

DISSERTATION

**THE MMPI-2 AND CLIENT FEEDBACK:
A QUANTITATIVE INVESTIGATION AND EXPLORATORY ANALYSIS OF
FEEDBACK MODELS**

**Submitted by
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**In partial fulfillment of the requirements
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WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER OUR SUPERVISION BY MUNA EL-SHAIEB ENTITLED THE MMPI-2 AND CLIENT FEEDBACK: A QUANTITATIVE INVESTIGATION AND EXPLORATORY ANALYSIS OF FEEDBACK MODELS, BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

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ABSTRACT OF DISSERTATION
THE MMPI-2 AND CLIENT FEEDBACK:
A QUANTITATIVE INVESTIGATION AND EXPLORATORY ANALYSIS OF
FEEDBACK MODELS

This study investigated the effects of 2 different kinds of feedback in the context of a MMPI-2 personality assessment on symptoms, self-esteem, process variables, and an open-ended survey. Participants were clients seeking counseling from an outpatient clinic and a university counseling center. Symptoms, self-esteem, session impact, counselor influence, and ratings of the assessment were evaluated by clients using the Rosenberg Self-Esteem Scale (RSES), Outcome Questionnaire (OQ-45.2), Session Evaluation Questionnaire (SEQ), Counselor Rating Form (CRF), Assessment Questionnaire (AQ), and an open-ended survey developed by the author. Participants ($N = 33$) were randomly assigned to 1 of 3 groups: interactive feedback, delivered feedback and control.

Participants in the feedback groups had 3 sessions with a counselor, 1 per week for 3 weeks. Sessions included an intake session (week 1) followed by completion of the MMPI-2, a feedback session (week 2), and a follow-up session (week 3). Feedback groups completed symptom, self-esteem, and process measures at every session, and symptom, self-esteem and an open-ended survey 4 weeks post-treatment. The control group completed the MMPI-2, had treatment delayed for 3 weeks, and then completed an intake session, followed with a feedback session 1 week later. The control group completed symptom and self-esteem measures at week 1, week 2, and week 3, and

symptom, self-esteem, and process measures at intake and feedback sessions.

Participants' feedback sessions consisted of MMPI-2 results given in either an interactive manner, which encouraged the client to collaborate on feedback, or a delivered manner, with minimal client participation. Clients in the 2 feedback groups did not exhibit differences for symptoms or self-esteem. Significant differences were found for process variables: interactive group clients reported higher ratings for second session depth, positivity, arousal, and overall satisfaction with the assessment as compared to delivered group clients. Interactive group clients also reported higher ratings for third session counselor influence as compared to the delivered group clients. No differences were found between the 2 feedback groups for answers on the open-ended survey. Results suggested that counselors should consider an interactive feedback style as it positively impacts clients' perceptions of the counselor, session, and assessment.

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INTRODUCTION

Psychological assessment generally consists of clinical interviews and various assessment procedures, with the final piece of the process being the interpretation of the results and communication of the findings to the client. When the person interested in the results is the client (rather than a court, school, parent, or other third party), assumptions are made that the communication of the results of the psychological assessment will, in itself, be of benefit to the client (Goodyear, 1990; Hanson, Vacha-Haase, Claiborn, Goodyear, 2001; Tinsley & Chu, 1999). Yet, little is known about *how* or *if* psychological assessment feedback is actually of use. Investigations of the effectiveness of the method of communicating the results have been limited and largely overlooked, with little data driven research available (Finn & Tonsager, 1992; Goodyear, 1990). Although clinicians are required to provide feedback according to the ethical principles and code of conduct of their profession, they have little empirically supported guidance, leaving limited direction as to deliver feedback in an effective manner (American Psychological Association, 2002; Eisman et al., 1998; Finn & Tonsager, 1992, 1997). As Kenneth Pope (1992) summarized, "Feedback may be the most neglected aspect of assessment" (p. 268).

