rates of reoffending than traditional correction options (Wilson, Mitchell, &

Mackenzie, 2006). Similarly, mental health treatment court combined with an assertive

community treatment model of case management led to decreased substance abuse and lower

rates of new criminal activity as compared to TAU (Cosden, Ellens, Schnell, Yamini-Diouf,

& Wolfe, 2003).

Less addressed in therapy research is the cognitive functioning of adults with COD.

Literature affirms that cognitive functioning and poor mental health mutually exacerbate one

another (Bahorik et al., 2014; Manning et al., 2009). Neurocognitive impairment is

associated with severe mental illness and functional outcomes (Green, Kern, Braff, & Mintz,

2000; Hinkelmann et al., 2009). Further, the neurocognitive effects of chronic substance use

are similarly well-established; due to the diffuse enervation and neurochemical action of

various substances, few studies demonstrate differences in cognitive performance between

substances (Rogers & Robbins, 2001). Goldstein et al.'s (2004) study found alcohol to

interfere most with attention and executive functioning, as compared to cocaine-using or

control participants. Recovery from substance abuse was found to be predicted by

performance on a variety of neuropsychological assessments (Aharonovich et al., 2006;

Passetti, Clark, Mehta, Joyce, & King, 2007). While neurocognitive impairment has been

found to negatively impact psychotherapy outcomes, less research is focused on identifying

practices for adapting interventions to better suit the cognitive limitations prevalent among

the SMI and SU populations (Aleman, Agrawal, Morgan, & David, 2006; Delahunty &

Morice, 1993; Kemp, 1996; Wykes et al., 2007). More common are interventions targeted at

improving cognitive abilities, such as cognitive remediation therapy or cognitive

enhancement therapy (Eack et al., 2009; Wykes et al., 2007).

In sum, adults with COD present as a varied, hard-to-reach population that requires

coordinated and customized efforts to address socializing, cognitive and living skills needs.

Treatment of individuals with COD has improved over the last few decades, and is now more

integrated and tailored to the individual. Attendance is positively associated with improved

outcomes, although continues to be problematic among the COD population. Room for

improvement exists in the realm of adapting therapy for impaired cognitive abilities

commonly associated with COD. Treatment aims include imbuing clients with skills and

support to facilitate on-going recovery efforts.

Group Therapy

On average, recipients of group therapy are better off than 72% of those left untreated

(Burlingame, Fuhriman, & Mosier, 2003). Burlingame et al.'s (2003) meta-analysis

examined 111 experimental and quasi-experimental studies published over the 20 years since

1983. While the majority of settings were university counseling centers (52%), a portion of

the remaining sample was composed of correctional institutions (20%) and outpatient

treatment centers (12%), and the remainder of the sample was unaccounted for. Group

therapy has been shown to be effective for a number of populations and disorders, with

highest effect sizes for depression and eating disorders. Group therapy utilized by inpatient

and outpatient mental health samples evinced moderate effect sizes of 0.66 and 0.53,

respectively ($p < .05$). Group therapy has grown in popularity, although its cost-effectiveness

when compared to individual therapy is uncertain (Tucker & Oei, 2007). Studies comparing

the effectiveness of group therapy to individual therapy demonstrate group therapy is equal

to or only somewhat less effective than individual therapy, yet it is much more affordable

(Anderson & Rees, 2007; Craigie & Nathan, 2009). Little research criticizes group therapy,

although it could be argued that proper readiness and preparation for group therapy is a

necessary precursor for successful therapy, and that outcomes depend on the skill of the

clinician to facilitate the therapeutic factors of group therapy (e.g., cohesion). Compared to

individual therapy, clients have more opportunity to disengage should the therapist allow the

group to be carried by particular individuals. The paucity of research identifying group

therapy drawbacks may be a result of confirmation bias (Haverkamp, 1993).

　　　While approaches to group therapy vary, research has found common factors that

contribute to positive outcomes to be alliance, empathy, cohesion, and climate (Johnson et

al., 2005). Alliance is defined as "a fond working relationship between the client and

therapist" (Johnson et al., 2005, p. 310). Alliance is a known common factor of individual

therapy (Fife, Whiting, Bradford, & Davis, 2014; Laska, Gurman, & Wampold, 2014), and

has been found to be an important factor for positive outcomes in group therapy treating

individuals with severe mental illness (Johnson, 2007). A range of definitions exist for

empathy, although most include the element of taking the perspective of another person such

that the other's emotions and constructed meanings can be sensed, even if the other is not

aware of them yet (Elliot, Bohart, Watson, & Greenberg, 2011). Johnson et al. (2005) define

cohesion as "a sense of belonging and esprit de corps within a group" (p. 310). Yalom's

(1995) hypothesis that cohesiveness in group facilitates group-esteem and hope was found to

be true (Marmarosh, Holtz, & Schottenbauer, 2005). Climate, defined as "a sense of

constructive interpersonal investigation" (p. 310), is said to be closely related to empathy and found to similarly influence outcomes (Johnson et al., 2005).

Group therapy provides opportunity for socializing and reality testing, a skill at which adults with COD are often at a deficit, through discovering others and developing interpersonal relationships (Gregg, Barrowclough, & Haddock; Mueser et al., 2012). For adults with COD, the goals of group therapy are primarily abstinence from substances, with the secondary goal of remission of co-occurring disorder symptoms (Center for Substance Abuse Treatment, 2005). Of further importance is the goal of accepting one's diagnosis as a means of understanding care for one's illness. Additional goals targeted by group therapy might include exploring triggers of substance use and educating on ways to reduce risk of relapse, improving physical, emotional, social, family, interpersonal, occupational, academic, spiritual, financial, and legal functioning (Daley, 2000).

Manualized treatment is common within group therapy practice. A variety of treatments are available ranging from CBT informed to 12 Step-based. Few manualized treatment programs exist that specifically target co-occurring disorders, however integrated treatment has been found to be effective (Barrowclough et al., 2001). Seeking Safety is an evidenced-based, manualized treatment program that addresses both trauma-related disorders and substance abuse (Najavits, 2002). Living in Balance is another such treatment that was first designed to address substance abuse, but later adapted to include modules specific to co-occurring MI and SUD (McGovern, 2008). Many of the manualized treatments designed for SMI or SUD alone are implemented after being adapted by clinicians to suit the treatment aims for a COD population. Alternatively, treatment is sometimes designed so that an individual would be provided with both aspects of recovery, for example, attending SUD-

related group separate from MI-related group within one week. Treatment programs might implement a variety of evidenced-based, manualized treatments targeting specific concerns of the COD population. Further, treatment programs vary in how recovery is approached – clinician- or self-directed. For example, the Wellness Recovery Action Planning (WRAP) is a recovery-oriented, curriculum-based approach that provides consumer-directed mental health treatment encouraging healthy behaviors (Cook et al., 2015; Starnino et al., 2010). However, other approaches entail more clinician-directed curriculum.

Feedback Theory

Kluger and DeNisi (1996) define feedback as the "actions taken by an external agent to provide information regarding some aspect of one's task performance" (p. 255). Providing the opportunity in therapy for client feedback is aligned with statements by the APA Division 29 Task Force encouraging routine monitoring of client responses to therapy; they state that "monitoring leads to increased opportunities to repair alliance ruptures, to improve the relationship, to modify technical strategies, and to avoid premature termination" (Ackerman et al., 2001, p. 496). Similarly, Kaul and Bednar (1994) commented that "feedback from other members is commonly accepted as a critical therapeutic factor in group treatment" (p. 161).

The topic of feedback can be organized into research on interpersonal feedback and research on feedback interventions. The theory of feedback interventions varies. Dies and Dies (1993) posit that feedback interventions should follow MacKenzie's (1997) model of group development. Accordingly, feedback should initially focus on client expectancies of treatment to reduce dropout, while later phases focus on active engagement in order to increase retention. The Partners for Change Outcome Measures System (PCOMS; Miller,

Duncan, Sorrell, & Brown, 2004) system provides both through inquiries directed at client expectancies (i.e., goals and tasks) and active engagement (i.e., "approach or method" and asking if they "feel like part of the group"). The effectiveness of feedback interventions is well-established for some populations, and was shown to improve treatment outcome, attendance, and dropout (Davies, Burlingame, Johnson, Gleave, & Barlow, 2008; Quirk, Miller, Duncan, & Owen, 2012; Schuman, Slone, Reese, & Duncan, 2014; Slone, 2013). Feedback interventions were shown to be effective when directed to clinician, client, or both clinician and client (Schuman, Slone, Reese, & Duncan, 2014; Harmon et al., 2007; Hawkins et al., 2004). While more research has examined feedback among individual or couples therapy, the approach has been adapted to group psychotherapy settings, with promising results (Schuman, Slone, Reese, & Duncan, 2014).

