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Selecting Members for Group Therapy: A Continued Validation Study of the Group Selection Questionnaire

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Group Selection Questionnaire

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ABSTRACT

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Group therapy has been demonstrated to be effective through a number of factors. Group theorists and researchers have attempted to identify client characteristics that would enable the clinician to determine a client's appropriateness for group therapy. Reviews of research have identified client expectancies and positive and negative interpersonal skills as promising predictors of group process, outcome, and attrition. The Group Selection Questionnaire (GSQ) was created to provide clinicians with a short and useful tool to aid them in identifying potential members for therapy groups, and has shown positive preliminary results in the past. This study presents tentative support for the factor structure of the GSQ and compares the GSQ and the Group Therapy Questionnaire (GTQ), another well established pre-group selection measure. Convergent validity of the GSQ is generally supported. GSQ Demeanor, Expectancy and Total scale scores correlate significantly with the GTQ Expectations about Group scale. In addition, GSQ Participation, Expectancy and Total scale scores correlate with GTQ Interpersonal Problems, with more interpersonal problems indicating fewer positive interpersonal skills, better expectancies for group, and stronger overall group readiness. Implications of these findings are discussed as well as future research directions.

Keywords: group psychotherapy, measurement, Group Selection Questionnaire, pre-group preparation, pre-group selection, expectancy, interpersonal skills, deviancy

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Mechanisms of Change in Group Psychotherapy

Group psychotherapy is now widely accepted as an effective treatment modality for distressed clients when compared to individual therapy or no therapy (Burlingame, & Hoag, 1998; Burlingame, MacKenzie, & Strauss, 2004; McRoberts, Fuhriman & Burlingame, 1994; Tillitski, 1990; Toseland & Siporin, 1986). For example, in a recent meta-analysis of 111 studies, Burlingame, Fuhriman and Mosier (2003) found that for active group members versus wait list clients the overall effect size (0.58) indicated that the average group client is better off than 72% of untreated controls. Rather than the question of "Does group therapy work?" researchers have now begun to ask "Why and for whom does group therapy work?" (Burlingame, Fuhriman, & Johnson, 2004). Group effectiveness research can be described in five general categories, which include factors that have been linked to therapy outcome. These categories include formal change theories, small group processes, leader characteristics, group structural factors, and patient characteristics (Figure 1; Burlingame, MacKenzie, & Strauss, 2004). Each of these five mechanisms of change is described briefly below.

Formal change theory. Formal change theories include the theoretically supported therapeutic orientations applied by group leaders to group therapy (e.g., cognitive behavioral, gestalt, humanist-existential, etc.; Burlingame, MacKenzie, & Strauss, 2004), which guide therapy goals (e.g., interpersonal, intra-psychic, skill acquisition, etc.), structure (e.g., group activities, such as cognitive restructuring, behavioral training, psychodrama, etc.), and process (described in detail below).

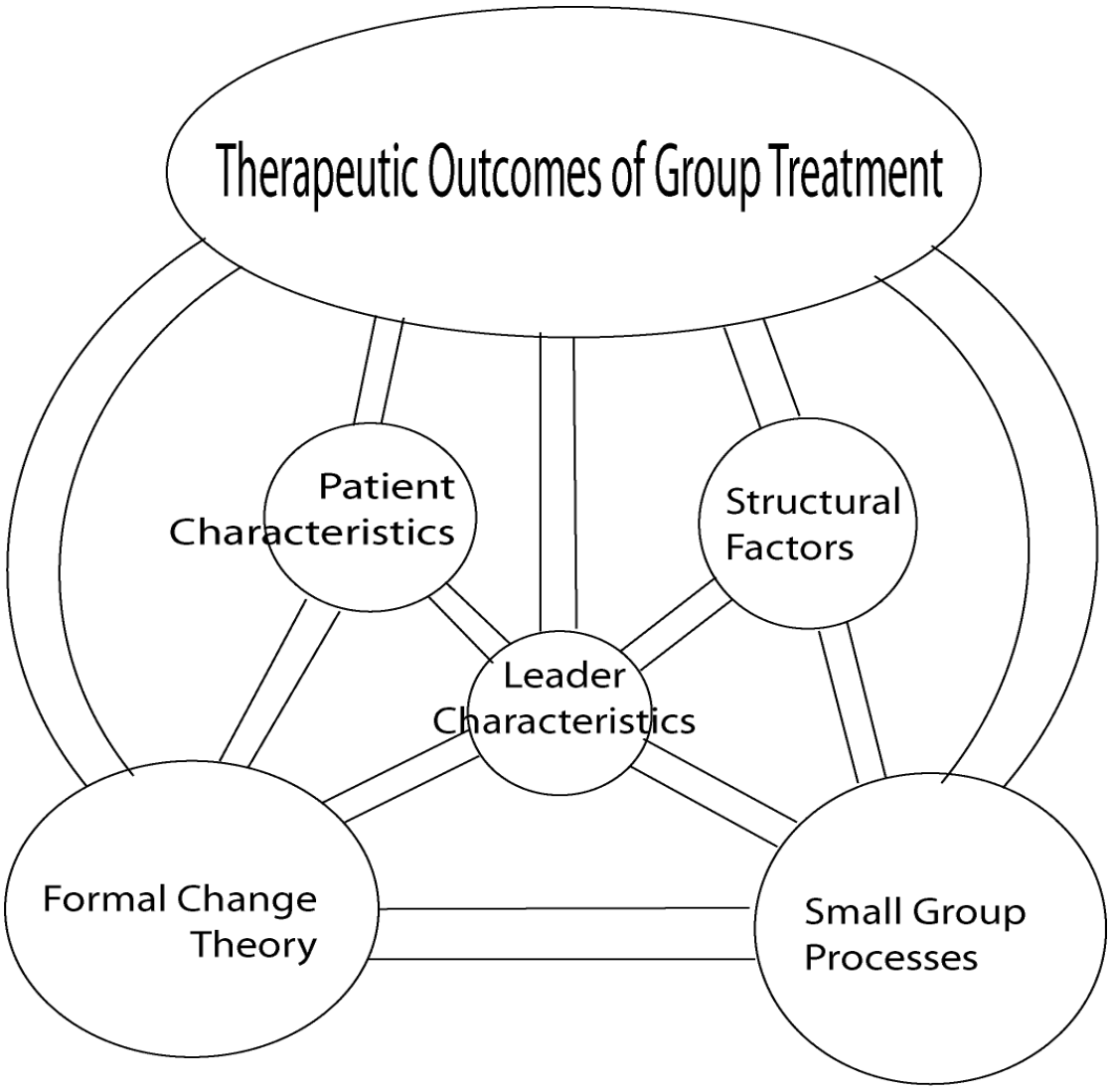

Figure 1. Five themes of group research. Adapted from "Small Group Treatment: Evidence for Effectiveness and Mechanisms of Change," by G. M. Burlingame, K. R. MacKenzie, & B. Strauss, 2004, in *Handbook of Psychotherapy and Behavior Change, , p. 648.*

According to Burlingame, MacKenzie, and Strauss (2004), the factor of formal change theory is most often addressed in efficacy and effectiveness research, with less focus on its interaction with other important mechanisms of change.

Small group processes. Process elements of group, including those relational interactions (member-member and member-leader interactions, as well as between members and the group as a whole) specific to this modality of treatment (Yalom & Leszcz, 2005), which have been correlated with therapy outcome (Burlingame, MacKenzie, & Strauss, 2004). Small group process can be understood as encompassing the common therapeutic factors found across various types of groups, such as instillation of hope, universality, imparting of information, altruism, development of socializing techniques, imitative behavior, catharsis, corrective recapitulation of the primary family group, existential factors, group cohesiveness, and interpersonal learning (Burlingame, Fuhriman & Johnson, 2004; Yalom & Leszcz, 2005). According to Burlingame, MacKenzie, and Strauss (2004), process principles have been linked with outcome, but often ignored in randomized clinical trials testing the efficacy of group protocols (e.g., patient distress).

Leader characteristics, group structure, and patient characteristics. While formal change theory and small group process are largely theoretical in nature, leader characteristics, group structure, and patient characteristics often vary and dynamically interact from group to group depending on particular group compositions. Leader characteristics include traits such as empathy, warmth and expertise. Group structure, includes groups setting, size, as well as frequency and duration of sessions. Patient characteristics range from group member demographics information (e.g., age, gender, etc.) to broader, more dynamic client attributes,

such as personality traits (e.g., extroversion, introversion, etc.) and interpersonal style (e.g., friendliness, defensiveness, etc.; Piper, 1994).

Patient Characteristics as Predictors of Change

According to Burlingame, MacKenzie, and Strauss (2004) leader characteristics, group structure and patient characteristics, as well as formal change theory and small group process all interact together to influence therapeutic outcome and effectiveness. Still, Piper (1994) suggests that client variables, above and beyond other factors, are the most salient in explaining group therapy effectiveness. In this light, several researchers have suggested that client selection based on particular characteristics will be useful in predicting who will most benefit from group therapy services (MacKenzie, 1997; Piper, 1994; Yalom & Leszcz. 2005).

Piper (1994) suggest that client factors can be described in terms of main effects and interaction effects. He defines these interaction effects as the degree to which client characteristics influence the client's suitability for a particular model of therapy, which in turn influences therapy outcome. In contrast, main effects of client characteristics relate to the ways in which these characteristics correlate with therapy outcome as a general rule across different formal change theories. Those client variables that fall within the main effect category may be further divided into static (or trait-like) and dynamic (or state-like) factors. State-like factors include characteristics that are inherent and relatively fixed, such as gender, ethnicity, and intelligence. Trait-like factors include characteristics that are dynamic and emerge in the interpersonal environment of group therapy, such as willingness or ability to take advantage of the interpersonal climate of the group (Piper, 1994).

Numerous studies have attempted to use client characteristics in prediction, but with mixed results (e.g., MacKenzie, 1997; Piper, 1994). A closer examination of these studies

reveals that mixed results may be due to the employment of a wide variety of dependent variables. For example, client characteristics have been used to predict group process (Burlingame, MacKenzie, & Strauss, 2004; Piper, 1994), member retention and attrition (Piper, 1994), and therapeutic outcome (Bergin & Lambert, 1978; Piper, 1994). A brief survey of prediction studies in these three areas is reviewed below.

Group processes. Group process generally refers to the development and evolution of patterns of relationships between and amongst group participants (Yalom & Leszcz, 2005). These patterns of relationships may be measured in terms of group climate, cohesion, therapeutic work, and so forth. When defining group process, Yalom (Yalom & Leszcz, 2005) is often sited for his assertion that the interactive climate of the group produces therapeutic factors, such as interpersonal learning, catharsis, and alliance or cohesion, which are viewed as among the most valuable to treatment (Yalom & Leszcz, 2005). It is generally established that process variables are important in predicting outcome in group therapy (Burlingame, MacKenzie, & Strauss, 2004; Sexton, 1993; Tasca et al., 2006; Yalom & Leszcz, 2005). Less research has been conducted, however, regarding factors, such as client variables, which might predict these group processes.

Given the interpersonal nature of group therapy process, it is not surprising that researchers have hypothesized that group processes may be influenced by clients' interpersonal characteristics (Woods & Melnick, 1979). Indeed, Piper (1994, 2006) and Yalom and Leszcz (2005) have suggested that client characteristics can be used to predict and control the interpersonal atmosphere in groups. Information about client characteristics, they assert, could be used in pre-group screening, group member selection and decisions about composition, in order to optimize therapy outcome. Yet in a review of research through 1994 predicting group process from patient characteristics, Piper (1994) could not locate compelling evidence linking

specific group processes to patient characteristics. In recent years, the scarcity of research in this area has continued, with a small number of exceptions, described below.

First, Kivlighan and Angelone (1992) found links between pre-group interpersonal problems of group members and their subsequent perceptions of group climate, a key process element. This study supported the interpersonal theory which suggests that people will perceive their environment (in this case the group environment or climate) in ways that maintain their interpersonal problems. Their two-part hypothesis included (1) that individuals who perceived themselves as too domineering would view the group as too submissive, a view which would serve to maintain their dominant behavior, and (2) that individuals who perceived themselves as too cold, would see the group as colder, a view which would serve to maintain their cold behavior. A canonical correlation analysis supported these hypotheses.

Secondly, Piper, Joyce, Rosie, and Azim (1994) used measures of psychological mindedness to predict the process variable of work in unstructured, insight-oriented groups for 99 clients suffering from affective and personality difficulties. Psychological mindedness was defined as "the ability to identify dynamic (intrapsychic) components and relate them to a person's difficulties" (p. 296), and was measured by the responses to a videotaped simulation of a patient-therapist interaction. Following the video, patients were asked "What seems to be troubling this woman?" and responses were scored on the client's ability to recognize internal states, motivations and defense mechanisms of the client. Therapeutic work was defined as "the behavior of one or more patients, the therapist, or the group as a whole" that is "instrumental to goal attainment" (p. 293), including overall goals (such as patient improvement) and sub-goals (such as self-disclosure). Work was measured by therapist and patient ratings. Univariate

analysis revealed a significant positive relationship between psychological mindedness and work processes.

Thirdly, Safren, Heimberg, and Juster (1997) measured the predictive properties of client expectancies in cognitive behavioral group therapy for adults with social phobia. This client variable was correlated with the process variable of group cohesion. Expectancy was measured by a questionnaire which included items intended to assess the client's views regarding the credibility of treatment rationales, and confident that the treatment would eliminate specific anxiety symptoms. The process variable of group cohesion was measured at sessions 4 and 8 via a self-report questionnaire in which clients rated their positive feelings toward the group and their involvement in the group. Expectancy scores at session 1 and 4 correlated significantly with each other, and expectancy scores at session 4 correlated positively and significantly with measures of cohesion at sessions 4 and 8. Client variables related to their expectations regarding group appear to have predictive power for group process.

Finally, Taft, Murphy, Musser, and Remington (2004) found that client characteristics, including personality disorder symptoms, interpersonal problems, motivational readiness to change, some demographics and referral source information predicted the process element of working alliance for 107 partner-violent men in cognitive behavioral groups. Working alliance, defined as the therapeutic bond between clients and their therapists and their agreement on goals and tasks of therapy, was measured by client ratings of therapists in sessions 3, 5, 11 and 13. Client demographic and referral source information was taken at intake. Personality disorder symptoms were measured by self-report questionnaires which consisted of items related to psychopathy and borderline personality organization. Interpersonal problems were measured by a self report questionnaire which measured dysfunctional interpersonal styles, including

domineering, vindictive, overly cold, socially avoidant, nonassertive, exploitable, overly nurturant and intrusive. Motivational readiness to change was reflected through assessment of clients level within a traditional 5-stage model of change. Psychopathic characteristics were shown to negatively predict alliance throughout therapy, higher borderline characteristics predicted positive client and therapist alliance ratings, and higher age and income was positively correlated with later therapist alliance ratings. In addition, motivational readiness to change was shown to be a mediating factor between psychopathic characteristics and alliance, diminishing negative effects of psychopathic tendencies with higher levels of readiness to change. This study supports the use of client variables of personality characteristics and motivational readiness for change in predicting the group process variable of working alliance.

These four studies are among the few which attempt to locate relationships between client characteristics and group process elements. It is important to note that no studies were found in which client factors were used to predict therapeutic process across a wide variety of therapeutic models, client diagnoses, and types of group. Further research is needed to show a consistent and useful link between these variables across psychotherapy settings. In addition to predicting process, client attributes may be useful in predicting group member attrition.

Client attrition. Attrition is typically defined as those clients who prematurely end their attendance of group therapy, although premature termination may be operationalized in a variety of ways (e.g., by session number at which dropout takes place, failure to notify the group prior to termination, etc.). Indeed, a persisting problem within the literature is that each study defines attrition differently, making interpretation difficult. In an early meta-analysis of group dropout literature, Botswick (1987) described dropout literature as falling within three main categories: those who fail to keep their first appointment, those who discontinue during the intake/

evaluation phase, and/or those who discontinue after treatment has begun. Since then, attrition has definitions have continued to vary. For example, Blouin and colleagues (Blouin, Schnairre, Carter, Blouin, Tener, Zuro & Barlow, 1995) define attrition as any client who missed more than two sessions of group, while Baker and Neimeyer (2003) define attrition as those clients who attended less than seven sessions. In another study, DeHart, Kennerly, Burke, and Follingstad (1999) created three different classifications for clients who terminated therapy early: rejecters, who failed to attend a session; drop-outs, who attended one to three sessions; and continuers, who attended at least four sessions.

