

VIDEO FEEDBACK AND GROUP THERAPY CLIMATE

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## VIDEO FEEDBACK AND GROUP THERAPY CLIMATE

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### STATEMENT OF THE PROBLEM

Existing research has demonstrated video feedback as an effective therapeutic tool. Through retrospective review of counseling sessions, clients have experienced positive outcomes in individual, marriage, and family counseling. Here, the literature has associated video feedback with therapeutic gains in client self reflection and insight, interpersonal skills, and interpersonal sensitivity and empathy.

Despite these auspices, there is a paucity of research in the use of video feedback within the group counseling format. However, reported video feedback outcomes are consistent with the therapeutic factors of group counseling theory. Therefore, the current study tested the efficacy of video feedback as an adjunct to group counseling.

### METHODS AND PROCEDURES

Study participants ( $n = 8$ ) were drawn from a graduate-level group counseling course and included three males (37.5%) and five females (62.5%), with one African-American student (12.5%) and seven Caucasian students (88.5%). Participants were randomly assigned to one of two conditions: (a) video feedback group; or (b) psycho-educational video group. Efficacy was examined using the Self Reflection and Insight

Scale (SRIS) to measure self reflection, the Interpersonal Competence Questionnaire (ICQ) to measure interpersonal skills, the Empathy Quotient (EQ) to measure empathy, and the Group Climate Questionnaire - Short (GCQ-S) to measure therapeutic group climate. The author hypothesized that the video feedback treatment would yield superior outcomes on all four measures.

#### SUMMARY OF RESULTS

While the video feedback group attained superior scores on all post-treatment measures, results were not statistically significant. Therefore, data did not support superior efficacy for video feedback treatment, and the null hypotheses were accepted. Limitations of the study are reviewed, and suggestions for further research are proposed and discussed.

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## I. Introduction

### *Review of the Literature.*

Video feedback is a therapeutic tool which allows retrospective review of counseling sessions. Through the use of video playback, clients can briefly step outside themselves and examine their own words, behaviors, and interpersonal interactions. Video feedback provides a an opportunity for reflective self observation that might otherwise be lacking in everyday experience. Typically, the video is viewed, discussed, and processed by the client in the presence of a therapist and used as a supplement to standard therapy.

One of the earliest case studies on the use of video feedback in individual counseling sessions was conducted by Kagan, Krathwohl, and Miller (1963). In this study, counseling sessions would proceed as normal in a conspicuously video-taped interview room. Once a counseling session was complete, the client would be referred to a second room where he or she would watch the video of their counseling session with a second counselor. Clients would then be encouraged to describe their feelings, interpret their statements, and translate their non-verbal movements as they viewed the replayed video. The study found positive results, with clients gaining insight into their behaviors and increased ability to bring repressed feelings to the surface. Furthermore, video feedback seemed to accelerate the outcomes of the therapeutic process.

Soon after, clinicians began implementing and researching video feedback in conjoint marital therapy (Alger & Hogan, 1967). In this research, a therapist would

[conduct and video tape ten minutes of a typical session](#). After the first ten minutes were [complete](#), the couple and therapist would view and process this recorded material together. During this video feedback session, either member of the couple would comment on discrepancies between video content and subjective experiences during the counseling session ([i.e.](#) replaying portions of the tape as deemed necessary). The therapist would then aid in the processing of this recorded material, so as to assist the couple in gaining added insight and perspective on themselves and their [shared](#) interpersonal relationship.

[These early studies set the foundation for the video feedback research that would follow. That is, clinicians would repeatedly examine the efficacy of the technology in helping to foster increased intrapersonal and interpersonal reflection and insight. Moreover, they would accomplish this through integrating video viewing into actual therapy sessions. The result has been](#) a growing body of [empirical evidence](#) indicating that video feedback [is](#) an effective tool in a range of counseling formats, including individual counseling (Gasman, 1992; Horwitz, Theorell, & Anderberg, 2004; Rodebaugh & Rapee, 2006; Smits, Rosenfield, McDonald, & Telch, 2006) and marriage and family counseling (Fukkink, 2008; Kemenoff, Worchell, Prevatt, & Willson, 1995; Veldeman, Bakermans-Kranenburg, Juffer, and van Ijzendoorn, 2006; Zeijl et al., 2006).

[While a need for more efficacy research exists, existing literature is in](#) agreement on the therapeutic [mechanisms](#) through which video feedback [fosters intrapersonal and interpersonal gains](#). Most notably, video feedback has been shown to improve [self reflection and insight](#) (Alger and Hogan, 1967; Harvey, Clark, Ehlers, and Rapee, 2000;

Hofmann, Moscovitch, Kim, and Taylor, 2004; Horwitz, et al., 2004; Parish, et al., 2006; Rodebaugh and Rapee, 2006; Tarabulsy, et al., 2008), *interpersonal skills* (Fukkink, 2008; Tarabulsy, et al., 2008), and *interpersonal sensitivity and empathy* (Fukkink, 2008; Tarabulsy, et al., 2008; Velderman, et al., 2006; Zeijl, et al., 2006). Furthermore, video feedback may accelerate positive outcomes via fewer sessions (Alger and Hogan, 1967; Kagan, et al., 1963; Roter, et al., 2004).

### **Operational Definitions of Self Reflection and Insight, Interpersonal Skills, and Empathy.**

For the purposes of the present study, we incorporated Grant, Franklin, and Langford's (2002) definitions of *self reflection and insight*—as used in the development of the Self-Reflection and Insight Scale (SRIS; Grant, Franklin, & Langford, 2002). That is, *self reflection* is the “inspection and evaluation of one’s thoughts, feelings, and behavior,” while *self insight* is the “clarity of understanding one’s thoughts, feelings and behavior” (p. 821).

In defining *interpersonal skills*, we followed the components utilized in the five subscales of the Interpersonal Competence Questionnaire (ICQ; Buhrmester, Furman, Wittneberg, & Reis, 1988). *Interpersonal skills* involve the “initiation of interactions and relationships,” the “assertion of personal rights and displeasure with others,” “self-disclosure of personal information,” “emotional support of others,” and “management of interpersonal conflicts that arise in close relationships” (p. 992).

Finally, in defining empathy, we looked to the Empathy Quotient (EQ; Baron-Cohen & Wheelwright, 2004) as a guide. Here, we defined empathy as the ability to

imagine another person's mental and emotional state and provide an appropriate affective response to that state.

**Video Feedback's Therapeutic Mechanisms within the Group Counseling Format.**

In order to assess the effectiveness of video feedback within the group counseling format, we utilized Yalom's (1995; Yalom & Yalom, 1998) theoretical model of process-oriented group therapy. This orientation was used for several reasons: (1) the current study was to be conducted within a graduate group counseling course in which Yalom has been historically used as a primary text; (2) this approach to group therapy is well respected among clinicians and is used as standard training within many prestigious graduate counseling programs; and (3) this theoretical approach has been empirically validated (Butler & Fuhrman, 1983).

Using Yalom's model of group therapy, then, we found immediate indicators of video feedback's potential utility within a group format. After all, video feedback effects of self reflection and insight, interpersonal skills, and empathy are highly congruent with

Yalom's group counseling theory, which stresses the importance of *self insight*, *development of socializing techniques*, *interpersonal learning*, *altruism*, and *group cohesiveness*.

Yalom (1995) describes *self insight* as self discovery and derepression. Self insight can occur on four levels: the client may gain more objectivity about their interpersonal presentation; the client can gain a deeper understanding of their complex behavioral patterns; the client may gain motivational insight; the client may gain understanding about the genesis/etiology of a behavior. Here, Yalom's description of

self insight overlaps considerably with the definition used in the current study and is consistent with evidence-supported video feedback effects.