Summary of Literature Review

The above literature review describes adults with COD, group therapy, and theory of feedback. It is established that adults with COD are in need of integrated services, and are more likely than individuals diagnosed with substance abuse disorder alone to seek them out, yet adults with COD still demonstrate poorer prognosis and treatment outcomes. Group therapy is identified as an affordable option that meets needs specific to adults with COD, such as socializing. No feedback approach specific to adults with COD has been developed, although research and theory has shown feedback to be an important element of treatment, with many advantages and few drawbacks. Advantages include increased clinician knowledge of client perspectives and progress, opportunity for client feedback on group dynamics and content, the potential to enhance or repair the therapeutic alliance, increase attendance and decrease levels of drop out. Specific to COD, feedback has the potential to

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enhance agency, as many clients are mandated, through soliciting engagement and feedback of the therapeutic system. Given the cognitive difficulties common among the COD population, plotting of weekly self-reported outcomes may assist individuals in tracking their engagement and well-being, and identifying helpful and harmful skills and behaviors. Drawbacks include the potential for decline in outcomes when group feedback is aggregated, instead of individualized, or difficulty in understanding the assessment procedures and their significance.

Chapter 3: Method

The current study involved original data collection and was based on a single-case reversal (ABAB) design, in which "A" represents a four-week control phase followed by "B," a four-week intervention phase; this sequence was then repeated so that the intervention was carried out twice, always preceded by a control phase. Groups were assessed via self-report during intervention phases using the Partners for Change Outcome Measures System (PCOMS; Miller, Duncan, Sorrell, & Brown, 2004)—the Outcome Rating Scale (ORS) and Group Session Rating Scale (GSRS), and during control phases using the ORS. See Table 1 for the schedule of assessment intervention.

Participants

A total of 66 clients began group therapy; however, nine clients dropped out before the 14th week of the study, four clients were incarcerated during the study, one client was declared deceased before the end of the study, nine clients graduated from the treatment program before the fourteenth week of the study, fifteen clients opted out of the research study and were removed from analyses, and seven participants had less than adequate number of data points and were not included in the analysis, meaning they had missing assessment data or had not attended group for more than 50% of the intervention period. Twenty-one participants met adequate attendance, meaning they had attended group at least once per week during 50% or more of the intervention period.
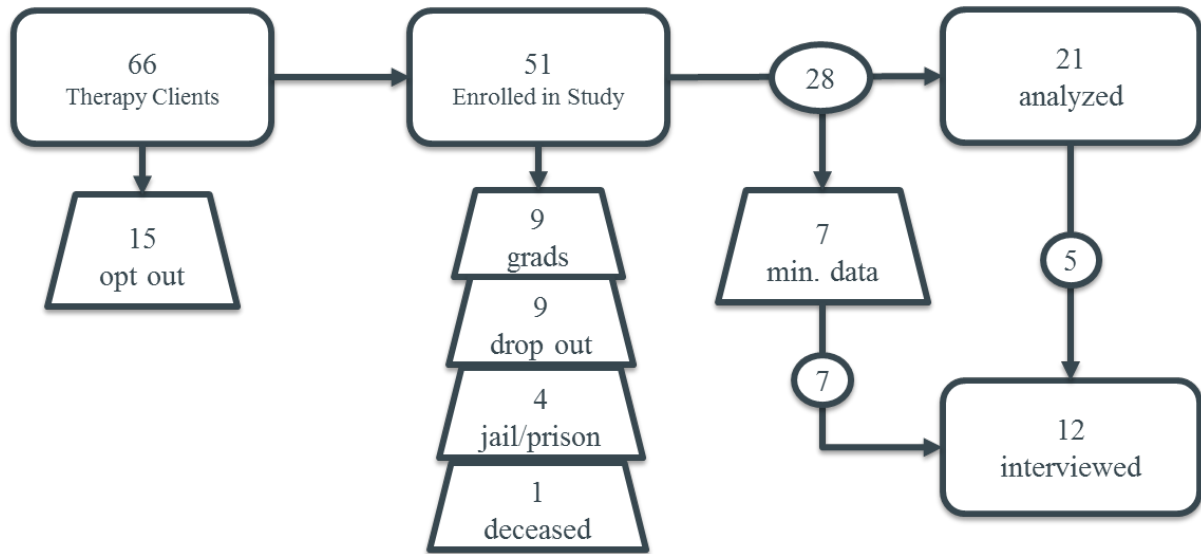
Figure 1. Attrition of solicited participants from residential and outpatient mental health and substance abuse treatment facility.

Study participants. Demographic characteristics for the original sample and the final sample are provided in Table 2. The original sample ($N = 66$) had a mean age of 37.3 ($SD = 12.2$; Range 19-64), while the final sample ($n = 21$) had a mean age of 31.9 ($SD = 7.8$; Range 20-49); the difference in mean age was not found to be statistically significant. Statistical group differences on all other demographic characteristics between the initial group and final group could not be calculated due to low frequencies. However, visual inspection of the data shows substantially more men in the original sample, slightly higher levels of ethnic diversity, and fewer secondary mental illness diagnoses.

Table 1

Schedule of Assessment Interventions using Outcome Rating Scale (ORS) and Group Session Rating Scale (GSRS)

Week	Administer Assessment
1-4	ORS
5-8	ORS GSRS
9-12	ORS
13-16	ORS GSRS

All participants were clients who participated in group therapy at a psychiatric clinic that provided residential and out-patient therapy. Psychotherapy groups were attended by men and women over 18 years-old who had been diagnosed with co-occurring mental illness and substance abuse. Program admission was conducted over face-to-face interview with the program director who determined suitability of the client for the program. Individuals collaborated with the program director to be assigned to integrated mental health and substance abuse treatment groups based on fit of group approach and individual treatment needs established by the client's treatment team. The client sample had a range of diagnoses, with all clients endorsing substance use disorder and a co-occurring mental illness (e.g., Bipolar Disorder) as seen in Table 2. The majority of clients in this sample (90%) had received individual or group psychotherapy prior to enrolling in this treatment program.

Interview participants. Qualitative interviews were conducted with 12 clients representing a subset of the initial 66 participants who began the study. Of the 12 interview participants, five had adequate attendance and met criterion to be included in the quantitative

analysis as well, meaning they attended group at least once per week during 50% or more of the intervention phases. Discussion of the interview participants addresses only these five interviewees. The remaining seven interview participants had less than adequate attendance and were not included in quantitative analyses or discussion of the qualitative analysis. Clients who opted to interview received an incentive of a $5 gift card.

Demographic characteristics for the original sample and the interviewed sample are provided in Table 2. The interview sample mostly identified as female, Caucasian, and with relationship status as single. The original sample ($n = 66$) had a mean age of 37.3 ($SD = 12.2$; Range 19-64), while the interview sample had a mean age of 30.6 ($SD = 10.7$; Range 22-49); the difference in mean age was not found to be statistically significant. A Wilcoxon Signed-ranks test indicated no group differences on all other demographic characteristics between the initial group and interview sample. However, visual inspection of data indicated the interview sample had less diversity, fewer diagnoses of bipolar disorder and multiple diagnoses, and a higher number (100%) of court-mandated individuals.

Table 2
Participant Demographics

Demographic characteristic	Overall ($n = 66$)	Assessment ($n = 21$)	Interview ($n = 5$)
Gender			
Male	62.1%	47.6%	60.0%
Female	37.9%	52.4%	40.0%
Ethnicity			
Caucasian	63.6%	61.9%	60.0%
Latino/Hispanic	22.7%	23.8%	40.0%
African-American/Black	7.6%	9.5%	0.0%
Asian	3.0%	4.8%	0.0%
Multiracial	3.0%	0.0%	0.0%
Primary Diagnosis[a]			
Bipolar	42.4%	42.8%	20.0%
Schizophrenia	31.8%	23.8%	60.0%
Depressive Disorder	16.7%	19.0%	20.0%
Anxiety-related Disorder	7.6%	9.6%	0.0%
Other	1.5%	4.8%	0.0%
Multiple MI Diagnoses[b]	15.2%	60.0%	0.0%
Relationship Status			
Single	80.3%	90.5%	60.0%
Married	4.5%	4.8%	20.0%
Divorced	15.2%	4.8%	20.0%
Admission			
Court-mandated	81.8%	85.7%	100.0%
Voluntary	18.2%	14.3%	0.0%

[a]Multiple categories allowed for each person; percentages sum to over 100%.
[b]Multiple mental illness diagnoses carried beyond primary diagnosis; percentages sum to over 100%.
*Due to frequency counts <5, significant between group differences could not be calculated.