The lack of appropriate research on feedback is especially true for the subject of personality assessment, where there exists limited empirical investigation into honest personality feedback. In much of the available literature researchers have focused on

giving false personality feedback rather than honest personality feedback, and have utilized college students rather than persons seeking assessment or counseling (Finn & Tonsager, 1992; Goodyear, 1990). More recently, there has been a small but significant focus on this neglected area of study, with researchers developing categories of the types of personality assessment feedback, developing guidelines for giving personality assessment feedback, examining the utility of personality feedback with clinical populations, and comparing differing styles of personality feedback.

In one analysis of the existing literature on personality assessment feedback, Finn and Tonsager (1997) classified two main approaches to providing feedback for psychological assessment: the *information gathering approach* and the *intervention model*. In the *information gathering approach*, the primary goals of assessment are to gather data; to assist in treatment planning and goal setting; and to revitalize therapy when there are difficulties or progress slows. In contrast, the primary goal of the *intervention model* of assessment is *therapeutic intervention*, using the assessment in a collaborative, empathic manner to assist in symptom reduction. This approach is collaborative by nature and design (Finn, 1996a; 1996b; Finn & Tonsager, 1992, 1997).

The majority of available studies that address psychological assessment as a *therapeutic intervention* reference Finn's (1996a; 1996b) body of work on therapeutic assessment. The therapeutic assessment model of personality assessment feedback developed by Finn and his associates explores how clients respond to testing and assessment results when the feedback process is collaborative and empathic. This area of research has primarily focused on *feedback as a therapeutic intervention*. The general principles of this therapeutic intervention are: (a) clients benefit from personality

assessment when they collaborate with the counselors on goals of the assessment, (b) feedback from personality assessment can help clients understand and manage life problems, (c) clients are encouraged to participate in feedback sessions by verifying or rejecting findings, and applying findings to their own lives, (d) when feedback is given to clients in an emotionally supportive manner, it can reduce symptoms distress and increase self-esteem (Finn, 1996a, 1996b; Finn & Tonsager, 1992, 1997).

Three studies used this therapeutic intervention model with clinical populations, comparing this model with alternative treatments or differing styles of assessment intervention. One of these investigations by Ackerman, Hilsenroth, Baity, and Blagys (2000) compared the therapeutic intervention model and the information-gathering model of personality assessment. Participants were clients being treated in a university's psychology department community clinic. Clients who participated in the information-gathering model usually completed the MMPI-2, Trauma Symptom Inventory, Beck Depression Inventory-II, Symptom Checklist-90-R, and a projective test. Clients who participated in the therapeutic intervention model completed the Rorschach, the Social Adjustment Scale, the Symptom Checklist-90-R, the Inventory of Interpersonal Problems, and the Personality Assessment Inventory. The investigators found that clients in the information gathering condition were more likely to terminate treatment against medical advice than the clients in the therapeutic intervention model. However, the investigators did not compare process variables or pre/post symptom distress between the two assessment groups, hindering evaluation of further clinical usefulness of either model. Additionally, there was no comparison of these two models with a control condition. However, this study does indicate that for a community sample providing

personality assessment feedback in a therapeutic intervention model is more likely to prevent clients from terminating treatment against medical advice than if the information gathering approach is utilized.