Similarly, Yalom's conceptions of the *development of socializing techniques* and *interpersonal learning* are also consistent with research on video feedback uses. Yalom describes the development of socializing techniques as an essential therapeutic factor that is at play in all therapy groups. It involves interpersonal development and feedback and is especially instrumental in early phases of therapeutic change. Yalom goes on to state that interpersonal learning is one of the most important group therapeutic factors. Through interpersonal learning, the client gains personal and interpersonal insight alongside an affective dimension that helps hasten therapeutic change. Such group processes contain a notable overlap with the current study's definitions of self reflection and insight and interpersonal skills and are congruent with proposed video feedback effects.

Yalom describes *altruism* as clients sharing, giving, and offering interpersonal support, suggestions, and insight. Through altruism, the client chooses interpersonal learning, exchange, and meaning over solipsism. While this therapeutic factor does not perfectly align with this the defined outcomes of the present study, there still is considerable overlap between Yalom's description and video feedback effects of self reflection and insight, interpersonal skills, and empathy.

Finally, Yalom's conceives of *group cohesiveness* as group solidarity, mutual acceptance, and shared meaning. That is, group members see themselves as belonging to the group and feel stability within that group. Again, while this therapeutic factor

does not neatly align with the strictly defined terms of the present study, group cohesiveness does nevertheless overlap with the proposed video feedback effects of interpersonal skills and empathy.

### [Integrating Video Feedback within the Group Format.](#)

As discussed, video feedback is consistent with some of the key therapeutic factors within Yalom's group counseling model and does appear to have potential usefulness within the group counseling setting. However, while video therapy has been used within the group counseling format (Stangier, Heidenreich, Peitz, Lauterbach, and Clark, 2003; Hofmann, et al., 2004; Parish, et al., 2006), little empirical evidence exists testing its efficacy or its effects on the group counseling climate.

The purpose of the present study was to test the effects of video feedback on self reflection and insight, interpersonal skills, and empathy within a group counseling format, using a randomized experimental design. In the experimental treatment, seven weekly process-oriented group counseling sessions were supplemented with four interspersed video feedback viewing and discussion sessions. In the control treatment, seven weekly process-oriented group counseling sessions were supplemented with four interspersed psycho-educational video viewing and discussion sessions.

Outcomes were measured with assessments at pre-treatment, mid-treatment, and post-treatment. Between pre-treatment and mid-treatment, both groups were subjected to identical treatment conditions (i.e. process-oriented treatment only). The independent variable (i.e. video feedback vs. psycho-educational viewing) was only

introduced after the mid-treatment assessment. This allowed both groups to develop organically before the introduction of an experimental variable.

***Hypotheses.***

The two hypotheses were:

1. The experimental group (video feedback group) will demonstrate larger improvements in self reflection, interpersonal skills, and empathy compared to the control group (psycho-educational video group).
2. The experimental group (video feedback group), as compared with the control group (psycho-educational video group), will develop a more therapeutic climate, evidenced by: a) higher levels of group member engagement; b) lower levels of group member conflict; and c) lower levels of group member avoiding (i.e. avoidance of group work by members).

## II. Methods

**Participants.**

Study participants were recruited on a voluntary basis from the Counselor Education [group counseling](#) course at the University of Wisconsin – Platteville. Group [counseling](#) is a graduate level course that focuses on the theory and practice of facilitating process-oriented group therapy. [All](#) participants were current graduate level students [in the master's program](#).

All potential participants were explicitly advised that they could continue individual participation in the [group c](#)ounseling course without participating in the present study; non-participating students [could](#) engage in a respective study treatment (i.e. either experimental or controlled), but would not partake in the study's assessments. Participants were also explicitly advised that their decision regarding participation in this study would not affect individual grades and/or academic standing.

Research was conducted by the author, a [c](#)ounselor [e](#)ducation graduate student at the University of Wisconsin - Platteville. The author was sponsored and supervised by Steven G. Benish, [Ph.D.](#), Assistant Professor at the University of Wisconsin - Platteville. The Group Counseling course was taught and supervised by Steven G. Benish, [Ph. D.](#), a licensed psychotherapist with [over a decade of clinical](#) experience. [Notable](#) consideration was given beforehand to the risks and benefits of study participation. Supervision was present in the experiment at all times, and all participants were treated within the ethical guidelines of the American Psychological Association. [During](#) pre-, mid-, and post-treatment assessments, care was used in maintaining the anonymity of individual participant responses. A numbering system was used to ensure that

responses were not be identifiable to individual participants, and no known unintentional data disclosures occurred as result of the study.

### ***Randomization.***

During the first meeting (i.e. immediately before pre-treatment assessment), participants were assigned unique identification numbers. Participants randomly drew identification numbers via slips of paper in a box. Participants then used these identification numbers to ensure individual anonymity throughout the course of the study—i.e. when completing pre-, mid-, and post-treatment assessments.

This anonymous number assignment was also used to randomize participants to one of the two treatment conditions. Specifically, participants drawing identification numbers 1-5 were assigned to the control condition, while participants drawing identification numbers 6-10 were assigned to the experimental condition.

### ***Experiment Site and Setup.***

The experiment was conducted at the University of Wisconsin – Platteville, in a classroom with existing video equipment and an attached clinical observation room. The classroom that was utilized was the regular room used for the group counseling course, and no changes were made to the appearance or setup of the room to accommodate for the present study.

### ***Instruments.***

Prior to any data collection, participants were read and received a copy of an IRB-approved, informed consent form. A basic demographic questionnaire was completed by participants, which was used to anonymously ascertain the age, ethnicity/race, and gender of all participants. Demographic questions are included in Appendix A.

The Self-Reflection and Insight Scale (SRIS; Grant, et al., 2002) was used to assess the self-reflection component of [hypothesis #1](#). The instrument is a 20-item, self-report questionnaire designed to assess one's inspection, evaluation, and understanding of one's own thoughts, feelings, and behaviors. The SRIS utilizes a 6-point Likert scale, ranging from *strongly disagree* (1) to *strongly agree* (6). The SRIS has two subscales: the self-reflection subscale (SRIS-SR) and the insight subscale (SRIS-IN). SCIS questions are included in Appendix C.

[Both subscales have high internal consistency, with coefficient alphas of .91 and .87 respectively.](#) The test-retest [reliability](#) for these subscales are .77 ( $p < .001$ ) and .78 ( $p < .001$ ) respectively. Finally, the SRIS-IN has been shown to have strong convergent and discriminant validity—negatively correlating with measures for depression, anxiety, stress, and alexithymia, and positively correlating with measures for cognitive flexibility and self-regulation. The SRIS was administered to participants at pre-treatment, mid-treatment (after the fourth treatment session) and at post-treatment (after the eleventh treatment session).

The Interpersonal Competence Questionnaire (ICQ; Buhrmester, et al., 1988) was used to assess the interpersonal skills component of [hypothesis #1](#). This instrument

measures interpersonal skills via five subscales: Initiation, Negative Assertion, Disclosure, Emotional Support, and Conflict Management. The instrument is a 40-item, self-report questionnaire. The ICQ utilizes a 5-point Likert scale, ranging from *poor* (1) to *extremely good* (5). ICQ questions are included in Appendix D.

The instrument has been shown to have high internal consistency, with an alpha of .90, modest predictive validity (Graf & Harland, 2005), and strong concurrent and discriminant validity (Buhrmester et al. 1988). The ICQ was administered to participants at pre-treatment, mid-treatment (after the fourth treatment session) and at post-treatment (after the eleventh treatment session).

The Empathy Quotient (EQ; Baron-Cohen & Wheelwright, 2004) was used to assess the empathy component of [hypothesis #1](#). The instrument is a 60-item (40 empathy items and 20 filler/control items) self-report questionnaire designed to assess one's empathic behavior. The EQ utilizes a quasi-Likert scale, with responses ranging from *strongly disagree* to *strongly agree*. EQ questions are included in Appendix E.