Clinicians

See Table 3 for a breakdown of clinician demographic characteristics. Group leaders had a mean age of 32.6 ($SD = 8.2$; Range = 29-40), a mean years of group therapy experience of 4.6 ($SD = 7.10$; Range = 2-14), and had led an average of 8 groups ($SD = 4.4$; Range = 4-

18) groups prior to the study. Most identified as women, Caucasian, of integrative general theoretical orientations, and had obtained master's degrees.

Table 3

Clinician Demographics

Demographic characteristic	(n=5)
Gender	
Female	60%
Male	40%
Ethnicity	
Caucasian	80%
Multiracial	20%
Theoretical Orientation	
Integrative	60%
Existential	20%
Cognitive Behavioral	20%
Credentials	
Master's degree	60
Doctoral intern	40
Master's intern	20
Licensed Marriage & Family Therapist	20
Certified Alcohol and Drug Counselor	20

Groups

    The format of all group therapy sessions was 1.5 hours long. The orientation of the groups ranged from psychoeducational to process-oriented, and incorporated trauma-informed and integrated treatment models. Additionally, group size varied from 5 to 12 individuals. All but one group were open, meaning that once the group was formed, clients could come and go at any time. There were 12 groups held throughout the week, with one to three groups held daily. The intervention was implemented in 9 out of 12 groups. All groups were held on a revolving basis. Clients designed their own schedule in coordination with the program director, such that clients were not always with the same group of individuals and

may be in multiple groups with a variety of other or the same individuals. Groups were led or co-led by one to two clinicians. Prior to this study, no assessment measures were used during group therapy sessions.

Groups were conducted largely in accordance with manualized treatment programs, although clinicians were at liberty to supplement or somewhat alter the curriculum at their discretion. Manualized treatment curriculum included Wellness Recovery Action Planning (WRAP) Wellness Self-management Workbook (Cook et al., 2015; Starnino et al., 2010), Living in Balance with Co-occurring Disorders (McGovern, 2008), Seeking Safety (Najavits, 2002), Acceptance and Commitment Therapy for Groups (Boone & Canicci, 2013), Thinking for a Change (Bush, Glick, & Taymans, 1997), Mindfulness-based Cognitive Therapy for Depression (Morgan, 2003), Mindfulness-Based Stress Reduction (Santorelli, 2014), and Anger Management for Substance Abuse and Mental Health Clients (Reilly & Shopshire, 2002).

Measures

A modified version of the Partners for Change Outcome Management System (PCOMS; Miller, Duncan, Sorrell, & Brown, 2004) was chosen as the client feedback system for this study given its brevity, cost (free for use with license agreement), and familiarity, as some of the clinicians selected had previous experience utilizing similar measures in clinical practice for individual psychotherapy. The PCOMS is composed of the following two measures:

Outcome Rating Scale (ORS; Miller & Duncan, 2000). The ORS is a four-item measure of global psychological functioning based on the Outcome Questionnaire (OQ-45; Lambert, Burlingame, et al., 1996) subscales, and was designed for use every session to

monitor client outcome (Miller & Duncan, 2004). Global psychological functioning is measured in four domains using a 10-centimeter long visual analog scale: Individually (i.e., personal sense of well-being); Interpersonally (i.e., family, close relationships); Socially (i.e., work, school, friendships); and Overall (i.e., general sense of well-being). The paper-based version of the measure is to be utilized in this study. The ORS takes about one minute to administer, score, and plot. The clinician directs the client to mark each line to indicate how they felt in the last week for that particular item. The clinician then measures the placement of the mark on the line, rounding to the nearest millimeter, and a score out of 10 points is obtained. This is done for each of the four marks, then the obtained scores are plotted on a graph. The graph illustrates their progress over the series of weeks.

Two studies that have examined the psychometrics of the ORS are highlighted (Campbell & Hemsley, 2009; Miller, Duncan, Brown, Sparks, & Claud, 2003). Miller and colleagues (2003) used both clinical ($N = 435$ and nonclinical ($N = 86$) samples to evaluate the psychometric properties of the ORS. Internal consistency estimates using Cronbach's alpha was found to be .93 for all administrations (range of .87 at first administration to .96 at third administration was noted). Test-retest analysis demonstrated correlation of $r = .66$ at second administrations, .58 at third administrations, and .49 at fourth administrations. While the OQ-46 demonstrated a much higher test-retest correlation ($r = .83$), Miller and Duncan (2004) describe this finding as not uncommon for brief outcome measures.

Campbell and Hemsley (2009) examined the validity of the ORS using a sample of 65 patients referred for psychological services at a rural primary health-care clinic. They compared the ORS against existing longer measures, including the Outcome Questionnaire-45, Working Alliance Inventory, Depression Anxiety Stress Scale-21, Quality of Life Scale,

Rosenberg Self-Esteem Scale and General Self-efficacy Scale. The authors collected scores administered at the end of the first or second session. Results aligned with previous investigations. Moderate to strong correlations were found between the ORS and all other measures.

Group Session Rating Scale (GSRS; Quirk et al., 2012; Duncan & Miller, 2007). Adapted from the Session Rating Scale (SRS; Duncan et al., 2003), the GSRS is a four-item visual analogue scale designed to measure group-therapy alliance. Global psychological functioning is measured in four domains using a 10-centimeter long visual analog scale: Relationship (i.e., "I felt understood, respected, and accepted…"); Goals and Topics (i.e., "We worked on...what I wanted to work on…"); Approach (i.e., "The leader and group's approach is a good fit for me"); and Overall (i.e., "I felt like a part of the group"). The paper-based version of the measure is to be utilized in this study. The GSRS takes about one minute to administer, score, and plot. The clinician directs the client to mark each line to indicate how they felt during the present session for that particular domain. The clinician then measures the placement of the mark on the line, rounding to the nearest millimeter, and a score out of 10 points is obtained. This is done for each of the four marks, and then the obtained scores are plotted on a graph. The graph illustrates client experience of the group process over a series of weeks.

Concurrent validity with alliance measures demonstrated significant correlations ranging from .41 to .61, ps < .01 (Quirk, Duncan, & Owen, 2013). Concurrent validity with other group outcome measures demonstrated significant correlations ranging from .31 to .60, ps < .01. Factor analysis supported a global internally consistent alliance factor. Internal consistency for the four items was found (Conbach alphas .86 to .90 over four sessions).

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Comprehensive Trail Making Test (CTMT; Reynolds, 2002). The CTMT was

used in post hoc analyses only. It is a paper-and-pencil task that has the participant connect a

series of encircled numbers and letters with increasing complexity. It was designed to

measure frontal lobe function, psychomotor speed, visual search, sequencing, and attention,

and impairments in set shifting. It can be administered to individuals between the ages of 11

and 74, and takes 5 to 12 minutes to complete. The composite index has a reliability of .92,

and the all five trials have an internal consistency of .70. Test–retest reliability values are .70

to .78 across the five trials of the CTMT. Validity of the CTMT has been independently

examined and found to differ from validity of the developmental study (Smith et al., 2008).

Smith et al.'s (2008) article states the CTMT is a valid measure of visuospatial processing

accuracy and speed, yet only minimally captures the developmental study's supported the

measurement of nonverbal reasoning and processing speed.

Rey-Osterrieth Complex Figure Task (ROFT; Meyers & Meyers, 1995; Rey,

1941).

The ROFT was used in post hoc analyses only. Originally developed by Rey (1941) to

assess visuospatial constructional ability and visual memory in brain-injured patients, the

ROFT has participants reproduce a complicated line drawing; first by referencing the

stimulus design, then at two delayed time points from memory. Scoring of the ROFT was

further standardized by Meyers and Meyers (1941) and includes a copy trial, 3-min delayed

recall trial, and 30-min delayed recall trial. Interrater reliability is high ($r > .90$). The ROFT

was found to have adequate predictive, ecological and clinical utility validity (Davies, Field,

Andersen, & Pestell, 2011; Deckersbach et al., 2000). ROFT was found to have a moderate

to strong correlation with visual memory, and moderate correlation with verbal memory

(Duff, Schoenberg, Scott, & Adams, 2005). Further, immediate and delayed recall both were found to strongly correlate with executive functioning.

Procedures

The effectiveness of client feedback in group psychotherapy was examined using a repeated measures, single-case ABAB design to determine if providing client feedback resulted in increased retention and attendance rates and improved treatment outcomes compared to no feedback (NF). All psychotherapy groups in the co-occurring disorders program of the selected psychiatric center underwent NF or intervention phases at the same time. No randomization of clients or clinicians was possible due to characteristics of program scheduling.

