Assessing Change in Socially Inhibited Interpersonal Subtype through Focused Brief Group Therapy

David A. Yutrzenka

Wright State University

Follow this and additional works at: https://corescholar.libraries.wright.edu/etd_all
Part of the Psychology Commons

Repository Citation
https://corescholar.libraries.wright.edu/etd_all/660

This Dissertation is brought to you for free and open access by the Theses and Dissertations at CORE Scholar. It has been accepted for inclusion in Browse all Theses and Dissertations by an authorized administrator of CORE Scholar. For more information, please contact corescholar@www.libraries.wright.edu, library-corescholar@wright.edu.
ASSESSING CHANGE IN SOCIALLY INHIBITED INTERPERSONAL SUBTYPE THROUGH FOCUSED BRIEF GROUP THERAPY

PROFESSIONAL DISSERTATION

SUBMITTED TO THE FACULTY

OF

THE SCHOOL OF PROFESSIONAL PSYCHOLOGY

WRIGHT STATE UNIVERSITY

BY

DAVID YUTRZENKA, PSY.M.

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PSYCHOLOGY

Dayton, Ohio

September, 2013

COMMITTEE CHAIR: Martyn Whittingham, Ph.D.

Committee Member: Jeffery Allen, Ph.D., ABPP-CN

Committee Member: Anthony Teasdale, Ph.D.
I HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER MY SUPERVISION BY DAVID YUTRZENKA ENTITLED ASSESSING CHANGE INSOCIALLY INHIBITED INTERPERSONAL SUBTYPE THROUGH FOCUSED BRIEF GROUP THERAPY BE ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PSYCHOLOGY.

_______________________________________
Martyn Whittingham, Ph.D.
Dissertation Director

_______________________________________
La Pearl Logan Winfrey, Ph.D.
Associate Dean
Abstract

An outcome study of effectiveness was completed for the Focused Brief Group Therapy (FBGT) at a college counseling wellness service center concerning individuals who endorsed distress due to a specific interpersonal type, social inhibition. Pre-existing data from the Inventory of Interpersonal Problems-32 (IIP-32) and the Counseling Center Assessment of Psychological Symptoms (CCAPS) was analyzed for these individuals prior to and after completion of FBGT. This researcher hypothesized that through the process of the groups, statistically significant decrease in scores of Social Inhibition, Total Interpersonal Distress, Depression, Social Anxiety, Generalized Anxiety and Academic Distress as a function of the group process would occur. Results indicated a total population decrease across some, including the targeted behavior scale, but not all scales as hypothesized.
# Table of Contents

List of Figures vi  
List of Tables vii  
Acknowledgments viii  
Chapter I 1  
A. The Case for Evidence Based Outcome Research/Practice Based Evidence 4  
B. Mental Health on Campus 6  
C. Focused Brief Group Therapy (FBGT) 11  
Review of FBGT Theoretical Bases 11  
D. Pre-Group Preparation 20  
IIP-64 and IIP-32 23  
CCAPS – 34 and CCAPS- 62 29  

Chapter II Methods 33  
A. Participants 33  
B. Procedure 33  
C. Materials 34  

Chapter III Results 35  
A. Population Demographics 35  
A. Statistical Analysis 35  
B. Analysis by Severity 37  

Chapter IV Discussion 44  
A. Limitations 59  
B. Future Directions 61  

Chapter V Conclusion 64  

References 66
## List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>1982 Basic Interpersonal Circle (Kiesler, 1982)</td>
<td>14</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Complete 1982 Interpersonal Circle (Kiesler, 1982) with Levels of Severity</td>
<td>17</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Frequency of Treatment Session across Population</td>
<td>51</td>
</tr>
<tr>
<td>Figure 4.1</td>
<td>Primary Diagnoses for Population</td>
<td>54</td>
</tr>
<tr>
<td>Figure 4.2</td>
<td>Secondary Diagnoses for Population</td>
<td>54</td>
</tr>
<tr>
<td>Figure 4.3</td>
<td>Third Diagnoses for Population</td>
<td>55</td>
</tr>
</tbody>
</table>
## List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Demographic Description of Population</td>
<td>36</td>
</tr>
<tr>
<td>Table 2</td>
<td>Results of Sample Paired T-Tests</td>
<td>38</td>
</tr>
<tr>
<td>Table 3</td>
<td>Reliable Change Index (RCI)</td>
<td>39</td>
</tr>
<tr>
<td>Table 4.1</td>
<td>Individual Results</td>
<td>40</td>
</tr>
<tr>
<td>Table 4.2</td>
<td>Individual Results, Continued</td>
<td>41</td>
</tr>
<tr>
<td>Table 4.3</td>
<td>Individual Results, Continued</td>
<td>42</td>
</tr>
<tr>
<td>Table 5</td>
<td>Results of Sample Paired T-Tests for Severe Social Anxiety, General Anxiety and Depression</td>
<td>43</td>
</tr>
</tbody>
</table>
Acknowledgments

Throughout this research and dissertation process, there have been several people who have helped out along the way, and helped craft this project from brainstorming to final product. First and foremost, I have to thank by parents, Barb and Jerry Yutrzenka, and my big brother Chris. I would not be in the position to be writing these acknowledgments without their support, love and compassion throughout the entire SOPP process. Even though they have been many hours away for the past four years, they have been experiencing the highs, lows, stresses, and successes along with me every step along the way. Their support and my thanks to them are both immeasurable and priceless.

I also would like to acknowledge my dissertation chair and academic advisor, Dr. Martyn Whittingham. I came to the program with minimal direction and knowledge of what to focus on for my final dissertation project. It was through the various classes taught by Dr. Whittingham throughout my first two years in the program that I decided I would like to make him my advisor. His passion for group psychotherapy, drive to make a difference in the field, and willingness to allow a student like myself work on his research made the process new, exciting and rewarding. It became evident early on that this project can be the beginning of something much bigger and I hope to continue to work alongside of Dr. Whittingham in the years to come as I enter the field of clinical psychology. Along with my dissertation chair, I also need to thank the other members of my dissertation committee. Dr. Allen and Dr. Teasdale have been supportive when needed, and have provided helpful professional and personal feedback that I will always carry with me, even past this first attempt at a quantitative research project.
Dr. Julie Williams, my practicum supervisor during some of the most stressful moments of the past year in the program, has also been an incredible source of support. She has always offered an ear to vent to, along with advice to manage all that is expected of us as fourth year students. “Go into your bubble” was the best advice I received for the entirety of the program, as the “noise” that surrounds us in SOPP can easily get us anxious, overwhelmed and off-focus. Her ability to bring me back down to earth has done for my sanity during the past year than I can ever quantify.

Finally, I need to thank my fellow SOPP blue classmates, my friends outside of the program, and my lovely partner, who have all contributed to giving me the motivation to complete not only this dissertation, but this graduate program in general. I have met some of the most amazing people in Dayton, Ohio. Coming from South Dakota to a new city with no pre-existing contacts and connections, meeting these individuals have made this process much easier, more fun, and even more difficult to leave.
Chapter I

Gordon Paul (1967) once posed the question “How much of which psychotherapy by whom is most effective for which patient with what type of problem?” Forty years later in the field of clinical psychology, researchers and practitioners are still attempting to understand how to answer this question. Throughout the history of psychology, an increasing amount of treatment settings and interventions, informed by the seemingly infinite number of theories, have been created, used, and studied with the goal of answering the question in a unique, relevant and innovative manner. Clinicians have attempted to capture and document the necessary attributes needed in treatment for change to occur. Initial and primarily anecdotal studies of treatment efficacy and outcome research concerning clinically relevant findings have been written about and analyzed time and time again. However, as the current climate of psychotherapy has evolved, the need to document more than mere qualitative and clinically significant treatment has also become paramount (Spring, 2008). Proving a treatment’s efficacy by today’s standards of care now includes analysis of both qualitative and quantitative results, and often times widespread use and funding of the treatment will follow only those which document statistically significant improvement.

Documenting change is a necessity, however, naming the aspects of therapy that increase effectiveness, and determining exactly what one considers to be “change,” are continual debates within the field. Various points of view differ in philosophy and
concept, in goals or objectives and in methods or technique. Add in the individual
differences among individual practitioners and there are a variety of unique perspectives
on what constitutes change (Patterson, 2000). If we were to examine the set goals of the
different theoretical approaches, we would find an incredible range and variety
(Patterson, 2000). While some therapists may speak in terms of needing to adjust to
one’s environment, others may discuss personality reorganization, others challenging
their inner beliefs, and still others are concerned about developing independence, or
becoming more interpersonally flexible. In short, several forms of psychotherapy for
children, adolescents, and adults produce therapeutic change (Kazdin & Weisz, 2003;
Lambert, 2004). It is easy to state that psychotherapy “works” but we have little idea as
to why or how.

While there may be no one specific explanation for change, there are several
therapeutic factors which are understood as common across all treatment types. Research
has proposed that differing theoretical and evidence based approaches to therapy have
common components, and that these components account for outcome regardless of the
theoretical approach (Imel & Wampold, 2008). For example, one of these common
factors concerning the process of change is that successful therapy is a process conducted
by a skilled therapist who helps the client get invested and involved in the process. Other
common change process factors across theories are the relationship, the counseling
techniques, the placebo, hope, expectancy and rituals (Imel & Wampold, 2008).

A common factors approach may have an abundance of research to reinforce the
belief of their presence and importance (Gifford, 2002; Luborsky, Rosenthal, Diguer,
Andrusyma, Berman, Levitt, Seligman, & Krause, 2002), however, this approach simply
does not satisfy researchers and the increasing presence of third party pay resources.

Efficacy as defined by these sources indicates that there is clear evidence that a client is experiencing relief due to the interventions in place, and that these changes can be measured. The focus of the field has slowly turned to proving that an intervention is actually doing what it claims to do. Outcome research, measuring some aspect of the individual prior to and after treatment, increases in importance for this reason. The ability to visually show and describe the levels of change after the implementation of a treatment plan is valued by the community. However, even the idea of what constitutes an outcome study is highly debated within the field. Some believe that the therapist is the most reliable source in reporting change, while others believe the client is the expert on how much relief they are experiencing (Joseph, 2003). Some clinicians report only needing a verbal statement as evidence of effectiveness, while others believe the only legitimate result is one that accompanies standardized outcome measures.

With the confusion that comes with determining how change occurs and is documented, Kazdin (2007) proposed several recommendations for future psychotherapy research of efficacy. He indicated that a given theoretical orientation can serve as a guide to assessing change, but a specific construct regardless of theory should be measured. This leads to his next point that the mechanism of change should be specific enough so that it can indeed be measured. Third, a timeline for the measurement of the construct must be created, and assessment on numerous occasions can provide information on the mechanisms of change. Next, research should utilize designs that can evaluate change of the mechanism, and finally researchers should examine consistencies across different types of studies. As managed care continues to influence and place emphasis on “therapy
that works” Kazdin’s determinants may be the outcome method which suffices all parties involved.

**The Case for Evidence Based Outcome Research/Practice Based Evidence**

While clinical activity based on evidence of effectiveness has been a key tenet of the field of clinical psychology for years (Eysenck, 1952), it is only more recently that the field truly demands these evidenced based practices (Chwalisz, 2003). Evidence based practice as a movement in psychology, was taken and adapted from a medical construct. In the US, various medical successes increased the potential to differentiate the irrational treatments and the scientifically based medicine/treatment (Spring, 2008). Delivering best health care practices in all facets of health care, in a standardized, and consistent manner has remained vital throughout the 20\(^{th}\) and 21\(^{st}\) centuries.