Finn and Tonsager (1992) designed a therapeutic intervention study for clients in a college counseling center. Clients who were on a waiting list for services and agreed to participate in the study completed either an MMPI-2 therapeutic intervention or received “examiner attention.” In both conditions clients completed instruments measuring emotional and psychological functioning. Clients in the therapeutic intervention condition first participated in 30-minute interviews the first week, completed the MMPI-2, and then completed a collaborative, interactive feedback session the following week. They also completed the Symptom Checklist-90-R (SCL-90-R), the Self-Esteem Questionnaire (SEQ), and the Assessment Questionnaire (AQ) after the initial interview, after the feedback session, and at follow-up 2 weeks later. ” The “examiner attention” condition was defined by the investigators as participants who met with a counselor for an initial 30-minute interview the first week, did *not* complete the MMPI-2 or any personality assessment instrument, and the following week met with the counselor to discuss their feelings and reactions the about being in the study. The “examiner attention” condition also completed the SCL-90-R, the SEQ, and the AQ at parallel times to the therapeutic intervention group. The investigator found that clients who received feedback on the MMPI-2 had a decrease in symptoms such as depression and anxiety, a significant increase in self-esteem, and showed more hope for their addressing problems when compared to clients that received examiner attention. However, the results were confounded by an aspect of the design: the clients in the “examiner attention” condition

did not complete the MMPI-2, therefore suggesting the possibility that completing the MMPI-2 in and of itself may have produced the therapeutic effect for the therapeutic intervention clients.

“Delivered” and “interactive” styles of feedback for test interpretation were used for a study on career counseling for college students (Hanson, Claiborn, & Kerr, 1997). The investigators based models of these two styles on the therapeutic intervention model, varying the style of feedback in the second session. The “interactive” style of feedback followed the therapeutic intervention model closely, encouraging client collaboration and participation in the feedback session. The “delivered” style of feedback consisted of minimal client participation in the second session, reducing client collaboration. Clients participated in three sessions and completed a career assessment battery consisting of the Personality Research Form and the Vocational Preference Battery. Additionally, clients completed a thought listing activity immediately after the interpretation of each test, as well as the Session Evaluation Questionnaire (SEQ) to evaluate the session, and the Counselor Rating Form (CRF) to evaluate the counselor. In the first session, clients participated in information gathering and goal-setting; then following the session completed the assessment battery. In the second session, clients received either interactive or delivered feedback; then completed the thought listing activity, the SEQ and the CRF. Clients then participated in a third session. The researchers found clients in the delivered versus interactive groups did not differ on the thought listing activity. However, clients in the interactive condition reported more favorable evaluations of the session than clients in the delivered feedback condition, specifically in terms of depth of the session. Additionally, clients in the interactive condition reported the counselor as

more expert, trustworthy, and attractive than clients in the delivered condition. In this study there was again no control condition, begging the question of whether administering an assessment instrument alone is helpful to clients.

Theory

Theoretical understanding of the psychological mechanisms of how therapeutic intervention causes positive change in clients' symptoms and self-esteem is limited. Finn and Tonsager (1992) proposed that Swann's self-verification theory (1983) may explain these changes. Self-verification theory postulates that people seek feedback from others that fits their own conceptions of themselves, whether the information is positive or negative. This may explain the positive therapeutic effects that Finn and Tonsager (1992) found in their study, despite the often-negative feedback that persons receive from a pathology-based instrument such as the MMPI-2.

Theoretical understanding of the psychological mechanisms of how therapeutic intervention causes positive change in clients' perceptions of the counselor and session is also limited. Hanson et al. (1997) proposed that the social influence perspective of counseling may explain how therapeutic intervention increases clients' positive perceptions of the feedback sessions and counselors. Essentially, the social influence perspective in counseling states that the counselor is an influence of change in counseling, and essential to this influence is how the client perceives of the counselor. In essence, if the client perceives the counselor as more expert, attractive, and trustworthy, the counselor is then more influential in the therapy process (Claiborn & Hanson, 1999). Hanson et al. noted that when clients had feedback sessions where the counselors were

collaborative with the clients as in the interactive feedback condition, the client reported that the counselors were more influential.