Groups ($N = 12$) in this naturalistic (i.e., psychiatric center) setting were open. Groups were held on a weekly, revolving basis. Clinicians were assigned to lead particular groups for an extended period of time, but could be reassigned to different groups or asked to lead a group in the absence of the usual leader.

Clients participating in group therapy at this center were pre-screened by the program director for suitability for receiving treatment at the center. No additional inclusion/exclusion criteria were used for the study.

Informed Consent

Clients attending groups were solicited at the beginning of their session for their consent to participate in the study. They were provided with the details of the study, as well as the option to decline participation without risk of loss of any kind. Clients who provided signed consent to participate had their data included in the study. Those who declined were still asked to engage in the continuous assessments, but did not have their data included in

the study. Assessments were administered to the client even if they declined participation, in order to avoid adverse effects (e.g., singling out group members). The script used for requesting participation, and consent form, is provided in Appendix A.

Intervention procedures

Research personnel provided clinicians with training on how to carry out the client feedback intervention and administer pre-post outcome assessments. Clinician demographics were collected at that time. Clinicians were given a one-hour training on how to administer, score, plot and interpret the ORS and GSRS. Research personnel were available throughout the study to assist in answering questions or concerns that the clinicians might have. During weekly supervision times, research personnel checked in on logistical questions, but encouraged clinicians not to discuss their individual process with each other in order to avoid added noise to the study.

NF Phase 1 Protocol. The NF phase lasted for four weeks. Clinicians administered the ORS during group sessions. All clients were asked to write their initials on the assessments and all assessments were stored in a locked file cabinet within a locked facility after each use. Clinicians were instructed by research personnel to simply gather the data, and to not review or reflect in session on any of the client reported data.

Treatment Phase 1 Protocol. Following the NF Phase 1, all groups received the process survey intervention for four weeks. The process survey intervention consisted of assessing group members using the ORS and GSRS at the beginning and end of each session, respectively. If a client was late to a session, they were administered the ORS, but were not provided with time to reflect on the results with the group. Clinicians instructed clients on how to respond to the ORS and GSRS during group sessions. All clients were asked to write

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their initials on the assessments and all assessments were stored in a locked file cabinet within a locked facility after each use. Clinicians instructed clients on how to plot and interpret the ORS and GSRS during the treatment phase. The same timeline graph as used throughout the treatment phase such that the client was exposed to increasing data on past self-reported ratings of individual outcome and group process. Clients were encouraged to share their responses to the questionnaires with the group. They were instructed to use the group and clinician to reflect on attributed reasons for treatment gains and losses (See Appendix B: Clinician Check-in Script).

NF Phase 2 Protocol. Following Treatment Phase 1, the second NF phase lasted for four weeks. Clinicians administered the ORS during group sessions and indicated at the first week of NF Phase 2 and upon subsequent client inquiry that no charting of the assessments would occur. All clients were asked to write their initials on the assessments and all assessments were stored in a locked file cabinet within a locked facility after each use. Clinicians were instructed by research personnel to simply gather the data, and to not review or reflect in session on any of the client reported data.

Treatment Phase 2 protocol. Following NF Phase 2, all groups received the process survey intervention for four weeks. Clinicians resumed assessing group members using the ORS and GSRS at the beginning and end of each session, and graphing the data as outlined in Treatment Phase 1 protocol.

Attendance data. Attendance data for each phase was gathered for participants using daily attendance logs.

Qualitative interviews. At the end of the study, the researcher advertised in all groups the opportunity to participate and receive a $5 gift card. Interviews were carried out

with individuals who elected to do so. The interview included administration of two neuropsychological assessments and followed a script (Appendix C) to increase consistency across interviews. Interviews took place one-on-one, in a private setting, and the researcher wrote out client responses. Data were analyzed using thematic analysis, as described below (Braun, 2014).

Establishing reliability in qualitative research practice is common, however some researchers believe reliability is best left to "positivist" or "quantitative" traditions (Guba & Lincoln 1994; Madill, Jordan, & Shirley, 2000). For the purposes of the current study, reliability was established as a means of grounding the themes in a consensual reality. A multistep process was conducted to achieve acceptable levels of reliability: segmentation of text, codebook creation, coding, assessment of reliability, codebook modification, and final coding (Hruschka et al., 2004). Two researchers independently followed the iterative process of reviewing all interview transcripts, generating themes and revisiting the transcripts, in order to generate the most pertinent themes. Once tentative themes were generated, the researchers met and discussed which themes should be maintained for the final codebook and analysis.

The interview transcripts were segmented by the researcher in consultation with her assistant for agreement, and each segment coded according to the developed codebook. Reliability was established through coding a dummy interview, in order to preserve the integrity of the study data. Cohen's Kappa, a more conservative reliability statistic that accounts for chance agreement; once reliability of .85 was met, the first interview was coded and checked again for reliability, which was found to be Kappa = 0.85 ($p < 0.001$), 95% CI (.814, .895). The remaining interviews were then coded and checked for reliability.

Consensus coding resolved discrepancies in independent ratings.

Chapter 4: Results

Consistency Check

Each clinician self-reported that they adhered to the protocol most of the time. Clinicians were provided with a sheet of paper once a week in the intervention phases asking them to indicate how much reflection time was provided for each of the assessments. Weekly during intervention phases, an average of 4 clinicians per week responded to the consistency check questionnaire. The average time provided by clinicians for reflection on the ORS at the beginning of group was 6.5 minutes, while the average time provided by clinicians for reflection on the GSRS at the end of group was 5.5 minutes.

Quantitative Analysis

Twenty-one participants were included in the quantitative analysis. Three participants had no missing data, which meant they attended at least one group therapy session per week for each week during the 16-week study period. Eighteen participants were not in attendance the entire week for four or fewer weeks per cumulative eight weeks of intervention. Participants who were absent more than four full weeks during intervention across the eight intervention weeks were not included in the analysis, given that they did not receive enough exposure to benefit from the intervention.

It was hypothesized that statistically significant differences would be observed for Overall scores on the ORS between feedback and control phases. The difference in mean score between cumulative control phase to cumulative feedback phase on Overall score on the ORS was 0.12 points. Examining individual phases for mean score changes indicated a slight mean increase in Overall scores from baseline to intervention (0.09 points), followed by a further increase of 0.35 points upon returning to control phase, and again increasing

another 0.42 points as the intervention was applied a second time. Participant individual effect sizes (ES) ranged from negligible to large by Cohen's (1988) standards (Table 5). Mean phase scores suggest the intervention was effective, although control phases showed similar gains. Individual level analysis does not support a consistent significant difference in outcome scores between feedback and control phases.

Participant level analysis indicates the presence of four treatment responders, with effect size ranging from small to medium (Participants 2, 13, 17, & 21; Figure 2). The weekly resolution shows a variable performance, one that might average as higher or lower for a phase, but actually is quite scattered. One individual, participant 4, followed the hypothesized pattern of improved outcomes on Overall score on the ORS during intervention phases as compared to control phases; however, he/she did not demonstrate a response to the intervention on average.