Research has continually explained and explored why evidence based-practices and treatment are important for the field of clinical psychology, and health care services as a whole. One major rationale for an evidence base is to improve overall quality and worth of health care services (Wennberg, Fisher & Skinner, 2004), meaning that already scarce funding in the realm of health care needed to be used only on treatments that can demonstrate worth in the field. Changes in policy support for clinical treatment and public health practices are more systematically based on review of research evidence. These policy judgments tend to effect the determination for whether or not a third party, or insurance provider (i.e. Medicare/Medicaid) will cover a psychotherapy treatment (Doss, 2001).

The results and findings of evidence based treatment trials also serves a purpose of filling in potential gaps in research, as there are various areas of behavioral sciences
which are lacking understanding (Moyer, Klein, Ockene, Teutsch, Johnson & Allan, 2005). This relates back to policy making bodies, as the lack of quality evidence often leads these bodies to deem a particular intervention insufficient as a standard of practice. Similarly, the emergence of evidence based practices allows for “transdisciplinary collaboration (Spring, 2008), as progress in collaboration is sometimes impeded by differences in frames of reference and semantics across the various health disciplines (Ruggill & McAllister, 2006). Creating a common vocabulary concerning evidence based treatment affords those in the mental health professions to participate more richly in collaboration and consultation (Spring, 2008).

To further bolster policy within the field of clinical psychology the APA Presidential Task Force on Evidence-Based Treatment (2005), through a review of literature and deliberation, agreed on the following definition for Evidence-based practice: “the integration of the best research with clinical expertise in the context of patient characteristics, culture, and preferences.” This task force indicated that the best research is typified by scientific results concerning intervention strategies, assessment, clinical problems, and patient populations. The Task Force further states that several research designs contribute to evidence based practices (Greenberg & Newman, 1996). Clinical observations are valuable sources of innovation and hypotheses while qualitative research can be used to describe subjective lived experiences of treatment participants. Process – outcomes studies are also especially valuable for identifying mechanisms of change, while Randomized Control Treatments and their equivalents (qualitative outcome measures) are the standard for drawing out causal inferences about the effects of a given intervention.
In regards to evaluation on specific interventions, the current policy of the APA, as stated in the Criteria for Evaluating Treatment Guidelines (APA, 2002) is that an intervention must show “…treatment efficacy, the systematic and scientific evaluation of whether a treatment works… and clinical utility, the applicability, feasibility, and usefulness of the intervention in the local or specific setting where it is offered (p. 1053).” Evidence concerning the efficacy of intervention includes, at its most scientific, “Sophisticated, empirical methodologies, including randomized controlled experiments” to more qualitative results through clinical observation and opinion (APA, 2006). Evidence of clinical utility includes “attention to generality of effects across varying and diverse patients, therapists, and settings (p. 275).”

Throughout the history the evidence based treatment in psychology, the importance and clinical necessity of research and results have become the rule rather than the exception. With the implementation of a standardized definition by the APA, the importance of using treatment of best practice has become critical. Those interventions with the strongest presence of efficacy, along with the ability to generalize results across various settings, will be those receiving positive endorsement from policy makers, will garner potential future research and move the field closer to answering that elusive question from fifty years ago.

**Mental Health on Campus**

The setting most relevant to this pilot study is one which has recently reached crisis levels in the areas of mental health need and usage among its target population, the college counseling center. As recently as 2011, the American Psychological Association described the growing crisis that is the state of mental health on college campuses
In this statement, they mention that the number of students deal with serious mental health problems at college counseling centers is on the rise. The crisis has received increasing attention with increased suicides on public campuses, along with the tragic homicide/suicides at campuses of Northern Illinois University and Virginia Tech.

While national exposure of campus mental health needs may have increased recently, mental health professionals on campus had been experiencing this trend first hand for years. A National survey of counseling center directors in 2010, reported that 44% of their clients had severe psychological problems, up from 16% at the beginning of 2000 (Gallagher, 2010). The most common of these disorders tended to be some iteration of depression, anxiety, suicidal ideation, alcohol abuse, disordered eating, and self-injurious behaviors. College clinicians emphasize that demands on services have significantly outpaced the capacity and rate of growth of mental health care services (Schwartz & Kay, 2009). Colleges find themselves needing to provide mental health services for more seriously ill students for greater lengths of time than resources may allow.

College counselors are not the only ones noticing an increase in significant increasing distress among college students. The students themselves are overall endorsing high levels of distress and need for increasing psychological services, a 2010 survey of students by the American College Health Association reported that 45.6% of students reported feelings of hopelessness, and 30.7% reported feeling so depressed that it was difficult to function. Other research has found that over 35% of all students expressed a need for assistance with fear of failure, depression, anxiety, weight control, and communication (Bishop, Bauer & Becker, 1998). Another interesting finding is that
many students indicate that their primary distress was not present until their transition to college, indicating issues of adjustment (Furr, Westefeld, McConnell & Jenkins, 2001). As students continue to trend towards a desire and need for support in dealing with increasing severity and variety of mental health issues, college counseling centers provide a service in assisting students with this process.

There is also evidence correlating the use of college counseling with increased retention/lower drop-out rates among students (Sharkin, 2004). An estimated 40% of students who begin college do not end up graduating from their school within six years, with a large amount of these students dropping out (Pleskac, Keeney, Merritt, Schmitt & Oswald, 2011). Most critical to drop out according to this study was feelings of depression and potential loss of financial. College counseling then can play a role in helping students manage these reactions and adjustment, improving their chances of remaining in school through graduation. This also more covertly benefits the campus institution as it continues to benefit financially from students remaining in school.

When measuring outcome of a treatment in general, determining the optimal amount of treatment needed for change to occur is important. In colleges, relevance of this Dose-effect relationship increases drastically, as aspects of time management inherent in college settings for students and mental health professional appears to affect the frequency of treatment sessions attended. As highlighted in a 2010 Survey (Gallagher, 2010), overall the average number of counseling sessions for all students who began treatment was 5.6 sessions. With an increasing case load ratio of students to mental health professionals on staff, along with the busy schedules of students in college, attendance
may not be as “regular” as desired. Therapy dropout rates are likely also to play a role in this average number of sessions (Furr, Westefeld, McConnell & Jenkins, 2001).

There have been a number of studies which have analyzed this idea of how much therapeutic contact is needed for a desired change to occur (Draper, Jennings, Baron, Erdur & Shankar, 2000, Kadera, Lambert & Andrews, 1996). A meta-analysis conducted by Draper and colleagues determined that generally speaking, the greater the number of sessions that a client was present for, the greater the amount and likelihood that change would occur. Interesting findings concerning the dose-effect relationship of psychotherapy included that while greater outcome is correlated to greater treatment attendance, the effect of psychotherapy is also found to be greater in earlier session and increases at a slower pace when treatment reaches higher dosage, or frequency of session.

Draper and colleagues (2000) broke down their meta-analysis further to determine the amount of change that typically occurs at various stages of the therapeutic process, indicating that 15% of clients typically improve between the intake and first session, 50% of clients tended to endorse change after eight sessions, and 75% improve after 26 sessions. An important caveat to all of this data is that the dose-effect relationship is highly dependent on diagnostic category for a given client (Howard, Kopta, Krause & Orlinsky, 1986). In summary, much of the early research on dose-effect relationships are supportive of a belief that while the greater attendance of sessions has a positive effect on outcome, a critical point does occur in which positive returns start to diminish. In short, treatment in college settings should be focused on creating the most positive change in the briefest amount of time.
It is with the increasing necessity to support psychotherapy treatment with a strong evidence base, along with the increasing need for brief, efficient, and effective psychotherapy on college campuses that this pilot outcome study was undertaken at the Counseling and Wellness Service (CWS) on the campus of Wright State University (WSU) in Dayton, Ohio.

This paper describes a treatment effectiveness and program evaluation study that assesses change in a for individuals endorsing severe social isolation interpersonal distress in the Focused Brief Group Therapy setting currently taking place at WSU CWS. CWS at WSU is a mental health service accessible to WSU students and faculty. CWS also serves as a training facility for students within WSU’s School of Professional Psychology (SOPP). This means that under the supervision of several Licensed Psychologists, student trainees at various levels of graduate education are able to begin practicing and experiencing therapy first-hand. CWS offers individual therapy but also offers a variety of college focused therapy groups as well. For instance, students are offered an Alcohol and Other drug group for substance education, and anger management group focusing on how to manage various emotion, a GLBT group to provide a supportive environment for individuals who identify as such, and a disability group for students with disability in which alliances can be developed among clients and adjustment issues can be discussed. Students are also offered a Mindfulness Based Stress Reduction group to help focus through stressful college times, and a Men’s group to deal with social pressures to engage in stereotypical and sometimes harmful male behaviors.
**Focused Brief Group Therapy (FBGT)**

The group which is relevant to this current pilot study is the Focused Brief Group Therapy (FBGT). The FBGT group is a nine-week group which is interpersonal in nature, allowing clients to experiment with different and new ways of interacting with others, sharing fears or concerns clients may have around interpersonal interactions. Individuals may also join this group to better understand how their interpersonal difficulties are affecting their relationships and how they are being perceived by others. The individuals seen within this group setting endorse distress areas discussed by research discussing the most common mental health issues including depression, anxiety and academic distress.

**Review of FBGT theoretical bases.** The FBGT groups are Solution Focused (O’Hanlon & Cade, 1996), meaning that it focuses primarily on what clients wish to achieve in therapy rather than on focusing on the history of what made them present to therapy in the first place. Clients are encouraged to envision what they would prefer their future to look like in a concrete and specific manner. Since time is not spent on getting to know what brought the client to the present moment, rather focusing on how to move forward in a timely manner, Solution Focused therapy tend to be briefer in duration (de Shazer, 1988). FBGT groups utilize this theory as a way to instill hope more rapidly with a focus on activating solutions to interpersonal problems. Facilitators will combine client insight into their interpersonal distress with more quantitative validity checks.

FBGT groups also integrate behavioral aspects of into therapy. Burlingame, Fuhriman, and Mosier (2003) suggested that as a result of a meta-analysis “… the acquisition of information and the practice of relevant behaviors…”(11)” are required to
gains in treatment. This focused and brief group treatment is informed by this statement as facilitators keep clients focused on behavior changes within the group’s life. In other words, Behavioral activation occurs within the group, focusing on those behaviors which a patient has endorsed difficulties engaging in. Behavioral activation suggests that the individual in treatment sets goals for behaviors they hope to complete in the group, with tracking of progress towards these goals occurring throughout the life of the group.

The larger theoretical basis the FBGT group works from, while integrating behavioral activation, and the solution focused approach, is the Interpersonal Theory of Sullivan (1953), Leary (1957). The interpersonal theory of personality is rooted in the ideas of Henry Stack Sullivan (1953), who initially believed that personality characteristics are formulated and maintained through patterns of the recurring interactions between humans (pp.110-111). His belief differed from the individualistic explanations of behavior and personality popular throughout the field of psychology, as he inferred that all human interactions are characterized by two-fundamental personal motivations: Security and Maintenance of self-esteem. This basic concept of Sullivan’s work has been integrated and refined by various clinicians through projects, studies, and clinical application (M.B. Freedman, 1985; Leary, 1955, 1957; Leary & Coffey, 1954; Horowitz, Rosenberg, Bauer, Ureno, & Villasenor, 1988; Strack 1996, Yalom, 2005).