The EQ has strong face validity, as seen in its use with clients with Asperger Syndrome and autism (Baron-Cohen & Wheelwright, 2004). Furthermore, it has proven concurrent validity, as well as test-retest reliability ( $r = .835$ ;  $p < .001$ ; Lawrence, Shaw, Baker, Baron-Cohen, & David, 2004). The EQ was administered to participants at pre-treatment, mid-treatment (after the fourth treatment session) and at post-treatment (after the eleventh treatment session).

The Group Climate Questionnaire (GCQ-S; MacKenzie, 1981; 1983) was used to test [hypothesis #2](#). The instrument is a 12-item, self-report questionnaire designed to

measure the therapeutic climate of a counseling group. The GCQ-S utilizes a 7-point Likert scale, ranging from *not at all* (0) to *extremely* (6). The GCQ-S measures therapeutic climate via three subscales: Engagement; Conflict; and Avoiding. GCQ questions are included in Appendix B.

Coefficient alphas show high internal consistency for these three scales: .94, Engagement; .88, Conflict; and .92, Avoidance (Kivlighan & Goldfine, 1991). Furthermore, the GCQ-S has been evaluated as having strong face validity by therapists (MacKenzie, 1983) and shown as a strong predictor of therapeutic gain (Kivlighan & Lilly, 1997). The GCQ-S was administered to participants at mid-treatment (after the fourth treatment session) and at post-treatment (after the eleventh treatment session).

### ***Overview of Treatment Conditions.***

The experiment consisted of two conditions: 1) an experimental group (Video Feedback Group; VFG), consisting of process-oriented group counseling sessions, with video feedback viewing and discussion; and 2) a control group (Psycho-Educational Video Group; PEVG), consisting of process-oriented group counseling sessions, with psycho-educational video viewing and discussion. All participants were randomized into one of these two groups, with each group blind to the other group's video treatment.

### ***The Experimental Video Feedback Condition (VFG).***

The experimental group condition consisted of 11 treatment sessions, lasting 45 minutes each. These 11 sessions were comprised of seven process-oriented group counseling sessions and four video feedback processing sessions.

Process-oriented group counseling sessions focused on participant sharing, group member engagement, mindfulness, and group process. Group participants took turns facilitating these sessions. The author and course instructor took turns co-facilitating these sessions. Respective facilitators were instructed to take a non-directive role. These group counseling sessions followed the orientation and principles outlined in Yalom's group counseling theory (1995; Yalom & Yalom, 1998).

These process-oriented sessions were monitored/viewed by the control condition from behind a two-way mirror. This protocol is part of the standard [group counseling](#) course and had to be maintained due to the educational emphasis of the course. Since the reverse occurred for the control condition (i.e. the experimental condition monitored/viewed the control conditions' process-oriented counseling sessions), this protocol was uniform across treatment conditions.

During video feedback processing sessions, participants viewed 25-minute Recap Videos (i.e. video recordings of their own groups' counseling sessions). After viewing the video, the group was provided 20 minutes for discussion of the video. The group was instructed: "Discuss your feelings and thoughts about the video and how it relates to your interpersonal and intrapersonal experiences within the group." Group participants took turns facilitating these sessions. The author and course instructor took turns co-facilitating these sessions. Respective facilitators were instructed to take a non-directive

role. These group counseling sessions followed the orientation and principles outlined in Yalom's group counseling theory (1995; Yalom & Yalom, 1998).

Video feedback video excerpts/selections were selected by the author. Video feedback sessions were not monitored/viewed by the control group. Both groups were blind to the video component of the other group's condition.

#### *The Control Psycho-Educational Video Group (PEVG)*

The control group condition also consisted of 11 treatment sessions, lasting 45 minutes each. These 11 sessions were comprised of seven process-oriented group counseling sessions and four psycho-educational video processing sessions.

Process-orientated group counseling sessions mirrored that of the experimental group, focusing on participant sharing, group member engagement, mindfulness, and group process. Group participants took turns facilitating these sessions. The author and course instructor took turns co-facilitating these sessions. Respective facilitators were instructed to take a non-directive role. These group counseling sessions followed the orientation and principles outlined in Yalom's group counseling theory (1995; Yalom & Yalom, 1998).

During psycho-educational video processing sessions, participants viewed 25-minute Group Session Videos (i.e. examples of group counseling sessions occurring within psycho-educational videos; Walters, 2000; [Yalom, 1990](#)). After viewing the video, the group was provided 20 minutes for discussion of the video. The control group was given identical instructions as the experimental group. That is, the group was told: "Discuss your feelings and thoughts about the video and how it relates to your

interpersonal and intrapersonal experiences within the group. Group participants took turns facilitating these sessions. The author and course instructor took turns co-facilitating these sessions. Respective facilitators were instructed to take a non-directive role. These group counseling sessions followed the orientation and principles outlined in Yalom's group counseling theory (1995; Yalom & Yalom, 1998).

Psycho-educational videos were selected by the author. Psycho-educational video processing sessions were not monitored/viewed by the experimental group. Both groups were blind to the video component of the other group's condition.

#### ***Experiment Schedule.***

The study was conducted between September 14, 2009 and December 14, 2009, with groups meeting during course hours (i.e. Mondays 1:00-3:50PM; see Table 1).

#### ***Data Analysis.***

In conducting the data analysis, we compared outcome measures between the treatment groups using two methods: (1) comparing post-treatment scores; and (2) comparing the differences between mid-treatment and post-treatment scores. This methodology allowed comparison of the outcomes and/or improvements fostered by each treatment type. Using only treatment completer data ( $n = 8$ ), means and standard deviations were calculated for each treatment group along each outcome measure. Unpaired t-tests were then conducted to determine statistical significance.

### **III. Results**

#### ***Participant Data.***

Participants included three males (30%) and seven females (70%), with one African-American (10%) and nine Caucasians (90%). Participants' ages ranged from 22 to 48, with a mean age of 27.5. Of the completing participants in the experimental group, one participant was male (25%) and three participants were female (75%). One of these participants was African-American (25%), and three were Caucasian (75%). Of the completing participants in the control group, two participants were male (50%), and two participants were female (50%). All of these participants were Caucasian (100%).

Of the 10 participants who completed pre-treatment assessments, eight participants continued in the study until completion. Two participants dropped out of both the study and the course immediately after the first week (i.e. after pre-treatment assessments; see Figure 1). No explanation could be ascertained from the non-completing participants as to their reason(s) for discontinuation.

#### ***EQ – Empathy.***

For the variable of empathy, no statistically significant differences existed between the two treatment groups. While the experimental group did attain higher EQ post-treatment scores ( $m = 51.25$ ,  $s.d. = 9.78$ ) than the control group ( $m = 45.00$ ,  $s.d. = 3.56$ ), the results lacked statistical significance ( $p = 0.28$ ). The experimental group also showed greater EQ score improvements from mid-treatment to post-treatment ( $m = 2.25$ ,  $s.d. = 4.19$ ) compared to the control group ( $m = -4.25$ ,  $s.d. = 5.25$ ). Again, however, these improvements fell short of clinical significance ( $p = 0.10$ ). See Tables 2, 13, and 14

#### ***ICQ – Interpersonal Competence.***

The ICQ was used to measure interpersonal competence in five areas: Initiation, Negative Assertion, Disclosure, Emotional Support, and Conflict Management. The experimental group attained higher mean scores than the control group on post-treatment measures for all five ICQ subscales. However, no statistical significance was found for these post-treatment differences.