Additional ORS subscales (Individually, Relationally, and Socially) were analyzed for significant difference in scores between control and intervention phases. ES between phases for the additional scales were found to range from no effect to large effect size. Those participants who demonstrated small to large effect size on the Overall subscale of the ORS did consistently show a similar effect size on other subscales.
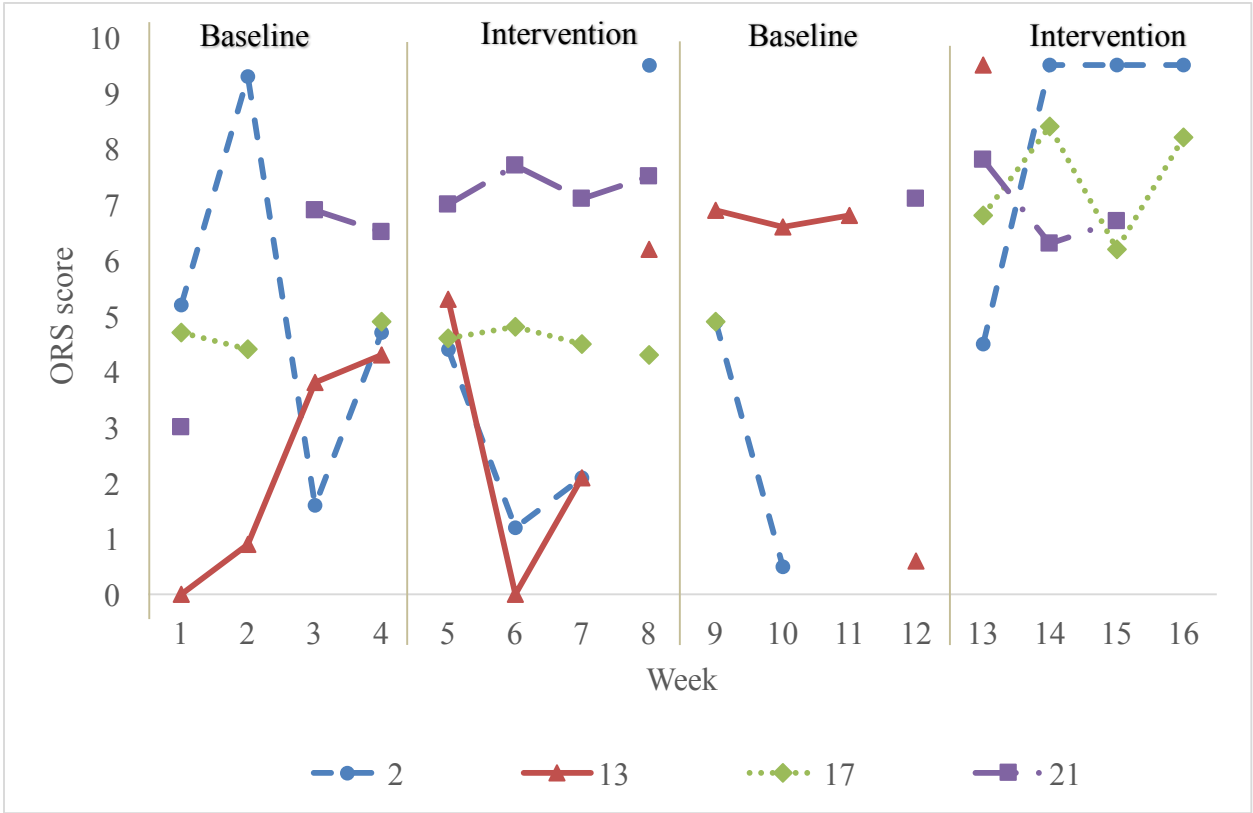
Figure 2. Weekly Outcome Rating Scale scores on "Overall" subscale for participants demonstrating a small to large positive effect size.

Table 5

Participant Overall Scores on Outcome Rating Scale

Participant ID	Baseline Mean	Baseline 2 Mean	Baseline Overall Mean	Intervention Mean	Intervention 2 Mean	Intervention Overall Mean	Effect Size
1	1.60	7.38	5.45 (3.13)	4.13	6.05	5.23 (2.36)	-0.05
2	**5.20**	**2.70**	**4.37 (3.10)**	**4.30**	**8.25**	**6.28 (3.61)**	**-0.01**
3	**7.18**	**8.93**	**8.05 (1.28)**	**8.65**	**8.68**	**8.66 (0.54)**	**-0.08**
4	**7.97**	**8.20**	**8.06 (0.34)**	**8.25**	**8.50**	**8.38 (0.38)**	**0.07**
5	8.33	9.30	8.74 (0.53)	9.05	9.33	9.17 (0.25)	0.05
6	4.35	0.75	3.15 (1.94)	2.18	0.95	1.56 (0.73)	0.05
7	5.90	4.35	5.13 (1.73)	5.05	5.68	5.36 (0.72)	0.05
8	**7.97**	**9.00**	**8.23 (0.90)**	**9.13**	**8.80**	**8.97 (0.28)**	**0.14**
9	5.45	4.53	4.99 (0.77)	4.50	6.35	5.56 (1.14)	0.12
10	**8.60**	**8.30**	**8.50 (0.25)**	**8.60**	**8.85**	**8.73 (0.29)**	**0.03**
11	8.43	9.00	8.54 (0.40)	5.03	8.60	6.56 (3.35)	0.12
12	7.50	4.80	6.83 (1.38)	6.93	4.75	5.69 (2.20)	0.07
13	2.25	5.23	3.74 (2.92)	3.40	9.50	4.62 (3.69)	-0.81

Table 5, Cont.

Participant Overall Scores on Outcome Rating Scale

Participant ID	Baseline Mean	Baseline 2 Mean	Baseline Overall Mean	Intervention Mean	Intervention 2 Mean	Intervention Overall Mean	Effect Size
14	5.63	7.80	6.06 (1.69)	6.47	6.75	6.63 (0.83)	-0.36
15	5.30	7.00	5.87 (1.03)	4.00	5.10	4.73 (2.39)	-0.27
16	5.00	6.60	5.32 (2.24)	7.07	4.55	5.63 (2.53)	-0.57
17	4.67	4.90	4.73 (0.24)	4.55	7.40	5.98 (1.68)	-0.51
18	9.50	9.47	9.48 (0.05)	9.43	9.45	9.44 (0.05)	0.40
19	5.60	4.80	5.44 (0.75)	5.50	4.50	5.17 (0.64)	0.27
20	0.90	1.80	1.44 (1.67)	1.08	1.80	1.08 (1.35)	0.30
21	5.47	7.10	5.88 (1.93)	7.33	6.93	7.16 (0.55)	0.28
Mean of Phase(s)	5.85	6.28	6.06 (1.35)	5.93	6.70	6.32 (1.41)	-0.03
Mean change from prior ABAB phase(s)		0.35		0.09	0.42		

Bolded = additional qualitative and neuropsychological data was obtained for participant

Table 6

Participant "Individually" Scale Scores on ORS

Participant ID	Baseline Mean	Baseline 2 Mean	Baseline Overall Mean (SD)	Intervention Mean	Intervention 2 Mean	Intervention Overall Mean (SD)	Effect Size
1	1.15	7.23	5.2 (3.27)	4.70	6.38	5.66 (1.95)	0.10
2	**7.23**	**2.60**	**5.68 (3.41)**	**5.70**	**9.08**	**7.39 (3.16)**	**0.29**
3	**7.20**	**8.98**	**8.09 (1.43)**	**8.80**	**8.70**	**8.75 (0.54)**	**0.08**
4	**8.40**	**8.30**	**8.36 (0.40)**	**8.35**	**8.60**	**8.48 (0.38)**	**0.02**
5	8.53	8.80	8.58 (0.46)	5.33	5.80	5.48 (0.97)	-0.65
6	7.40	4.80	6.75 (1.37)	6.73	4.73	5.59 (2.04)	-0.28
7	2.28	5.65	3.96 (3.24)	3.60	9.40	4.76 (3.77)	0.23
8	**4.30**	**6.40**	**4.72 (2.75)**	**7.23**	**6.40**	**6.76 (0.56)**	**0.46**
9	6.15	5.10	5.8 (1.30)	2.20	4.85	3.97 (2.48)	-1.00
10	**7.95**	**9.33**	**8.54 (0.95)**	**9.08**	**9.37**	**9.20 (0.24)**	**0.08**
11	3.85	5.90	4.26 (1.94)	6.27	4.78	5.41 (0.99)	0.31
12	4.53	4.40	4.50 (0.14)	4.53	7.23	5.88 (1.60)	0.34

Table 6, Cont.

Participant "Individually" Scale Scores on ORS

Participant ID	Baseline Mean	Baseline 2 Mean	Baseline Overall Mean (SD)	Intervention Mean	Intervention 2 Mean	Intervention Overall Mean (SD)	Effect Size
13	4.20	0.60	3.00 (1.93)	2.68	1.00	1.84 (0.94)	-0.57
14	5.65	4.73	5.19 (0.61)	5.23	5.50	5.36 (0.79)	0.03
15	6.57	8.50	7.05 (1.07)	8.63	7.87	8.25 (0.71)	0.25
16	9.30	9.43	9.4 (0.08)	9.43	9.40	9.42 (0.04)	0.00
17	5.03	4.80	4.91 (0.34)	4.70	6.15	5.53 (1.00)	0.13
18	7.95	8.00	7.97 (0.63)	8.35	8.78	8.56 (0.59)	0.08
19	5.50	4.70	5.34 (0.81)	4.80	4.45	4.68 (0.33)	-0.19
20	1.05	1.03	1.04 (0.72)	1.33	0.00	1.33 (0.39)	0.43
21	4.87	5.50	5.03 (1.48)	6.13	6.20	6.16 (0.71)	0.29
Mean of Phase(s)	5.67	5.94	5.87 (1.35)	5.89	6.41	6.12 (1.15)	0.02
Mean change from prior ABAB phase(s)		0.05		0.22	0.47		

Bolded = additional qualitative and neuropsychological data was obtained for participant