Interpersonal theory of human behavior indicates that all interpersonal behaviors distressing or otherwise are attempts for an individual to avoid increasing personal anxiety or to maintain self-esteem. An individual’s self-concept, or the automatic and overt means which one views him or her self, is central to all Interpersonal transactions and often leads to the behavioral reactions that an individual utilizes when engaging in
interaction (Kiesler, 1982). The behavior of the individual is driven by the response an individual desires and anticipates experiencing. All interaction then consists of two or more people who have a mutual influence on another’s interpersonal behaviors. Interpersonal behaviors then are set up in a looping feedback network which influences or reinforces the interpersonal behaviors of the individual. In other words, Person A’s interpersonal behaviors shape and is in return shaped, by the reactions of Person B.

Distress from an Interpersonal perspective occurs through the reinforcement of the behaviors that produce less interpersonal anxiety, or least challenge the individual’s sense of self-esteem. The key to this theory however is that different interpersonal behaviors have varying effects given the individual’s placement on two intersecting dimensions: 1) Power and 2) Affiliation (Leary, 1957). These two interpersonal dimensions have been conceptualized as a circular model (Kiesler, 1982) as way to visually show how placement on these dimensions corresponds to a specific personality style. Figure 1 is the basic model of the original 1982 Interpersonal Circle. As it shows, the horizontal axis (Affiliation) has poles of Hostile and Friendly, while the vertical axis (Power) has polar ends of Submissive and Dominant. These sixteen quadrants are deemed the Basic and subclinical traits of interaction. However, clinical distress occurs when interpersonal interaction style is heavily reinforced and overly rigid, generalized into each and every interpersonal transaction regardless of setting (Kiesler, 1996). Figure 2 is the complete model of the 1982 circumplex, indicating levels of severity, and descriptions of individuals at these various levels of interpersonal functioning.

As many personality theorists cite the flexibility to adapt as being a central aspect of healthy psychology and functioning (Kiesler, 1996; Scott, 1968) individuals
experience clinical levels of distress through a cycle of maladaptive transactions leading to unexpected or distressing interpersonal outcomes. Various empirical studies have demonstrated that many different forms of pathology are associated with interpersonal impairment, most notably depression (Joiner, 2002) and personality disorders (Pincus & Wiggins, 1990; Sookman & Paris, 2007).

A primary goal to manage clinical distress from this theoretical perspective unsurprisingly is to encourage interpersonal flexibility and adaptability to interpersonal transactions. This goal is worked towards in the FBGT groups through various therapeutic factors, initially described by Yalom (2005), another influential group psychotherapist.

Yalom (2005) through his various group experiences posited that “therapeutic change is an enormously complex process that occurs through an intricate interplay of human experience (pp. 1).” He believed there were eleven separate factors that needed to
be present within a group setting to increase the chances for individual change to occur.

Yalom understood the therapeutic factors to be the true mechanisms that garner change within a client (xiii). These necessary factors include: Instillation of hope, universality, imparting information, altruism, the corrective recapitulation of the primary family group, development of socializing techniques, imitative behavior, interpersonal learning, group cohesiveness, catharsis, and existential factors. Explanations of each therapeutic factor are paraphrased from Yalom (2005).

Yalom believed that without instillation of hope, it is not likely that the other therapeutic factors will take effect. With instillation of hope, a client can recognize within the group that other members may be succeeding in their change, allowing the client to develop an optimistic view towards the therapist, group, process, and possibility to change. Once the client witnesses that a change is possible motivation to work towards a desired change can occur (4-6).

Universality occurs when a client begins to recognize that the other members of the group are experiencing similar feelings and problems that they are. This finding is comforting for those seeking a change and who may feel like their problems are unique and not relatable. Understanding the universality of problems may allow a client to connect with others and receive feedback on how to best approach their change process (6-8).

Providing advice or psychoeducation, which Yalom termed Imparting Information, to a client can be helpful in allowing them to better understand their situation and what exactly it may ask of the client to create change. This information can come from the therapist as well as other group members who again may be further along
in their change process than the client (8-13). Along with providing information to a client, the therapist and group members must strengthen their sense of Altruism, meaning that members need to attempt to help each other through the change. Altruism not only helps increase the feeling of acceptance by the client receiving the help, but it also helps the other group members to increase their own self-esteem. (14).

Corrective recapitulation of the primary family group is a factor that is focused on identifying and correcting any patterns or roles that a client plays in their primary system that could be considered dysfunctional. Yalom believed that this factor was important as it allowed a client to feel comfort within the group setting regardless of their experiences with their first “group”—their primary family (15). To engage in change, the client needs to trust that his or her group therapy experience will not place him/her in the same role or position as they may have been in their dysfunctional family setting. The client will essentially use the group, and the facilitators as a way to relive familial conflict. The group process will allow the client to challenge any previously fixed roles within the family system, and work through the difficulties that the client had been experiencing with family members (16). Allowing a client to Develop Socializing Techniques is also important as there are a variety of methods and concepts that can be used when discussing developing social skills, including learning new ways to discuss
feelings, daily observations, or concerns. Clients in group settings will often receive feedback, both positive and constructive, from other group members as a way to gain information about interaction skills. For many individuals who may not have close social relationships, the group can often act as a first opportunity for individuals to receive such feedback (17).
Along with the more overt responses from other group members, a client will also engage in Imitative Behaviors within a group. A client will learn a great amount of information on their issue by watching other members work through their own problems, especially if the group’s issues are fairly homogeneous (i.e. Alcoholics Anonymous, HIV/AIDS support groups). It is important that a client attempts new behaviors and actions modeled by other individuals to see if that change fits what the client is attempting to accomplish (18).

It was Yalom’s belief that the group therapy setting served as a type of social microcosm (31), which meant that how each member interacted within the group, is likely how they are interacting outside of the group, maladaptive or otherwise, as well as how their present their pathology (32). Given this concept, Yalom then believed that what was learned in group could then be generalized into a client’s everyday life. This is where Yalom’s belief in Interpersonal Learning becomes an important therapeutic factor. Interpersonal learning not only allows a member to gain personal insight about how others are receiving them, but they are also provided with a safe arena that allows the client to learn to interact in a more adaptive manner.

Within group therapy, the relationship between members and the facilitators is what Yalom termed Cohesiveness (53). Much as in individual therapy, research states that the relationship between client and therapist is paramount, and cohesiveness within group therapy is of the utmost importance for a client attempting change. Members in groups with a stronger sense of “we-ness” will tend to feel as if therapy is more effective than those members who do not experience such cohesion. Cohesiveness facilitates feelings of trust, belonging and togetherness that can be experienced by all members, and
allows all members to feel safe enough to take chances, give and receive feedback, and depend on others within the group (56-57). Without this sense of safety and companionship, it would be difficult for a client to engage in all of the other Therapeutic Factors which Yalom discusses.

Catharsis, openly expressing affect, is “vital to the group therapeutic process…a group would degenerate into a sterile academic exercise (91).” Catharsis is quite simply the release of strong feelings about a current or past experience of an individual. Emotional expression is linked to several concepts that are important for change, including the ability to cope, a sense of personal effectiveness, and hope. Emotional expression is a relative process, meaning that what may seem like a minor cathartic experience to some, may be a moment of intense emotionality for the member who is engaging in it. In summary, catharsis is not believed to be a sufficient factor for therapeutic change, but Yalom would argue that it is a necessity (90).

In summation, Yalom’s theory of change is most often applied to the group setting. He would argue the importance of each individual factor in the creation of change for an individual within the group. The individual changes as they feel comfortable in their distress, feel understood by the other members of the group, are able to try new behaviors in a safe and trusting setting, and is able to receive feedback on their interpersonal presentation. These factors highlight why the group setting is one of the most beneficial for those attempting changes in interpersonal behaviors and interaction.

It is through the lens of Interpersonal theory, with integrated views from Behavioral activation and solution focused therapy that the FBGT group does its best work. While there have been groups in the past that utilize some aspects of the FBGT
group theory, a unique aspect of the group lies in the Pre-group Preparation and screening.

**Pre-group Preparation**

Potential clients who share a need or desire to work on interaction or interpersonal skills with hopes of improving distressing aspects of their everyday life and are screened prior to engaging in the group process. Pre-group preparation is gaining research backing concerning its importance towards increasing treatment efficacy. The information gathered about an individual client prior to entering group therapy is not only helpful to increase the therapist’s understanding of client specific needs and how client may interact with others in the group, but it can also be a benefit to the client his or her self (AGPA, 2007).

For instance, pre-group preparation can: 1) allow the therapist and client to begin the process of forming therapeutic alliance, one of the common factors of effective psychotherapy (Imel & Wampold, 2008), 2) inform the client of typical group processes, 3) answer client questions and correct misconceptions of group psychotherapy, and 4) serve as a time in which client and facilitator can create consensus on personal goals for group treatment (AGPA, 2007). Several cases of group treatment settings report at least some additional benefit from these aspects of group preparation (Rutan & Stone, 2001), and pre-group preparation has been indicated as one important aspect of ongoing research focused on understanding agents of change (AGPA, 2001). For all of the reasons, pre-group preparation is utilized prior to the FBGT groups. However, the staff and facilitators of the FBGT engage in another step, pre-group screening, often prior to preparation as described above. Two specific pre-group assessment measures, are utilized
in the prior to FBGT groups to measure levels of distress, as well as better inform the group treatment: the IIP (Inventory of Interpersonal Problems; Soldz, Budman, Demby, & Merry, 1995) and Counseling Center Assessment of Psychological Symptoms (CCAPS; CCMH, 2010).

These two measures, described in more detail in later sections, were chosen for specific reasons related to the focus and utility of the FBGT group. Understanding how an individual’s overly rigid interpersonal personality and behaviors can cause problems during interaction, affect overall mood, and increase distress across multiple life domains become a major focus for all individuals selected by the group. As individuals complete the IIP-32 assessment prior to beginning the group, results suggest specific areas of a client’s interpersonal functioning that they find most distressing or have the most significant problems with. As discussed earlier, any information on client behavior or distress area can be utilized to tailor specific goals or that individual (AGPA, 2007).

A heavy emphasis is placed on the role of the IIP-32 results for the FBGT group. These results assist in focusing treatment goals, discussed between the facilitator and client. The IIP-32 is a self-report of interpersonal difficulties, and results indicate which aspects of interpersonal interaction are most distressing. This dialogue is also important as it begins to generate the working alliance between therapist and client. Goals within this FBGT setting rely on the principle of behavioral activation. More specifically, goals must be tailored to address the focused areas of interpersonal distress, as endorsed by the IIP and through self-report. Goals must be achievable, time-limited, measurable and implementable in the “here and now” of the group.
It is also with these results that the facilitator can predict potential group-threatening behaviors of the client given their interpersonal style, and can inoculate their experience. This inoculation can protect the client from self-sabotaging and sabotaging the group process. These pre-treatment results also create a base line for which to measure future therapeutic progress and change against as the group process occurs. It is the hope of group leaders that progressing through treatment with this pre-treatment knowledge of interpersonal distress will eventually lead to an increased or improved treatment efficacy.