While consistency in operational definitions across studies is needed in order to gain a better understanding of the significance of attrition, it can generally be agreed that client drop-out is a key difficulty in therapy groups (Yalom, 1966; Yalom & Leszcz, 2005). A mean group dropout rate of 35% in most agencies (Botswick, 1987) adds to the concern. High rates of attrition are problematic not only to the member who leaves the group prematurely, but also to the remaining group members who often feel that the group is less complete after a member drops out. Significant correlations between attrition and other therapy elements, including group process have been found in numerous studies (Burlingame, Fuhriman, & Johnson, 2002; MacKenzie, 1997; Tasca et al., 2006; Woods & Melnick, 1979; Yalom & Leszcz, 2005). For example, groups with higher cohesion and alliance typically have less client attrition (Falloon Falloon, 1981; MacKenzie, 1997; Tasca et al, 2006; Yalom & Leszcz, 2005; Yueksel, Kulaksizoglu, Tuerksoy, & Sahin, 2000).

Given the importance of attrition in the group therapy equation, MacNair-Semands (2002) called for empirically-based means of making decisions about the likelihood of solid attendance and completion of the group. One way to answer this call would be to test

correlations between client characteristics and drop-out rates. An outline of studies of this kind follows.

First, Botswick (1987) identified client characteristics, including satisfaction with treatment, positive view of the treatment setting, and willingness to self-disclose as inversely correlated with attrition rates. Secondly, Blouin and colleages (1995) found that clients who had difficulty trusting and relating to others were also more likely to drop out of group. Thirdly, MacNair-Semands (2002) found that angry hostility and social inhibition as personality styles predicted low attendance. Fourthly, Shiina and colleagues (Shiina, Nakazato, Mitsumori, Koizumi, Shimizu, Fujisaki & Iyo, 2005) located client characteristics which predicted dropout in combined group cognitive behavioral therapy for bulimic disorders and alexythymia, including lower age and higher total psychiatric comorbidity. And finally, Tasca and colleagues (2006) found that interpersonal style, specifically attachment avoidance, was related to dropping out of group cognitive behavioral therapy. These studies lend preliminary support for the hypothesis that client attributes, including personality characteristics, interpersonal style, and psychiatric comorbidity, may be useful in predicting and preventing group member attrition rates.

Therapy outcome. Definitions for group therapeutic outcome have varied across effectiveness studies. However, outcome is typically defined as the reduction in the level of symptomatic distress of clients following treatment (Ogles, Lambert, & Masters, 1966) and is used as a marker of effective therapy. Outcome measurement instruments and techniques can vary greatly (Ogles, Lambert, & Masters, 1996). For example, Ogrodniczuk and colleagues (Ogrodniczuk, Piper, Joyce, McCallum, & Rosie, 2003) utilized fifteen different measures of outcome in their attempts to draw correlations with patient characteristics. Outcome measures in

their study included grief symptoms, interpersonal distress, social functioning, psychiatric symptoms, self-esteem, life satisfaction, physical functioning, as well as severity of symptom disturbance.

Operationalization of the outcome variable is often accomplished through the use of population- or disorder-specific measurement tools (e.g., Ogrodniczuk, Piper, McCallum, Joyce & Rosie, 2002; Hooke & Page, 2002), however many also included global measures of symptomology in their assessment of therapeutic effectiveness. These non-specific measures of symptom change include the Brief Outpatient Psychopathology Scale, the Social Adjustment Scale, and the Global Assessment Scale (Sexton, 1993); the Clinician's Severity Rating (Safren, Heimberg, & Juster, 1997); the Hopkins Symptom Checklist 58 (Baker & Neimeyer, 2003); the Health of the Nation Outcome Scales (Hooke & Page, 2002), and the Outcome Questionnaire 45 (Cox et al., 2004).

Although significantly limited by inconsistent operational definitions of outcome, many studies have sought to establish correlations between client characteristics and group outcome. For example, Piper, Joyce, Rosie, and Azim (1994) reported success in predicting outcome from patient characteristics in a sample (N = 99) of clients reporting affective and personality difficulties. In this study, observer ratings of client psychological mindedness and work in group were used to demonstrate significant univariate relationships between these patient characteristics and both univariate and multivariate relationships with outcome assessed by general symptomology, target objectives, pathological dependency, and overall usefulness of therapy.

In another study, Safren, Heimberg, and Juster (1997) investigated personality characteristics and their connection with treatment outcome for clients (N = 113) suffering from

social phobia. They reported success in predicting therapeutic outcome from group cognitive-behavioral treatment using the client characteristic of expectancy. Safren and colleagues stated that the more positive the expectancy of the client, the more likely they were to experience successful outcomes following therapy. In this study, however, no significant relationship between client expectancies and attrition was reported.

In 2000, Mussell and colleagues (Mussel, Mitchell, Crosby, Fulkerson, Hoberman & Romano, 2000) attempted to predict outcome for group cognitive-behavioral treatment for women suffering from Bulimia (N = 143) using the patient characteristics of expectancies for success and symptom severity. They reported a significant inverse relationship between initial symptom severity and therapeutic outcome. When symptom severity was controlled for, motivation for change and client expectancies for treatment success also significantly and directly related to abstinence from eating disordered behavior immediately following treatment and at one- and six-month follow-ups. This study again highlights the client variable of expectancy as important in the prediction of prediction of group therapy effectiveness.

Additionally, in two different studies of supportive and interpretive therapy groups for clients experiencing grief, Ogrodniczuk and colleagues (Ogrodniczuk, Piper, McCallum, Joyce & Rosie, 2002 and 2003) applied measures of client characteristics to outcome prediction. In the first study, they employed measures of attachment, quality of object relations, and social role functioning as predictors of therapeutic outcome for grief groups (N = 107). Attachment and social role functioning positively correlated with improvement in general symptoms and grief symptoms. In the second study, personality profiles based on the NEO-Five Factor Inventory (NEO-FFI) were correlated with improvement in grief symptomotology. Extroversion, conscientiousness and openness were positively associated with favorable outcome, while

neuroticism was inversely related to improvement in all groups. In addition, agreeableness was positively correlated with favorable improvement in interpretive therapy groups. These studies suggest that a variety of interpersonal and personality variables may be used effectively in predicting group therapy outcome.

Finally, Tasca and colleagues (Tasca, Ritchie, Conrad, Balfour, Gayton, Lybanon, & Bissada, 2006) assessed the relationship between client variables and therapeutic outcome in cognitive-behavioral and psychodynamic interpersonal group psychotherapy for clients with binge eating disorder (N = 135). In this study, outcome was predicted by client levels of attachment anxiety and avoidance. It was noted that attrition rates in cognitive behavioral therapy groups were also positive predicted by client levels of attachment avoidance. Thus, client attachment styles, as a client variable are shown to be useful predictors of therapy outcome.

Client characteristics appear to be an important factor in predicting therapeutic effectiveness (as measured by process, attrition, or outcome). However, diverse measurement approaches as well as the lack of conformity in the group therapy effectiveness literature limits the generalizability of conclusions regarding client characteristics and outcome (Piper, 1994). Indeed, the wide variety of independent patient variables in the above outlined studies, ranging from client expectancies to interpersonal styles, and from diagnostic symptomotology to psychological mindedness, also calls for some level of organization and definitional consensus.

Patient Characteristics as Independent Variables in Prediction

The problem of inconsistent operationalization of constructs is present in attempts to define client characteristics. Piper (1994) reviewed literature addressing the prediction of attrition, process, and outcome from client variables beginning in the 1950's and ending in the

1990's. In this review, an exhaustive list of client variables used as independent variables in this literature was compiled, including their relationships with the three dependent variables reviewed above. His findings are summarized in Table 1.

It is noteworthy that Piper's list of client variables (see Table 1) consists of twenty-eight different variables used across studies of group therapy. These groups likely varied in their treatment modalities and patient population. Therefore, it appears unlikely that results would be replicated across studies. Different operational definitions for each variable in each study add further difficulty. The mixed results reported by Piper (1994), then, may reflect a lack of consensus in the type and definition of independent variables in question. Still, a general pattern seen across this consolidated list of client variables maybe reasonably be organized into the following three categories: 1) positive interpersonal characteristics (friendliness, interpersonal sensitivity, social competence, and likeability), 2) negative interpersonal characteristics (shyness, defensiveness and sociopathy), 3) client expectancies. Indeed, the client characteristic that has shown the greatest promise for prediction is client expectancy (see Table 1, Piper, 1994). Since Piper's study, client expectancies, as well as positive and negative interpersonal skills have continued to show promise as predictors of therapeutic change. The literature regarding these client factors is reviewed below.

Client expectancies. Client expectancy is generally defined as the hope that one will improve from participation in therapy. Early research shows correlations between client expectancies and attrition rates, and suggests the importance of client expectancy in treatment outcome, recommending more frequent use of this variable as a means of prediction (McKisack & Waller, 1996; Piper, 1994; Botswick, 1987; Woods & Melnick, 1979). Client expectancies for

Table 1

A Summary of Findings Linking Client Variables and Therapy Effectiveness

Client Variables Investigated		
Type	Attribute	Linked To
State-like	Age	Outcome (inverse relationship)
	Sex	None
	Intelligence	None
	Marital Status	None
	Education Status	None
	Employment Status	None
	Social Status	None
	Formal Diagnosis	Attrition & Outcome
Trait-like	Conceptual Level	Outcome
	Attitudes	Outcome
	Psychological Mindedness	Outcome
	Locus of Control	None
	Motivation	Outcome
	Shyness	Outcome (inverse)
	Interpersonal Sensitivity	Outcome
	Social Competence	Remaining in therapy & Outcome
	Chronicity of Problems	Outcome
	Learned Resourcefulness	Outcome
	Cognitive Relations	Outcome
	Object Relations	Outcome
	Likeability	Outcome
	Sociopathy	Outcome
	Ego Strength	None
	Coping Style	Outcome
	Defensiveness	Outcome
	Previous Treatment	Outcome
	Friendliness	Remaining in therapy
	Client Expectancies	Attrition (inverse), Process, & Outcome

Note. Based on "Client Variables," by W. E. Piper, in A. Fuhriman & G. M. Burlingame (Eds.), *Handbook of Group Psychotherapy: An Empirical & Clinical Synthesis* (pp. 83-113), New York: Wiley & Sons.

group therapy, however, have been found to be qualitatively different from those for individual therapy (Kaul & Bednar, 1994). Specifically, many clients have unrealistic conceptions regarding the process of group therapy, as well as unfounded fears about the activities they will be asked to engage in during group treatment, and these expectancies can have a detrimental effect on group process and outcome (Kaul & Bednar, 1994). For these reasons, many theorists assert that client expectancies regarding their ability to benefit from group therapy could be

viably employed to select patients (Crouch, Bloch, & Wanlass, 1994; Hoag, Primus, Taylor, & Burlingame, 1996; MacKenzie, 1997; Piper, 1994; Yalom & Leszcz, 2005). Little research has attempted to predict group attrition, process, or outcome using expectancies, with a few notable exceptions.

First, Safren, Heimberg, and Juster (1997) found that a client's expectancy of the ability of group treatment to reduce their levels of social phobia predicted therapeutic outcome. In addition, client expectancies were correlated with group cohesion measurements.

Secondly, Broker, Rohricht, and Priebe (1995) report success predicting group treatment outcomes from client expectancies of patients suffering from schizophrenia ($N = 31$). In their study, clients' affirmative answers to one question, "Is the treatment you are currently receiving right for you" (p. 78), following initial stabilization, correlated significantly with reductions in symptomatology for patients.

Likewise, Mussell and colleagues (2000) measured the client expectancies in a sample of women with bulimia ($N = 143$) in cognitive-behavioral group therapy. Expectancy was measured by questions on the Thoughts About Abstinence Scale (TAAS), which tapped into expected success at discontinuing bulimic behaviors and client expectations about the difficulty of quitting. They found that after controlling for initial symptom level, client expectancies significantly predicted outcome post-treatment as well as at one- and six-month follow-up periods. In another study, Lorentzen and Hoglend (2004) reported a small yet significant correlation ($r = 0.34$, $p < .05$) between patient optimism, group cohesion and outcome in long-term analytic group psychotherapy.

Finally, Westra, Dozois and Marcus (2007) measured client expectancy for change in cognitive behavioral therapy groups for clients with anxiety disorders ($N = 48$). The Anxiety

Change Expectancy Scale (ACES; Dozois & Westra, 2005) was utilized to assess individual expectancies regarding the ability to control anxiety. Early homework compliance mediated the relationship between expectancy for anxiety change at baseline and therapeutic change. Westra and colleagues (2007) suggest that expectancy for change may provide the initial impetus and subsequent momentum for therapeutic involvement and gains, adding to the growing body of research supporting expectancy as a viable predictive variable in group therapy effectiveness.

The studies outlined above suggest that expectancies are a promising means of predicting patient outcome. Still, consensus is lacking on how to measure client expectancies. Each research group employed differing measures of client expectancies in their studies, with Lorentzen and Hoglend (2004) failing to state their method of assessment. Other studies focused on expectations for specific markers for group success, such as expectancy and attitude toward changes of specific behaviors. For example, The Thoughts about Abstinence Scale was utilized by Mussel and colleagues (2000) to assess specific attitudes toward discontinuing bulimic behaviors, including client ratings of intensity of desire to quit, expected success at quitting, predicted difficulty in quitting, and treatment goal regarding abstinence. Likewise, Westra and colleagues (2007) employed The Anxiety Change Expectancy Scale, in order to assess client expectations regarding their ability to control their anxiety, including items such as "I feel pessimistic that my anxiety problems could ever change for the better" and "My problems with anxiety are too severe to benefit from treatment," (p. 365). Similarly, Safren, Heimberg, and Juster (1997) employed a modified Reaction to Treatment Questionnaire created by their research group to assess expectancies related to their specific population of patient with social phobia.

Other expectancy measures more generally assessed clients' hope regarding group treatment. For example, Westra, Dozois, and Boardman (2002) employed The Hopelessness Scale, a 5-item assessment tool of optimism and pessimism clients feel regarding the ability of Cognitive-Behavioral treatment to help them control their symptoms. MacNair-Semands (2002) employed a measure (Group Therapy Questionnaire; reviewed below), which includes general expectancy items, such as "I look forward to beginning group therapy" and "I hope this group will meet my needs."

The minimal research that has been done on client expectancies is one possible explanation for the lack of consensus regarding measurement procedures (MacNair acNair-Semands, 2002; Mussell et al., 2000; Safren, Heimberg, & Juster, 1997). In addition, while Piper (1994) asserts that expectancies are easy to assess, he gives no guidelines as to a method of assessment. In any case, there currently exists no agreed upon measure that can quickly and efficiently assess clients' expectancies for group therapy process and outcome across all types of groups and clients.

Interpersonal skills. Piper (1994) asserts that because group therapy is an interpersonal environment, a patient's interpersonal skills and style should be a key aspect of patient selection research. Interpersonal characteristics include clients' ability to interact with others in a positive manner, such as their interpersonal sensitivity, social competence, likeability, and friendliness; as well as their tendencies to interact in ways that are considered deviant in group interactions, such as shyness, sociopathy, and defensiveness (Piper, 1994). Most recently, Johnson and colleague's (Johnson, Burlingame, Olsen, Davies, & Gleave, 2005) structural equation modeling of members (N = 662) in over 100 groups suggests that positive and negative interpersonal factors are required to adequately capture the therapeutic relationship in a group. Following is a review of

positive and negative interpersonal characteristics that have been used in research attempting to predict effective group therapy.

Positive interpersonal characteristics. The importance of positive interpersonal interactions has been confirmed repeatedly in the group literature (, Bloch, & Wanlass, 1994; MacKenzie, 1997; Yalom & Leszcz, 2005). Piper (1994) states that positive interpersonal skills are necessary in group largely because of the intense interpersonal nature of group therapy. Woods and Melnick (1979) describe group therapy as a more demanding format than individual therapy, and state that it thus requires higher levels of interpersonal and emotional resources, such as the ability to tolerate self-disclosure and self-exploration. They further assert that clients who do not possess the requisite positive interpersonal skills are at an increased risk for premature termination.

Based upon this assertion, Piper (1994) indicates that clients' interpersonal characteristics, such as interpersonal sensitivity, social competence, likeability, and friendliness, may be used to predict therapeutic outcome. Likewise, Piper and McCallum (1994) recommend that group leaders should select clients who demonstrate at least a minimum level of interpersonal skill. Some client variables studies have touched on client characteristics vaguely related to interpersonal functioning, such as willingness to self-disclose to others (Botswick, 1987), trusting and relating to others (Blouin et al., 1995), and attachment and social role functioning (Ogrodniczuk et al., 2002). Still, recent research addressing the area of specific positive interpersonal characteristics of clients is rare.