Table 7

Participant "Socially" Scale Scores on ORS

Participant ID	Baseline Mean	Baseline 2 Mean	Baseline Overall Mean (SD)	Intervention Mean	Intervention 2 Mean	Intervention Overall Mean (SD)	Effect Size
1	0.90	5.13	3.72 (3.12)	3.27	5.18	4.36 (2.8)	0.19
2	**5.28**	**1.10**	**3.88 (2.56)**	**3.28**	**8.33**	**5.8 (3.53)**	**0.44**
3	**6.40**	**8.93**	**7.66 (1.69)**	**8.70**	**8.75**	**8.73 (0.37)**	**0.13**
4	**8.07**	**8.25**	**8.14 (0.40)**	**8.13**	**8.53**	**8.33 (0.53)**	**0.03**
5	7.45	9.10	7.78 (0.94)	4.65	5.90	5.07 (2.13)	-0.63
6	6.93	4.90	6.43 (1.05)	6.80	4.73	5.61 (2.16)	-0.20
7	1.83	4.48	3.15 (3.05)	3.70	9.40	4.84 (3.78)	0.55
8	**4.53**	**4.90**	**4.6 (0.70)**	**6.07**	**4.73**	**5.30 (1.21)**	**0.19**
9	4.85	6.90	5.53 (2.28)	5.00	7.80	6.87 (1.76)	0.57
10	**8.58**	**9.33**	**8.90 (0.72)**	**9.00**	**9.37**	**9.16 (0.31)**	**0.03**
11	4.25	7.20	4.84 (2.98)	5.50	5.83	5.69 (0.78)	0.21
12	4.70	4.40	4.63 (0.26)	4.63	7.33	5.98 (1.62)	0.33

Table 7, Cont.

Participant "Socially" Scale Scores on ORS

Participant ID	Baseline Mean	Baseline 2 Mean	Baseline Overall Mean (SD)	Intervention Mean	Intervention 2 Mean	Intervention Overall Mean (SD)	Effect Size
13	3.53	0.70	2.58 (1.81)	2.98	1.13	2.05 (1.31)	-0.27
14	5.73	2.45	4.09 (2.43)	4.13	2.03	3.08 (1.43)	-0.28
15	5.70	6.90	6.00 (1.35)	6.03	8.23	7.13 (1.82)	0.27
16	9.30	9.47	9.43 (0.10)	9.43	9.45	9.44 (0.05)	0.00
17	4.70	4.53	4.61 (0.19)	5.17	5.88	5.57 (1.09)	0.20
18	8.68	8.35	8.57 (0.36)	8.45	8.58	8.51 (0.36)	-0.01
19	4.78	4.80	4.78 (0.96)	4.55	4.40	4.50 (0.93)	-0.09
20	0.75	2.00	1.50 (1.70)	0.83	0.00	0.83 (0.70)	-1.00
21	4.87	4.50	4.78 (1.22)	6.38	6.10	6.26 (1.04)	0.38
Mean of Phase(s)	5.32	5.63	5.5 (1.42)	5.55	6.27	5.86 (1.41)	0.05
Mean change from prior ABAB phase(s)		0.08		0.23	0.63		

Bolded = additional qualitative and neuropsychological data was obtained for participant

Table 8

Participant "Relationally" Scale Scores on Outcome Rating Scale

Participant ID	Baseline Mean	Baseline 2 Mean	Baseline Overall Mean (SD)	Intervention Mean	Intervention 2 Mean	Intervention Overall Mean (SD)	Effect Size
1	2.00	6.70	5.13 (3.26)	4.43	5.90	5.27 (2.50)	0.03
2	**4.63**	**1.25**	**3.50 (2.67)**	**3.23**	**9.03**	**6.13 (3.41)**	**0.60**
3	**6.18**	**8.93**	**7.55 (2.10)**	**8.60**	**8.78**	**8.69 (0.49)**	**0.14**
4	**8.30**	**8.30**	**8.30 (0.34)**	**8.15**	**8.53**	**8.34 (0.46)**	**0.01**
5	7.63	8.90	7.88 (0.93)	6.45	7.60	6.83 (1.82)	-0.21
6	5.83	4.90	5.60 (1.10)	6.50	4.78	5.51 (2.02)	-0.02
7	2.65	5.08	3.86 (2.99)	3.00	9.40	4.28 (3.69)	0.13
8	**8.53**	**6.80**	**8.18 (0.79)**	**8.60**	**8.70**	**8.66 (0.28)**	**0.08**
9	5.50	8.30	6.43 (1.8)	6.50	3.65	4.60 (3.55)	-0.89
10	**8.33**	**9.33**	**8.76 (0.56)**	**9.03**	**9.37**	**9.17 (0.28)**	**0.05**
11	4.15	6.40	4.6 (2.71)	5.80	5.25	5.49 (0.58)	0.23
12	4.67	4.20	4.55 (0.24)	4.58	7.18	5.88 (1.55)	0.33
13	4.00	0.70	2.90 (1.98)	2.67	1.08	1.76 (0.99)	-0.62

Table 8, Cont.

Participant "Relationally" Scale Scores on Outcome Rating Scale

Participant ID	Baseline Mean	Baseline 2 Mean	Baseline Overall Mean (SD)	Intervention Mean	Intervention 2 Mean	Intervention Overall Mean (SD)	Effect Size
14	2.63	2.10	2.36 (0.90)	2.28	2.25	2.26 (0.47)	-0.04
15	7.67	8.60	7.90 (1.08)	9.00	7.10	8.05 (1.11)	0.03
16	9.30	9.43	9.40 (0.08)	9.43	9.45	9.44 (0.05)	0.01
17	4.75	4.70	4.73 (0.18)	5.23	5.63	5.46 (1.1)	0.15
18	8.43	8.40	8.42 (0.42)	8.78	9.00	8.89 (0.43)	0.06
19	4.28	4.70	4.36 (1.94)	4.80	4.25	4.62 (0.44)	0.08
20	0.45	1.97	1.36 (1.80)	0.60	0.00	0.60 (0.58)	-1.32
21	5.17	5.80	5.33 (1.31)	5.83	5.80	5.81 (1.13)	0.13
Mean of Phase(s)	5.48	5.98	5.77 (1.39)	5.88	6.32	5.99 (1.28)	-0.05
Mean change from prior ABAB phase(s)		0.10		0.40	0.34		

Bolded = additional qualitative and neuropsychological data was obtained for participant

The second hypothesis was that statistically significant differences would be observed between feedback phases and control phases with regards to overall session attendance and dropout, and that the feedback phase will demonstrate higher rates of attendance and lower dropout rates. Attendance data for each phase was gathered for all ten participants using daily attendance logs. Percentage attendance was calculated for each four-week phase by dividing the total number of sessions the participant attended by the number of sessions they were scheduled to attend. The mean percentage attendance was 82.7% ($SD = 23.1\%$).

Paired samples t-tests were calculated to determine if significant differences existed for mean attendance scores between control and feedback phases. No significant differences were found between phases (Table 6).

Dropout was tallied for each phase ($\underline{M} = 3.32$, $SD = .87$). No significant differences were found between phases.

The results do not support significant differences in level of attendance or drop out between feedback and control phases.

Table 6

Participant Attendance Percentages by Phase

Participant ID	Control Phase 1	Intervention Phase 1	Control Phase 2	Intervention Phase 2
1	80	67	100	100
2	100	100	100	100
3	100	100	93	100
4	100	100	100	100
5	100	100	93	100
6	82	100	100	100
7	100	100	100	100
8	88	79	100	100
9	100	60	100	100
10	100	67	75	85
11	100	75	40	100
12	79	100	33	60
13	100	100	58	100
14	63	50	75	50
15	82	100	60	100
16	25	75	50	75
17	100	100	100	75
18	45	100	71	79
19	100	100	33	50

Table 6, cont.

Participant Attendance Percentages by Phase

Participant ID	Control Phase 1	Intervention Phase 1	Control Phase 2	Intervention Phase 2
20	50	100	33	20
21	66	29	100	75
Mean (SD)	84 (22)	86 (21)	77 (26)	84 (23)
t (DF)		-0.33 (20)	1.10 (20)	-1.51 (20)

Qualitative interviews. The experiences and reflections of these clients revealed the impact of group therapy and assessment feedback on individuals recovering from co-occurring substance abuse and mental illness. Clients varied in their reported experiences, yet each remarked on shared aspects of those experiences. Tables 7 and 8 contain the emerged themes and examples. Interviews were coded using thematic analysis methodology. Questions were divided into two categories: group-related questions and assessment-related questions. Sometimes multiple questions generated the same theme and were combined.

For the questions "How are groups for you?" and "What do you like/dislike about groups?" the themes generated were positive experiences (i.e., individually helpful, provides structure, pleasurable experience, group member support, and staff support) and negative experiences (i.e., difficulty scheduling and chaotic/overwhelming group). All individuals found groups to be individually helpful, although each of them did not mention them being pleasurable. Many group members commented on their fellow group members being a source of support. A minority of clients commented on staff providing a source of support,

and that group added desired structure to their every-day lives.