Hanson et al. (1997) also proposed that the Elaboration Likelihood Model (ELM) (Petty & Cacioppo, 1986; Petty, Cacioppo, & Kasmer, 1988) from social psychology research could also apply to therapeutic intervention. In essence, the ELM is an information processing theory of persuasion which suggests that an individual's involvement in an influence exchange has implications for the influence outcome. When individuals partake in effortful and thoughtful cognitive processing, the resulting changes in attitudes are more robust, more resistant to other influences, and more likely to be reflected in an individual's behavior. Additionally, the extent to which influence messages are thoughtfully processed, or elaborated, is positively associated with influence outcomes. This cognitive theory can be applied to the therapeutic intervention model, as this model asks clients to participate in goal setting, recall these goals, verify or reject findings, apply findings to experiences in their own lives, and summarize findings. All of these actions theoretically require effortful and thoughtful cognitive processing, which, according to the ELM, then results in more positive evaluation of the information, as well as the influence process.

Summary

The studies discussed indicate that clients are less likely to terminate therapy when a therapeutic intervention model is used as compared to an information gathering approach. Also, preliminary data indicates clients appear to experience symptom relief and increased self-esteem when participating in a therapeutic intervention rather than only receiving examiner attention. Finally, in the context of a career counseling

assessment, clients reported more favorable session evaluations, and perceived the counselor as more expert, trustworthy, and attractive when given assessment feedback in an interactive, collaborative manner as opposed to a delivered manner.

Although these studies explored several aspects of the therapeutic intervention model, they do leave many unanswered questions. These questions include whether varying the feedback style will produce different therapeutic effects (e.g. symptoms and self-esteem) for clients when used in a personality assessment; whether varying the feedback style will produce different effects on clients' perceptions of the sessions and counselors when utilized in the context of a personality assessment; whether the administration of an assessment alone (the MMPI-2) produces therapeutic effects regardless of whether the client is given feedback; and how clients would cope when given no treatment. Additionally, studies that employed the therapeutic intervention model as part of the design did not explore the client's subjective experience of participating in personality assessment. For instance, there was no inquiry about the clients' overall experience, what clients liked or didn't like, what would they change, or how helpful they found the experience. As research continues in the area of personality assessment feedback, obtaining direct information from clients beyond measures that provide scaled scores may also provide valuable sources of information on how best to provide personality feedback.

Based on these issues, several research questions were identified for the present study: (a) Do clients who receive feedback from a personality assessment benefit more psychologically than clients who do not receive feedback from a personality assessment? (b) Does the manipulation of the style of feedback in the context of a personality

assessment impact the psychological benefits for clients? (c) Does the manipulation of the style of feedback in the context of a personality assessment positively or negatively affect the clients' perception of the session, counselor or assessment process? Does the manipulation of the style of feedback influence accuracy of clients' recall of the process, clients' positive or negative impressions of the experience, perceptions of helpfulness of the experience, or likeliness to participate in future personality assessments or counseling? ¹

¹ The present study was part of a larger, ongoing multi-site project.

STATEMENT OF PURPOSE

The present study examined the effects of two different types of feedback as compared to no treatment in the context of an MMPI-2 personality assessment. Utilizing and extending upon the research designs of Finn and Tonsager (1992), and Hanson et al. (1997), participants were assigned to one of three groups: personality assessment with “delivered” feedback, personality assessment with “interactive” feedback, and a control group. Participants’ symptoms, self-esteem, and evaluation of the process were assessed to explore the effects of the different feedback styles. The present study included a control group to evaluate the difference between no treatment and treatment. All participants completed an open-ended survey at the end of the study to explore their thoughts and feelings regarding the treatments, personality assessment, counseling, and suggestions for improvement. (Note: please refer to Table 1 for an overview of the independent and dependent variables).

Hypothesis 1

The style of personality assessment feedback will interact with self-esteem over time: Participants who receive *interactive* feedback will experience significant increases in self-esteem when compared to clients who receive *delivered* feedback from Time 1 (pre-treatment) through Time 4 (one month follow-up).