One notable exception is a study by Ogrodniczuk and colleagues (2003). They employed the NEO-PI-R as a measure of interpersonal characteristics in a sample of 107 members of grief groups to predict therapeutic outcome. They found significant correlations between

improvement in group therapy and the NEO-PI-R factors of openness, extroversion, and agreeableness. Thus, both clinical theory and limited research support the assertion that clients' ability to relate well with others may be related to process and outcome success in group therapy.

Negative interpersonal characteristics (deviancy). Group member deviancy is a term often used to describe clients who do not fit in to a particular group composition (Yalom, 1966) and tend to interact negatively with other group members. Early research found group therapy drop-outs often exhibit signs of group deviancy, difficulties with intimacy, and provocative behaviors in group (Yalom, 1966). Group deviancy may include those who are silent and nonparticipatory, as well as those who are loud, angry, disruptive, and isolated from the remainder of the group. These members appeared to lack interpersonal sensitivity, and may have difficulty engaging in the primary activities of a group - including interpersonal engagement, interpersonal learning and acquiring insight- due to logistical, intellectual, pathological or interpersonal reasons (Yalom & Leszcz, 2005). Morran and colleagues (Morran, Stockton, Cline, & Teed, 1998) caution that clients with these characteristics may not be able to participate appropriately in the exchange of interpersonal feedback in groups well. They suggest that these individuals are often a detriment to the group process and may feel alienated from the group, leading to poor outcome.

To this day in group literature, it is commonly asserted that clients who display socially bizarre or deviant behavior, or are antagonistic, aggressive, or extremely competitive, may negatively impact group process and increase group attrition rates (Rutan & Stone, 2001; Toseland & Siporin, 1986; Yalom & Leszcz, 2005). In 1966, Yalom demonstrated that clients who display resistance and denial, are spontaneously hostile, play a deviant group role, and are more somatically oriented, are less likely to successfully complete group therapy. In a similar

manner, Woods and Melnick (1979) state that clients who dread self-disclosure, somaticize conflicts, and have heavy denial patterns are incompatible with the group and not appropriate for group therapy. They further suggest that such deviant clients are at a high risk of ending treatment early.

Group deviancy literature is primarily based on anecdotal observations of investigators as they discuss empirical findings (e.g., Yalom & Leszcz, 2005); however, general social psychology research on group deviancy indicates that members who disagree with group norms experience greater dissonance discomfort (Matz & Wood, 2005). Additionally, anti-norm deviants are viewed as less likeable than pro-norm deviants (Hichy, Mari, & Capozza, 2008; Morrison & Miller, 2008), which could lead to more negative group process in the therapy group, including decreased cohesion. Based upon these social psychology and clinical literature group deviancy is often suggested as a group member exclusion criteria. For example, Yalom (Yalom & Leszcz, 2005) cautions that clients whose interactions would significantly interfere with the development of socializing techniques should be "deselected" from group therapy participation before they create a role for themselves that proves detrimental to them and other members.

Research investigating specific deviant behavior in predicting future group obstacles to group process, member retention and outcome has been consistent. Burlingame, Fuhriman, and Johnson (2002) reviewed research (e.g., Braaten, 1990) that indicates that group cohesion is negatively influenced by defensive behavior, avoidance, rebellion, and conflict. In addition, Kivlighan and Angelone (1992) demonstrated a relationship between client interpersonal characteristics and group processes. This study linked perception of environment with presenting interpersonal problems, supporting the idea that dominating individuals will see group

environment avoidant, and interpersonally cold individuals will see the group as lacking in engagement and intermember conflict. Further, Taft and colleagues (Taft, Murphy, Musser, & Remington, 2004) found correlations between interpersonal problems and the working alliance.

Studies have also supported client deviance as a predictor of attrition. Blouin and colleagues (1995) successfully predicted client attrition using measures of clients' difficulties trusting and relating to others. MacNair and Corazzini (1994) used discriminant analysis to predict client attrition, and found that alcohol and drug problems, previous experience in counseling, somatic complaints, general fighting, fights with spouse, introversion, and roommate difficulties all significantly predicted member drop-out. Later, MacNair-Semands (2002) linked lower attendance rates with measures of members who were angry, hostile, verbally abusive, and socially inhibited. Additionally, Tasca and colleagues (2006) linked attachment avoidance and group member attrition. These results support the hypothesis that negative interpersonal characteristics in individual clients can be used to predict both detrimental aspects of group therapy, such as client attrition and negative processes, as well as a decrease in or lack of positive group processes and beneficial outcome (Piper, 1994).

Negative interpersonal characteristics have also been shown to correlate with group therapy outcome. Lorentzen and Hoglend (2004) discovered that clients' ratings of their level of "coldness" were correlated with therapeutic outcome, as measured by a self-report and a therapist-report Likert-type rating of how improved the client was following long-term analytic group psychotherapy.

Clearly deviancy has been shown to be an important construct related to group therapy effectiveness. Still, it is important to note that little research has been conducted regarding the utility of pre-group procedures for clients who demonstrate greater deviant interpersonal styles.

In addition, there is some evidence that deviant interpersonal styles may benefit from certain group settings. For these reasons, the use of this construct strictly for member exclusion criteria bears more study.

Thus, research indicates that negative and positive interpersonal characteristics, as well as client expectancies for group therapy, show promise in aiding clinicians who wish to apply empirically based means of pre-group members assessment. Despite research and theory indicating the possibility of predicting which group members will benefit from group processes, however, mixed results have been obtained when the above variables have been applied to selecting members for group therapy (Piper, 1994).

Pre-group Procedures

Pre-group measurement. Client measures administered prior to the onset of a group can be used for selection of members for group, guiding pre-group preparation procedures, and informing choices made regarding group member composition (Strauss, Burlingame, & Bormann, 2008). Research suggests that member inclusion be based on such member characteristics as motivation, interpersonal strengths, and the ability to give and receive feedback (Burlingame, Fuhriman, & Johnson, 2002; Yalom & Leszcz, 2005). Exclusion from group is based on characteristics shown to have a detrimental affect on the therapeutic climate and outcome in group. For example, the group literature suggests deviancy, psychosis, low psychological mindedness, life crisis, and difficulty with establishment of rapport be considered when making decisions about group exclusion criteria (Burlingame, Fuhriman, & Johnson, 2002; Yalom & Leszcz, 2005). A more thorough summary of member selection research is outlined below.

Group composition. It may be suggested that more important than general inclusion and exclusion rules for groups is the specific examination of the strengths and weakness of a particular group's membership composition. Current group composition recommendations relate to the balancing of homogeneity and heterogeneity of the group. For example, a striving for homogeneity in the degree of vulnerability and anxiety tolerance, the ability to give and receive feedback, intelligence, age, and education is recommended (Burlingame, Fuhriman, & Johnson, 2002; Yalom & Leszcz, 2005). On the same token, heterogeneity in conflict areas, patterns of coping, "group roles," and type of pathology are also recommended (Burlingame, Fuhriman, & Johnson, 2002; Yalom & Leszcz, 2005). In addition, a balance of members who tend to be "intellectualizing" versus "emoting," and those who are "risk takers" versus "providers of support" should also be considered (Burlingame, Fuhriman, & Johnson, 2002; Yalom & Leszcz, 2005).

Pre-group member preparation. The use of pre-group preparation procedures tailored to help clients acquire skills and appropriate and positive expectations for group, also serve as an alternative to hard and fast member selection criteria. Numerous studies demonstrate that pre-group preparation can benefit prospective members and the group as a whole (e.g., Burlingame et al., 2002; Rutan & Stone, 2001; Yalom & Leszcz, 2005). Pre-group preparation has been shown to correlate with more rapid development of group cohesion, less deviation from tasks and goals of group, increased attendance, less attrition, reduced anxiety, better understanding of objectives, roles and behavior, and increased faith in group as an effective mode of treatment (Burlingame, Strauss, MacKenzie, Ogrodniczuk, & Taylor, 2006).

The American Group Psychotherapy Association's Practice Guidelines for Group Psychotherapy (2010) outlines the following general objectives for pre-group preparation: (1)

establishing the beginnings of a therapeutic alliance, (2) reducing initial anxiety and misconceptions about joining a therapy group, (3) providing information and instruction about group therapy to facilitate the client's ability to provide informed consent, and (4) achieving consensus between group leader and members on the objectives of the therapy. Pre-group measurement may be used to guide therapists in areas of focus in pre-group preparation of members, including interpersonal skill building and setting more realistic expectations for group.

Group member selection. Given the evidence for the link between client characteristics and important group elements, it stands to reason that careful pre-group assessment of client characteristics would increase the likelihood of successful group treatment for a client. This has led to a body of group selection literature, including a variety of approaches to pre-group client assessment. Botswick (1987) measured client characteristics, including interpersonal interaction style, during pre-group preparation meetings. His pre-group measurements were unsuccessful in predicting attrition and outcome. Connelly and Piper (1989), on the other hand, found a correlation between client behavior in pre-training activities and group therapy effectiveness. They assert the usefulness of the client characteristic of group work behavior during pre-training activities as a selection criterion. Unfortunately, clinicians who wish to employ a pre-group protocol of this sort must invest a significant amount of time and effort into observations and interactions with clients before beginning group, and results seemed to be mixed. In order to address efficiency of group member selection, several measurement tools, which are described below, have been developed in order to improve pre-group selection protocol.

Group Selection Measures

A variety of measurement tools have been used in research predicting process and outcome from client characteristics (e.g., the Hopelessness Scale used by Westra, Dozois, and

Boardman, 2002; the Reaction to Treatment Questionnaire used by Safren, Heimberg, and Juster, 1997). These instruments have varied in their psychometric properties, as well as in the breadth of client characteristics measured. Researchers as well as clinicians have called for a universal measure that can quickly and effectively aid in the selection of group therapy clients (Piper, 1994; Yalom & Leszcz, 2005).

A number of general group selection measures have been created, each with their benefits, as well as their limitations. Early attempts to create general selection measures include the Counseling Readiness Scale (CRS; Heilbrun & Sullivan, 1962), the Jourard Self-Disclosure Scale (JSS; Jourard, 1961), the Palo Alto Group Therapy Scale (PAGTS; Truax, 1971), and the Salzberg Group Psychotherapy Screening Scale (SGPSS; Salzberg, 1969; Salzberg & Heckel, 1963). Each of these measure is reviewed briefly below.

Counseling Readiness Scale (1962). The Counseling Readiness Scale (CRS), developed by Heilbrun and Sullivan (1962), was employed by Osborne and Swenson (1972) to select clients for group therapy. The CRS is 300-item measure in which clients selected items they felt best described themselves (Heilbrun & Sullivan, 1962). The CRS has two forms, one for each gender. Completion time was not specified (Heilbrun & Sullivan, 1962). Osborne and Swenson (1972) found that clients' rating of their readiness for therapy correlated highly with measures of attitude change at the end of therapy. However, Heilbrun and Sullivan (1962) employed the same measure for both independent and dependent measures, which, according to Piper (1994), creates a confound that places findings in question. Since Osborne and Swenson's (1972) study, the CRS has not been employed in any subsequent group therapy studies.

Jourard Self-Disclosure Scale (1961). The Jourard Self-Disclosure Scale (JSS; Jourard, 1961) was employed by Yalom and colleagues (1967) as a pre-group measure of potential

clients' interpersonal characteristics, with the goal of identifying variables that could predict client attrition and outcome in therapy. The JSS, a 25-item self-report questionnaire, was primarily designed to measure the amount of disclosure a potential client reports to their family and friends in a number of content areas (Jourard, 1961; Yalom, Houts, & Zimerberg, 1967). Yalom and colleagues (1967) reported little success in linking any results from the JSS to client attrition or group therapy outcome. Since Yalom's study, the JSS has not been used for prediction research in group therapy.

Palo Alto Group Therapy Scale (1971). The Palo Alto Group Therapy Scale (PAGTS; Truax, 1971) was used by Truax to predict client change following therapy. This therapist rating scale was administered at the fourth session of therapy and again at the end of therapy. The measure was also used as the dependent variable employed to predict a change score that was calculated using pre- and post-therapy measures on the PAGTS (Truax, 1971). Again, this measures was used for both independent and dependent variables, creating a confound that makes results uninterpretable (Piper, 1994). Since Truax's (1971) study, the PAGTS has been used only once for psychotherapy research when Birkett and Boltuch (1973) unsuccessfully employed the measure to predict the effectiveness of a remotivation therapy program for geriatric patients.

Salzberg Group Psychotherapy Screening Scale (1969). The Salzberg Group Psychotherapy Screening Scale (SGPSS; Salzberg, 1969; Salzberg & Heckel, 1963) was originally intended to be used in screening patients in a psychiatric hospital for group participation through a group interview process. The measure was later revised and made into a 10-item, therapist rating scale with five points for each item, in an attempt to quantify and operationalize ratings made by the clinician (Salzberg & Bidus, 1966). Initial group interviews

and rating by the therapist or staff required the therapist and six participants to meet together for at least one hour, following which the therapist would rate each participant on the ten items of the scale (Salzberg & Bidus, 1966). Salzberg (1969; Salzberg & Bidus, 1966) reported some success in predicting which members of the group would not be readmitted to the hospital following discharge. Unfortunately, the success of the predictions of which members would remain in group therapy may be mitigated somewhat by their practice of using the rating from the SGPSS to select clients for therapy (Salzberg & Bidus, 1966). This practice creates a confound to their results, since those patients who scored higher on the scale were more likely to be referred for group therapy. Since Salzberg's (1969; Salzberg & Bidus, 1966) studies, the SGPSS has not been employed in group therapy prediction research.

Group Therapy Questionnaire (GTQ). The GTQ (MacNair & Corazzini, 1994; MacNair-Semands, 2002) is a pre-group self-report measure, which was designed to assess clients' interpersonal behaviors, goals, and motivation, as well as their typical roles in groups, with the goal of guiding group therapist interventions. Major domains measured by the GTQ include Expectations about Group, Family Anger, Drug and Alcohol Use, and Interpersonal Problems. An additional domain, Somatic Concerns, can be used to assess level of somatic complaints by a client. MacNair-Semands (2002) reports four underlying factors in the GTQ interpersonal subscale: Dependency, Angry Hostility, Social Phobia/Inhibition, and Low Ego Strength (see Table 2 for a delineation of the interpersonal items loading on each of these factors).

The GTQ has been used to predict which clients will tolerate the anxiety of group participation (MacNair & Corazzini, 1994).In an early empirical study of the GTQ, several variables measured, including alcohol/drug problems, somatic complaints, roommate difficulties,

fighting with others, and introversion, were shown to predict premature termination (MacNair & Corazzini, 1994). In addition, previous therapy was a positive predictor of group therapy continuation (MacNair & Corazzini, 1994). Combined, these variables successfully classified 76% of clients as dropouts or continuers in a discriminant analysis (MacNair & Corazzini, 1994).

In a later study (MacNair-Semands, 2002), a stepwise discriminant analysis again showed successful predictive ability of the measure in differentiating high and low group attendance. Attendance was measured as the ratio of total attended sessions to total number of offered sessions. The interpersonal scale factors of Hostility and Social Inhibition were shown to successfully discriminate 58.4% of the cases that remained in therapy or terminated services prematurely.

Recently, the American Group Psychotherapy Association included the GTQ in the CORE Battery- Revised (CORE-R; Burlingame et al., 2006), a compilation of gold-standard group therapy measurement tools intended to promote evidenced-based group therapy assessment, including pre-group/ selection, process, and outcome measures.

One difficulty with the GTQ (MacNair-Semands, 2002) is the extensive amount of time required for clients to complete the measure. The GTQ requires 25-35 minutes to complete (a shortened form, the GTQ-S, requires 20-25 minutes to complete), and has been used primarily in conjunction with a thorough clinical intake interview.

Thus, despite increasing attempts to utilize client characteristics in guiding group composition and treatment, a need still exists for a general pre-group measure that is efficiently and easily administered, in order to predicts a client's compatibility with group treatment format.