For assessment-related questions, the question "In what way did the assessment and feedback affect you in/out of group?" generated the themes of increased group engagement, increased self-awareness, non-engagement, confusion, and dislike of assessment. A similar number of people found the assessment useful as did not engage with it or take it seriously. Additional clients expressed dislike of the assessments, commenting the assessments were boring or interfered with their recovery. Clients who expressed positive experiences stated such reasons as it enhanced their awareness of their feelings, group dynamics, and goals, and increased motivation and participation in group sessions. A subset of clients noted they were confused as to how the assessments worked and what they represented.

The question, "How could the assessment and feedback have been more useful?" generated the themes of analyze differently, multi-modal learning, content as-is, and inconsistency of implementation. While some clients stated they thought the assessments were sufficient as-is, other clients shared many thoughts on what could improve the feedback assessment experience. They desired more information, such as averages or rankings, but also multi-modal information, such as pictures or emoticons. Some clients were content and did not offer suggested improvements, while others commented that the implementation of the assessments "felt unpredictable" and they noticed that not all clinicians administered the assessments.

Table 7

Qualitative Themes and Examples for Group-related Prompts in General

Question & Themes	Example	*N*
How are groups for you?/What do you like/dislike about groups?		
Positive		
Individually helpful	"They take a lot of pressure off." "I think it helps me a lot with making the right decisions."	5
Group member support	"Groups when we're interacting, when we give feedback to each other, it benefits my growing and understanding of some of the improvements I want to make in my character and personality."	4
Staff support	"I didn't mind the teachers; they were decent." "I really like [a certain] clinician."	3
Provides structure	"It gave me, uh, like a daily task to schedule and to have everything scheduled. It made me get back on the right track."	2
Negative		
Chaotic/overwhelming group	"The students made it difficult. They didn't behave maturely or take it seriously."	3
Difficulty scheduling	"It's hard for me to get off work [to go to group]."	3

Table 8

Qualitative Themes and Examples for Assessment-related Prompts

Question & Themes	Example	N
In what way did the assessment and feedback affect you in/out of group?		
Increased self-awareness	"It affected me as far as, uh, being able to gauge emotions from when I first came to when I leave group and to see how helpful group was."	4
	"It just helps me tell how I'm feeling or how the day is."	
Non-engagement	"I didn't really take them seriously. The way I thought about it, I can lie on them. Tell people what I think they want to hear."	4
	"They're not really effective. I don't know why."	
Confusion	"It put me in a confused state, when the bars are just placed all together, it's still a question of what is this gauging? How is this understanding my life?"	2
Increased group engagement	"The assessment domains make me want to get more out of group."	2
Dislike of assessment	"I didn't talk about it. It was more it kind of stunted my growth."	3
How could the assessment and feedback have been more useful?		
Analyze differently	"Maybe if it asked different questions."	4
	"Maybe if there was an overall scoring, like a ranking."	
Multi-modal learning	"Pictures...you can have what it looks like on relapse because that's something I'm dealing with."	4
	"Something more colorful, more images."	
Content as-is	"No, I think it's pretty cool."	1

Post Hoc Analyses

Post-hoc analyses were performed on the results of the administered

neuropsychological measures. Tables 11 and 12 contain the results of neuropsychological

measures. On average, clients displayed impaired abilities on the two measures that together

captured visual scanning speed, set shifting, and visual memory. The majority of clients

displayed atypical approaches to visual planning and organization (e.g., focusing on details

before larger parts or drawing starting from left to right without regard to interrelationships

of shapes). No pattern emerged among themes endorsed and neuropsychological

performance.

Table 11

Interview Participant Percentile Scores on the Comprehensive Trail Making Task

Participant	Trail 1	Trail 2	Trail 3	Trail 4	Trail 5
2	3.00	5.00	2.00	4.00	7.00
3	10.00	12.00	12.00	2.00	14.00
4	**18.00**	**31.00**	**35.00**	**35.00**	**66.00**
8	8.00	3.00	14.00	14.00	1.00
10	79.00	95.00	90.00	73.00	69.00
Average	23.60	29.20	30.60	25.60	31.40

*Bold = participant displaying expected pattern on Outcome Rating Scale "Overall" scale.

Table 12

Interview Participant Percentile Scores on the Rey-Ostrrieth Complex Figure Test

Participant	Copy	Copy Time	Immediate	Delayed	Approach
2	99	>16	1	1	Typical
3	96	NA	24	5	Atypical
4	**93**	**<16**	**22**	**5**	**Atypical**
8	7	<16	1	1	Atypical
10	50	>16	1	1	Atypical
Average	69	>16	9.8	2.6	Atypical

*Bold = participant displaying expected pattern on Outcome Rating Scale "Overall" scale.

Table 13

Interview Themes Endorsed by Participant

Themes	2	3	4	8	10
How are groups for you?/What do you like/dislike about groups?					
Positive					
Individually helpful	X	X	X	X	X
Group member support	X		X	X	X
Staff Support	X		X		X
Provides structure	X	X			
Negative					
Chaotic		X	X	X	
Difficulty scheduling		X	X		X
In what way did the assessment and feedback affect you in/out of group?					
Increased self-awareness	X	X		X	X
Non-engagement		X	X	X	X
Confusion	X		X		
Increased group engagement	X	X			
Dislike of assessment	X		X		X
How could the assessment and feedback have been more useful?					
Analyze differently	X	X	X		X
Multi-modal learning	X	X	X		X
Content as-is				X	

Chapter 5: Discussion

The purpose of this study was to evaluate the effect of providing continuous in-session client feedback on treatment outcome and retention for group psychotherapy among a sample of individuals diagnosed with co-occurring mental illness and substance abuse. Neither of the two hypotheses was supported. The intervention did not evince consistent response to intervention in psychotherapy outcome scores, or differences in overall session attendance and dropout. Qualitative analyses were used to further develop an idea of how clients perceived and utilized the intervention, and how it influenced their recovery overall.

Weekly Outcome Scores

While not all participants responded to the intervention as expected, it appears the intervention did work for some clients. One person showed the expected trend on average, yet displayed high variability among weekly scores within each phase. Further, four people demonstrated small to medium effect sizes, although they did not exhibit the expected ABAB trend. When examining why these individuals may have been more sensitive to the intervention than were the others, no consistent characteristics could be identified. They demonstrated comparable cognitive abilities to the overall sample, which was quite impaired as a whole.

Reasons other clients did not demonstrate the predicted pattern were also explored. Since no significant differences on performance and demographic factors between groups were apparent, it is unclear why some appeared to respond to the assessment intervention and others did not. Floor and ceiling effects did not appear to be present, indicating the measure had adequate range to accurately capture respondents' experiences. It is possible that the high variability among the scores made it difficult to detect a significant difference between phases for many of the participants. Whether this variability is a result of the tumultuous

psychological experience of individuals with COD or a misunderstanding or misuse of the assessments is unclear. While cognitive abilities were similarly impaired for treatment responders, questioning the clients' abilities to orient to the material seems warranted given the level of impairment among all clients.

For treatment non-responders, would another method work? According to the results of the interviews, having more summary data, using more pictures, weaving a story into the measure itself, and generally making the process more engaging were considered by the clients as possible modifications to help them make better use of the assessments. Simplifying the measures to adjust for impaired cognitive functioning may help as well, such as replacing graph paper with graphics of thermometers or "relapse-prevention journey trails" as a means to track client progress. Removing measuring and graphing steps and marking directly on a similar longitudinal tracking sheet could also simplify the process by making it one step from assessment to reflection.

Working memory, long-term memory and planning skills appear to be limited for this sample, which highlights the benefits of adapting the materials and procedures. Prior research suggests that process-oriented aspects of feedback may be more germane to leaders than to clients, and less accessible to clients (Davies et al., 2008). In light of this, the instructions and rationale provided to the clients at the beginning of the assessment process may need to be adapted for clarification and repeated more frequently, as often as every session. Otherwise, clients are likely to forget the relevance of the assessments to their recovery and stop engaging in a meaningful way. A further adjustment that would assist with the level of cognitive functioning, would be for the clinician to ask individuals privately if they understand the assessments and graphs. Opportunities were given in group by clinicians for

the clients to ask questions, but displaying one's lack of knowledge in front of the group may feel too risky or embarrassing for many clients. Clarifying the use of assessments beyond the explanation used by clinicians in this study may improve client understanding of the true purpose of the assessment and feedback. Some clients commented that they thought the graphs were only rating the individuals themselves, rather than also providing feedback to the therapist on improving group. Had these adjustments been implemented, the intervention may have been more effective.