For the interpersonal variable of Initiation, the experimental group did attain a higher ICQ post-treatment score (mean = 30.75, s.d. = 3.95) than the control group (m = 25.50, s.d. = 3.00). However, the results fell short of clinical significance ( $p = 0.08$ ). When mid-treatment scores are compared to post-treatment scores, both groups showed slight decreases. However, the control group (m = -1.75, s.d. = 5.85) demonstrated a smaller decrease than the experimental group (m = -2.25, s.d. = 1.50), even if statistically insignificant ( $p = 0.87$ ). See Tables 3, 13, and 14.

For the interpersonal variable of Negative Assertion, the experimental group scored higher (m = 30.25, s.d. = 7.23) than the control group (m = 23.50, s.d. = 9.11) on the post-treatment ICQ Negative Assertion measure. However, the results were not statistically significant ( $p = 0.29$ ). Both groups saw decreases in their scores from mid-treatment to post-treatment. With a notably higher mean to begin with, however, the experimental group saw a larger drop (m = -2.00, s.d. = 5.23) between mid-treatment and post-treatment than the control group (m = -0.25, s.d. = 2.50). These differences were not statistically significant ( $p = 0.57$ ). See Tables 4, 13, and 14.

For the interpersonal variable of Disclosure, the experimental group attained a higher score (m = 29.50, s.d. = 4.93) than the control group (m = 24.50, s.d. = 7.59) on

the post-treatment ICQ Disclosure measure. However, again, the results were not statistically significant ( $p = 0.31$ ). The experimental group saw a decrease in its scores from mid-treatment to post-treatment ( $m = 2.00$ ,  $s.d. = 6.22$ ). The control group experienced no change in its mid-treatment to post-treatment scores ( $m = 0.00$ ,  $s.d. = 5.16$ ). No statistical significance existed for these mid- to post-treatment changes ( $p = 0.64$ ). See Tables 5, 13, and 14.

For the interpersonal variable of Emotional Support, the experimental group scored higher ( $m = 37.5$ ,  $s.d. = 1.73$ ) than the control group ( $m = 31.75$ ,  $s.d. = 6.40$ ) on the post-treatment ICQ Emotional Support measure. The results were not statistically significant ( $p = 0.13$ ). When mid-treatment scores are compared to post-treatment scores, the experimental group demonstrated a more marked improvement ( $m = 2.25$ ,  $s.d. = 2.87$ ) than the control group ( $m = 0.75$ ,  $s.d. = 5.74$ ). However, these results failed to meet a level of statistical significance ( $p = 0.39$ ). See Tables 6, 13, and 14.

Finally, for the interpersonal variable of Conflict Management, the experimental group scored higher ( $m = 30.25$ ,  $s.d. = 6.08$ ) than the control group ( $m = 27.25$ ,  $s.d. = 4.92$ ) on the ICQ Conflict Management measure. However, the results were not statistically significant ( $p = 0.47$ ). The experimental group saw no change from mid-treatment to post-treatment ( $m = 0.00$ ,  $s.d. = 4.16$ ), while the control group decreased in its scores ( $m = 0.75$ ,  $s.d. = 3.50$ ). Changes from mid- to post-treatment were not statistically significant ( $p = 0.79$ ). See Tables 7, 13, and 14.

***SRIS – Self Reflection and Insight.***

The SRIS was used to measure Self Reflection (SRIS-SR) and Self Insight (SRIS-IN). The experimental group did attain a higher mean post-treatment score than the control group on the SRIS-IN subscale. However, no statistically significant differences were found between the two treatment groups on either subscale for post-treatment measures.

For the variable of Self Reflection, the experimental group scored lower ( $m = 51.75$ ,  $s.d. = 5.12$ ) than the control group ( $m = 53.00$ ,  $s.d. = 4.55$ ) on the post-treatment SRIS-SR. However, this result was not statistically significant ( $p = 0.73$ ). Both groups experienced decreased scores from mid-treatment to post-treatment. The experimental group decreased less ( $m = 3.25$ ,  $s.d. = 4.50$ ) than the control group ( $m = 4.00$ ,  $s.d. = 6.92$ ) on mid- to post-treatment measures. Again, these results were not statistically significant ( $p = 0.86$ ). See Tables 8, 13, and 14.

For the variable of Self Insight, the experimental group attained a higher score ( $m = 39.5$ ,  $s.d. = 4.51$ ) than the control group ( $m = 32.25$ ,  $s.d. = 6.70$ ). These results fell short of statistical significance ( $p = 0.12$ ). For the mid-treatment to post-treatment comparison, the experimental improved ( $m = 2.50$ ,  $s.d. = 4.12$ ), while the control group showed a decrease ( $m = -1.50$ ,  $s.d. = 8.23$ ). Again, these results were not statistically significant ( $p = 0.42$ ). See Tables 9, 13, and 14.

#### ***GCQ-S – Group Climate.***

The GCQ-S was used to measure group member Engagement, Conflict, and Avoidance. The experimental group attained better mean scores on all three subscales for post-treatment measures. However, no statistically significant differences existed between the two treatment groups on any of the GCQ-S's three subscales for these measures.

For the variable of Engagement, the experimental group attained a higher score ( $m = 4.40$ ,  $s.d. = 1.12$ ) than the control group ( $m = 3.85$ ,  $s.d. = 1.35$ ). However, the results were not statistically significant ( $p = 0.55$ ). When mid-treatment and post-treatment scores are compared, the experimental group saw smaller gains ( $m = 0.65$ ,  $s.d. = 0.62$ ) than the control group ( $m = 1.35$ ,  $s.d. = 0.97$ ). These results were not statistically significant ( $p = 0.70$ ). See Tables 10, 13, and 14.

For the variable of Conflict, the experimental group attained a better score ( $m = 1.00$ ,  $s.d. = 0.61$ ) than the control group ( $m = 1.06$ ,  $s.d. = 0.57$ ). These results were not statistically significant ( $p = 0.89$ ). When mid-treatment scores are compared to post-treatment scores, neither the experimental group ( $m = 0.00$ ,  $s.d. = 0.81$ ) or control group ( $m = 0.06$ ,  $s.d. = 0.67$ ) saw a sizeable change in their scores. These mid- to post-treatment differences were not statistically significant ( $p = 0.91$ ). See Tables 11, 13, and 14.

For the variable of Avoiding, the experimental group attained a better score ( $m = 2.25$ ,  $s.d. = 0.83$ ) than the control group ( $m = 2.92$ ,  $s.d. = 1.08$ ). However, these results were not statistically significant ( $p = 0.36$ ). When mid-treatment scores were compared to post-treatment scores, both the experimental group ( $m = -0.33$ ,  $s.d. = 0.53$ ) and

control group showed improvements ( $m = -0.75$ ,  $s.d. = 0.56$ ). Again, these mid- to post-treatment differences were not statistically significant ( $p = 0.32$ ). See Tables 12, 13, and 14.

#### IV. Discussion

Overall, the study's hypotheses cannot be supported. While the experimental group outperformed the control group on post-treatment measures for self-insight, interpersonal skill, empathy, and group climate, these differences failed to reach statistical significance. Moreover, when mid-treatment to post-treatment changes are compared between the two groups, definitive conclusions are even more tenuous. Indeed, the present study yields more questions than answers.

Several factors may have affected outcomes, limited the external validity of the study, and may be worth examining or controlling for in future studies. Most significantly, the sample size of the study was small, with only eight participants taking part. When the study was designed, the author anticipated (based on previous class enrollment) about 16 participants; however, actual enrollment and participation was only 50% of this expectation. The number of participants used in seven similar studies ranged in number from 14 to 237, with a mean of 84 (Gasman, 1992; Horwitz, et al., 2004; Rodebaugh & Rapee, 2006; Smits, et al., 2006; Kemenoff, et al., 1995; Veldeman, et al., 2006; Zeijl et al., 2006). The relatively small sample may not have been representative of the population from which it was drawn.