Other studies have utilized the IIP-32 and IIP-64 assessment tools as a measure of outcome in treatment (e.g.: Kray, 2010; Arcelus, Whight, Langham, Baggott,- McGrain, Meadows & Meyer, 2009; Paley, Cahill, Barkham, Shapiro, Jones, Patrick & Reid, 2008; Kellett, Clarke & Matthews, 2007; Yuan & Zhang, 2007, Kasper 2005). There are other studies which have used the scales primarily to diagnose specific personality and psychological disorders. However, not yet in the research is there any indication that this method of using pre-treatment IIP results to inform the course of treatment is being utilized outside of the FBGT groups.

The CCAPS measures are used as more standard measures of outcome for group psychotherapy, though it does also provide evidence of areas clients are experiencing distress in their lives, potentially due to interpersonal behavior issue. Prior to treatment the CCAPS-62 is used, while the shorter form CCAPS-32 form is used post treatment, as per site coordinators preference. This does not present any notable reliability or validity issues, as stated in the description of the measures. While the pre-treatment results are discussed with the client before treatment to determine what areas functioning they would
like to improve, these results are utilized less in tailoring treatment. As stated in the CCAPS manual (CCMH, 2010) a central purpose for this measure is to document change in various mental health symptoms during college counseling, and successful treatment is reflected by lower and more stable scores on various measures of distress. So, while the FBGT group facilitators may not view the CCAPS data pre-treatment with the same utility of the results of the IIP-32, these outcome results are vital pieces of information in determining efficacy of group psychotherapy.

**IIP-64 and IIP-32.** The original Inventory of Interpersonal Problems (IIP; Horowitz, Rosenberg, Bauer, Ureno, & Villasenor, 1988) was a 127-item self-report screening tool designed to quantify an individual’s most prominent interpersonal problems. A 64-item version of the IIP was constructed, and later a shorter form 32-item version would be created for briefer assessment of interpersonal problems. Briefly, results of the questionnaire loaded onto eight separate subscales of interpersonal functioning. These eight scales were informed by the domains of the 1982 Interpersonal circumplex (Kiesler, 1982), allowing also for results to be visually plotted.

**Development of screener.** The original IIP screener (Horowitz, Rosenberg, Bauer, Ureno, & Villasenor, 1988) was created from a large sample of intake interviews and videotaped therapy sessions, in which interpersonal problem statements were mentioned (Horowitz, 1979). Around 200 problems were initially extracted from these various interviews. These problems statements, also described as interpersonal skill deficits, inhibitions and compulsions, included statements such as “I can’t…, It’s hard for me to….., I do ….too much, I can’t stop doing…” (Horowitz, 1999).” The IIP measured most common complaints that are present during the initial stages of therapy. Final selection
of items was the task of four licensed psychologists, who narrowed down a pool of 200 statements to 127.

Horowitz (1979) normed the measure to students and patients, attempting to demonstrate construct validity of the two interpersonal dimensions originally posited by Interpersonal theorists like Leary (1967). Alden, Wiggins and Pincus (1990) divided the area of the 1982 Interpersonal circle (Kiesler, 1983) into eight octants, which is defined by combinations of the two main interpersonal dimensions of Power and Affiliation. Each octant contained eight items. The eight scales (Alden, et al., 1990) include: 1) Domineering/Controlling, 2) Vindictive/Self-Centered, 3) Cold/Distant, 4) Socially Inhibited, 5) Nonassertive, 6) Overly Accommodating, 7) Self-Sacrificing, and 8) Needy.

Soldz, Budman, Demby and Merry (1995) understood the need for a shorter version of the IIP-64 so that increasing amounts of clients could be screened in decreasing periods of time. Four items from each of the original eight scales eight items were eventually used the shorter version, the IIP-32 (Horowitz, 1999). The construction of the shorter form of the IIP allows for more screening to take place in a briefer amount of time with psychometric properties between it and the long version remaining fairly consistent (18).

**Norming and standardization.** The national standardization sample for the IIP series consisted of 800 cases comprised of individuals from the US, aged 18-89, with an equal amount of males and females. Age effects were minimal between different age ranges, a significant difference in distress occurred between genders, which prompted the need for gender related norms. More recently, the IIP-32 has been normed and statistically verified on Chinese college students (Qi-wu, Guang-rong & Qing –Ji, 2010),
and has also been validly translated and used on Spanish speaking (Salazar, Mart, Soriano, Beltran, & Adam, 2010), and Dutch populations (Vanheule, Desmet & Rosseel, 2006).

**Reliability and validity.** Overall, both the 64 and 32 item forms of the IIP have high total reliability coefficients,.96 and .93 respectively, with coefficients ranging from .76 to .88 for the IIP-64 subscales, and reliability ranging from .68 to .87 for the 8 subscales of the IIP-32 (Horowitz, 1999). Test-retest reliability coefficients for both forms of the IIP screeners are found to be moderately reliable. The IIP-64 has a total test-retest reliability of .78, while the brief form also attained a .78 coefficient, though the individual subtest scores varied in reliability between tests.

To measure the validity of the IIP-64, the screener’s standard scores were compared with self-report scores of several other instruments. Convergent validity was determined by using a correlation of the IIP standard scale scores with assessment scores of psychological symptomology in non-clinical client samples like those on the Beck Depression Inventory (Beck et al., 1996) and Beck Anxiety Inventory (Beck & Steer, 1990). These results and moderate strength correlations would indicate that Interpersonal difficulties can “be related to, but not highly predictive of, the psychological symptoms of depression and anxiety (Horowitz, 1999).

The correlation between interpersonal problems and self-report of general functioning was done by comparing the IIP-64 with the Behavior and Symptom Identification Scale (BASIS-32; Eisen, Dill, & Grob, 1994). The BASIS is a measure of overall mental health functioning in psychiatric patients. The eight standard scales of the IIP were correlated with the BASIS scales of consisting of: 1) Relation to self/others, 2)
Depression/Anxiety, 3) Daily Living/Role Functioning, 4) Impulsive Addictive Behavior and 5) Psychosis. IIP-64 scale scores were most highly correlated with total BASIS scores, relationship to self and others and psychosis (Horowitz, 1999).

The Total T score of the IIP measures is an indicator of overall interpersonal difficulties across all 8 problems areas. If the Total T standard score is 2 standard deviations, one SD is 10 points, above the mean, which is 50, the individual’s interpersonal distress is considered “very high” relative to the general population sampled. Along with the Total T scores, the IIP also determines Individual-based T scores for each of the eight scales which “represent the difference between the level of distress expressed in a particular area compared with distress experienced across all areas by the individual (pp. 37).” These scores are helpful in terms of giving a clinician the ability to identify specific significant areas of difficulty in an individual’s interpersonal life. Each of the eight subscale scores then can generate specific interpretations of the client’s interpersonal difficulties. Figure 3 shows the circumplex with numbered scales. The terms corresponding to these numbers are described here.

Scale 1 is termed the Domineering/Controlling scale. If an individual receives a high score on this scale, it may indicate an inability to relinquish control in interpersonal interaction. Common descriptions for those with high Scale 1 scores include being too controlling or manipulative, coming across as hostile or aggressive. High Scale 1 individuals may feel threatened by a perceived lack of control within an interaction and produce feelings of losing worth, dignity and self-respect. Common personality disorders for those who score high on this scale include antisocial and narcissistic personality disorders (pp. 38)
Scale 2 describes problems that occur when hostile and dominant poles of both interpersonal dimensions are elevated. The Vindictive/Self-Control scale indicates that the individual expresses anger and irritability, often fighting with others. High scores on this scale reflect a feeling of suspicion and distrust towards other people and typically holding grudges or finding it difficult to forgive any insult to their self-esteem. These individuals rarely care about other people’s needs and feelings. Individuals diagnosed with antisocial and narcissistic personality disorders are often high on this scale (pp. 38).

High scores on Scale 3 indicate a Cold/Distant style typified by a lack of connection with other people. Those individuals with elevated Scale 3 typically show little affection or feeling towards others. These individuals are often described as loners, as they may show a little enjoyment in socializing with others. (pp. 38).

Individuals with a clinically significant Scale 4, the Socially Inhibited scale, typically feel anxious or embarrassed when in the presence of others. High Scale 4 scorers typically feel anxious or embarrassed when in the presence of others, often having difficulties approaching social situations or interactions, though these interactions are often desired. These individuals are also described as distant or socially aloof, further contributing to their fears of social interaction. The pattern of social inhibition and sensitivity to potential negative social interaction can lead to an individual expressing traits of avoidant or schizoid personality disorders (pp. 39).

The Nonassertive scale, Scale 5, describes the severity of individual’s lack of self-esteem or confidence. These individuals tend to described themselves as unassertive and self-doubting, often having trouble making choices or fearing becoming center of attention in any given environment. Feelings of discomfort for high Scale 5 endorsers
arise in situations which require exerting some form of influence on others. Individuals who are diagnosed with Dependent personality disorder are typically high Scale 5 endorsers. (pp. 39).

Scale 6 describes an Overly Accommodating interpersonal style, which is often described as Friendly-Submissive. Individuals endorsing a high Scale 6 score typically exert much effort in pleasing others and in seeking approval of others. Disagreeing with others is often difficult as these individuals tend to have a feeling that the only way to maintain a friendship is to remain unassertive. These individuals also tend to shy away from feeling angry, as assertiveness tends to be correlated to offense. High Scale 6 endorsement typically presents an accommodating and gentle presentation to avoid seeming argumentative and egocentric. These individuals tend to understand that they are easily taken advantage of but don’t necessarily feel comfortable confronting this belief (pp. 39). Individuals with Dependent personality tend to have a high Scale 6 score (pp. 40).

Self-sacrificing typifies those who score high on Scale 7. These individuals tend to believe that they are warm, kind and sympathetic, but do not connect with people easily on an emotional level. Though these characteristics may seem desirable to some, they can be a detriment as these individuals are often too eager to help others. They may also present as overly trusting and permissive upon meeting others, leading to weak or no boundary setting. The needs of others are commonly placed before one’s own needs, leading to a presentation similar to someone with a diagnosis of Dependent personality disorder.
The remaining scale, Scale 8, is termed the Intrusive/Needy scale. These individuals would be considered Friendly-Dominant and describe themselves as sociable and extroverted. These individuals however tend to endorse difficulties being alone, often looking to find ways to take responsibility for affairs that do not involve them. Similar to those on Scale 7, healthy boundary setting is poor. Individuals with Histrionic personality disorder may tend to score high on Scale 8.

The Total T score of the IIP measures is an indicator of overall interpersonal difficulties across all 8 problems areas. If the Total T standard score is 2 standard deviations, one SD is 10 points, above the mean, which is 50, the individual’s interpersonal distress is considered “very high” relative to the general population sampled. Along with the Total T scores, the IIP also determines Individual- based T scores for each of the eight scales which “represent the difference between the level of distress expressed in a particular area compared with distress experienced across all areas by the individual (pp. 37).” These scores are helpful in terms of giving a clinician the ability to identify specific significant areas of difficulty in an individual’s interpersonal life. Each of the eight subscale scores then can generate specific interpretations of the client’s interpersonal difficulties.

**CCAPS-34 and CCAPS-62.** The original CCAPS assessment instrument was developed by Counseling & Psychology Services at the University of Michigan (2001) with the rationale of creating a “high-quality, multi-dimensional assessment instrument that was free and clinically useful for college counseling centers (CCMH, 3). The CCAPS are designed for use clinically, in research, and administrative needs of college counseling centers. The CCAPS-62 is a 62-item instrument containing eight subscales.
related to determined basic collegial distress areas: Depression, Generalized Anxiety, Social Anxiety, Academic Distress, Eating Concern, Family Distress, Hostility, and Substance Use. Researchers believe that this longer form version is best suited for pre- and post- treatment assessment. The 34 item version contains all of the scales of the CCAPS-62 with the absence of Family Distress, and Substance Use become Alcohol Use. CCAPS-34 utility is based on assessment throughout treatment as it is a shorter form. Analysis of between form reliability of subscales ranges from .92 to .98, suggesting high reliability.