Table 1

Variables Measured

Independent Variables(s)

Treatment Condition (Between Groups)

(Condition 1) Delivered Condition
(Condition 2) Interactive Condition
(Condition 3) Control Condition

Time (Within Groups)

Time 1 (Week 1)
Time 2 (Week 2)
Time 3 (Week 3)
Time 4 (one month follow-up)

Dependent Variables

Outcome Variables

Psychological distress and symptomatology as measured by the Outcome Questionnaire-45.2.

Symptom Distress (anxiety, depression)
Interpersonal Relations
Social Role
Total Score

Self esteem as measured by the Rosenberg Self Esteem Scale

Process variables

Session Impact as measured by the Session Evaluation Questionnaire

Depth of session
Smoothness of session
Positivity
Arousal

Counselor Influence as measured by the Counselor Rating Form

Total Counselor Influence

Table 1 (continued)

Variables Measured

Satisfaction with the assessment process as measured by the Assessment Questionnaire

Overall Satisfaction with the Assessment

Open-ended Survey

Accuracy of reporting previous experience

Helpfulness of experience

Number of positive words

Number of negative words

Number of suggestions for improvement

Willingness to participate in future assessment

Willingness to participate in future counseling

Hypothesis 2

The type of personality assessment feedback that participants receive will interact with symptoms over time: Participants who receive *interactive* feedback will experience significant decreases in reported symptoms (Symptom Distress, Social Role, Interpersonal Relations, and Total Score) when compared to clients who receive *delivered* feedback from Time 1 (pre-treatment) through Time 4 (one month follow-up).

Hypothesis 3

Whether participants receive personality assessment feedback or do not receive personality assessment feedback will interact with self-esteem over time: Participants who receive personality assessment feedback (*delivered* and *interactive* groups combined) will report significant increases in self-esteem as compared to participants who do not receive personality assessment feedback (*control* group) from Time 2 through Time 3.

Hypothesis 4

Whether participants receive personality assessment feedback or do not receive personality assessment feedback will interact with symptoms over time: Participants who receive assessment feedback (*delivered* and *interactive* groups combined) will report significant decreases in reported symptoms (Symptom Distress, Social Role, Interpersonal Relations, and Total Score) as compared to participants who do not receive personality assessment feedback (*control* group) from Time 1 through Time 3.

Hypothesis 5

Participants who receive *interactive* feedback will report higher ratings of session impact (Depth, Smoothness, Positivity, and Arousal) than participants who receive *delivered* feedback at Time 2 (Session 2).

Hypothesis 6

Participants who receive *interactive* feedback will report higher ratings of counselor influence than participants who receive *delivered* feedback at Time 2 (Session 2).

Hypothesis 7

Participants who receive *interactive* feedback will report higher ratings of the assessment than participants who receive *delivered* treatment at Time 2 (Session 2).

Hypothesis 8

Participants who receive *interactive* feedback will report higher ratings of session impact (Depth, Smoothness, Positivity, and Arousal) than participants who receive *delivered* feedback at Time 3 (Session 3).

Hypothesis 9

Participants who receive *interactive* feedback will report higher ratings of counselor influence than participants who receive *delivered* feedback at Time 3 (Session 3).

Hypothesis 10

Participants who receive *interactive* feedback will report higher ratings of the assessment than participants who receive *delivered* feedback at Time 3 (Session 3).

Hypothesis 11

Participants' written answers on the exploratory, open-ended survey will be compared:

- a. Participants who received *interactive* feedback will recount the experience more accurately in their responses on the survey versus participants who received *delivered* feedback.
- b. Participants who received *interactive* feedback will report the experience as more helpful in their responses on the survey than participants who received delivered feedback.
- c. Participants who received *delivered* feedback will report the experience as less helpful in their responses on the survey than the *interactive* group.
- d. Participants who received *interactive* feedback will use more positive words in their responses on the survey than participants who received *delivered* feedback.
- e. Participants who received *interactive* feedback will rate the process less negatively overall by using fewer negative words in their responses on the survey than participants who received *delivered* feedback.
- f. Participants who received *interactive* feedback will suggest fewer changes (improvements) in their responses on the survey than participants who received *delivered* feedback.
- g. Participants who received *interactive* feedback will report they would be more likely to participate in personality assessment in the future as compared to participants who received *delivered* feedback.