In future studies, the author recommends the use of multiple experimental and control groups, with 8-10 participants per group. Using 4-5 experimental groups and 4-5 control groups would yield a total sample size similar to the aforementioned literature

mean of 84. The use of multiple groups would also accommodate for any anomalies that might develop within any one particular group's dynamics.

Other factors that limited the study include the fact that participants were not sampled from a clinical population, but were drawn from a university counselor education program. This makes the generalizability of the sample even more restricted. As counselors in training, participants in the current study were previously screened (i.e. during the graduate program interviewing process)—most probably, for attributes such as satisfactory levels of self awareness, emotional stability, openness to diversity, and interpersonal skill (Nagpal & Ritchie, 2002). Graduate program screening may yield higher initial levels of self reflection and interpersonal skill for study participants than for a typical clinical population—potentially affecting how participants engaged in the treatment and approached measurement tools. Such effects would thereby skew pre-, mid-, and post-treatment assessments.

In future studies, the author suggests utilizing samples that are more representative of clinical populations. This would give the study increased external validity and yield more realistic effect sizes. After all, persons with minimal symptom severity typically yield the smallest therapeutic gains (Lutz, Martinovich, & Howard, 1999). Conversely, persons with the greatest mental health needs achieve the largest therapeutic gains.

The study's location may have also affected self-assessments and, therefore, outcomes. Specifically, treatments and assessments were completed within the confines of a group counseling lab, as part of a group counseling course. As part of the group

counseling course, students are evaluated, in part, on their ability to develop effective group counseling facilitation skills, which implicitly includes attributes of self-reflection, interpersonal skills, and empathy. The counseling lab, instructor presence, and course work requirements, therefore, may have heightened participant awareness of academic expectations, leading to inflated scores on self-report assessments. As Adair (1984) points out in his discussion of the Hawthorne Effect, “most persons in any clearly identified situation define the context for their behavior and respond accordingly” (p. 343).

The likelihood of this inflated self evaluation is evidenced by the decreased scores that occurred from pre-treatment to mid-treatment for many participants (see the experimental group for Tables 2 and 8; see the control group for Tables 3-7). It appears that participants provided inflated pre-treatment responses based on perceived context-specific expectations. The resulting data, then, is more likely to reflect an initial inflated figure for self-reflection, interpersonal skills, and empathy on pre-treatment measures, than a genuine decrease in these attributes over time.

Part of this shortcoming could be eliminated in future studies by the aforementioned use of clinical (i.e. non-student) populations, as well as through the utilization of clinical (i.e. non-academic) settings. That is, ensuring verisimilitude between experimental treatment consumers/environment and real world consumers/environment would provide increased external validity. However, part of the problem with potential self-inflated reporting may also lie with the nature of self-report instruments. Such assessments, after all, do not measure a person’s empathy,

interpersonal skills, or self-insight, but instead a person's self-report of these things. Here, instruments may tell more about a person's ideal ego than about the *de facto* person as encountered by others.

In future studies, this methodological limitation might be eliminated through the use of blind coders. These coders could review video of early, middle, and later treatment sessions and score participants/groups on behaviors related to empathy, interpersonal skill, self-insight, and group cohesion. Rater scores could be compared to ensure inter-rater reliability. This approach might also eliminate the potential of participants guessing study hypotheses/expectations via questionnaires.

Such an approach would necessitate additional equipment needs. Specifically, the current study was limited by the use of one recording video camera, which resulted in inequitable coverage of group member's countenances. Future research would benefit from the use of several video cameras—particularly if these studies use coders as instruments for assessment. This might also yield a more uniform effect of the independent variable on study participants—i.e. via more equitable video coverage.

That noted, there are still other study limitations. Specifically, outcomes may have been affected by the differing demographics between the two groups. In the experimental group, only one of the four participants was male, while in the symmetrical control group, two of the four participants were male. Moreover, the experimental group had racial diversity, with one African-American participant. All control group participants were Caucasian. Such demographic differences may have

affected study outcomes, since research has shown that homogenous groups develop group cohesion more readily than heterogeneous groups (Perrone & Sedlacek, 2000).

This assertion was evidenced by the qualitatively slower development of group cohesion within the experimental group. Particularly, three of the participants (including the male and African-American-female group members) were less active during early sessions. This was augmented in later sessions by some marginalization of the male, as well as recurrent participant focus on group member similarities and differences. Such group dynamics were less observable in the control group, indicating at least some experimental group awareness of heterogeneity.

Future studies can easily account for this through the use of appropriate clinical samples of larger size. Additionally, future research might examine the differing effects of video feedback among different cultural populations. That is, persons from an individualistic/Western cultural paradigm may engage with video feedback quite differently than persons with a more community-oriented cultural heritage. Such research is particularly needed, since there is a paucity of research examining the use of video feedback with non-majority persons.

Other study limitations include the possibility that the study may have been affected by unintentional researcher bias. That is, due to limitations in personnel, the author was directly involved in group facilitation for both the experimental and control group. Given this necessary limitation in the research design, the author's enthusiasm for the study's hypotheses and/or a particular treatment type may have inadvertently

affected outcomes (Leykin & DeRubeis, 2009). In future studies, this can be eliminated through the use of independent group facilitators who are blind to the study.

Finally, the delayed introduction of the independent variable may have also been problematic. Research has shown that the most significant therapeutic gains are achieved during the first few sessions, with about 40% of clients achieving improvement by the end of the fourth session (Howard, Kopta, Krause, & Orlinsky, 1986). Indeed, with each successive session of psychotherapy, there are diminished therapeutic returns. Therefore, inclusion of the video adjunct during the first four sessions may very well produce different study outcomes. Additionally, this earlier inclusion would have added benefit by allowing for use of a more sophisticated analysis via an ANOVA.

Despite this inventory of limitations—and its respective implications for future research—outcome data may still genuinely reflect problematic efficacy for video feedback within the group counseling format. That is, group counseling differs from individual, family, and marriage counseling, in that it brings together participants who do not have preexisting intimacy with each other. Notably, a meta-analysis on the use of video feedback for social anxiety demonstrated that video feedback did not improve participant outcomes (Aderka, 2009). Moreover, some research suggests that video feedback can actually provoke interpersonal anxiety (Fuller & Manning, 1973). Such research suggests that video feedback may inhibit the fostering of group cohesiveness and may be better suited for use within individual, family, and marriage counseling formats.

This possibility is congruent with some developmental (Rochat, 2003) and psychoanalytic (Lacan, 1991a, 1991b, 1970/2006; Fink, 2005) theory. Rochat's revision of Piaget, for example, outlines the development of meta self-awareness via five stages: (1) minimal self-differentiation; (2) situated self; (3) emerging "me"; (4) enduring "me"; and (5) meta-cognitive self awareness. In the child's movement through these stages, the mirror becomes a vital tool, allowing the child to increasingly recognize himself or herself as a fully differentiated object or other. Most adults, then, can fluctuate between these stages, depending on circumstance and pragmatics. For example, meta-cognitive self awareness is not typically present when an adult is skillfully playing a sport, as this self-consciousness would inhibit performance.

From this perspective, video feedback—i.e. viewing one's image on video—may temporarily increase attunement to higher stages of this model (e.g. meta-cognitive self awareness). That is, attunement to individuation, via video images, may inhibit the sense of *being with* other group members. As with the mirror image, the video image may increase participant reflexivity and self awareness. Moreover, as aforementioned, video feedback may foster some interpersonal anxiety. Such anxiety detracts from the interpersonal connectedness that is essential to the development of therapeutic group cohesion (Yalom, 1995).