**Normative sample.** CCAPS instruments are scored compared to a normative sample derived from a clinical setting. The most recent norms studies were conducted for the 2009 iteration of the IIP measures (CCMH, 2010). This sample included a population of college students seeking services at 52 institutions (N=19,247) which were gathered as part of a pilot study. Ages ranged from 18-63 years old, with a mean of 22.6 years (SD= 5.07). Concerning gender, 64.2% of the sample was female, 35.4% were male, and .2% transgender. 72.6% were self-identified Caucasian/white, 7.0% African American, 6.0% Asian/Asian American, 4.9% Hispanic/Latino, 2.5% Other, .5% Native American, and .3% Native Hawaiian. Final normative data suggested 18.1% identified as first-year students, 19.7% as sophomores, 22.1% as juniors, 22.8% as seniors, and 14.9% as graduate students (4).

**Validity and reliability.** Research suggests overwhelming support for the use of this measure within college counseling settings. To test concurrent validity, the CCAPS was administered at the same time as nine other established measures or reference, each selected to match with on individual CCAPS scale. Depression scale was tested against
Beck Depression Inventory (BDI), Generalized Anxiety with Beck Anxiety Inventory (BAI), Eating Concerns with Eating Attitudes Test-32, Substance Uses with Alcohol Use Disorders Identification Test, Social Anxiety with Social Phobia Diagnostic Questionnaire, Family Distress with Self-report Family Inventory, Academic Distress with Academic Adjustment subscale of the Student Adaptation to College Questionnaire, and Hostility with Trait Anxiety Scale of the State-Trait Anger Expression inventory. All subscales other than Hostility were found to have a statistically higher correlation with their measure of reference than the next highest correlation (Locke, Buzolitz, Lei, Boswell, McAleavey, Sevig, Dowis and Hayes, 2011).

Test-retest reliability, a measure of the expected stability between one administration to another in the same person, is overall fairly high according to CCAPS coefficients. These results suggest that the two measures assess stable constructs. CCAPS-34 also shows good test-retest reliability, though all scales are lower over each scale (CCMH, 2010).

Both assessment measures described above have shown utility in measuring quantitative outcome data for treatment in a variety of different settings. The unique combination of the two measures however has not yet been utilized in the manner which they are used for the FBGT group at WSU CWS. Facilitators have expanded the use of results beyond merely indicating a change from pre- to post- treatment, and into the actual process of psychotherapy in a group setting. As the climate of clinical psychology and psychotherapy has changed to place more value on those forms of psychotherapy and treatment which can display efficacy and utility, it is the belief of this researcher that the results of this study will suggest that utilizing the results of pre-treatment assessment to
actually inform the treatment and goal setting for a given client within a larger group context will increase both efficacy and utility of interpersonal group therapy for those endorsing significant mental health issues due to interpersonal problems.

It is hypothesized that individuals who endorse severe levels of interpersonal distress on scale 4 of the IIP-32 (Social Inhibition) pre-treatment, will endorse significantly less distress on six measured scales: IIP-32 Scale 4 and Total Interpersonal Distress, and Depression, Generalized Anxiety, Social Anxiety, and Academic Distress scales of the CCAPS-62 and -34. These particular CCAPS domains were chosen for analysis as literature on the creation of the IIP-32 scale 4 indicated that individuals who endorse levels of severe Scale 4 distress tend to also present with symptoms congruent with social anxiety, social phobia and generalized anxiety disorder (Horowitz, 1999).

The depression scale of the CCAPS was chosen for analysis as it suggests and describes distress on a global level for clients (S. Nordberg, Personal Communication, April 2012). Finally, the academic distress scale was included as this population included primarily students at WSU, and social inhibition could have an effect on the amount of stress caused by a typical college setting.

The relevance of this project cannot be understated as it is a unique approach to working with group in the college setting, with hopes of gaining evidence backing concerning efficacy and utility so that it may eventually be generalized outside of this arena. The scope of the project attempts to satisfy the need for a given treatment to produce practice based evidence to support its usefulness in this setting, as well as the need to provide effective, solution focused and brief services for the college aged population.
Chapter II

Methods

Participants

This research focuses on data for individuals who endorsed an elevated score (T≥65) on Scale 4 of the IIP-32 pre-group screening measure prior to entering the FBGT group at WSU CWS (N=16). Though the creators of the IIP instruments consider any T-score over 70 severe, this researcher and supervisor, decided to delineate the severe scores at 65, in order to enhance the sample size.

Procedure

The procedure was a highly iterative process, in that the initial discussion of what would be added into this study was expanded upon throughout. Pre-existing IIP-32 data was gathered and downloaded by the director of WSU CWS. Initial determination of what constituted a High IIP-32 Scale 4 profile was completed by this researcher and dissertation chair, an expert on implementation of IIP-32. It was determined that all pre-group IIP-32 profiles in which the client’s Scale 4 T-score reached a 65 or higher was considered a High 4 profile. Once this population was delineated, IIP-32 Scale 4 and Total Interpersonal distress scores, pre and post treatment, along with these participants’ pre- and post-treatment CCAPS scores of Depression, Generalized Anxiety, Social Anxiety and Academic Distress were collected. Demographic variables, sessions
attended and clinical diagnostic impressions were also collected from pre-existing and de-identified data stored on the CWS site.

IIP-32 pre and post treatment raw scores, along with the scores from the various CCAPS domains pre and post treatment, which were listed as z-scores, were all transformed into T-scores using the formula \((z*10)+50=t\). Total population pre- and post- scores were further analyzed by each domain utilizing Paired Sample T-Tests. These results are discussed in later sections. Individual scores were placed in a table where the presence of significant positive change (i.e. statistical significant decrease) were visually transformed into either a 1 or 0, change or no change respectively, along with the various qualitative points of collected data. Significant change on individual results of the IIP and CCAPS data was determined by Reliable Change Index (RCI; Jacobson & Truax, 1991), with results displayed in Table 4. This method is a commonly used calculation of change significance, which determines the difference between a participant’s pre-treatment and post-treatment scores, divided by the standard error of the difference. By doing this, cutoff scores are determined and participants can be placed into categories of change: Significant Negative Change, Significant Positive Change, and No Significant Change. The total individual result table allowed this researcher to visualize any patterns or tendencies present across the results and participants. Individual results are also presented and discussed in later sections.

**Materials**

The materials used for this research includes de-identified archival data for each participant who fit a pre-determined IIP-32 profile.
Chapter III

Results

Population Demographics

Table 1 reports the demographics of the participants in this pilot study. There were 16 participants included in this study based on inclusion criteria previously described. Four participants were missing demographic data. The majority of the participants identified as Caucasian (75%), and there were slightly more male participants (43%) than female (31.3). Ages ranged from 22 to 30 years old, with an average age of 25.75.

Statistical Analysis

In order to analyze the efficacy of a Focused Brief Group Psychotherapy for individuals endorsing high interpersonal distress due to social inhibition, paired-sample T-tests were conducted for scores of Interpersonal distress –social inhibition (ISI), interpersonal distress-total (IT), depression (D), general anxiety (GA), social anxiety (SA) and academic distress (AD). It was hypothesized that scores on each of these distress scales would significantly and statistically improve following FBGT group treatment at WSU CWS.

Results suggest a statistically significant decrease in ISI pre- (M=75.31, SD=7.40) and post- (M=64.56, SD=10.863) treatment; $t(15)=3.828$, $p<.05$; $d=1.156$. This effect size ($d=1.156$) was found to exceed Cohen’s (1988) convention for a large effect size
Results also indicated a statistically significant decrease in IT pre- ($M=68.13, SD=8.082$) and post- ($M=60.56, SD=10.360$); $t(15)=2.670, p<.05; d=.81$. This effect would also be described as large. These initial results are congruent with the hypothesis of statistically significant decrease of ISI and IT. Results indicated a statistically significant decrease in D t-scores pre- ($M=53.62, SD=6.40$) and post- ($M=48.46, SD=6.99$) treatment; $t(12)=2.189, p<.05; d=.77$. Effect size for D is in the medium range. This result is also congruent with the study’s initial hypothesis of statistically significant decrease in depression.

Table 1

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>3</td>
<td>18.8</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td>26</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td>27</td>
<td>3</td>
<td>18.8</td>
</tr>
<tr>
<td>29</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td>Xx</td>
<td>4</td>
<td>25.0</td>
</tr>
<tr>
<td><strong>Ethnicity:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>12</td>
<td>75.0</td>
</tr>
<tr>
<td>Xx</td>
<td>4</td>
<td>25.0</td>
</tr>
<tr>
<td><strong>Gender:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>7</td>
<td>43.8</td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>31.3</td>
</tr>
<tr>
<td>Xx</td>
<td>4</td>
<td>25.0</td>
</tr>
</tbody>
</table>

*Note. xx = missing data.*
Results indicated clinically significant decreases among the GA t-scores pre- (M=57.12, SD=9.89) and post- (M=52.55, SD=8.13) treatment; t (12)=1.933, p>.077 and SA t-scores pre- (M=62.06, SD=7.77) and post- (M=56.48, SD=6.34) treatment; t (12)=2.172, p>.051. Results did not indicate a statistically significant decrease in AD between pre- (M=52.11, SD= 7.74) and post- (M=50.39, SD= 9.55) treatment; t(12) 1.097, p=.292. These results were inconsistent with initial hypothesis of statistically significant improvement. Table 2 describes the results of total population sample paired T-tests Table 3 visually places each individual participant into one of three columns for each scale: No significant change, Negative Significant Change, and Positive Significant Change, for further analysis. Tables 4.1 through 4.3 describe individual results as determined by Reliable Change Index.

**Analysis by Severity.** In order to further analyze the sample, participants who endorsed the most severe levels (T≥60) of SA, GA, and D were analyzed separately from the total population. It was hypothesized that for those endorsing the most severe levels of distress on these scales would endorse more positive outcome post-treatment than the total population.