The Group Selection Questionnaire (GSQ). A promising new measure that fits these criteria is The Group Selection Questionnaire (GSQ; Burlingame, Cox, Davies, Layne, Gleave,

in press; Cox et al., 2004; Davies Burlingame, & Layne, 2002; Davies, Burlingame, & Layne, 2006; Elder et al., 2008; Krogal et al., 2009; Loeffler et al., 2007). The GSQ is a short measure designed to screen potential group participants and inform therapists about each member's fit for group therapy. This measure was designated,in addition the GTQ (described above), by the American Group Psychotherapy Association to be an evidence-based selection measure. The GSQ was created, based upon the empirical literature of group therapy, to measure clients' expectancies for outcome in group therapy, their ability to interact well with others, and their tendency to demonstrate dysfunctional interpersonal interactions (Cox et al., 2004).

The most recent revision of the GSQ (Cox et al., 2004) is a 19-item questionnaire scored on a 5-point Likert-type scale, with lower subscale and total scale scores identifying individuals who are predicted to benefit more from group therapy. It includes scales intended to measure client expectancies for success in group (Expectancy), positive interpersonal characteristics (Participation) and negative interpersonal characteristics (Demeanor).

Table 2

Group Therapy Questionnaire Interpersonal Factor Loadings

Item	*Loading*
Group Therapy Questionnaire Items	
Factor 1: Dependency	
Loneliness	.675
Feel devastated when close relationships end	.653
Feel dependent on others	.599
Feel isolated and lonely	.541
Often feel uncomfortable or helpless	.533
Feel empty and bored	.465
Factor 2: Angry Hostility	
Lose my temper frequently	.778
Lack of control of my anger	.712
Excessive arguments	.686
Verbal abuse to people I care about	.645
Factor 3: Social Phobia or Social Inhibition	
Shyness	.785
Not being assertive	.765
Difficulty socializing	.659
Difficulty initiating things on my own	.471
Avoid social activities	.455
Factor 4: Low Ego Strength	
Allow other to make my important decisions	.725
Unable to make decisions without reassurance from others	.712
Constantly need reassurance, approval, and praise	.465
Lack of personal identity	.439
Easily hurt by criticism or disapproval	.385
Moods change quickly	.372
Other interpersonal checklist variables	
Perfectionism that interferes with task completion	
Difficulty trusting others	
Procrastination	
Do not enjoy or desire close relationships	
Physical fights with others	
Physical fights with partner	
Physical fights with family	
Separation	
Divorce	
Feel abandoned when alone	
Unstable relationships	
Often unaware of feeling or numb	
Preoccupied with feelings of envy	

Note. Directions read, "Please check the interpersonal problems you experience."

Research on the GSQ

The GSQ factor structure has been generally maintained across three Bosnian, American and German populations (Burlingame et al., in press; Cox et al., 2004; Davies et al., 2002; Loeffler, Borrmann, Burlingame, & Strauss, 2007).

Bosnian study. First, an initial 14-item version of the GSQ was administered in a population of war-exposed Bosnian adolescents (N = 80) in secondary schools located in Bosnia and Herzegovina (Layne et al., 2001) receiving cognitive behavioral group psychotherapy. In this study, a five factor structure (domains including Expectancy, Nonparticipation, Domineering, Group Deviancy, and Open-participation) was shown to explain 68% of the variance via principle component analysis using Oblimin rotation and Kaiser normalization (Burlingame et al., in press).

American college counseling center studies. Second, the GSQ was administered to American college students (N = 288) at a university in the western United States (Cox et al., 2004). In this study, a principle components analysis merged the five original domains into three, with the Non-Participation and Open-Participation combining to form one subscale (Particpation), the Domineering and Group Deviance subscales combining to form one subscale (Demeanor), and the Expectancy remaining unchanged. These factors coincided with the original formulation that expectancy, participation and deficient social skills represent theoretically distinct constructs (Burlingame et al., in press; Cox et al., 2004). In a later study sampling several college counseling centers in the United States (N = 294), a principle components analysis again demonstrated a similar factor structure to previous studies (Cox et al., 2008).

German factor validation study. Finally, the GSQ factor structure was again maintained in a population of German hospital patients (*N* = 264; Loeffler et al., 2007). In this study, the three-factor structure demonstrated good fit to the data (χ^2 = 146.6, *df* = 97. TLI = .954, PMSEA = 0.044; Loeffler et al., 2007).

GSQ predictive validity. Past research has also linked the GSQ to measures of attrition, process, and outcome in group therapy (Burlingame et al., in press; Cox et al., 2004; Davies et al., 2002; Loeffler et al., 2007), suggesting that the GSQ has predictive potential as a selection measure for a prospective group member's potential to benefit from group therapy. First, in the original Bosnian study, the GSQ was shown to be predictive of group processes, measured during early, middle and ending sessions of the groups, as well as at a post-treatment follow-up assessment. The GSQ also predicted clients who rated themselves as benefiting from group cohesion during early, middle and late stages of treatment. In addition, it predicted outcome change scores at sessions four and twelve, with low GSQ scores predicting higher changes in symptoms (Burlingame et al., in press).

These results were replicated in the American populations (Burlingame et al., in press; Cox et al., 2004; Cox et al., 2008). In an American sample of college students (*N* = 288), clients' scores on the Expectancy factor were found to correlate with measures of cohesion, catharsis, insight, and engagement experienced by the clients at sessions four and eight of therapy (Cox et al., 2004; Burlingame et al., in press). Expectancy scores were also found to correlate positively with scores of conflict experienced by the clients at sessions four and eight of therapy, and to correlate negatively with the length of treatment for individual clients, an indication of client attrition, as measured by the GCQ (Burlingame et al., in press; Cox et al., 2004). These correlations range from small (.24) to large (-.59) effects with each scoring in the direction that

would be predicted by theory. Clients who scored poorly on the Participation scale were found to show less improvement in symptom levels at session 12. Finally, clients' scores on the Domineering scale were found to correlate negatively with measures of engagement and cohesion at session 12, as well as improvement in symptom levels at session 4, as measured by the GCQ (Burlingame et al., in press; Cox et al., 2004).

In a second American college student sample (N = 294), process predictions were consistent (Cox, 2008). In this study, poor group expectancy (high expectancy subscale scores) valued of group cohesion and catharsis as low. Individuals who endorsed more problematic interpersonal behavior (high Demeanor subscale scores) did not see group-based sight as helpful, yet also tended to not see the group as avoiding important therapeutic work. Individuals who were generally viewed as high-risk cases (high GSQ total scores) did not view group-based insight as important.

These preliminary findings are promising when considering Yalom's (1995) caution that the factors influencing group process and outcome are complex and differentially vary in importance from client to client. Results indicate the possibility of employing the GSQ as a short general screening measure for clinicians interested in predicting how a client will interact in therapy, and how a client will respond to the climate of the therapy group, a goal repeatedly called for in the group literature (Piper, 1994; Yalom & Leszcz, 2005).

Qualitative GSQ study. In an attempt to understand qualitatively the differences between high and low scorers on the GSQ, Krogel and colleagues (Krogel, Beecher, Presnell, Simonsen, & Burlingame, 2009) interviewed the outer quartiles for GSQ scores in two populations. They administered the GSQ to counseling center clients and undergraduate students taking introductory psychology courses. They then identified the outer quartiles for each

population and interviewed subjects from each quartile. These structured interviews were recorded, transcribed, and analyzed.

Krogel et al. (2009) found that low scorers from both populations tend to view themselves as part of groups they are participating in, try not to interrupt others, and are open and sharing of their thoughts and feelings. However, low scoring therapy clients tend to avoid arguing, and rarely see themselves as the life of the party, whereas students who scored low tend to make active efforts in groups to facilitate. Clients who scored high on the GSQ indicated that they tend to hold back from speaking in groups. They indicated that they are passive and private, and avoid sharing their feelings with others. They furthermore do not see group as potentially helpful. In contrast to these traits, students who scored high on the GSQ tend to view themselves as outsiders in groups. They tend to be reserved in stating their opinions, and they attempt to not interrupt others.

Archival GSQ study. In a further attempt to analyze the properties of the GSQ, Elder et al. (2008) tested the factor structure and predictive abilities of the GSQ in 684 archival subjects from the Counseling and Career Center (CCC) at Brigham Young University (BYU). Clients completed the GSQ at intake and the OQ-45 after each treatment session. Elder and colleagues collected the number of treatment sessions, the OQ-45 score at the client's last session, and the modality of treatment that client participated in. Using EFA, Elder and colleagues (2008) found that two items from the Demeanor subscale loaded on the Participation subscale. Using correlation, they found that clients who were deemed by the GSQ scores to be more unsuited for group therapy tended to demonstrate higher distress scores on the OQ (R = .33).

GSQ revisions. Over the course of GSQ validation studies, the measure has undergone several minor, but noteworthy revisions. The Bosnia study (Burlingame et al., in press) utilized

an initial 14-item version of the GSQ to demonstrate a five-factor structure which was consistent with theory (Expectancy, Non-participation, Demeanor, Group Deviancy, and Open-participation). Prior to a subsequent study conducted at the BYU CCC, the items were slightly revised to make them more behaviorally precise. In this pilot study (Burlingame et al., in press ; Cox et al., 2004), the revised 14-item measure was expanded to 24 items in order to test whether they would improve the factor structure. A factor analysis of the original 14-items demonstrated a more parsimonious 3-factor model with marginal fit (Expectancy, Participation, and Demeanor; see Burlingame et al., in press). An exploratory factor analysis showed that the added items adequately loaded on the three expected scales (Burlingame et al., in press). Two of the original 14 items and three of the ten added items were dropped, resulting in a final 19-item GSQ. The German factor structure study (Loeffler et al., 2007) confirmed that a two-factor structure, which collapsed Participation and Demeanor, was not a better fit than the three-factor structure. In addition, Loeffler identified that a slightly better fit resulted from dropping three items (Item 2, 7, and 13) for the German sample. The 19-item GSQ measure has been utilized for all subsequent validity studies (Cox et al., 2008; Elder et al., 2008; Krogel et al., 2009), which continue to support factor structure findings consistent with construct theory. Based on the most recent factor analytic findings (Cox et al., 2008), four items have been reversely scored which were not previously (Items 5, 15, 16, and 18), and two items which were originally attributed to the Demeanor scale are now attributed to the Participation scale score (Items 5 and 18; see Table 4 and Appendix A). These GSQ scoring procedures are now utilized for clinical and research purposes.

In summary, the GSQ stands on a strong foundation of validity research. Initial research with the GSQ was conducted in small, non-representative populations in Bosnia and at Brigham

Young University Counseling and Career Center (Burlingame et al., in press; Cox et al., 2004). Similar finding have been replicated in Germany (Loeffler et al., 2007) and across a broad sample of American counseling centers (Cox et al., 2008). While the predictive validity of the GSQ is well established, the comparative effectiveness of this measure and longer well-established selection measures, such as the Group Therapy Questionnaire (GTQ; MacNair-Semands, 2002), remains untested.

Statement of Problem

Although the GTQ and the GSQ have both been designated gold-standard selection measures by the American Group Psychotherapy Association (Burlingame et al., 2006), they have never been compared to one another in a formalized study. The present study was designed to explore the convergent validity of the GSQ by comparing it with the GTQ in its use as a selection measure in a western United States college counseling center population. By investigating this comparison, it may be possible to ascertain whether the GSQ is a viable and efficient measure to fill the niche currently open in the therapeutic community for a short yet reliable and valid prediction instrument, and, in the words of Piper and McCallum (2004), "prevent the demoralizing effects for patients and therapists that are associated with failures and casualties" (p. 2).

Table 3 compares the GSQ and GTQ on their uses, factors/ subscales, predictive validity, limitations and strengths. Tables 6 and 7 identify subscale items on both measures.

Table 3

Comparison of GSQ and GTQ selection measures

	GSQ	GTQ
Purposes/ Uses	Designed to screen potential group behaviors, inform therapist interpersonal of each member's fit for group therapy.	Designed to assess clients' participants and goals, and motivation, as well as their typical roles in groups, with the goal of guiding therapist interventions.
Factors/ Subscales	Factor subscales include Expectancy, Participation (positive interpersonal characteristics), and Demeanor (negative interpersonal characteristics).	Underlying factors include: Dependency, Angry Hostility, Social Phobia/Inhibition, and Low Ego Strength. Question Domains included previous therapy experience, expectations for group, symptoms of substance use and abuse, somatic and suicidal symptoms, fears about group treatment, and goals for group treatment. (Key subscales are outlined above.)
Predictive Validity	Scores correlated with measures of attrition, process, and outcome.	Scores correlated with attrition rates.
Limitations	No completed convergent validity studies.	Relatively extensive time required for clients to complete the measure.
Strengths	Completion time is relatively brief. Factor structure has been replicated across several settings.	Broad range of information provided to therapists prior to group.

Table 4

GSQ subscales

GSQ Subscales	Items in Subscale
Expectancy	Item 10. I think that working in a group will really help me. Item 11. If I participate in a group, I expect to feel quite a bit better when we are finished. Item 12. I think that sharing my feelings with others will help me feel better.
Participation	Item 1. When you are with a group of people who are talking about a topic you feel strongly about, how likely are you to express your opinion? Item 2. I like to share my feelings with others. Item 3. I avoid talking in groups. Item 4. I often feel like an outsider in group discussions. Item 5. I typically dominate group discussions. Item 6. I hardly ever say what I'm thinking when I'm with a group of people. Item 8. When I first meet someone, I like to share things about myself, including quite personal information. Item 9. I am very private and hardly ever share how I feel. Item 14. I tend to keep to myself in groups. Item 15. I often contribute to group discussions. Item 16. I am an open person. Item 18. I am the life of a party. Item 19. Others tend to see me as withdrawn.
Demeanor	Item 7. If I disagree with what someone is saying, I will interrupt them before they can finish what they are saying. Item 13. I am abrupt with others if I feel strongly about what I'm saying. Item 17. I argue for argument's sake.

Table 5

GTQ subscales

GTQ Major Subscales	Items in Subscale
Expectations about Group	I look forward to beginning group. I hope this group will meet my needs. I suspect that I will be like other group members. I expect I will stay with the group at least eight weeks.
Family Anger	How did you express your anger toward your parents?
Drug and Alcohol Use	Do/ did either of your parents have a substance abuse problem? Have you ever tried to quit using alcohol/drugs? Do you want to quit using alcohol or drugs now? Have you had any relationship end due to alcohol or drug use? Have you ever physically hurt someone when you were using alcohol or drugs? Does your spouse, a parent or a significant other worry or complain about your substance use/ drinking? Have you ever gotten into trouble at work or school because of substance use/ drinking?
Interpersonal Problems	Please check the interpersonal problems you experience [followed by a list of interpersonal problems derived from DSM-IV personality disorders criteria (American Psychiatric Association, 1994)]
Somatic Concerns	Check any of the following you experience: [followed by a checklist of physical symptoms, including vomiting, difficulty swallowing, pain, shortness of breath, painful menstruation, amnesia, burning sensation in sexual organs]

Hypotheses for this study include the following:

1. The factor structure of the instrument (Loeffler et al., 2007; Cox et al., 2008) will be replicated in the new sample.
2. The Expectancy scale of the GSQ will be significantly positively correlated with the Expectations About Group scale of the GTQ.
3. The Participation Scale of the GSQ will be significantly negatively correlated with the Interpersonal Problems total scale scores of the GTQ.
4. The Demeanor Scales of the GSQ will be significantly positively correlated with the Family Anger scale of the GTQ.

Method

Participants

Participants of this study were new clients eligible for both individual and group therapy at the Brigham Young University Counseling and Career Center (BYU CCC). Clients were given the opportunity to participate in this study at intake. Client demographics such as age, gender, marital status, educational level, race, and religious affiliation were collected for each client.

A total of 363 students agreed to take the Group Therapy Questionnaire (GTQ) along with their regular intake paperwork (which included the OQ and GSQ) at the BYU CCC. However, administrators failed to record client identification numbers for 63 of these students making identification of corresponding GSQ impossible. Thus, the 63 unidentifiable students were dropped, yielding a total sample size of 300 students. The mean age for participants was 23 years; the mode was 21 years, with a range of 17 to 46 years. Participants were primarily female (59%). Religious affiliation was entirely Latter-day Saint (100%). The majority of participants

identified themselves as single (79%), with 21% reporting they were married. All subjects were college students. Areas of study generally were reflective of BYU university statistics (yfacts.byu.edu), although approximately 23% of study participants left this item blank in their intake paperwork (see Table 6). Participants were mainly U.S. citizens (95%), however 5% were coded as having "other" citizenship status.