Rochat's developmental theory is also consistent with Lacanian (1991a, 1991b, 1970/2006; Fink, 2005) psychoanalytic theory, in which self-reflexivity and meta-cognition development is directly tied to the mirror image and symbolic mental process development. Here, seeing the image of one's self is crucial in the self-objectification

necessary for meta-cognition. That is, the child can point to his or her image as an other, as he or she learns to differentiate the self via linguistic terms such as “I,” “me,” and “you.”

Through the video image—as with the mirror image—participants may experience heightened individuation, as they become more attentive to the social lines between themselves and other group members. Here, interconnectedness is deemphasized. It is as if, suddenly, the participant is “more distinct, perhaps hopelessly, irremediably distinct” (Fink, 2005, p. 561).

Such theoretical assertions may be evidenced by group interpersonal scores, as measured by the ICQ. At mid-treatment (i.e. before video feedback was introduced), the ICQ Disclosure Subscale score for the experimental group was 7.00 points higher than that for the control group (VFG = 31.50; PEVG = 24.50;  $p < .05$ ). However, for the experimental group, this ICQ Disclosure Subscale score decreased from mid-treatment to post-treatment (i.e. after the introduction of video feedback), with no statistically significant difference between the experimental group and control group at post-treatment (VFG = 29.50; PEVG = 24.50;  $p = .31$ ).

Conversely, outcome data may merely reflect a lack of therapeutic difference between the two treatment types. That is, there is a growing body of research indicating that adding or removing specific psychological ingredients from a treatment does not alter treatment efficacy (Benish, Imel & Wampold, 2008; Jacobson et al., 1996; Ahn & Wampold, 2001; Wampold, 2007). Here, the addition or removal of video feedback may have little effect on outcomes. Such a possibility is consistent with Aderka’s (2009)

meta-analysis on the use of video feedback for social anxiety, in which the use of video feedback did not improve participant outcomes.

Veritably, the current study yields a number of questions. These questions are augmented by the study's limitations and the paucity of existing video feedback research. The author hopes that the current study serve as a pilot for further research. As additional studies are conducted, the author recommends using larger samples that are more representative of intended treatment populations. The author also recommends using sites that more accurately reflect real world treatment environments. Future research may also benefit from making adjustments to the research design—e.g. eliminating delayed independent variable inclusion and utilizing alternative assessment instruments. Finally, the author recommends that future research give special attention to the effects of video feedback on participant anxiety levels and the development of group cohesion.

Table 1

*Experiment Weekly Schedule*

Date	Experimental – VFG	Control – PEVG
Week 1	Pre-Treatment Assessments	
Week 2	Group Session	
Week 3	Group Session	
Week 4	Group Session	
Week 5	Group Session	
Week 6	Mid-Treatment Assessments followed by Video Session (Video Feedback)	Mid-Treatment Assessments followed by Video Session (Psych-Educational Video)
Week 7	Group Session	
Week 8	Video Session (Video Feedback)	Video Session (Psycho-Educational Video)
Week 9	Group Session	
Week 10	Video Session (Video Feedback)	Video Session (Psycho-Educational Video)
Week 11	Group Session	
Week 12	Video Session (Video Feedback)	Video Session (Psycho-Educational Video)
Week 13	Post-Treatment Assessments	

Table 2

*Summary of EQ Pre-Treatment, Mid-Treatment, and Post-Treatment Mean Scores and Standard Deviations, by Treatment Group (N=8)*

Treatment Group	Pre-Treatment		Mid-Treatment		Post-Treatment	
	mean	s.d.	mean	s.d.	mean	s.d.
Experimental Group (VFG)	50.00	9.56	49.00	10.10	51.25	9.78
Control Group (PEVG)	47.74	1.26	49.25	2.06	45.00	3.56

Table 3

*Summary of ICQ-Initiation Pre-Treatment, Mid-Treatment, and Post-Treatment Mean Scores and Standard Deviations, by Treatment Group (N=8)*

Treatment Group	Pre-Treatment		Mid-Treatment		Post-Treatment	
	mean	s.d.	mean	s.d.	mean	s.d.
Experimental Group (VFG)	29.75	5.06	33.00	4.08	30.75	3.95
Control Group (PEVG)	24.75	4.11	24.25	8.42	25.50	3.00

Table 4

*Summary of ICQ-Negative-Assertion Pre-Treatment, Mid-Treatment, and Post-Treatment Mean Scores and Standard Deviations, by Treatment Group (N=8)*

Treatment Group	Pre-Treatment		Mid-Treatment		Post-Treatment	
	mean	s.d.	mean	s.d.	mean	s.d.
Experimental Group (VFG)	30.50	4.51	32.25	5.12	30.24	7.23
Control Group (PEVG)	24.25	8.42	23.75	7.68	23.50	9.11

Table 5

*Summary of ICQ-Disclosure Pre-Treatment, Mid-Treatment, and Post-Treatment Mean Scores and Standard Deviations, by Treatment Group (N=8)*

Treatment Group	Pre-Treatment		Mid-Treatment		Post-Treatment	
	mean	s.d.	mean	s.d.	mean	s.d.
Experimental Group (VFG)	29.75	6.65	31.50	4.36	29.50	4.93
Control Group (PEVG)	25.25	4.11	24.50	2.65	24.50	7.59

Table 6

*Summary of ICQ-Emotional-Support Pre-Treatment, Mid-Treatment, and Post-Treatment Mean Scores and Standard Deviations, by Treatment Group (N=8)*

Treatment Group	Pre-Treatment		Mid-Treatment		Post-Treatment	
	mean	s.d.	mean	s.d.	mean	s.d.
Experimental Group (VFG)	35.75	3.30	35.25	4.03	37.50	1.73
Control Group (PEVG)	33.00	3.46	32.50	1.29	31.75	6.40

Table 7

*Summary of ICQ-Conflict-Management Pre-Treatment, Mid-Treatment, and Post-Treatment Mean Scores and Standard Deviations, by Treatment Group (N=8)*

Treatment Group	Pre-Treatment		Mid-Treatment		Post-Treatment	
	mean	s.d.	mean	s.d.	mean	s.d.
Experimental Group (VFG)	28.75	7.80	30.25	8.96	30.25	6.08
Control Group (PEVG)	28.25	2.36	28.00	2.16	27.25	4.92

Table 8

*Summary of SRIS-SR Pre-Treatment, Mid-Treatment, and Post-Treatment Mean Scores and Standard Deviations, by Treatment Group (N=8)*

Treatment Group	Pre-Treatment		Mid-Treatment		Post-Treatment	
	mean	s.d.	mean	s.d.	mean	s.d.
Experimental Group (VFG)	59.25	9.67	55.00	4.40	51.75	5.12
Control Group (PEVG)	56.50	7.42	57.00	7.26	53.00	4.55

Table 9

*Summary of SRIS-IN Pre-Treatment, Mid-Treatment, and Post-Treatment Mean Scores and Standard Deviations, by Treatment Group (N=8)*

Treatment Group	Pre-Treatment		Mid-Treatment		Post-Treatment	
	mean	s.d.	mean	s.d.	mean	s.d.
Experimental Group (VFG)	36.25	8.22	37.00	8.04	39.50	4.51
Control Group (PEVG)	33.00	4.08	33.75	5.12	32.25	6.70

Table 10

*Summary of GCQ-S-Engagement Pre-Treatment, Mid-Treatment, and Post-Treatment Mean Scores and Standard Deviations, by Treatment Group (N=8)*

Treatment Group	Pre-Treatment		Mid-Treatment		Post-Treatment	
	mean	s.d.	mean	s.d.	mean	s.d.
Experimental Group (VFG)	-	-	3.75	1.40	4.40	1.12
Control Group (PEVG)	-	-	2.50	1.19	3.85	1.35