- h. Participants who received *interactive* feedback will report that they would be more likely to participate in counseling in the future or continue counseling as compared to participants who received *delivered* feedback.

METHODS

Therapists

Therapists were graduate students in the Counseling Psychology Program at Colorado State University and were all at least in their second year of graduate training. They were required to have completed a graduate psychological assessment course, a graduate measurement course, and a graduate practicum course. All therapists completed a Counselor Information Sheet (see Appendix A), which requested demographic information, number of practicum/field placement classes, number of practicum hours, number of graduate level assessment classes, and theoretical orientation.

Training of therapists. Therapists completed ten hours of training in the *interactive* and *delivered* feedback models. Tammi Vacha-Haase, Ph.D., Director of Training in the Counseling Psychology Department at Colorado State University, and this author conducted the training. Training consisted of reviewing the Training Manual (*Minnesota Multiphasic Personality Inventory-2 (MMPI-2): Test interpretation feedback studies counselor training manual, Hanson, 2001*), learning the *interactive* and *delivered* feedback models in detail, and practicing elements of each of the three sessions. The second part of the training was focused on reviewing MMPI-2 interpretive material, familiarizing the therapists with the National Computer Scoring program for the MMPI-2 and the Marks MMPI-2 Feedback and Treatment Report, and role-playing sessions with

mock clients. Each therapist received a Training Manual and used detailed cue sheets to guide each session.

Demographic data of therapists. Five therapists provided treatment in the present study. Four of the therapists were female, and one of the therapists was male. Therapists had a mean age of 26.8 ($SD = 3.11$), and ranged in age from 24 to 32. All therapists self-identified as White/Caucasian. At the commencement of the study three of the therapists were in their third year of graduate study, and two were in their fourth year. The therapists had completed an average of 7.4 ($SD = 3.29$) graduate level practicum classes/field placements, with a range of 4 to 11 classes. The therapists completed an average of 2.6 ($SD = .89$) graduate level assessment courses, with a range of two to four assessment courses. At the beginning of the study, the therapists had a mean number of 1380 practicum hours ($SD = 797.62$), with a range of 400 to 2500 hours. Therapists endorsed a number of theoretical orientations, including cognitive behavioral, interpersonal, humanistic/existential, integrative, and object relations. There was no modal theoretical orientation for the therapists.

Participants/Clients

Participants were self-referred or agency referred. Participants could be in therapy and use services concurrently while they were participating in this study. They were often referred from waitlists at referral sites and/or referred by their counselors or their initial evaluators. Participants were required to be 18 years of age or older due to the norm and administration requirements for the MMPI-2. At the time of referral to the present study, participants were randomly assigned to one of three treatment conditions. Total time in the treatments took approximately five to seven hours of time, over a maximum of seven

weeks, and included completion of all personality measures, symptom measures, self-esteem measures, process measures and test administration. To be included in the study, participants could not be actively suicidal, homicidal, or psychotic. In addition, a valid MMPI-2 profile was required to complete the treatment process.

Demographic data of participants. The total number of participants involved in the study was 33. Participants had a mean age of 22.1 ($SD = 7.07$). The participants ranged in age from 18 to 54 years. Twenty-six of the participants were female (78.8 %), and seven were male, (21.2 %). Twenty-seven of the participants indicated they were White/Non-Hispanic (81.8 %), no participant indicated that they were African-American (0 %), two indicated they were Asian-Pacific Islander (6.1 %), three participants indicated they were Native American (9.1 %), and one participant indicated that he/she was Hispanic/Latino-(a) (3.0 %). Three participants indicated that they were bi-racial or multiracial.