Attendance

Prior research has supported the effectiveness of this intervention for improving attendance (Schuman, Slone, Reese, & Duncan, 2015); however, that was not evident in this study. Attendance was inconsistent among the majority of clients, which decreased their exposure to the intervention and its potential effect. When they did attend and were late to a session, they were administered the ORS, but were not provided with time to reflect on the results with the group as it would have been disruptive; this further decreased the potency of the intervention. Future research may consider ways of addressing tardiness and alternative means of reflection that would not disrupt the group. Alternatively, future studies could flag or omit the scores of individuals who arrive late. A significantly higher level of attendance was found in the second intervention phase only. While this could potentially be a delayed effect of the first phase of the intervention, it could also be an artifact.

Other Factors

For those who attended consistently, the factors affecting clinician and client buy-in were explored. Inconsistent implementation of the intervention was noted by one participant as decreasing client buy-in. Not all groups were included in the intervention, which

contributed to this inconsistency.

This intervention was found by other researchers to be effective in individual and couples therapy (Anchor et al., 2007; Harmon et al., 2007), where ample time was available during session for clinician and client to reflect on the feedback. In the current study, most groups had 3-14 members enrolled, with an average attendance of eight people per group. Pragmatically, high enrollment made it difficult for therapists to follow up on all graphs (e.g., ask questions about client plateaus or declines). Seeing that the intervention provided the ORS and GSRS with an average of 6.5 and 5.5 minutes of reflection time, respectively, a group larger than three people would make reflection cursory. However, the purpose of this brief intervention was to supplement existing curriculum and not take up a significant portion of session time, so balancing reflection with efficiency would be necessary. Time efficiency is another reason simplifying the procedures by omitting measuring and graphing steps would be beneficial.

Although significant results were not found, there were insights gained into the study of client feedback among individuals with COD and directions for future research. Both group and assessment feedback were reported by clients as being variably useful to them. All clients interviewed experienced groups as being helpful overall, yet some found group to be more enjoyable than others. Aside from being individually helpful, social support from group members and clinicians was the most highlighted aspect of groups. The addition of a client feedback intervention appears to have been welcomed by some people as enhancing their self-awareness and engagement in group, yet other people disliked the intervention or found it inhibited their growth. It appears that client feedback may be more appropriate for certain clients, although determining who those clients are requires further research.

Limitations

There were several limitations of the present study. First, as a result of using a longitudinal design, drop out was high, a common drawback of longitudinal designs. Second, since analysis of outcome data depended upon high rates of attendance, the selection of participants was biased towards individuals demonstrating high rates of attendance, and neglected the results of those who did not attend as often. Third, most single case designs establish a stable baseline in scores before implementing the intervention; that was not the case here. No baseline was established due to time limitations, which makes it difficult to interpret changes post-intervention because the baseline scores contain higher variability. Future research could benefit from establishing a baseline or perhaps using a cross-sectional design to examine other aspects of implementing a client feedback intervention. Fifth, the scoring of the ORS during baseline phases, as opposed to treatment as usual, may have influenced scores and prevented finding significant effects during intervention phases.

Clinician delivery of client feedback measures and time spent on reflection was monitored in the current study, yet the nature and content of the reflections was not formally tracked. The current study did not provide clinicians with specific instructions on how to respond to weekly shifts in client outcomes. More explicit protocol on how to handle specific changes (i.e., improvement, decline, or plateau) may improve outcomes. However, therapist communications would need to be examined for the potential to elicit demand characteristics from the clients. During interviews, one client commented that they would mark high "knowing" the clinician was wanting good performance from them, so clients taking the "good-participant role" is a concern.

Aspects of the population and setting also need additional consideration in future

research and clinical efforts. Assessment administration time took significantly longer than anticipated. Although the assessment manuals indicate the ORS and GSRS can be scored and charted in less than a minute each (Miller, Duncan, Sorrell, & Brown, 2005), most clinicians found it took at least five minutes to have everyone complete the assessments. The long duration was in part caused by late arrivals distracting clients from the task; however, slower processing speed may also be responsible, especially considering the visual scanning impairments found among most clients who were assessed. Additionally, it was found that participants differentially made use of assessment information and feedback. It is unclear how well clients processed the information provided by the assessments, graphs, or feedback, and how this influenced the effectiveness of the intervention. In future research or clinical practice, screening for speed and comprehension could determine if the intervention would be useful or detract from the therapeutic experience.

Aside from the longer than expected time it took to administer the assessments, ensuring clients filled out the form completely and legibly was problematic at times. A handful of participants displayed adequate attendance, but their data was not fully captured because of unidentifiable initials, missing group name, or missing date. Computerized administration of the assessments is currently available, but was not deemed feasible for the present study. Potential to implement computerized administration or even use pre-filled forms may enhance data collection efforts of future studies.

Additionally, the groups in this study were "open groups," which allowed for less cohesion among group members within any one group. Interviewees commented on their discontent with the disruption caused by new members, such as bringing them up to speed with the group procedures, policies, and dynamics. It is possible that a closed-group setting

would provide more familiarity with the session's usual procedures (e.g., filling out assessments at the beginning and end of group), trust among group members and consequent willingness to reflect on the assessment results, and belief that client suggestions to improve group would be acted on and benefited from in future sessions. Unfortunately, open group policies are common to COD treatment programs and considered necessary in facilitating well-attended groups given the high recidivism and relapse rates among clients. Determining the variable effectiveness of a client feedback intervention in open versus closed groups is another direction for future research.

The naturalistic setting also introduced more variability to the group curriculum and clinician conduct than would an experimental setting. Group curriculum was heterogeneous, and standardizing group procedures was not an option within the clinical setting as this was a training site designed to provide a variety of training experiences, and clinicians are encouraged to be innovative while still adhering to the essential protocols. None of these arrangements could be compromised for the current study.

Past research on client feedback interventions typically included a written description of predicted outcomes based on the standing of the client relative to prior time points (Harmon et al., 2007; Whipple et al., 2007). It is unclear if written feedback to clients would have improved the current study. For adults with COD, high rates of recidivism and relapse make predictions of outcomes likely to be inaccurate. Generating written predictions would need to be adapted for this population, which may imbue the intervention with added effectiveness. The current study parted from past research in this regard, and future research may find it beneficial to explore using written feedback within this setting.

Conclusion

Overall, the application of a client feedback intervention to group therapy for clients with COD remains a challenge to be solved. Monitoring progress is a valued goal of therapy, and methods to better implement this kind of intervention should be explored further. The current study did not find a consistent effect of using client feedback in group therapy for individuals with COD; however, insight was gained into how clients perceive self-monitoring and feedback within a group setting. It is likely that adaptations could improve their experience, or that screening protocols would help identify those who would benefit most from client feedback. I hope future research can discover what factors those are, and how best to deliver client feedback to individuals with COD attending group therapy.

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Appendix A: Screening Script

We are conducting a research study to evaluate our group therapy program. Your responses on two brief surveys each week will help us understand how the program is meeting your needs personally and as a member of the group every session. You would be asked to respond to two short surveys, one at the beginning of group and one at the end. You would then plot these points for later reference by you and for reflection in group. Lastly, about once per month you would be asked to respond to two other measures on how you are doing and how you experience the group. If you are running late, you can simply fill out any surveys you missed at the end of group. If you have chosen to opt out of research on the informed consent, you will still complete the surveys each week, though none of your information would be used for research. Do you have any questions?

Appendix B: Clinician Check-in Script

You have all completed the form and plotted your points on the graph. I'd like to go around and hear what you notice from the last point tracked, such as whether it stayed the same, is higher, or is lower. Who would like to begin?

[In response to volunteer]: *What do you think is responsible for that change in how you are doing?*

[Make sure each person has the opportunity to respond if they desire to do so, and then continue with group as usual.]

Appendix C: Qualitative Prompts Script

I'm going to ask you a few questions about your experience in and out of group. Your responses are confidential and won't be repeated to anybody here at the program. First…

[If they give short or simple response, repeat the prompt or say "what else?"]

1. Groups

    a. *How are groups for you?*

    b. *What do you like/dislike about groups?*

    c. *Who do you communicate with about your satisfaction with group?*

    d. *How do you get your needs for recovery met outside of group?*

Feedback: You might remember the assessments used in groups sometimes, where you are asked to mark a line and then make a dot on a grid, then talk about them as a group to provide feedback. These next questions are about your experience with those assessments and feedback.

    e. *In what way did the assessment and feedback affect you in group?*

    f. *In what way did the assessment and feedback affect you outside of group?*

    g. *How could the assessment and feedback have been more useful?*

    h. *What could make group better?*