Table 11

*Summary of GCQ-S-Conflict Pre-Treatment, Mid-Treatment, and Post-Treatment Mean Scores and Standard Deviations, by Treatment Group (N=8)*

Treatment Group	Pre-Treatment		Mid-Treatment		Post-Treatment	
	mean	s.d.	mean	s.d.	mean	s.d.
Experimental Group (VFG)	-	-	1.00	0.71	1.00	0.61
Control Group (PEVG)	-	-	1.00	0.71	1.06	0.57

Table 12

*Summary of GCQ-S-Avoiding Pre-Treatment, Mid-Treatment, and Post-Treatment Mean Scores and Standard Deviations, by Treatment Group (N=8)*

Treatment Group	Pre-Treatment		Mid-Treatment		Post-Treatment	
	mean	s.d.	mean	s.d.	mean	s.d.
Experimental Group (VFG)	-	-	2.58	0.34	2.25	0.83
Control Group (PEVG)	-	-	3.67	1.30	2.92	1.08

Table 13

*Summary of Post-Treatment, Pre- to Post-Treatment, and Mid- to Post-Treatment t Scores, Standard Error Scores, and p Values (N=8)*

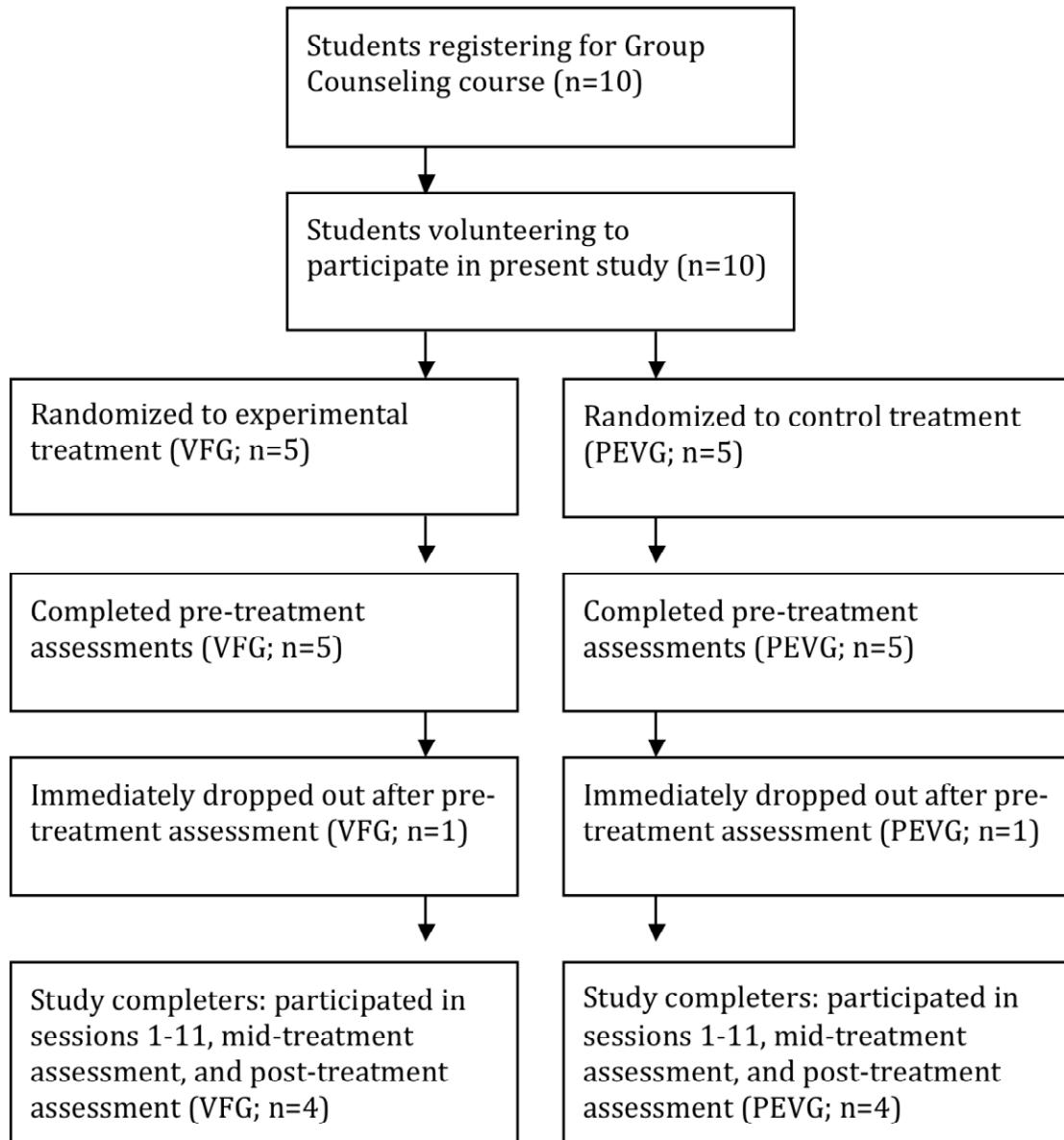
Measurement	Post-Treatment			Pre- to Post-Tx			Mid- to Post-Tx		
	t	SE	p	t	SE	p	t	SE	p
EQ	1.20	5.20	0.28	1.18	3.39	0.28	1.93	3.36	0.10
ICQ									
Initiation	2.12	2.48	0.08	0.07	3.50	0.95	0.17	3.02	0.87
Neg. Assertion	1.16	5.82	0.29	0.14	3.60	0.89	0.60	2.90	0.57
Disclosure	1.10	4.53	0.31	0.13	3.89	0.90	0.49	4.04	0.64
Emotional Supp.	1.73	3.12	0.13	0.93	3.21	0.39	1.42	2.11	0.21
Conflict Mgmt.	0.77	3.91	0.47	1.13	2.22	0.30	0.28	2.72	0.79
SRIS									
SRIS-SR	0.36	3.42	0.73	1.09	3.65	0.32	0.18	4.13	0.86
SRIS-IN	1.79	4.04	0.12	0.69	5.82	0.52	0.87	4.60	0.42
Group Climate									
Engagement	0.63	0.88	0.55	0.63	0.88	0.55	1.22	0.06	0.70
Conflict	0.14	0.42	0.89	0.14	0.41	0.89	0.11	0.53	0.91
Avoidance	0.98	0.68	0.36	0.98	0.68	0.36	1.09	0.39	0.32

Table 14

*Summary of Post-Treatment Score Means and p Values (N=8)*

Measurement	Experimental Group (VFG; n=4)	Control Group (PEVG; n=4)	p
	m	m	
EQ	51.25	45.00	0.28
ICQ			
Initiation	30.75	25.50	0.08
Neg. Assertion	30.25	23.50	0.29
Disclosure	29.50	24.50	0.31
Emotional Supp.	37.50	31.75	0.13
Conflict Mgmt.	30.25	27.25	0.47
SRIS			
SRIS-SR	51.75	53.00	0.73
SRIS-IN	39.50	32.25	0.12
Group Climate			
Engagement	4.40	3.85	0.55
Conflict	1.00	1.06	0.89
Avoidance	2.25	2.92	0.36

Figure 1

*Participants Completing Treatment*

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## Appendix A

What is your age? \_\_\_\_\_

What is your gender?  Male  
 Female

How would you classify yourself?  Arab  
 Asian/Pacific Islander  
 African-American/Black  
 Caucasian/White  
 Hispanic  
 Latino  
 Native American  
 Multiracial  
 Other \_\_\_\_\_





## Appendix D

ID #: \_\_\_\_\_

Date: \_\_\_\_\_

- Read each statement carefully.
- For each statement fill in the box under the heading that most appropriately describes you
- Please select only one box for each statement