Results suggest a statistically significant decrease in SA pre- (M=68.07, SD=4.52) and post- (M=58.40; SD 6.51); t(6)=2.561, p<.05. Results also indicated a statistically significant decrease in GA pre- (M=66.15; SD 55.53) treatment; t (5)=3.697, p<.014. There was not a statistically significant decrease in D scores pre-(M=61.27, SD=.85) and post-(M=55.63, SD=6.06) treatment; t(2)=1.963,p=.189. Table 5 visually describes these results by severity.
Table 2

Results of Sample Paired T-Tests

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>N</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig. (p&lt;.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>75.31</td>
<td>16</td>
<td>7.40</td>
<td>3.828</td>
<td>15</td>
<td>.002</td>
</tr>
<tr>
<td>Post</td>
<td>64.56</td>
<td>16</td>
<td>10.863</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>68.13</td>
<td>16</td>
<td>8.082</td>
<td>2.670</td>
<td>15</td>
<td>.017</td>
</tr>
<tr>
<td>Post</td>
<td>60.56</td>
<td>16</td>
<td>10.360</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>53.62</td>
<td>13</td>
<td>6.40</td>
<td>2.189</td>
<td>12</td>
<td>.049</td>
</tr>
<tr>
<td>Post</td>
<td>48.46</td>
<td>13</td>
<td>6.99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>57.12</td>
<td>13</td>
<td>9.89</td>
<td>1.933</td>
<td>12</td>
<td>.077</td>
</tr>
<tr>
<td>Post</td>
<td>52.55</td>
<td>13</td>
<td>8.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>62.06</td>
<td>13</td>
<td>7.77</td>
<td>2.172</td>
<td>12</td>
<td>.051</td>
</tr>
<tr>
<td>Post</td>
<td>56.48</td>
<td>13</td>
<td>6.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>52.11</td>
<td>13</td>
<td>7.74</td>
<td>1.097</td>
<td>12</td>
<td>.292</td>
</tr>
<tr>
<td>Post</td>
<td>50.39</td>
<td>13</td>
<td>9.55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3

*Reliable Change Index*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Significant Negative Change</th>
<th>No Significant Change</th>
<th>Significant Positive Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISI</td>
<td>0</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>IT</td>
<td>1</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>GA</td>
<td>0</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>SA</td>
<td>0</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>AD</td>
<td>0</td>
<td>13</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 4.1

*Individual Results*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Sessions</th>
<th>Age</th>
<th>Gender (1=M)</th>
<th>Ethnicity (1=Caucasian)</th>
<th>Diagnoses</th>
<th>ISI-Pre</th>
<th>ISI-Post</th>
<th>SD</th>
<th>RPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>27</td>
<td>1</td>
<td>1</td>
<td>300.02</td>
<td>74</td>
<td>65</td>
<td>0.9</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>296.32; 315.1</td>
<td>71</td>
<td>62</td>
<td>0.9</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>296.32;309.24</td>
<td>75</td>
<td>75</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>300.02</td>
<td>75</td>
<td>63</td>
<td>1.2</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>25</td>
<td>1</td>
<td>1</td>
<td>296.22;300.23</td>
<td>66</td>
<td>72</td>
<td>-0.6</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>30</td>
<td>1</td>
<td>1</td>
<td>296.52;300.23</td>
<td>87</td>
<td>84</td>
<td>0.3</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>29</td>
<td>1</td>
<td>1</td>
<td>300.23</td>
<td>84</td>
<td>69</td>
<td>1.5</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>26</td>
<td>1</td>
<td>1</td>
<td>300.23</td>
<td>75</td>
<td>63</td>
<td>1.2</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>22</td>
<td>1</td>
<td>1</td>
<td>303;305</td>
<td>81</td>
<td>55</td>
<td>2.6</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>9</td>
<td>27</td>
<td>2</td>
<td>1</td>
<td>295.3;298.8</td>
<td>72</td>
<td>53</td>
<td>1.9</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>22</td>
<td>2</td>
<td>1</td>
<td>296.52</td>
<td>88</td>
<td>50</td>
<td>3.8</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>6</td>
<td>23</td>
<td>2</td>
<td>1</td>
<td>300</td>
<td>65</td>
<td>53</td>
<td>1.2</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
<td>29</td>
<td>2</td>
<td>1</td>
<td>300.04</td>
<td>65</td>
<td>47</td>
<td>1.8</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
<td>22</td>
<td>2</td>
<td>1</td>
<td>296.41;780.54</td>
<td>76</td>
<td>79</td>
<td>-0.3</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
<td>27</td>
<td>1</td>
<td>1</td>
<td>303.9;305</td>
<td>69</td>
<td>69</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>300.02;315.9</td>
<td>82</td>
<td>74</td>
<td>0.8</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note.* All Diagnoses are based on DSM-IV; “-“ indicates missing data; RPC= Reliable Positive Change as determined by Reliable Change Index (Jacobson & Truex, 1991), 0=no positive change, 1=positive change occurred.
Table 4.2

*Individual Results (Cont.)*

<table>
<thead>
<tr>
<th>Participant</th>
<th>IT - Pre</th>
<th>IT-Post</th>
<th>SD</th>
<th>RPC</th>
<th>D Pre</th>
<th>D Post</th>
<th>RPC</th>
<th>GA Pre</th>
<th>GA Post</th>
<th>RPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>67</td>
<td>62</td>
<td>0.5</td>
<td>0</td>
<td>60.4</td>
<td>56.3</td>
<td>0</td>
<td>67</td>
<td>64.6</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>58</td>
<td>52</td>
<td>0.6</td>
<td>0</td>
<td>-</td>
<td>48.3</td>
<td>-</td>
<td>-</td>
<td>51.4</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>80</td>
<td>66</td>
<td>1.4</td>
<td>1</td>
<td>-</td>
<td>56.3</td>
<td>-</td>
<td>-</td>
<td>59.7</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>67</td>
<td>64</td>
<td>0.3</td>
<td>0</td>
<td>61.3</td>
<td>57.9</td>
<td>0</td>
<td>48.3</td>
<td>61.3</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>57</td>
<td>64</td>
<td>-0.7</td>
<td>0</td>
<td>41.9</td>
<td>46.7</td>
<td>0</td>
<td>51.4</td>
<td>49.8</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>68</td>
<td>69</td>
<td>-0.1</td>
<td>0</td>
<td>51.5</td>
<td>49.9</td>
<td>0</td>
<td>63</td>
<td>51.4</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>60</td>
<td>55</td>
<td>0.5</td>
<td>0</td>
<td>43.9</td>
<td>-</td>
<td>-</td>
<td>43.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>67</td>
<td>59</td>
<td>0.8</td>
<td>0</td>
<td>51.3</td>
<td>43.9</td>
<td>0</td>
<td>54.8</td>
<td>53.6</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>74</td>
<td>54</td>
<td>2</td>
<td>1</td>
<td>47.2</td>
<td>40.3</td>
<td>0</td>
<td>43.9</td>
<td>39.9</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>67</td>
<td>54</td>
<td>1.3</td>
<td>1</td>
<td>58.7</td>
<td>53</td>
<td>0</td>
<td>56</td>
<td>52.4</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>81</td>
<td>51</td>
<td>3</td>
<td>1</td>
<td>58.7</td>
<td>41.9</td>
<td>1</td>
<td>74.3</td>
<td>59.7</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>69</td>
<td>53</td>
<td>1.6</td>
<td>1</td>
<td>62.1</td>
<td>46.7</td>
<td>1</td>
<td>65.8</td>
<td>59.7</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>68</td>
<td>47</td>
<td>2.1</td>
<td>1</td>
<td>52.1</td>
<td>38.9</td>
<td>1</td>
<td>63.4</td>
<td>41.4</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>84</td>
<td>87</td>
<td>-0.3</td>
<td>0</td>
<td>53.8</td>
<td>53.1</td>
<td>0</td>
<td>63.4</td>
<td>56.4</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>61</td>
<td>76</td>
<td>-1.5</td>
<td>0</td>
<td>53</td>
<td>41.9</td>
<td>1</td>
<td>41.4</td>
<td>39.9</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>62</td>
<td>56</td>
<td>0.6</td>
<td>0</td>
<td>45.1</td>
<td>59.5</td>
<td>0</td>
<td>49.8</td>
<td>53.1</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 4.3

*Individual Results (Cont.)*

<table>
<thead>
<tr>
<th>Participant</th>
<th>SA Pre</th>
<th>SA Post</th>
<th>RPC</th>
<th>AD Pre</th>
<th>AD Post</th>
<th>RPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>63</td>
<td>67.6</td>
<td>0</td>
<td>64.9</td>
<td>55.1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>52.7</td>
<td>-</td>
<td>-</td>
<td>39.6</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>62.6</td>
<td>-</td>
<td>-</td>
<td>55.1</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>70.5</td>
<td>60.6</td>
<td>1</td>
<td>55.1</td>
<td>64</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>58.6</td>
<td>62.6</td>
<td>0</td>
<td>50.3</td>
<td>48.5</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>56.6</td>
<td>54.7</td>
<td>0</td>
<td>47.4</td>
<td>48.5</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>67.6</td>
<td>-</td>
<td>-</td>
<td>49.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>64.5</td>
<td>59.9</td>
<td>0</td>
<td>53.2</td>
<td>46.3</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>73.7</td>
<td>52.7</td>
<td>1</td>
<td>33.7</td>
<td>33</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>56.8</td>
<td>52.3</td>
<td>0</td>
<td>49.3</td>
<td>46.3</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>73.7</td>
<td>50.7</td>
<td>1</td>
<td>57.1</td>
<td>50.7</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>49.2</td>
<td>56.6</td>
<td>0</td>
<td>47.4</td>
<td>47.4</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>53.8</td>
<td>44.6</td>
<td>1</td>
<td>43.5</td>
<td>39.6</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>64.5</td>
<td>52.7</td>
<td>1</td>
<td>57.1</td>
<td>61.8</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>55.3</td>
<td>54.7</td>
<td>0</td>
<td>55.2</td>
<td>50.7</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>66.6</td>
<td>64.6</td>
<td>0</td>
<td>61.8</td>
<td>66.2</td>
<td>0</td>
</tr>
</tbody>
</table>
### Table 5

*Results of Sample Paired T-Tests For Severe SA, GA, D*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>N</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig. (p&lt;.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA Severe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>68.0714</td>
<td>7</td>
<td>4.52133</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>58.4000</td>
<td>7</td>
<td>6.51204</td>
<td>2.561</td>
<td>6</td>
<td>.043</td>
</tr>
<tr>
<td>GA Severe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>66.1500</td>
<td>6</td>
<td>4.29686</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>55.5333</td>
<td>6</td>
<td>8.17941</td>
<td>3.697</td>
<td>5</td>
<td>.014</td>
</tr>
<tr>
<td>D Severe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>61.2667</td>
<td>3</td>
<td>.85049</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>55.6333</td>
<td>3</td>
<td>6.05750</td>
<td>1.963</td>
<td>2</td>
<td>.189</td>
</tr>
</tbody>
</table>

*Note. Severe= T≥60.*
Chapter IV
Discussion

The theory informing the FBGT focused brief group psychotherapy WSU CWS proposes that positive change occurs for clients as they engage in, and receive corrective feedback regarding, new interpersonal behaviors. Furthermore, the work of Yalom suggests that in the confines of a safe and productive environment, in which the facilitator encourages a member to give and receive feedback concerning their interpersonal perceptions, the client can safely challenge, and alter their views of interpersonal interaction. For those who have endorsed a sense of interpersonal distress due to social isolation, treatment goals often include increasing social comfort and decreasing social self-consciousness (Horowitz, 1999). Each of these theoretical aspects of change has been utilized in this particular group setting, thus allowing for optimal occurrence of therapeutic change and opportunity.

The initial outcome of result analysis partially supports the stated hypotheses of decreased distress on measures ISI, IT, D, SA, GA, and AD. Results indicate evidence for positive outcome on some areas of interpersonal distress and function by using principles of interpersonal theory and therapeutic variables (Yalom, 2005), most notably interpersonal feedback, modeling and processing, along with the added pre-group screening to inform the goals of treatment. More specifically, domains measuring ISI,
IT, and D resulted in statistically significant distress decreases, while overall clinical significant change occurred in areas of SA, GA, and AD.