Table 6

Study Sample Distribution of College of Major

College of Major	Percentage of Participants
Family, Home and Social Sciences	25.5%
Humanities	14.7%
Health and Human Performance	7.2%
Fine Arts and Communication	6.1%
Physical and Mathematical Sciences	5.4%
Marriott School	4.7%
Life Sciences	4.3%
Education	3.6%
Engineering and Technology	1.8%
Nursing	1.4%
Law School	0.7%
Kennedy Center	0.7%
Business	0.7%
Non-degree seeking graduate	0.4%
Unidentified in paperwork	22.7%

Clinical presentations for clients were consistent with what would be expected for a college counseling center population. Upon intake, initial symptom distress of the participants was in the moderately high range (OQ mean = 69.07). This is slightly lower (although not significantly so) than the Outcome Questionnaire university counseling center normative mean (normative mean = 75.16; Lambert et al., 1996). A majority of clients reported that they had received previous therapy of some kind (56%) prior to intake. In order to identify symptom improvement descriptive statistics, the Outcome Questionnaire change score was calculated as

the difference from intake to the end of therapy (excluding clients for whom only one OQ score was available). OQ change descriptors for the sample population, calculated using the Jacobson-Truax method (Lambert et al., 1996), were as follows: 23% Recovered, 10% Improved, 59% unchanged, and 7% deteriorated.

Therapists

A total of forty-nine different psychotherapists were assigned to the 300 study participants at intake, with treating clinicians for two participants remaining unidentifiable, due to missing data. For the majority of study participants, these therapists were their primary clinician through the course of the study or worked in conjunction with other treating clinicians. However the percent of clients who were transferred to multiple therapists during the course of the study is unknown. Therapists identified included 23 doctoral trainees (16 Counseling Psychology doctoral students, four Clinical Psychology doctoral students, and three pre-doctoral interns), 25 doctorate level psychologists, and one licensed psychiatrist. Sixty-one percent of clinicians were male. The years of experience of non-trainee doctorate level psychologists was calculated as the number of years since receiving a Ph.D., and ranged from two to 39, with a mean of 15 years experience.

Therapy

Table 7 displays the variety of treatment types participants received. The therapy type of two clients who participated in the study was indeterminable due to secured status (indicating that these clients were likely working in or related to individuals working in the Counseling Center and wished for their information to remain anonymous) in the database system.

Table 7

Study Sample Distribution of Therapy Type

Therapy Type	Percentage of Participants
Individual Therapy Only	64.9%
Single Appointment	20.3%
Concurrent Group and Individual	7.6%
Group Therapy Only	3.3%
Concurrent Relationship and Individual	2.2%
Relationship Therapy Only	1.8%

During the course of the study, the average number of therapy sessions attended by clients was 3.4 sessions, with a range of 1-19 sessions. Due to the high number (approximately 20%) of participants who only attended a signal session prior to discontinuing therapy, the mode number of sessions was one.

Although the specific type of therapy groups were not coded for in the study sample data set, CCC therapy groups included approximately 28 general process, specific themed process, and specific psychoeducational groups. Examples of these included chronic pain, sexual concerns, anger management, body/ eating awareness, relaxation and so forth. Most groups were led by 2 therapists, including at least one licensed group leader. Therapy groups could be new or continuing, open or closed, and long- or short-term. However, participants of the study were recruited at intake, meaning that they were either new clients to the Counseling Center, or had not attended therapy for at least six months. It is possible, but somewhat rare for clients who are in one group to also be in another. It is unknown whether any study participants received more than one group treatment.

Instruments

This study employed three separate instruments – the Group Selection Questionnaire, the Group Therapy Questionnaire, and the Outcome Questionnaire.

Group Selection Questionnaire. The Group Selection Questionnaire (GSQ; Cox et al., 2004) is a short 19-item, self-report questionnaire, scored on a 5-point Likert-type scale. The GSQ demonstrated three distinct factors, which are labeled Expectancy, Participation, and Demeanor. Clients' scores on the Expectancy factor were found to correlate with measures of cohesion, catharsis, insight, engagement, and conflict experienced by the clients at sessions four and eight of therapy, as well the length of treatment of individual clients. Clients' scores on the Participation scale were found to correlate with measures of experienced cohesion at session 12, as well as change in symptom levels at session 12. Clients' scores on the Domineering scale were found to correlate with measures of engagement and cohesion at session 12, as well as changes in symptom levels at session 4 (Cox et al., 2004). The GSQ is scored by summing responses where lower subscale and total scores indicate that an individual is a relatively strong candidate for group.

Group Therapy Questionnaire. The Group Therapy Questionnaire (GTQ; MacNair & Corazzini, 1994) measures the following variables: previous therapy experiences; expectations for group; family dynamics, including a brief projective of the family constellation; symptoms of substance use and abuse; somatic symptoms, information about suicidal thoughts and crises; possible barriers to successful group treatment; fears about group; and the client's goals for group. It is typically administered prior to client admission to group therapy and examined by the group leaders before the pregroup screening interview. The most recent revision of the GTQ includes a checklist of interpersonal problems that were consistent with a developed model of

group therapy dropout (MacNair, 1993, 1995) that includes interpersonal symptoms related to personality disorders based on the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; American Psychiatric Association, 1994).

Three-week test-retest reliabilities for the major subscales of the GTQ were reported as follows: Alcohol/ Drug Issues, .93; Expectations About Group, .77; Interpersonal Problem total score, .89; and Somatic Concerns, .60 (MacNair-Semands & Corazzini, 1998). Norms were also reported as follows (N = 266): Expectations About Group total score, M = 21.65, SD = 4.21; Family Anger, M = 4.41, SD = 1.93; Problems With Alcohol, M = 1.65, SD = 1.46; Alcohol/Drug Issues, M = 13.22, SD = 9.77; and Interpersonal Problem total score, M = 10.66, SD = 5.60 (MacNair-Semands & Corazzini, 1998).

Scores on the GTQ are calculated as follows. The Likert-type subscales (Expectations about Group, Problems with Alcohol and Alcohol/ Drug Issues) are summed for a total score. The score on the Interpersonal Problems subscale is calculated as the total number of interpersonal problems endorsed. The Family Anger scale is coded by two to three trained raters as the total number of ways in which anger was expressed by parents. In addition, Somatic Concerns scores are calculated as the total number of somatic symptoms (e.g., vomiting, difficulty swalling, pain, etc.) endorsed on a checklist.

Outcome Questionnaire. The Outcome Questionnaire (OQ) is a 45-item, self-report measure rated on a five-point Likert-type scale. Lambert and colleagues (Lambert, Hansen, Humphress, Lunnen, Okiishi, & Burlingame, 1996) developed this instrument according to a tri-dimensional conceptualization of outcome assessment. The measure is designed to sample an individual's subjective discomfort (the way a person feels inside; SD); their interpersonal relationships (how they interact with significant others; IR); and their social role performance

(how they are functioning in life tasks, i.e., at work or in school; SR). The measure was designed to sample a wide variety of behavioral and psychological aspects of a client's life, and is considered widely applicable as an indication of clients' symptom status, as well as their outcome in therapy (Burlingame, Lambert, Reisinger, Neff, & Mosier, 1995; Ogles et al., 1996). Estimates of test-retest reliability in student populations range from .78 to .84 for scale scores. The measure has also demonstrated excellent internal consistency, concurrent validity, and reliability estimates significant at the .01 level. Research has demonstrated high correlations of both total scores and scale scores with test measuring similar constructs. The OQ is used throughout the world, including in university counseling centers throughout the U.S., as a measure of therapeutic change. The OQ is scored by summing subscale and total scores, where lower scores are indicative of lower levels of psychological distress.

While initial and end-of-treatment OQ scores were collected for each client in the study, the data was used for descriptive purposes only, as the sample size of the present study did not allow for predictive statistics to be assessed at a group level, by therapeutic modality or group psychotherapy type.

Procedures

Data collection. Data was collected between January and October 2008. The Group Selection Questionnaire was already in place in client intake paperwork and was filled out by every new client at the BYU CCC regardless of the type of treatment the client was assigned. Counseling Center clients who volunteered to take the 15-25 minute Group Therapy Questionnaire were compensated at a rate of $10. New clients were given the following information about participating in the study (see below) and were given the opportunity to take the Group Therapy Questionnaire:

> *The BYU Counseling and Career Center has a nationwide reputation for its excellent service to clients. The following survey is intended to be an efficient way to give your therapist a better idea of how he or she can best meet your needs. It will take about 15-25 minutes. A gift of $10 will be given to you for taking the time to help us improve our service to you by completing this questionnaire.*

Clients who chose to complete the GTQ were given a paper copy of the measure with the following introduction:

> *Group therapy is a unique form of psychotherapy treatment that has been shown to benefit clients with a variety of needs in a way that is unique from individual therapy. You may have come to this clinic for the purpose of being involved in individual or group therapy. Even if you are not planning on participating in group therapy,* ***please respond to the questions as you would if you had been assigned to a group****.*

As assignment to group was, in most cases, made with the therapist and client in individual therapy, the GSQ and GTQ administration were not be specifically assigned to clients based on their therapy assignment. In order to encourage leaders to consider group therapy for their clients, group leaders were given feedback on their client's scores on the Group Selection Questionnaire. An example of therapist feedback is provided in the appendix (see Appendix D).

Cut scores for the GSQ were based on normative data calculated from intake records between April 2004 and February 2006 at the BYU CCC. Data was collected and sent to the project manager of the study at the BYU CCC, where it was scanned and entered into the project database. Client data were coded for their inclusion in group, individual or both types of therapy concurrently.

Missing data. Out of 300 intake clients who took the GSQ and GTQ, portions of several data points were missing from the data collected. Twenty-one individuals had missing GSQ protocols which were likely due to human error in handling hard copies of intake paperwork, and were dropped from the data. Of the remaining GSQ and GTQ, missing item scores, which were left blank or illegible by clients, were estimated using an item-level mean substitution. When

more than one item in a subscale of either measure contained missing scores, the entire data point was dropped from the analyses. In the end, 269 GSQs and 280 GTQs were left in the data set, which was used for descriptive and factor analytic purposes. In convergent validity analyses, however, only the 269 GTQ scores which corresponded with 269 GSQ scores for the same clients were used in correlational analyses.

Eighty-two clients had only one OQ score recorded and therefore OQ change scores were not calculable for these clients (53 received intake appointments only, 2 took the OQ online and then did not show for their first appointments, 1 was a walk-in crisis visit and 25 were not administered more than one OQ although they attended more than one group or individual therapy session).

Statistical analyses. Data was analyzed in two phases, according to the hypotheses of the study.

Hypothesis 1: The first phase of data analysis employed structural equation modeling in a confirmatory analysis (CFA) of the demonstrated factor structure of the GSQ (Byrne, 2001). This analysis was conducted to determine if the measure continues to exhibit the same factor structure demonstrated in previous samples (Cox et al., 2008; Loeffler et al., 2007). The most recent factor validity research conducted in the Cox (Cox et al., 2008) American counseling center study was utilized as a template for the factor structure asserted in the analysis of the present study, with the exception of Items 5 and 18 which were reversely scored and attributed to the Participation scale rather than Demeanor, a change which was made following their strong loadings in Cox's Principle Components analysis (Cox et al., 2008). Correlative error terms utilized in the most recent validity study CFA's (Cox et al., 2008; Loeffler et al., 2007) were also

used in the present study. More explanation and discussion for these analyses follow in the Results and Discussion sections.

Hypotheses 2, 3, and 4: The second phase of data analysis employed convergent validity assessment via correlations between factors of the GTQ with those of the GSQ to determine the extent to which client responses for these factors related to one another. Specifically, the correlations between scales related to the expectancy scale (Hypothesis 2), between interpersonal scales (Hypothesis 3), and between GSQ Demeanor and GTQ Family Anger scales (Hypothesis 4) were assessed.

Results

Preliminary Analyses

Descriptive statistics. The sample data consisted of college students who were sampled at intake at the Brigham Young University Counseling and Career Center (BYU CCC) at a private university in the western United States. The following tables show descriptive statistics for GSQ items (Table 8), as well as subscale and total scale central tendency statistics (Table 9) for all the GSQ student responses (N = 269).

These descriptive statistics are generally comparable to previous GSQ validity studies. Previous studies are summarized in Table 12, which indicates Total Score, Participation and Expectancy scale descriptive statistics, all recalculated using the same scoring procedures used in the present study. It is noteworthy that in the sample used in the present study, Expectancy scores (M = 9.33) were higher (indicating that clients expected less success in group) than in the majority of previous studies, with the exception of the large sample from which the Elder (Elder et al., 2008) study was drawn. Indeed, the latter sample is the most similar to the present study sample in time and location of retrieval as well as client population. The difference in

Expectancy scores of the present study sample and previous study samples was assessed using an F-test to determine if the difference was statistically significant in a manner suggesting that study findings may not easily generalize to other samples. Findings suggested that mean and standard deviation differences between populations were not significant.

Descriptive Statistics were also calculated for all *Group Therapy Questionnaires* collected (N = 280), as summarized by subscale in Table 11. These may be compared to previous GTQ normative statistics reported (MacNair-Semands & Corazzini, 1998), which are outlined in Table 12 (N = 266 counseling center group therapy clients). These data indicate that the GTQ sample from the present study was generally consistent with the previous sample on the Interpersonal Problems scale. However the present sample had lower mean scores in Expectations About Group, Family Anger, and Alcohol/ Drug Use than in the previous sample. In addition, the Alcohol/ Drug scale scores in the present study (Table 11) had a much smaller standard deviation than in the previous sample, suggesting that not only did clients in the present study sample endorse fewer substance use behaviors on average, but that GTQ responses were less varied across students. This may be explained by the religious affiliation and strong honor code guidelines related to substance use at Brigham Young University.

Table 8

Group Selection Questionnaire Item Level Descriptive Statistics

	Mean	Standard Deviation	Skewness	Kurtosis
Item 1	2.22	.86	0.21	-0.31
Item 2	2.70	.92	-0.13	-0.36
Item 3	2.84	.87	0.15	-0.06
Item 4	2.88	.93	0.32	-0.19
Item 5	3.70	.81	-0.37	0.19
Item 6	2.61	.80	0.39	0.18
Item 7	2.08	.73	0.28	-0.15
Item 8	3.95	.89	-0.82	0.70
Item 9	3.00	1.02	0.35	-0.33
Item 10	3.37	.92	-0.06	-0.12
Item 11	3.19	.98	-0.32	-0.17
Item 12	2.78	.91	0.13	-0.18
Item 13	2.57	.88	0.20	-0.14
Item 14	2.87	.89	0.35	-0.15
Item 15	2.67	.85	0.05	-0.24
Item 16	2.83	1.00	0.00	-0.53
Item 17	2.06	.93	0.47	-0.69
Item 18	3.68	.93	-0.23	-0.43
Item 19	2.73	.95	0.17	-0.02

Table 9

Group Selection Questionnaire Scale Level Descriptive Statistics

	GSQ Participation	GSQ Demeanor	GSQ Expectancy	GSQ Total
Mean	38.65	6.71	9.33	54.70
Median	38.00	7.00	9.00	55.00
Mode	37.00	6.00	9.00	57.00
SD	7.46	1.84	2.29	8.41
Skewness	.04	.30	-.06	.01
Kurtosis	-.23	-.09	-.07	-.13

Statistical assumptions. The CFA, EFA, and correlational procedures in this study are based on the assumption that all items and subscales are continuous and normally distributed (Byrne, 2001; Tabachnik & Fidell, 2007). Thus an initial analysis was a test of the assumptions of normality.

All GSQ items (Table 8) conform to the assumption of normality, are centrally unimodal, and fall within an interval of 1 and -1 for skewness and kurtosis. This indicates that each item approximates a normal distribution (Allen & Yen, 1979; Howell, 2002). GSQ Participation Expectancy and Demeanor subscales, as well as Total scores also demonstrate approximately normal distributions (see Table 9).