	<b>I'm POOR at this; I'd feel so uncomfortable and unable to handle this situation, I'd avoid it if possible</b>	<b>I'm only FAIR at this; I'd feel uncomfortable and would have lots of difficulty handling this situation</b>	<b>I'm OK at this; I'd feel somewhat uncomfortable and have some difficulty handling this situation</b>	<b>I'm GOOD at this; I'd feel quite comfortable and able to handle this situation</b>	<b>I'm EXTREMELY GOOD at this; I'd feel very comfortable and could this situation very well</b>
1. Asking or suggesting to someone new that you get together and do something, e.g., go out together.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Telling a companion you don't like a certain way he or she has been treating you.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Revealing something intimate about yourself while talking with someone you're just getting to know.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Helping a close companion work through his or her thoughts and feelings about a major life decision, e.g., a career choice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Being able to admit that you might be wrong when a disagreement with a close companion begins to build into a serious fight.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Finding and suggesting things to do with new people whom you find interesting and attractive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Saying "no" when a date/acquaintance asks you to do something you don't want to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Confiding in a new friend/date and letting him or her see your softer, more sensitive side.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Being able to patiently and sensitively listen to a companion "let off steam" about outside problems s/he is having.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Being able to put begrudging (resentful) feelings aside when having a fight with a close companion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Carrying on conversations with someone new whom you think you might like to get to know.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Turning down a request by a companion this is unreasonable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Telling a close companion things about yourself that you're ashamed of.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Helping a close companion get to the heart of a problem s/he is experiencing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. When having a conflict with a close companion, really listening to his or her complaints and not trying to "read" his/her mind.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Being an interesting and enjoyable person to be with when first getting to know people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Standing up for your rights when a companion is neglecting you or being inconsiderate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Letting a new companion get to know the "real" you.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Helping a close companion cope with family or roommate problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Being able to take a companion's perspective in a fight and really understand his or her point of view.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<b>I'm POOR at this; I'd feel so uncomfortable and unable to handle this situation, I'd avoid it if possible</b>	<b>I'm only FAIR at this; I'd feel uncomfortable and would have lots of difficulty handling this situation</b>	<b>I'm OK at this; I'd feel somewhat uncomfortable and have some difficulty handling this situation</b>	<b>I'm GOOD at this; I'd feel quite comfortable and able to handle this situation</b>	<b>I'm EXTREMELY GOOD at this; I'd feel very comfortable and could this situation very well</b>
<b>21. Introducing yourself to someone you might like to get to know (or date).</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>22. Telling a date/acquaintance that he or she is doing something that embarrasses you.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>23. Letting down your protective "outer shell" and trusting a close companion.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>24. Being a good and sensitive listener for a companion who is upset.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>25. Refraining from saying things that might cause a disagreement to build into a big fight.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>26. Calling (on the phone) a new date/acquaintance to set up a time to get together and do something.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>27. Confronting your close companion when he or she has broken a promise.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>28. Telling a close companion about the things that secretly make you feel anxious or afraid.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>29. Being able to say and do things to support a close companion when he/she is feeling down.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>30. Being able to work through a specific problem with a companion without resorting to global accusations ("you always do that").</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>31. Presenting good first impressions to people you might like to become friends with (or date).</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>32. Telling a companion that he or she has done something to hurt your feelings.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>33. Telling a close companion how much you appreciate and care for him or her.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>34. Being able to show genuine empathetic concern even when a companion's problem is uninteresting to you.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>35. When angry with a companion, being able to accept that s/he has a valid point of view even if you don't agree with that view.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>36. Going to parties or gatherings where you don't know people well in order to start up new relationships.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>37. Telling a date/acquaintance that he or she has done something that made you angry.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>38. Knowing how to move a conversation with a date/acquaintance beyond superficial talk to really get to know each other.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>39. When a close companion needs help and support, being able to give advice in ways that are well received.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>40. Not exploding at a close companion (even when it is justified) in order to avoid a damaging conflict.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Appendix E

ID #: \_\_\_\_\_

Date: \_\_\_\_\_

- Read each statement carefully.
- For each statement fill in the box under the heading that most appropriately describes you
- Please select only one box for each statement

	<b>Strongly Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Strongly Agree</b>
<b>1. I can easily tell if someone else wants to enter a conversation.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. I prefer animals to humans.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. I try to keep up with the current trends and fashions.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. I find it difficult to explain to others things that I understand easily, when they don't understand it the first time.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5. I dream most nights.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6. I really enjoy caring for other people.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. I try to solve my own problems rather than discussing them with others.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>8. I find it hard to know what to do in a social situation.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9. I am at my best first thing in the morning.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>10. People often tell me that I went too far in driving my point home in a discussion.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>11. It doesn't bother me too much if I am late meeting a friend.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12. Friendships and relationships are just too difficult, so I tend not to bother with them.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>13. I would never break the law, no matter how minor.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>14. I often find it difficult to judge if something is rude of polite.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>15. In a conversation, I tend to focus on my own thoughts rather than on what my listener might be thinking.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>16. I prefer practical jokes to verbal humor.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>17. I live life for today rather than the future.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>18. When I was a child, I enjoyed cutting up worms to see what would happen.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>19. I can pick up quickly if someone says one thing but means another.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>20. I tend to have very strong opinions about morality.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<b>Strongly Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Strongly Agree</b>
<b>21. It is hard for me to see why some things upset people so much.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>22. I find it easy to put myself in somebody else's shoes.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>23. I think that good manners are the most important thing a parent can teach their child.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>24. I like to do things on the spur of the moment.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>25. I am good at predicting how someone will feel.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>26. I am quick to spot when someone in a group is feeling awkward or uncomfortable.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>27. If I say something that someone else is offended by, I think that that's their problem, not mine.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>28. If anyone asked me if I like their haircut, I would reply truthfully, even if I didn't like it.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>29. I can't always see why someone should have felt offended by a remark.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>30. People often tell me that I am very unpredictable.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>31. I enjoy being the center of attention at any social gathering.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>32. Seeing people cry doesn't really upset me.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>33. I enjoy having discussions about politics.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>34. I am very blunt, which some people take to be rudeness, even though this is unintentional.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>35. I don't tend to find social situations confusing.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>36. Other people tell me I am good at understanding how they are feeling and what they are thinking.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>37. When I talk to people, I tend to talk about their experiences rather than my own.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>38. It upsets me to see an animal in pain.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>39. I am able to make decisions without being influenced by people's feelings.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>40. I can't relax until I have done everything I had planned to do that day.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<b>Strongly Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Strongly Agree</b>
<b>41. I can easily tell if someone else is interested or bored with what I am saying.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>42. I get upset if I see people suffering on news programs.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>43. Friends usually talk to me about their problems as they say that I am very understanding.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>44. I can sense if I am intruding, even if the other person doesn't tell me.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>45. I often start new hobbies but quickly become bored with them and move on to something else.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>46. People sometimes tell me that I have gone too far with teasing.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>47. I would be too nervous to go a big rollercoaster.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>48. Other people often say that I am insensitive, though I don't always see why.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>49. If I see a stranger in a group, I think it is up to them to make an effort to join in.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>50. I usually stay emotionally detached when watching a film.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>51. I like to be very organized in day-to-day life and often make lists of the chores I have to do.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>52. I can tune into how someone else feels rapidly and intuitively.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>53. I don't like to take risks.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>54. I can easily work out what another person might want to talk about.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>55. I can tell if someone is masking their true emotion.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>56. Before making a decision I always weigh up the pros and cons.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>57. I don't consciously work out the rules of social situations.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>58. I am good at predicting what someone will do.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>59. I tend to get emotionally involved with a friend's problems.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>60. I can usually appreciate the other person's viewpoint, even if I don't agree with it.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>