To better understand the amount of change on the SA scale, it is necessary to first look at the average domain means of the measure’s initial normative sample (Nordberg, personal communication, April, 2012). The social anxiety domain of the CCAPS has one of the highest overall means of all the CCAPS scales (N=19,245) with a mean of 1.79 on the CCAPS-62 and 1.73 on CCAPS-34 out of a possible score of 4. This suggests that on average, reporters tended to endorse at least a 2 on those items loading onto the SA scale. Client responses are more indicative of the social anxieties that are common to college life in general, rather than true social anxiety as understood by the DSM-IV diagnosis. Those experiencing and endorsing pure social anxiety are not well represented on this SA domain, and in fact may be captured more effectively when an elevation on the D scale is also present, as the D scale has been found to better describe global distress (Nordberg, 2012).

Therefore, the SA scale is not as sensitive to pure social anxiety change, unless the individual client endorsed distress in the 3 or 4 range, with a corresponding high level of D. Therefore, the average college student completing the assessment may not be endorsing a true social anxiety, but rather distress due to the typical social adjustment that occurs as one transitions to college. These average social anxiety changes are likely more subtle, and the presence of total positive change will be minimal. A similar separation of profiles based on severity may explain the non-statistically significant change of GA results as well. Again, it appears as if the total population’s change scores
were deflated by those individuals who may not have endorsed a high enough severity of distress on the domain.

Results indicate that those who endorsed more severe distress levels on SA (T=60), did in fact endorse a significant post-treatment change. The total population’s total change scores in essence deflated the change results, and underestimated the amount of distress those with purer forms of SA experienced. Results also indicated that there was in fact a significant positive change for those individuals who endorsed severe GA (T ≥ 60). Both of these anxiety domains, when results are separated by severity, illustrate promising findings when attempting to determine efficacy for this treatment group. These results are essentially positing that the therapeutic process of the FBGT treatment groups is positively effecting those in the most severe levels of clinical anxiety distress in a statistically significant way, while still clinically effective for the total population.

Interestingly, the same result did not occur when parsing out and analyzing the population who endorsed the most severe levels of D on the CCAPS measure. Table 5 describes the results of a Sample Paired T-Test for those endorsing severe GA, SA and D. As results suggest, those individuals endorsing severe levels of D on the CCAPS (T ≥ 60) did not result in a significantly significant decrease in distress. As noted earlier, the D scale captures much of the distress endorsed and loaded on each of the other scales (Nordberg 2012). For those individuals who endorsed D at the more severe levels, the work done in this type of group, with an individual focus on social inhibition, the depression aspects of their distress may not be affected enough by social inhibition to have the desired effect. As the FBGT groups attempt to focus and tailor treatment on a key aspect of distress, other domains of global distress may be overlooked.
When results are separated and presented based on level of severity, important indications into the overall efficacy of this specific and focused brief group therapy are found. As determined by the APA task force (2005) focused on efficacy, an effective and evidenced based treatment needs to produce clinically significant outcomes for those individuals who are endorsing the most severe levels of distress. These results show that for clients endorsing the most severe levels of distress among anxiety domains, a statistically significantly positive shift in distress occurs; while even those will lower levels of distress tend to at least reach clinical significance more often than not. Results suggest that the unique process of the FBGT groups is showing initial evidence of treatment efficacy.

The absence of statistically significant change for the population on the AD scale is not as easily explained. One potential rationale would be focused on the timing of the completion of measures, as students tend to complete the pre-treatment screening in the beginning of a new academic quarter, when there is little stress concerning assignments or tests. The post-treatment measures occur towards the end of the quarter, when final tests and projects are due, and students tend to feel pressured or more stressed. So, these measures of AD may be based more on individual stress states when the testing occurred rather than explained by the treatment group process. Though group processes may help an individual decrease their distress concerning social interaction in the classroom, any lingering anxiety concerning tests or class work may not be affected by increasing social comfort. Even with an increase in interpersonal comfort, tests and schoolwork are still a major and common stressor for college students.
Another potential explanation for the result pattern may be that the tests seem to measure different aspects of respondents’ distress. Items on the IIP-32 tend to focus primarily on measuring self-endorsed problematic interpersonal behaviors, which have been reinforcing further distress, including the various mood disorders commonly endorsed by this population. The IIP-32 measure is more sensitive to the immediate behavior changes that the individual endorses (Nordberg, 2012). For this study, the significant decrease in interpersonal distress detected by the IIP-32 confirms that participants are correctly identifying alterations of interpersonal behaviors that had reinforced their social inhibition, and total interpersonal distress. Through the group treatment setting, they had been encouraged to engage in more adaptive interactions with group members, who in turn would provide constructive feedback concerning these behaviors. The group members then are receiving in-vivo exposure in a safe and non-judgmental environment, reinforcing the use of these behaviors. By the end of treatment, participants will have potentially integrated a new perception of interpersonal interaction along with new tools for interaction, likely decreasing their behavioral distress.

The CCAPS measures however target the emotional responses that accompany the interpersonal behaviors, pre-existing and newly integrated. Though primary exposure occurs in a safe setting, there is much distress and uncertainty involved in the general environment that may not be accounted for. As the reduction of symptoms and feelings of anxiety is often propagated by increased habituation and exposure to a feared stimulus (Chambless and Ollendick, 2007), which for this profile is interaction in the social realm, the interpersonal behaviors learned in the group will likely only have an effect on severe anxiety over a longer period of time and practice of learned behaviors. These behaviors
must be integrated and generalized to life outside of the group, rather than in the relatively brief number of sessions in a protected environment. Some of the result discrepancy may be accounted for by a dose-effect relationship, explained later, or lack of generalized exposure within the group settings.

Increased exposure to a stimulus is not necessarily needed to lower distress levels of depression, which could explain why this domain was the one CCAPS domain with total statistically significant decline. Reduction of depression distress may be attributed to various therapeutic factors that are inherent to this type of group therapy setting, including instillation of hope and universality (Yalom, 2005). Engaging with others in the group that may be expressing similar interpersonal distress can be a normalizing factor to an individual, and can potentially encourage the individual to engage in more adaptive behaviors in the future. It may be helpful in future studies to include a depression focused inventory to determine exactly which symptoms of depression are most prevalent, and if hopelessness in the future is severe, to further tailor the work done in the group.

Another potential explanation of the results concerns the number of group sessions that an individual attended, and how attendance frequency could impact the presence, amount and types of endorsed change for an individual. As described by the Dose-effect relationship in psychology, there tends to be a critical number of sessions needed to see the most positive change through a given treatment. Among the 16 participants in this pilot study, there was a wide frequency of sessions attended. Figure 3 graphs the frequency of treatment sessions among the population. Of the four individuals who attended for the entire duration of treatment (n=4), three endorsed a statistically
significant decrease in ISI, and two participants also endorsed an IT decrease. This is compared to those who attended 5-6 sessions, in which three of seven participants endorsed a statistical significant decrease in ISI, and three of seven also endorsed IT distress decrease. Two of five individuals who attended only 3-4 sessions endorsed a significant ISI decrease, and only one endorsed an IT decrease. These results then begin to reinforce the utility of treatment attendance concerning the successful adoption of new interpersonal behaviors. The more treatment sessions attended related to a higher percentage chance of meaningful change of Interpersonal behaviors.

Length of treatment did not show a similar effect on the domains of the CCAPS. For individuals experiencing reliable change on D, treatment sessions ranged from four to six, four to five for GA, and five to nine sessions on the SA. It should be noted that three of the original population had pre-treatment data on the CCAPS missing. Still, the concept of treatment length affecting change for the population supports the previous explanation of discrepancies across measures. The greater the amount of opportunities to practice new behaviors in session, the greater the change they endorsed concerning their interpersonal behaviors. However, overall mood change depended less on number of treatment sessions attended, and potentially more on exposure to feared situations outside of group.

When compared to the existing literature on dose-effect relationships of psychotherapy, the results are mixed. Behavior change effects seemed to clearly indicate that those individuals, who attended 5 or more sessions, or more than half, resulted in an increased endorsement of change. However, as it pertains to change of the scales of CCAPS, which are mood related, the brief number of sessions did not show a large
positive effect. As more data is added from future iterations of the FBGT groups, there may be more evidence towards utilizing a brief type of group psychotherapy to indicate change on these mood related distress symptoms. One caveat of note is that at this point it is unknown to this researcher which sessions were missed, due partly to missing data as well as to a lack of analysis of qualitative notes. For example, it is unknown an individual entered group late, sporadically attended, or dropped out early all together. Further analysis of session attendance could provide more information on the patterns.

Another potential explanation for the results of this study focuses on analyzing the population’s Pre-treatment Multi-axial diagnoses. During the intake session, typically
conducted by a psychology trainee from the WSU School of Professional Psychology, diagnostic impressions of the client are made and used as a vital piece of information concerning inclusion into the FBGT group and determining the focus of treatment for the individual. A variety of diagnoses are present for clients throughout the population, however for this particular profile of client, mood disorders (i.e. depressive disorders, anxiety disorders) are the most prevalent. The high prevalence of these diagnoses was instrumental in choosing the specific CCAPS domain results to analyze. Figures 4.1, 4.2, and 4.3 describe the frequency of the population’s primary, secondary and additional diagnoses.

Ten of the sixteen individuals had been diagnosed some type of anxiety disorder (i.e. Generalized Anxiety, Anxiety NOS, Social Anxiety, Adjustment with Anxiety). Six of the sixteen participants received a type of depressive disorder (i.e. Major Depressive Disorder). Three of the sixteen were diagnosed co-morbidly with an anxiety and a depressive disorder. Other diagnoses included Substance related disorders, Mathematics Disorders, and one occurrence of a diagnosed Schizophrenia.

For those individuals diagnosed with a form of anxiety (n=10), half endorsed a significant decrease on ISI, while only three endorsed an overall IT decrease. Two members of this subset endorsed a Reliable Change on D, while only one endorsed significant change on the GA scale, and one endorsed significant SA decrease. Again there was no statistically significant decrease on the AD scale. Of those diagnosed with a form of depressive disorder (n=6), two endorsed a significant decrease on ISI. Only one member endorsed a significant decrease on the CCAPS and did so across all scales. For
those with the co-morbid type profile (n=3), none of them endorsed statistically significant decreases on any of the CCAPS domains.

A potential rationale for this result may be that as individuals are learning and integrating new interaction behaviors and skills focused on their goal of lessening social inhibitory distress, other domains of interpersonal distress may increase and begin to affect the Client in new ways. For example, while an individual may be starting to feel more socially comfortable, they may then begin to notice the other areas of interpersonal transactions are now equally or more distressing than their initial inventory suggested.

With a group that is set up and run like the FBGT group, there is tends one specific interpersonal focus for each member, and the process does not always account for residual distress in other areas of interaction. To determine if this explanation fits, future research will need to analyze the effects that the change on a targeted interpersonal scale has on the other seven scales of the IIP-32.

One final way to approach these results is to analyze a several individual cases as some individual participants seemed to have great success while others showed little or no positive movement, and others yet saw increases over time. Participant 13 for example would have to be indicated as the greatest success as she saw the biggest improvements across all analyzed domains. Surprisingly, this individual attended five of the sessions, placing her at the middle range of treatment frequency. As stated earlier, it is unknown which five sessions were attended.
Figure 4.1. Primary Diagnoses.

Figure 4.2. Secondary Diagnoses.
She received the primary diagnosis of dysthymic disorder, though without viewing clinical notes, it is unknown to this researcher the length, duration and onset of this diagnosis. However, this individual reached a clinical level ISI (T=65). After five sessions this distress decreased well below the cut-off (T=47). Her IT distress decreased from T=68 to T=47, a 21-point drop, the highest drop in distress of any participant. This individual also endorsed one of the largest decreases on D and GA, and endorsed a significant decrease in SA. Without the clinical notes available with a more qualitative view of this individual, it is difficult to surmise why this particular individual had such success through treatment, when others who had attended session more frequently did not reach statistical significance as often.