Table 10

Group Selection Questionnaire Descriptive Statistics from Previous Validity Studies

Study Name	Scale Name	Mean	SD	Population Info
Cox et al., 2006	Total Score	52.4	5.1	*N = 93; Western USA;*
	Participation	38.5	4.5	*University Counseling*
	Expectancy	7.2	2.1	*Center; intake clients*
Loeffler et al., 2007	Total Score	53.0	9.5	*N = 230; German;*
	Participation	38.8	8.6	*inpatient; Group*
	Expectancy	7.9	2.4	*members*
Cox et al., 2008	Total Score	54.0	8.9	*N = 199; USA;*
	Participation	39.9	8.5	*University Counseling*
	Expectancy	7.5	2.1	*Center; group clients*
Elder et al., 2008	Total Score	54.6	9.3	*N = 894; USA;*
	Participation	38.5	7.3	*University Counseling*
	Expectancy	9.8	2.9	*Center; intake clients*

Table 11

Group Therapy Questionnaire Descriptive Statistics

	Expectations	Family Anger	Alc/Drug	Somatic Concerns	Interpersonal Problems
Mean	16.32	1.95	9.45	.54	9.98
Median	16.00	2.00	8.00	.00	9.00
Mode	16.00	2.00	8.00	.00	9.00
SD	5.29	1.01	4.33	.90	5.74
Skewness	-.06	.68	4.31	2.00	.32
Kurtosis	.67	.60	21.71	4.26	-.71

Table 12

Group Therapy Questionnaire Descriptive Statistics from Previous Study Sample (MacNair-Semands & Corazzini, 1998)

	Expectations	Family Anger	Alc/Drug	Interpersonal Probs
Mean	21.65	4.41	13.22	10.66
SD	4.21	1.93	9.77	5.6

The GTQ subscales used as dependent variables, including Expectations, Family Anger, Alcohol/Drug, Somatic Concerns and Interpersonal Problems, were also tested for conformity with the assumption of normality (Table 11). All met the outlined assumptions, with the exceptions of Alcohol/Drug, which was significant skewed (skewness = 4.31) with very high kurtosis (kurtosis = 21.71), and Somatic Concerns, which was also skewed (skewness = 2.00) with high kurtosis (kurtosis = 4.26). These two subscales were not specifically used to test the study hypotheses, however these findings may be unique to the population studied and are considered in the Discussion section.

Correlations between subscales. Internal validity for the GSQ and GTQ was assessed by calculating correlations between subscales for each measure. The following tables outline subscale correlations for the GSQ (Table 13) and GTQ (Table 14).

Several subscales within the GSQ correlated significantly with one another (N = 269; Table 13). The GSQ Participation scale correlated significantly with both the Demeanor (r = -.14) and Expectancy (r = .28) subscales, in the direction which would be expected based on construct theory. The GSQ total score was correlated with both Participation (r = 0.93) and Expectancy (r = 0.54) subscales. Of note, the Demeanor subscale significantly correlated with only one other scale (Participation; r = -0.14).

Several significant correlations were also found within the GTQ subscales (N = 280; see Table 14). The GTQ total Interpersonal Problems subscale was correlated with the Family Anger subscale (r = 0.16), Alcohol/ Drugs subscale (r = 0.18), and Somatic Concerns subscale (r = 0.29). The Somatic Concerns subscale also correlated significantly with the Alcohol/ Drugs subscale (r = 0.23). Interestingly, the Expectations about Group scale was not correlated significantly with any other GTQ scale, with the exception of the Somatic Concerns subscale,

with which Expectations correlated negatively (r = -0.15), indicating that the greater the somatic complaints endorsed, the lower expectations for success in group.

Table 13

Group Selection Questionnaire Subscale Pearson Correlations

	Participation	Demeanor	Expectancy
Participation			
Demeanor	-.14*		
Expectancy	.28**	.07	
Total	.93**	.12	.54**

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Table 14

Group Therapy Questionnaire Subscale Pearson Correlations

	Expectations	Family Anger	Alc/Drug	Somatic Concerns
Expectations				
Family Anger	.08			
Alc/Drug	.02	.08		
Somatic Concerns	-.15**	-.02	.23**	
Interpersonal Probs	.10	.16**	.18**	.29**

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Factor Analyses

Confirmatory factor analysis. A confirmatory factor analysis (CFA) was performed on the current GSQ data (N = 269) to test the hypothesis that the data would demonstrate a similar variance structure to previous factor validity studies (Loeffler, 2007, Cox, 2008, Burlingame et al., in press). Items within the data set were scored according to the most recent GSQ item scoring procedures and subscale factor structure, which were revised following the Cox (2008) validity study. Figure 2 presents the CFA analysis with item loadings, including application of the same error correlations shown in the Cox et al. (2008) and Loeffler et al. (2007) models. These seven correlated error terms were the same used in the original American factor validity pilot study (Burlingame et al., in press; Cox et al., 2004) and in subsequent factor validity confirmatory analyses with the 19-item measures (Cox et al., 2008; Loeffler et al., 2007). More specific discussion of these correlated error terms can be found in the Discussion section. Fit statistics for this model are found in Table 15. The confirmatory factor analysis revealed that the three factor structure was a good fit for the data (P for test of close fit = 0.045). While a slightly different model was tested, due to slight changes in GSQ scoring procedures, the item factor loadings are similar to those found in earlier studies (see Table 16).

Exploratory factor analysis. A post-hoc exploratory factor analysis (EFA) was conducted using principle components analysis to assess whether slight variations in factor structure fit were due to a significant departure from the model (Byrne, 2001; Kazdin, 2003). Data was submitted to an unrotated principle components analysis in which all components with eigenvalues less than one were excluded.

The EFA model identified four main factors which accounted for 56.49% of the variance in the data, with the majority of GSQ items loading on three main factors (Table 17). One

component accounted for 29.98% of the variance, two components accounted for 40.66% of the variance, and three for 49.16% of the variance. While a fourth factor was identified through the exploratory factor analysis, all items loaded most strongly onto the first three factors, with the exception of Item 8, which loaded positively and slightly more strongly (0.51) on the fourth factor than the third (-0.44). Results of this factor analysis were relatively consistent with the previous EFA model outlined in the 2008 Cox et al. study, with the exception of two items (Items 7 and 8), which loaded differently than anticipated. Item 7 ("If I disagree with what someone is saying, I will interrupt them before they can finish") was originally attributed to the Demeanor scale, suggesting that endorsing the item more strongly may relate to deviant group behavior. Of note, the item loaded only somewhat more strongly onto the Expectancy scale (0.48) than it did onto the Demeanor scale (0.37). Item 8 ("When I first meet someone, I like to share things about myself, including quite personal information") was originally inversely attributed to the Participation Scale, with weaker endorsement indicating more positive interpersonal client attributes. In the Loeffler et al. (2007) factor analytic study, Item 8 was also problematic, as it yielded relatively low factor loadings in the study's final CFA model.

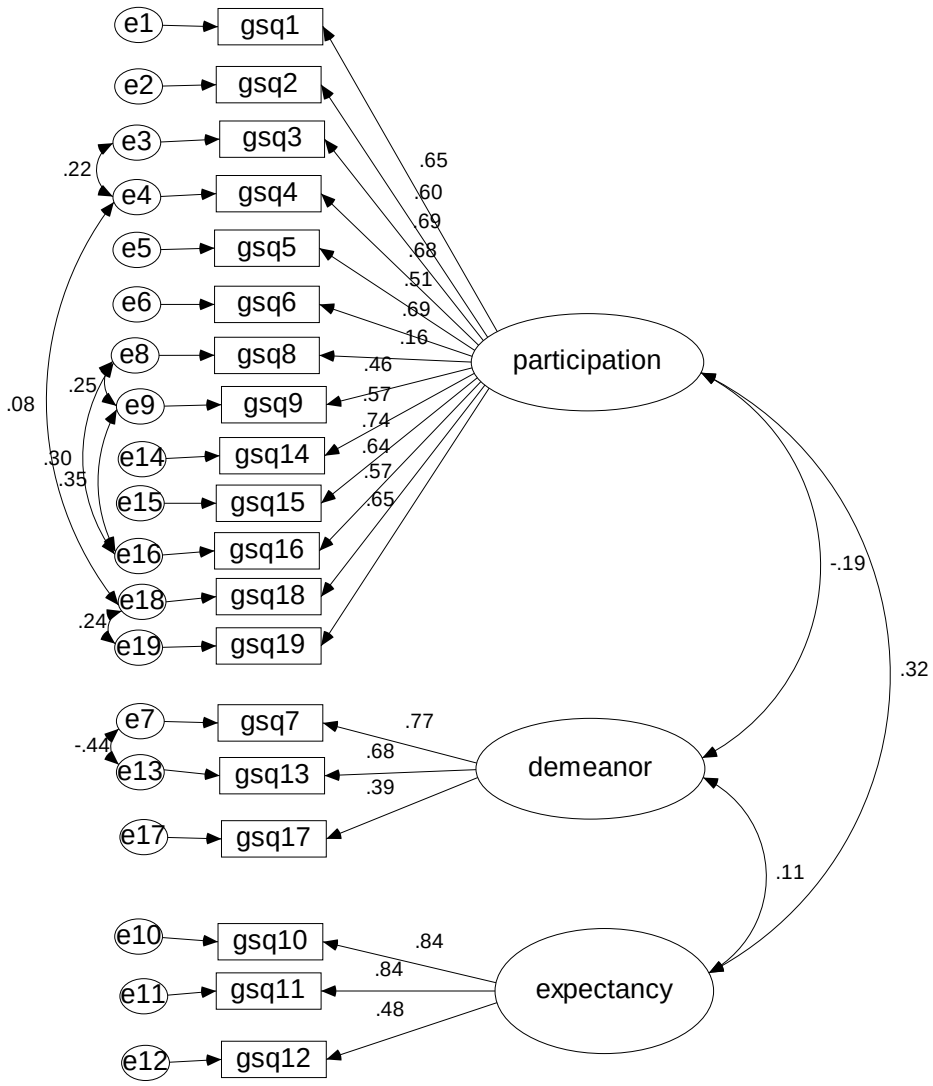

Figure 2. GSQ Model 1.

Table 15

Fit Statistics for GSQ Model 1

Fit Statistic	Value	Level of Fit
N	269	
df	142	moderate fit
χ^2	282.357	good fit
TLI	0.895	moderate fit
CFI	0.913	moderate fit
RMSEA	0.061 (0.050 - 0.071)	moderate fit
P for test of close fit	0.045	good fit

Table 16

Factor Loadings for Current Sample, American Counseling Center (Cox et al., 2008), German (Loeffler et al., 2007), and BYU Pilot (Cox et al., 2004) Samples

Subscale/ Items	Current Sample	American Couns. Centers Sample	German Study Sample	BYU Pilot Study Sample
Expectancy				
10	0.84	0.69	0.69	0.82
11	0.84	0.78	0.68	0.70
12	0.48	0.69	0.70	0.70
Demeanor				
5	--	0.85	0.67	0.79
7	0.77	0.36	removed	0.35
13	0.68	0.39	removed	0.23
17	0.39	0.38	0.38	0.19
18	--	0.56	0.64	0.60
Participation				
1	0.65	0.71	0.71	0.70
2	0.60	0.57	removed	0.62
3	0.69	0.79	0.69	0.78
4	0.68	0.63	0.67	0.68
5	0.51	--	--	--
6	0.69	0.68	0.69	0.76
8	0.16	0.39	0.14	0.36
9	0.46	0.64	0.63	0.62
14	0.57	0.72	0.74	0.73
15	0.74	0.75	0.74	0.84
16	0.64	0.65	0.67	0.68
18	0.57	--	--	--
19	0.65	0.61	0.26	0.58

Table 17

GSQ Principal Components Exploratory Factor Analysis

Item Number	Participation	Expectancy	Demeanor
1	0.65		
2	0.67		
3	0.71		
4	0.71		
5	0.54		
6	0.71		
7		0.48	(0.37)
8			-0.44
9	0.55		
10		0.70	
11		0.69	
12		0.48	
13			0.56
14	0.59		
15	0.74		
16	0.72		
17			0.48
18	0.63		
19	0.69		

Convergent and discriminant validity analysis. In order to assess the effectiveness of the GSQ as a selection measure, the GSQ and GTQ scores were compared. Specifically, Hypothesis 2 proposed that the Expectancy scale of the GSQ would be significantly correlated with the Expectations About Group scale of the GTQ. Hypothesis 3 stated that the Participation Scale of the GSQ would be significantly correlated with the Interpersonal Problems total scale scores of the GTQ. Hypothesis 4 predicted that the Demeanor Scale of the GSQ would be significantly correlated with the Family Anger scale of the GTQ.

A summary of correlations between the GSQ and GTQ subscales is outlined in the following table (Table 18), with a subsequent summary of findings related to the above hypotheses.

Table 18

Correlations between GSQ and GTQ Subscales

	GSQ Participation	GSQ Demeanor	GSQ Expectancy	GSQ Total
GTQ Expectations	-0.08	-0.13*	-0.55**	-0.25**
GTQ Family Anger	0.09	0.07	-0.04	0.08
GTQ Alc/Drug	0.08	-0.05	0.04	0.07
GTQ Somatic Concerns	0.05	0.08	0.19**	0.11
GTQ Interpersonal Probs	0.37**	0.06	0.20**	0.40**

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Expectancy. As predicted, scores on the GSQ Expectancy subscale correlated strongly with the GTQ subscale measuring Expectations About Group (r = -0.55). This finding offers strong support of Hypothesis 2. In addition, the number of interpersonal problems endorsed on the GTQ was correlated with the lower expectancy for success in group (r = 0.20). Finally, small but significant correlations between the GTQ Somatic Concerns scale and both the GTQ Expectations about Group scale (r = -0.15) and the GSQ Expectancy scale (r = 0.19) suggest that the greater the somatic concerns endorsed, the poorer the expectations for group.

Positive interpersonal characteristics. Scores on the GSQ Participation subscale, which measures positive interpersonal skills, correlated significantly with GTQ Interpersonal Problems scores. Specifically, the greater number of interpersonal problems endorsed on the GTQ, the poorer the positive interpersonal skills, as measured by the GSQ Participation scale (r = 0.37). This was consistent with correlations predicted in Hypothesis 3.

Negative interpersonal characteristics. Scores on the GSQ Demeanor subscale, which measures negative interpersonal styles, correlated significantly with Expectations about Group scores on the GTQ. Specifically, lower expectations about group correlated with more negative interpersonal characteristics (r = -0.13). Counter to Hypothesis 4, the GSQ Demeanor subscale did not correlate significantly with the GTQ Family Anger scale.

Discussion

Results provide mixed support for the hypotheses tested in this study. The present study findings generally support previously established factor structure of the GSQ. In addition the convergent validity of the GSQ is also supported, as it generally correlates with the GTQ, another well-established pre-group selection instrument in a manner consistent with theory.

Factor Structure

Results from the confirmatory (CFA) and exploratory (EFA) factor analyses indicate that the factor structure of the GSQ in relatively stable, as in previous studies (Cox et al, 2008: Loeffler et al., 2007), supporting Hypothesis 1.

Confirmatory factor analysis. The CFA demonstrated a similar variance structure (*P* for test of close fit = 0.045) to the models used in the Cox (2008) and Loeffler (2007) studies. Interestingly, Item 8 ("When I first meet someone, I like to share things about myself, including quite personal information") demonstrated a significantly lower factor loading (0.16) than any other item. This item has previously shown mixed loadings in factor analytic studies, with moderate high loadings in American samples and a low loading in the German study sample (see Table 16). In addition, Item 8 along with Item 7 demonstrated different factor loadings in a post-hoc explorative factor analysis (described in detail below) in the present study. These findings may be a result of random sampling error, or they may suggest the GSQ validly measures a new factor, not yet identified.

It is also noteworthy that the CFA factors, Participation, Demeanor, and Expectancy correlated with one another at low to moderate levels (see Figure 2), suggesting that GSQ Total Score (a summation of all three scale scores) may be of less utility than a scale-level assessment of client characteristics.

Exploratory factor analysis. Finally, when the GSQ data was submitted to an EFA, the emergent factor structure was similar to past studies, with only two item differences. The pattern found in this study is similar to the Cox et al. study findings (2008), which demonstrated good fit to the data with only two item variations. Collectively, these results indicate that the underlying factor structure of the GSQ continues to maintain stability across samples populations. The

inclusion of both pro-social (e.g., Item 15, "I often contribute to group discussions.") and reversely scored troublesome interpersonal characteristics (e.g., Item 5, "I typically dominate group discussions.") in the Participation factor, a structure endorsed by Cox's (2008) findings, also continues to appear statistically sound.

Following is an examination of the two items (Items 7 and 8), which loaded differently than anticipated on the EFA. GSQ Item 7 states "If I disagree with what someone is saying, I will interrupt them before they can finish what they are saying." This item loaded onto the Expectancy factor rather than Demeanor, as it had previously (.49; Cox et al., 2008), suggesting that individuals who endorse this item more strongly are likely to have lower expectations for success in group. Item 7 is suggestive of a level of interpersonal abruptness typically associated with difficulty building group cohesion. This finding suggests that this sort of abrupt style may be stronger for individuals who also do not expect to have a successful experience in a group setting. The item loading onto the Expectancy scale is inconsistent with previous factor analyses (Loeffler et al., 2007; Cox et al., 2004, 2008; Burlingame et al., in press), however, and may be indicative of random sampling error. Of note, in the present study, factor loading for Item 7 onto the Demeanor scale (.37) was second most strong, suggesting that this item is also quite related to group deviance, as originally proposed. In any case, more research is warranted to better assess the meaning of this finding.