Like Participant 13, Participant 11 also endorsed statistically significant distress across all domains, excluding AD. This individual was a white female, diagnosed with
Bipolar Disorder, most recent episode Depressive. Surprisingly, as with 13,11 attended very few (4) of the total sessions. A potential explanation for these two cases in particular is that neither had been diagnosed with an anxiety related disorder. As stated earlier, those with a more depressive presentation may benefit greatly from being in the group, feeling understood, normalized, and increasing hope for the future. Mood for these individuals then are not as dependent on exposure to feared stimuli over time like those who had been diagnosed with an anxiety disorder.

Another interesting participant to mention is Participant 10, a White-female who had been diagnosed with Schizophrenia, paranoid type. She attended each session of treatment and showed clinically significant decrease on both measured scales of the IIP-32, with no reliable statistical change on any of the CCAPS scales. Her case is interesting in that her presenting diagnosis was not remotely congruent with any of the other group members, who all primarily received a mood related diagnosis. However, where there is divergence on the diagnostic variables, this participant shared a desire to reduce distress due to an interpersonal problem, like each of the other group members. Yalom and Lesacz (2005) indicated that during group formation, there must be some homogeneity in goal and heterogeneity in personal characteristics. While Participant 10, based strictly on diagnosis, may not at first seem like a good fit for this type of group, her success concerning behavioral change would indicate that she was active and highly motivated to work with the group. Once again, analyzing clinical progress notes would be useful in identifying her progress session by session.

In summary, while there may not have been a clear pattern among all individuals who had been selected for elevated High Scale 4 profile, the results supplied a wealth of
information to better understand who benefits most and in which ways for this particular and unique focused brief group psychotherapy. There is evidence to suggest that, overall, individuals who endorse a need to change interpersonal behaviors concerning social isolation and comfort do benefit greatly from utilizing this group therapy setting to practice, receive feedback on and integrate new methods of interaction in the short term. However, it became evident that these same individuals who felt more socially comfortable within the safe confines of the group still experienced great anxiety when attempting to generalize these skills into interactions outside of the group. One important caveat to this result is that those who endorsed the most severe levels of distress on social and general anxiety did in fact endorse a statistically significant decrease in distress level. It is hypothesized that these levels of anxiety for the total population may decrease overtime with continued exposure and use of these behaviors, as an average of six treatment session does not provide the client with a sufficient amount of exposure.

It should be noted that these results were not initially analyzed using the Bonferroni correction, which is employed to reduce Type II errors when multiple tests or comparisons are completed (Nakagawa, 2004). In short, when an experimenter performs enough tests on the same population, a statistical significant results will eventually appear, leading to possible false positive results somewhere in the results. This test attempts to prevent the data from incorrectly appearing significant by lowering the alpha to a more conservative value, than the .05 value utilized initially. With the more conservative alpha value included the results of the analysis change.

The ISI change score remains statistically significant, however with the more conservative alpha levels, previously significant scores on IT and D domains now fail to
reach statistically significant levels. While the significance of some results change, the explanation and impact of the findings still remain fairly consistent with the non-corrected analysis. For example, when looking at the already described RCI, it still appears that D, SA, and GA are less impacted over six sessions than the ISI scale seems to be. Again this result could be explained by the greater sensitivity of the IIP to change (Nordberg, 2012), the likelihood that behavior change comes first and affect changes after greater exposure, or that the GA and SA scales on the CCAPS are less sensitive to change unless exploring the most severe cases. Even with the correction, the results and the impact of the FBGT treatment on individuals with social inhibition interpersonal distress remains consistent to the original analysis.

Furthermore, the literature indicates that the use and utility of the Bonferroni Correction is still highly debated among researchers in a variety of fields (Nakagawa, 2004). For one, there is no formal consensus for when the procedures should be used, even among statisticians (Perneger, 1998). Also it seems as if the corrections are applied only when researcher’s results remain significant, as researchers tend to believe that results are “more significant” if they remain so after the correction, though this assumption incorrect (Nakagawa, 2004). From statistical standpoint, the use of the Bonferroni correction to reduce Type I error, may in fact cause Type II error as well. This means that the Bonferroni may over correct, and under-report significant findings. In short, the use of the Bonferroni can contribute to confirmation and publication bias, as well as shift Type II errors to unacceptable levels, reinforcing the hesitance to utilize the correction.
For this study in particular then, applying the correction would partly over-correct for significance since significance is already represented and evidenced by the Reliable Change Indices. The IIP total score significance is likely still best explained by the fact that as individuals attempt new behaviors, they may become more distress on the non-targeted scales. Clearly the Reliable Change Indices show change is occurring more often than not on the targeted change scale, the ISI, while we can reasonably state that the change is not as significant or predictable on the other scales.

**Limitations**

The current study was approached as an initial pilot study to analyze outcome information for a focused brief group setting. Given this approach, there is the potential for limitations concerning these results. For instance, there is an inability to determine causality among the various scales being measured. Given the results, this study can reasonably indicate that the targeted behaviors of this profile of individual tend to yield a decreased amount of distress on the social inhibition scale of interpersonal behaviors, however the results cannot significantly indicate the effect that this approach has on total interpersonal distress or any of the mood domains of the CCAPS. Other therapeutic variables, including length of treatment, diagnosis, inter-group processes, and external variables for instance, are not controlled for in a study like this, thus these confounding variables may account for some of the results. However, the goal of the group process is to target problem interpersonal behaviors, which as indicated by results occurs rather successfully.

The sample size for this particular study included sixteen participant profiles. The FBGT group at CWS had only been running for around two years by the time this study’s
data was collected. The total sample of participants for the entirety of the group’s life was around 100 participants, so even though this sample included only sixteen participants, the High Scale 4 profiles are a rather large percentage of the total population. In quantitative research, small samples sizes can be vulnerable to statistical error including, reliability and validity.

Along with the relatively small sample size, there was also a lack of ethnic diversity. The ethnicity of this population was primarily Caucasian. This finding implies difficulties in generalizability at this point of the research. There is hope that as more individuals join this group setting in the future, individuals identifying as other ethnicities would also increase, however as some research indicates, Caucasian populations are more likely to utilize college counseling services, so generalizability to other college counseling centers is more likely at this time.

As indicated in the results, there appeared to be a need for greater exposure to a feared stimulus to reduce the endorsed feelings of social anxiety and generalized anxiety. The benefits of a brief number of treatment sessions, also provides a limitation. It seemed that nine weeks and six weeks on average, did not provide enough exposure to see an overall significant decrease in distress level on several of the mood related domains. However, as the research indicated, individuals in this treatment setting tend to attend sessions at an average of 5.6, so it can be noted that the FBGT groups are in line with other college counseling centers.

Also, concerning the measures, as with any self-report measure, answers may be exaggerated, as respondents results are often affected or biased by the way the person may be feeling at the time of the questionnaire. As stated earlier, this may be one reason
for the results that were suggested by the AD scales. This potential for bias could be corrected by the addition of more objective measures. However, given the time that these measures usually take, longer assessments may not be the most efficient for the purpose of this group and at this setting.

Another potential limitation of the study involves the facilitation of the groups. As WSU CWS is a training facility for students in the school of professional psychology, individuals facilitating groups, administering intake interviews and screeners, diagnosing and determining treatment goals are typically trainees at varying levels of experience (i.e. second year through internship). Knowing that this group experience may be the first time the student has applied their learned skills into practice, diagnoses and treatment expectations especially may not be as accurate as someone who is skilled in this treatment modality. One attempt to minimize the impact of this limitation is through ongoing supervision by a licensed professional, though at CWS this supervision does not always occur within session.

**Future Directions**

This initial analysis of data for the FBGT group at WSU CWS yielded several possible directions for future research and continued analysis. Even with this relatively small population sample size, results yielded one large effect on the domain which was the focus of this particular profile of individual in the group setting. These results are promising for the future of this group, as it is ongoing and this sample size is increasing with every nine week treatment setting. Future studies can replicate the methodology of this study with the addition of new participant data.
Other than increasing the sample size for the High 4 profile, several other IIP-32 based profiles could be analyzed using the procedures listed. Profiles with high scores on each of the other seven scales individually could be analyzed, but would initially face similar sample size limitations. Other profiles to analyze are those which include multiple scale elevations, as these profiles are likely to result in different patterns of change. Once again, as these groups continue to run, and available data increases, any combination of elevated profiles could be analyzed to better understand how individuals experience change through FBGT groups.

Though this researcher initially would have liked to integrate qualitative observations, such as therapist notes and rating of change, the task was determined to be better fit for future research directions. Therapist notes and other qualitative data points would be helpful in further analysis as they indicate differences between the client’s view of change and treatment compared to how the training therapist interprets change within the setting. These notes would also serve to track and describe the client’s ability to meet goals throughout the process of treatment, and how this progression could explain their treatment results. A mixed methods approach to this data could supply further information into answering questions about change, how it is measured, and how it occurs through treatment.

A longitudinal approach to this data could be beneficial as well, as some of the measures in the study could produce more significant findings after a greater period of time than is allowed in one brief group setting. The potential for a longitudinal study for this population is often difficult as individuals are typically enrolled in a college for around four years. Tracking participants to see if effects have lasted past the completion
of treatment could provide information into the utility of this type of treatment when discussing long term behavioral and interpersonal changes.
Chapter V

Conclusion

The FBGT group at WSU CWS is a unique addition to the field of group therapy, and college counseling as it utilizes specific pre-group measurements to determine group inclusion, as well as to individually tailor and focus behavioral goals for each participant. As unique as the methods are for this focused brief group therapy, determining the most effective way to measure the reliable occurrence of meaningful change is also a unique and highly iterative process. The procedures and methods utilized in this pilot study generated promising results into understanding how targeting specific interpersonal behaviors to change can in fact impact the amount of type of interpersonal distress which is most severely endorsed. The results indicated that for the targeted group of individuals endorsing the interpersonal distress of social inhibition, the targeted behavioral changes and interventions based on pre-group screenings, and the theoretical basis of FBGT groups, in vivo practice and exposure does promote behavioral changes for the individual post-treatment.

The aspects of total interpersonal distress and various mood domains were not found to be as affected by the targeting of specific maladaptive interpersonal behaviors. However, these results create an initial evidence base to reinforce that the group is “working” in the ways it was created to. The results found allow for further refining of the methodology, new hypotheses into how to best understand and measure change, and
outcome reinforcement of the efficacy of this unique group treatment modality. As the sample size and population of group members continues to grow, and the method of data collection and analysis is refined, more reliable results could produce a greater understanding of how change can occur with targeted interpersonal group psychotherapy.
References


Draper, M., Jennings, J., Baron, A., Erdur, O., & Lavanya S. (2000). Dose-effect relationships in brief therapy based on a nationwide college counseling center sample. *Research reports of the research consortium of counseling and psychological services in higher education*


Kiesler, D.J. (1977). *Communications approach to modification of the “obsessive” personality*. Unpublished manuscript, Virginia Commonwealth University, Richmond.


Leary, T.F. (1955). The theory and measurement methodology of interpersonal communication. *Psychiatry, 18,* 147-161


_Psychiatric Times, 26._


Sun, Q., Guang-rong, J., & Zhang, Q (2010). A report on the application of IIP-32 to 1498 college students. _Chinese Journal of Clinical Psychology 18, 466-468._