GSQ Item 8 ("When I first meet someone, I like to share things about myself, including quite personal information.") showed the greatest factor loading in a positive direction (.51) on an unnamed fourth variable. It loaded second most strongly in a reverse direction (-0.44) onto the Demeanor scale. This contrasted with previous loadings on the Participation scale (0.62; Cox et al., 2004; 0.51; Cox et al., 2008). Concerns about Item 8 were raised previously when the item

showed relatively low factor loadings in Loeffler's (2007) confirmatory factor analytic model. Loeffler's (2007) decision to keep Item 8 in the factor model was made based on the item's previous correlations with process and outcome (Cox et al., 2004; Burlingame et al., in press). In summary, Item 8 has shown mixed findings in GSQ validity studies, including low and high factor loadings, with evidence of good predictive ability. It may be suggested that GSQ test validity would benefit from rewording this item, or even deleting it. Alternatively, Item 8 may be a valid measure of a new dimension that has not been explored yet.

Overall, the GSQ factor analysis was moderately consistent with previous study findings. While these findings may represent slight variations in the three-subscale theoretical underpinnings of the GSQ measure, it is also possible that random error is responsible for these differences.

Convergent Validity

Convergent validity findings supported hypotheses two and three, regarding the GSQ Expectancy and Participation (positive interpersonal characteristics) scales, but did not support Hypothesis 4, regarding the Demeanor (negative interpersonal characteristics) scale.

Expectancy. Expectancy for success in group continues to appear to be a robust pre-group measurement construct. As a pre-group assessment variable, it has demonstrated a consistent relationship with process measures in later group sessions (Cox et al., 2008). In addition, group member experiences of cohesion and catharsis are correlated with pre-group Expectancy scores on the GSQ (Cox et al., 2008).

In the present study GSQ Expectancy demonstrated comparably strong convergent validity. The highest subscale bivariate correlations (r = -0.55) were between the GSQ Expectancy and GTQ Expectations about Group subscales (see Table 19). This finding is

consistent with previous research and theory suggesting that expectations for group are a strong and important pre-group measurement (e.g., Kaul & Bednar, 1994; McKisack and Waller, 1996; McKensie, 1997; Mussel et al., 2000; Westra et al., 2007, etc.), and adds support to the validity of this subscale on the GSQ.

While Expectancy measures on the GSQ and GTQ were significantly correlated with one another, it may be useful to look more closely at the similarities and differences in the way this construct was measured on each questionnaire. Table 19 compares items assessing client expectancies on each measure. While the items are very similar, it is noteworthy that the GTQ items are clearly more specific to group therapy than GSQ items. Indeed, the GSQ Expectancy items, particularly when read in the context of other general interpersonal items on the measure, may be interpreted by a client at intake as questions about their general feelings in interpersonal group settings, rather than group therapy itself. This difference may allow the GSQ to be a more versatile pre-therapy measurement tool, used to predict readiness and preparation needs for interpersonal work in both group or individual treatment. Unfortunately, the present study's sample sizes for clients in group therapy only and individual therapy only were not large enough to provide quantitative assessment of this question.

In addition to the differences in item wording, administrative procedures in the present study may have served to inadvertently prime clients differently for the GTQ than the GSQ. Prior to their taking the GTQ clients read the following statement, which encouraged them to think in terms of their specific expectations for group therapy:

> *Group therapy is a unique form of psychotherapy treatment that has been shown to benefit clients with a variety of needs in a way that is unique from individual therapy. You may have come to this clinic for the purpose of being involved in individual or group therapy. Even if you are not planning on participating in group therapy,* ***please respond to the questions as you would if you had been assigned to a group****.*

While the above statement was provided in order to offer study subjects the most clarity regarding the measurement procedure, it was given to them following their completion of all other intake material, including the GSQ, which may have caused them to think differently about GTQ expectancy items. Although the two measures correlated strongly in the present study, it is impossible to determine whether these administrative effects may have led to a smaller correlation between the two subscales than might have been found otherwise.

Table 19

GSQ and GTQ Expectation Construct Items

Measure	Items
Group Selection Questionnaire	Item 10. *I think that working in a group will really help me.* Item 11. *If I participate in a group, I expect to feel quite a bit better when we are finished.* Item 12. *I think that sharing my feelings with others will help me feel better.*
Group Therapy Questionnaire	Item 2. *I look forward to beginning group therapy.* Item 3. *I hope this group will meet my needs.* Item 4. *I suspect that I will be like other group members.* Item 5. *I expect I will stay with the group at least eight weeks.*

Expectancy, as measured by both the GSQ and GTQ was also linked with fewer somatic concerns (r = 0.12 and -0.15, respectively). These small but significant correlations suggest that somatization of problems co-occurs with poorer client expectations for group. This may imply that client attributions regarding the locus of their difficulties (i.e., physical, psychological, etc.) are an important area to address in pre-group preparation, as they can hinder client expectations for group. Indeed this is somewhat consistent with previous literature asserting that somatization

is a detrimental group client characteristic (i.e., Yalom, 1966). Still, these correlations are relatively small and warrant further study.

Evidence for links between interpersonal characteristics and client expectancy were also found, suggesting that individuals who expect success in group tend to also demonstrate more positive interpersonal skills and fewer negative interpersonal characteristics. First, GSQ Expectancy and Participation scores were significantly correlated (r = 0.28). Secondly, the fewer number of Interpersonal Problems endorsed on the GTQ, the more positive GSQ Expectancy score (r = 0.20). Thirdly, Expectations about Group scores on the GTQ correlated with fewer problematic interpersonal characteristics, as measured by the Demeanor scale on the GSQ (r = -0.13). It is intuitive that the more positive the interpersonal skills a client holds, and the fewer interpersonal problems, the more likely they are to expect success in the interpersonal atmosphere of a group. Alternatively, it may be suggested that expectations for success in group relate to a generally more positive outlook on life, which may serve as a springboard for better interpersonal experiences, and the building of more interpersonal strengths.

Positive interpersonal characteristics. Positive interpersonal interactions have long been asserted as an important consideration in pre-group measurement (Crouch, Bloch, & Wanlass, 1994; MacKenzie, 1997; Yalom & Leszcz, 2005). The GSQ Participation scale is intended to be a measure of positive interpersonal styles, and consists of 13 total items, seven of which are negatively worded and reversely scored (see Table 20). The Interpersonal Problems scale of the GTQ consists of a checklist of items adapted from Axis II interpersonal diagnostic symptoms (see Table 21). Interpersonal problems scores were calculated as the total number of symptoms checked.

Hypothesis 2 was supported by the finding that the more positive interpersonal characteristics (Participation) endorsed on the GSQ, the fewer Interpersonal Problems endorsed on the GTQ ($r = 0.37$). This suggests that the higher positive interpersonal skills, the less likely interpersonal problems are to be present in a client's life. This supports treatment approaches which teach positive interpersonal skills as a way of relieving presenting interpersonal difficulties. Since the GTQ Interpersonal Problems scale consists of items adapted from diagnostic criteria for Axis II Personality Disorders, these findings are also indirectly supportive of the call in pre-group preparation literature for attention to such diagnoses in group member selection and composition. In addition, the GTQ Interpersonal Problems scale correlated significantly with GSQ Total scale scores ($r = 0.40$), indicating that the fewer interpersonal problems a clients presents with, the more overall readiness they exhibit for group psychotherapy.

Negative interpersonal characteristics. Just as positive interpersonal characteristics appear to be important in pre-group measurement, negative interpersonal characteristics, sometimes known as group member deviance, are also often cited as important factors to assess when making decisions of client placement in group treatment (Rutan & Stone, 2001; Toseland & Siporin, 1986; Yalom & Leszcz, 2005). This may include antagonistic, aggressive, competitive or other domineering interpersonal behaviors. The Demeanor scale on the GSQ was intended to measure such a construct. In the present study, these domineering behaviors measured by the Demeanor scale were hypothesized to correlate with a greater number of self-reported ways in with anger was expressed in a client's family of origin (the GTQ Family Anger scale).

Table 20
GSQ Participation Scale Items

	Items	Scoring Direction
Item 1.	*When you are with a group of people who are talking about a topic you feel strongly about, how likely are you to express your opinion?*	Reverse Scored
Item 2.	*I like to share my feelings with others.*	Reverse Scored
Item 3.	*I avoid talking in groups.*	Regular Scoring
Item 4.	*I often feel like an outsider in group discussions.*	Regular Scoring
Item 5.	*I typically dominate group discussions.*	Reverse Scored
Item 6.	*I hardly ever say what I'm thinking when I'm with a group of people.*	Regular Scoring
Item 8.	*When I first meet someone, I like to share things about myself, including quite personal things.*	Reverse Scored
Item 9.	*I am very private and hardly ever share how I feel.*	Regular Scoring
Item 14.	*I tend to keep to myself in groups.*	Regular Scoring
Item 15.	*I often contribute to group discussions.*	Reverse Scored
Item 16.	*I am an open person.*	Reverse Scored
Item 18.	*I am the life of a party.*	Reverse Scored
Item 19.	*Others tend to see me as withdrawn.*	Regular Scoring

Note: "Regular Scoring" indicates that Never =1, Rarely=2, Sometimes= 3, Frequently=4, Almost Always=5; "Reverse Scoring" indicates Never=5, Rarely=4, Sometimes=3, Frequently=2, Almost Always=1

Table 21

GTQ Interpersonal Problems Scale Checklist Items

Please check the interpersonal problems you experience:

☐ *excessive arguments*	☐ *verbal abuse to people I care about*
☐ *physical fights with partner*	☐ *physical fights with family*
☐ *physical fights with others*	☐ *separation*
☐ *divorce*	☐ *feel isolated and lonely*
☐ *feeling too dependent on others*	☐ *difficulty socializing*
☐ *shyness*	☐ *loneliness*
☐ *not being assertive*	☐ *difficulty trusting others*
☐ *lose my temper frequently*	☐ *do not enjoy or desire close relationships*
☐ *unstable relationships*	☐ *moods change quickly*
☐ *lack of control of my anger*	☐ *lack of personal identity*
☐ *feel empty and bored*	☐ *feel abandoned*
☐ *constantly need reassurance, approval and praise*	☐ *preoccupied with feelings of envy*
☐ *avoid social activities*	☐ *unable to make decisions without reassurance from others*
☐ *allow others to make my important decisions*	
☐ *often feel uncomfortable or helpless when alone*	☐ *difficulty initiating things on my own*

Hypothesis 4, related to the Demeanor scale of the GSQ, was not supported, however. Negative interpersonal characteristics measured on the GSQ Demeanor scale failed to demonstrate significant correlations with the measure of Family Anger on the GTQ. A possible explanation for this result is the restricted range due to fewer reported ways of expressing anger on the Family Anger scale (see Tables 13 and 14) which may have prevented adequate assessment of covariance. The finding is also likely to be a result of the problematic Demeanor scale itself. The three items that make up this scale (7, 13 and 17) have shown at best moderate (Cox et al., 2008; Loeffler et al., 2007) and at worst poor (Burlingame et al., in press; Cox et al., 2004) support for their loading on a common factor. Thus, the most parsimonious explanation for the lack of support for Hypothesis 4 is the questionable factorial validity of this scale. The Demeanor scale has also shown less consistent predictive validity than GSQ Participation, Expectancy or Total scale scores. In a bivariate correlational assessment of the measure's internal validity, the Demeanor scale did not correlate with Expectancy or GSQ Total scale scores, and only minimally correlated with Participation (r = -0.14). For these reasons, it has recently been suggested that the three items in this scale be reported to clinicians separately as "critical items," rather than as a scale score, to consider when asserting clinical judgment in pre-group preparation procedures.

Deviance continues to be the most complex of the three constructs in the GSQ. It is often noted in clinical discussions of group member selection, that if group is considered an important therapeutic setting for interpersonal development, it is illogical to only attempt to include individuals with the best interpersonal skills in a group. In a discussion of the construct of group member deviance, MacNair-Semands (2008) noted that while group literature has shown that

dominant clients have rated process variables more negatively (insight, altruism), they also have been found to recover by the end of group. Indeed, in Cox's most recent GSQ study (Cox et al., 2008) members with more deviant characteristics viewed the group as less avoidant, which may be an asset to group participation by a member. In addition, MacNair-Semands (2008) suggested that dominant interpersonal characteristics may be a more flexible variable, which changes according to different group variables, shifting over time in group, and varying related to leader skills, responses by group, and the ability of the member to hear feedback.

In summary, the Demeanor scale of the GSQ has yielded inconsistent utility in this and previous GSQ validity studies. Negative interpersonal characteristics suggestive of appropriate exclusion from group therapy have been explored over time in pre-group measurement literature, yielding inconsistent predictive validity for group success, as well as minimal convergent validity. Given the construct's apparent flexibility across time and various group characteristics (MacNair-Semands, 2008), deviance may be better understood through group composition research. For example, a deviant client may theoretically experience more success in a group composed of members with heterogeneous interpersonal strengths and weaknesses. In addition, a range of difficulty rather than a single cut-off may be more optimal in assessing this construct. More specifically, clients with a balance of manifest interpersonal difficulties and interpersonal pathology, as well as a capacity for interpersonal relationships may be among the most important to include in group psychotherapy (MacNair-Semands, 2008; Sotsky et al., 1991).

Limitations and Advantages

A limitation of the study is the possibility of a sampling bias due to the convenience sample, including intake clients willing to participate, rather than random assignment within the BYU Counseling Center. It is impossible to assess whether participating clients responded to

questionnaires in a significantly different manner than those who opted not to participate. In addition, another limitation may relate to the specific sample population being used. Some evidence suggests that GTQ data was different from a previous counseling center normative sample, including variations in mean and standard deviations (see Tables 13 and 14). These variations indicate that the present BYU sample had generally lower mean scores on Expectations about Group, Family Anger scores and Alcohol/Drug subscales. These findings may be due to the unique religiously conservative culture in this college sample population. This may hinder generalization of findings to other populations, and bears further assessment. Still, Interpersonal Problem endorsement on the GTQ for the BYU sample was consistent with the previous normative sample. In addition, normative assessment of GSQ data compared with previous validity study samples indicated that scores were not significantly different from those of previous samples. This study, as the first to compare the GTQ and the GSQ, should only serve as a preliminary study.

A second limitation related to the study sample size. The sample size was too small to represent each type of group for a multilevel analysis to be used to account for group variation in outcome work. Thus predictive validity analyses for the GSQ and GTQ regarding outcome could not be conducted. This represents an area for future study.

In addition, the individuals who took the GSQ and GTQ in this study received a variety of treatment types, including individual therapy, group therapy, relationship therapy, or a combination of two or more concurrent treatment modalities. Sample sizes were not large enough to assess differences between treatment types. This may be a limitation for the analysis of the comparative effectiveness of the GTQ in predicting group therapy versus individual therapy outcome. In a preliminary archival analysis of Counseling Center data, however,

outcome change trajectories for these three conditions— group only, individual therapy only, and a combination of group and individual therapy—were found to be fundamentally equal at an aggregate level (Elder et al., 2008). That is, the two formats are on average producing equivalent results.

Despite these limitations, this study provides a number of possible benefits. One possible benefit is the contribution of support for the use of the GSQ as an effective measurement of client readiness for group. This measure may improve therapists' ability to optimize group composition by considering both expectancy and participation subscales. The knowledge resulting from this study will add incrementally to previous GSQ measurement development studies (Burlingame et al., in press; Cox et al., 2004; Cox, 2008; Elder, 2008; Krogal, 2009; Loeffler et al., 2007). This will contribute to the developing knowledge base in group therapy and prediction research literature. Finally, results from this study should serve as preliminary information to spur future research in the areas of group member selection, member preparation and group composition and provide support for increased funding of research in this and related areas.

Future Research

First, as described above, the Demeanor subscale of the GSQ presents a puzzle which warrants further study. Some degree of interpersonal difficulty appears important in group, since a clear benefit of group therapy is the social learning that takes place in this interpersonal context. As outlined above, inconsistent findings on this scale may be due to a misuse of the construct in categorical terms of exclusion and inclusion. Perhaps, instead, extreme scores ("too little" or "too much" dominance) may be deemed inappropriate in group. Further research of this subscale is warranted.

Second, examination of the use of the GSQ for more than simple pre-group selection is an important next step in the measurement development. Other potential uses of the measure, which warrant further study, may include its use in more complex group composition decisions, related to the choices about group member placement according to the specific areas of strength and weakness for other clients within the group. In addition, the measure has the potential to serve as a useful feedback tool for therapists, giving them information at intake regarding areas for pre-group preparation.

Finally, with consistent demonstration across validity studies, the statistical utility of the GSQ as an efficient and effective predictor of group therapy success is well established. In the course of the measurement development of the Group Selection Questionnaire, a more practical focus on the clinical utility of the measure is now warranted. Several simple areas of improvement in the measure are suggested. First, scoring on the GSQ is logistically difficult and intuitively confusing. For example, low scores on the GSQ indicate greater readiness for group, often confusing clinicians. This may easily be remedied by reverse present GSQ scoring procedures so that high scores indicate greater group readiness. In addition, while the GSQ serves as an indicator of a client's greater and lesser need for pre-group preparation, specific cut scores and useful descriptors have not yet been identified to guide therapist in their clinical assessment of a client's pre-group needs.

The clinical utility of the GSQ may also be addressed through specific pre-group preparation suggestions, tied to specific GSQ profiles would also improve the clinical utility of the Group Selection Questionnaire. These might include recommendations specific to client expectancies, such as normalization of common fears and misconceptions (e.g., air time concerns – "Will I have enough time allotted to me?" emotional contagion concerns – "Others will make

me worse," and confidentiality concerns – "Group members will talk about me outside of group"), work to create realistic and positive group expectations, anticipate frustration, and identify specific interpersonal goals. Clinician helps might also include recommendations specific to client interpersonal strengths and weaknesses, such as exploring a client's interpersonal styles with family, friends and acquaintances and anticipated how these styles might appear in group, educating a client on behaviors and attitudes that will assist them in benefiting interpersonally in a group, including consistent group attendance, suspension of judgment, giving and receiving feedback, and so forth. The Demeanor scale items might also serve as sourced for exploration and collaborative curiosity between a therapist and pre-group client. Certainly, these ideas serve as only a preliminary articulation of the potential interface between GSQ client information and clinical work. Overall, the validity of the GSQ is no longer in significant question. Thus, the pragmatic utility of the measure will likely serve as an effective focus of future studies.

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Appendices

Appendix A. The Group Selection Questionnaire (GSQ)

GSQ 3.0

NAME:_____ MALE: ☐ FEMALE ☐
ID #:_____ DATE OF BIRTH:____/____/____
TODAY'S DATE:____/____/____

INSTRUCTIONS: The following questions ask about how you feel about working together in a group. Please read each question carefully, and then mark the box that best describes HOW MUCH OF THE TIME YOU HAVE FELT THIS WAY DURING THE PAST MONTH (30 DAYS). There are no right or wrong answers, so please be as honest as you can.

	Never	Rarely	Sometimes	Frequently	Almost Always
1. When you are with a group of people who are talking about a topic you feel strongly about, how likely are you to express your opinion?	☐5	☐4	☐3	☐2	☐1
2. I like to share my feelings with others.	☐5	☐4	☐3	☐2	☐1
3. I avoid talking in groups.	☐1	☐2	☐3	☐4	☐5
4. I often feel like an outsider in group discussions.	☐1	☐2	☐3	☐4	☐5
5. I typically dominate group discussions.	☐1	☐2	☐3	☐4	☐5
6. I hardly ever say what I'm thinking when I'm with a group of people.	☐1	☐2	☐3	☐4	☐5
7. If I disagree with what someone is saying, I will interrupt them before they can finish what they are saying.	☐1	☐2	☐3	☐4	☐5
8. When I first meet someone, I like to share things about myself, including quite personal information.	☐5	☐4	☐3	☐2	☐1
9. I am very private and hardly ever share how I feel.	☐1	☐2	☐3	☐4	☐5
10. I think that working in a group will really help me.	☐5	☐4	☐3	☐2	☐1
11. If I participate in a group, I expect to feel quite a bit better when we are finished.	☐5	☐4	☐3	☐2	☐1
12. I think that sharing my feelings with others will help me feel better.	☐5	☐4	☐3	☐2	☐1
13. I am abrupt with others if I feel strongly about what I'm saying.	☐1	☐2	☐3	☐4	☐5
14. I tend to keep to myself in groups.	☐1	☐2	☐3	☐4	☐5
15. I often contribute to group discussions.	☐1	☐2	☐3	☐4	☐5
16. I am an open person.	☐1	☐2	☐3	☐4	☐5
17. I argue for argument's sake.	☐1	☐2	☐3	☐4	☐5
18. I am the life of a party.	☐1	☐2	☐3	☐4	☐5
19. Others tend to see me as withdrawn.	☐1	☐2	☐3	☐4	☐5
SUBSCALE TOTALS:					

DO NOT MARK BELOW
D E P

TOTAL:

Appendix B. The Group Therapy Questionnaire (GTQ)

Group Therapy

Group Therapy

Questionnaire -S

Name: _____

Date: _____

Counseling Center
University of North Carolina at Charlotte
9201 University City Blvd.
158 Atkins
Charlotte, NC 28223

with special appreciation to the late John G. Corazzini
rrmacnai@uncc.edu

The Group Therapy Questionnaire is designed to help you learn more about how you might profit from group therapy and how we might be better able to help you. There are no right or wrong answers. Please respond to the questions as honestly and clearly as you can.

Counseling:

1. Have you had previous counseling of any type?.....Yes……No…….

A. If yes, what type?

* Individual therapy _____
* Group therapy _____
* Family therapy _____
* Other _____

		(Not at all)						(Very much)
2.	**I look forward to beginning group therapy.**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3.	**I hope this group will meet my needs.**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4.	**I suspect that I will be like other group members.**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5.	**I expect I will stay with the group at least eight weeks.**	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Family:

1. How did your parents show their caring for you?

_____

_____

2. Children play different roles in their family. What role did you play in your family?

_____

_____

3. How did your parents show their anger at you?

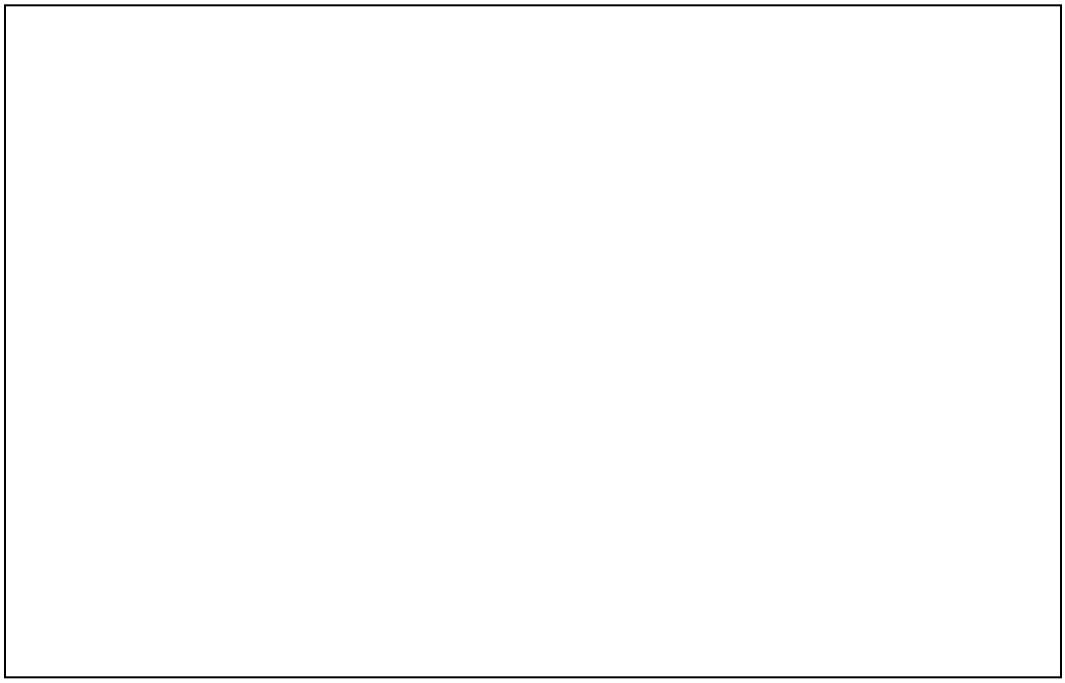
_____

_____

4. How did you express your anger toward your parents?

_____

5. **Diagram your family. It can be helpful if you use placement to depict closeness and size to reflect status.**



6. **What, if any, conflicts are arising in work or school relationships?**

_____

_____

7. **What role do you play in your current family or intimate relationships that contributes to difficulties?**

_____

_____

Drug and Alcohol Use:

		(Not at all)						(Very much)
1.	**Do/did either of your parents have a substance abuse problem?**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2.	**Have you ever tried to control or limit your use of alcohol/drugs?**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3.	**Have you ever tried to quit using alcohol/drugs?**	**1**	**2**	**3**	**4**	**5**	**6**	**7**

4.	**Do you want to quit using alcohol or drugs now?**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5.	**Have you had any relationships end due to alcohol or drug use?**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6.	**Have you ever physically hurt someone when you were using alcohol or drugs?**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7.	**Does your spouse, a parent or a significant other worry or complain about your substance use/drinking?**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8.	**Have you ever gotten into trouble at work or school because of substance use/drinking?**	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Health:

1. Check any of the following you experience:

- ☐ vomiting
- ☐ difficulty swallowing
- ☐ pain in legs, arms, back, joints, during urination
- ☐ shortness of breath when not exerting oneself
- painful menstruation
- ☐ amnesia
- ☐ burning sensation in sexual organs(other than intercourse)

2. Do you have friends? (Check one) ☐ None ☐ Few ☐ Many

3. Are you feeling suicidal? ☐ No ☐ Yes, with thoughts only ☐ Yes, with intent/plan

4. Are you feeling homicidal/wanting to kill someone?

☐ No ☐ Yes, with thoughts only ☐ Yes, with a plan

5. Please check the interpersonal problems you experience:

- ☐ excessive arguments
- ☐ physical fights with partner
- ☐ physical fights with others
- ☐ divorce
- ☐ feeling too dependent on others
- ☐ shyness
- ☐ not being assertive
- ☐ lose my temper frequently
- ☐ unstable relationships
- ☐ lack of control of my anger
- ☐ feel empty and bored
- ☐ constantly need reassurance, approval and praise
- ☐ avoid social activities
- ☐ allow others to make my important decisions
- ☐ verbal abuse to people I care about
- ☐ physical fights with family
- ☐ separation
- ☐ feel isolated and lonely
- ☐ difficulty socializing
- ☐ loneliness
- ☐ difficulty trusting others
- ☐ do not enjoy or desire close relationships
- ☐ moods change quickly
- ☐ lack of personal identity
- ☐ feel abandoned
- ☐ preoccupied with feelings of envy
- ☐ unable to make decisions without reassurance from others

- ☐ often feel uncomfortable or helpless when alone
- ☐ easily hurt by criticism or disapproval
- ☐ procrastinate
- ☐ often unaware of feelings or numb
- ☐ difficulty initiating things on my own
- ☐ feel devastated when close relationships end
- ☐ perfectionism that interferes with task completion

6. Are you in any kind of crisis right now? ☐ Yes ☐ No

Therapy Considerations:

1. What are you most afraid of about group therapy?

_____

_____

2. If you could change something about yourself as a result of group therapy, what would you change?

_____

_____

3. Specify what *you believe* to be your difficulties.

_____

_____

_____

4. What are your goals for group therapy?

a. _____

b. _____

c. _____

5. What might prevent you from reaching your goals?

_____

_____

6. Is there anything you have not told us that you believe might be helpful?

_____

Appendix C. The Outcome Questionnaire (OQ- 45)

ID NUMBER: (__ __ / __ __ / __ __)
Month of birth: (mother's / father's / yours) **Date: _____**

OQ

Complete and give this confidential questionnaire to your counselor. Please use a dark pen or pencil and avoid stray marks. Reliable Marks  Marks That WON'T Scan or Will Likely Cause Scanning Errors

Looking back over the last week, including today, help us understand how you have been feeling. Read each item and fill the "bubble" that best describes your current situation. For this questionnaire,"work" is defined as:employment, school, housework, volunteer work, and so forth.

		Never	Rarely	Sometimes	Frequently	Almost Always
1	I get along well with others	○	○	○	○	○
2	I tire quickly	○	○	○	○	○
3	I feel no interest in things	○	○	○	○	○
4	I feel stressed at work/school	○	○	○	○	○
5	I blame myself for things	○	○	○	○	○
6	I feel irritated	○	○	○	○	○
7	I feel unhappy in my marriage or significant relationship	○	○	○	○	○
8	I have thoughts of ending my life	○	○	○	○	○
9	I feel weak	○	○	○	○	○
10	I feel fearful	○	○	○	○	○
11	After heavy drinking, I need a drink the next morning to get going (If you do not drink, mark "never")	○	○	○	○	○
12	I find my work/school satisfying	○	○	○	○	○
13	I am a happy person	○	○	○	○	○
14	I work/study too much	○	○	○	○	○
15	I feel worthless	○	○	○	○	○
16	I am concerned about family troubles	○	○	○	○	○
17	I have an unfulfilling sex life	○	○	○	○	○
18	I feel lonely	○	○	○	○	○
19	I have frequent arguments	○	○	○	○	○
20	I feel loved and wanted	○	○	○	○	○
21	I enjoy my spare time	○	○	○	○	○
22	I have difficulty concentrating	○	○	○	○	○
23	I feel hopeless about the future	○	○	○	○	○
24	I like myself	○	○	○	○	○
25	Disturbing thoughts come into my mind that I cannot get rid of	○	○	○	○	○
26	I feel annoyed by people who criticize my drinking (or drug use). (If not applicable, mark "never.")	○	○	○	○	○
27	I have an upset stomach	○	○	○	○	○
28	I am not working/studying as well as I used to	○	○	○	○	○
29	My heart pounds too much	○	○	○	○	○
30	I have trouble getting along with friends and close acquaintances	○	○	○	○	○
31	I am satisfied with my life	○	○	○	○	○
32	I have trouble at work/school because of drinking or drug use. (If not applicable, mark "never.")	○	○	○	○	○
33	I feel that something bad is going to happen	○	○	○	○	○
34	I have sore muscles	○	○	○	○	○
35	I feel afraid of open spaces, of driving, or being on buses, subways, and so forth	○	○	○	○	○
36	I feel nervous	○	○	○	○	○
37	I feel my love relationships are full and complete	○	○	○	○	○
38	I feel that I am not doing well at work/school	○	○	○	○	○
39	I have too many disagreements at work/school	○	○	○	○	○
40	I feel something is wrong with my mind	○	○	○	○	○
41	I have trouble falling asleep or staying asleep	○	○	○	○	○
42	I feel blue	○	○	○	○	○
43	I am satisfied with my relationships with others	○	○	○	○	○
44	I feel angry enough at work/school to do something I might regret	○	○	○	○	○
45	I have headaches	○	○	○	○	○

OQ-OFF

Appendix D.

Group Selection Questionnaire
Therapist Feedback Form

The *Group Selection Questionnaire* (GSQ) is intended to guide therapists in referring and preparing clients for group therapy. High percentiles on this measure are linked to good process, client outcome, and low attrition in groups. Low percentiles on this measure do not suggest that the clients are not good candidates for group, but highlight areas where therapists may work to train and educate clients in preparation for group.

Definitions:

Expectancy: The expectation that one will benefit from participation in group therapy. Expectancy has shown significant correlations with measures of group process (cohesion, catharsis, and insight; .24-.55) and remaining in treatment (.25).

Participation: Positive interpersonal skills, including interacting with others in helpful ways, openness, likeability, and friendliness. Participation has shown significant correlations with a measure of group process (cohesion; .54) and positive symptom change (.40).

Demeanor: Interpersonal behavior that may be viewed negatively in a group, including a client's tendency to interact provocatively with the group and to have difficulties with intimacy. The absence of these characteristics are positively correlated with strong group process (cohesion; .43) and positive symptom change scores (.26).

Note: Descriptors of GSQ subscale scores are based on percentiles derived from archival CCC data as indicated below.

PERCENTILE	***DESCRIPTOR***
≥ 98	Very superior
91-97	Superior
75-90	High average
25-74	Average
9-24	Low average
2-8	Borderline
<2	Extremely Low

Your client's scores on the GSQ:

Subscale:	*Percentile*	*Descriptor*
Participation		
Demeanor		
Expectancy		
Overall Selectibility		