Twenty-one participants (63.6 %) were referred from the University Counseling Center and two (6.1 %) were referred from the Psychological Services Center. Additionally, ten (30.3 %) were self-referred or referred from other sources. Thirteen participants were assigned to the “delivered” treatment group, 12 participants were assigned to the “interactive” treatment group, and 8 participants were assigned to the control group.

Retention of participants. The number of participants who finished all aspects of the study including follow-up was 22 (66.7%). Three participants completed treatment, but did not complete the one-month follow-up (9.1 %). Eight participants were not able to complete treatment; as five were referred for treatment due to having invalid MMPI-2

profiles (15.2) %, and three participants declined to continue or were unable to continue for undisclosed reasons (9.1 %). Of the three participants who completed treatment, but did not complete follow-up, all (100%) were in the delivered group of treatment. Of the eight participants who dropped out or were unable to complete treatment, four (50%) were in the interactive treatment group, and four (50%), were in the delivered treatment group. All (100 %) of the participants in the control group completed the treatment protocols as designed.

Measures

Personality Assessment Measure

The MMPI-2. The MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) is a widely used personality inventory that evaluates personality through 567 true-false questions. Results provide three validity scales, ten clinical scales, and a number of content and supplementary scales. The mean for all scales is 50, and a significant elevation is a score of 65 or above. The test was reportedly written at an eighth-grade level, takes approximately 1-¼ to 1-½ hours to complete, and is designed (normed) for people who are 18 and older (Aiken, 1999). Internal consistency coefficients (alpha) range from .34 to .87 for the validity and clinical scales (Butcher et al.). Graham (2000) reported convergent and discriminant validity for the clinical scales of the MMPI-2, as well as extratest behavioral and symptom correlations.

Process Measures

Session Evaluation Questionnaire. The Session Evaluation Questionnaire (SEQ) (Stiles, 1980; Stiles & Snow, 1984; Stiles et al., 1994) is a one-page measure that allows the client to evaluate session impact and post-session mood (see Appendix A for a copy

of the measure). The client evaluates the session and his/her feelings based on marking one of seven spaces using a semantic differential format: (i.e. “the session was bad _ good”) and how the client feels (i.e. “right now I feel happy _ sad”). There are 12 items rating session quality, and 12 items rating client feelings post-session (see Appendix A for a copy of the measure). The client can rate each item on one of seven levels. There are four scales consisting of 6 items each. Each scale can have a range of 6 to 42, with higher scores indicating higher positive impact in the scale. The four scales of the SEQ are Depth, Smoothness, Positivity, and Arousal. The Depth scale differentiates sessions that are deep, powerful, full, special, valuable, and good from sessions that are shallow, weak, empty, ordinary, worthless, and bad. The Smoothness scale differentiates sessions that are smooth, comfortable, relaxed, pleasant, easy, and safe from sessions that are rough, uncomfortable, tense, unpleasant, difficult, and dangerous. The Positivity scale differentiates sessions that are confident, happy, pleased, definite, friendly, and involved from sessions that were afraid, sad, angry, uncertain, unfriendly, and detached. The Arousal scale differentiates sessions that are arousing, energetic, fast, moving, exciting, and alert from sessions that are quiet, peaceful, slow, still, calm, and sleepy. Reported internal consistency values from previous research as measured by coefficient alpha were from .80 to .92 for the four scales (Stiles et al., 1994). In the present study internal consistency was computed using Cronbach’s alpha. Alpha coefficients for this study ranged from .65 to .93 (see Appendix B for a table of alpha coefficients for this measure). The Session Evaluation Questionnaire is one of the most widely used measures in counseling and process research (Mallinckrodt, 1994). Predictive validity data for the SEQ indicates that higher SEQ scale values are associated with increased client

engagement and lower scale values are associated with premature termination (Tryon, 1990). Higher values on the SEQ scales are also associated with positive therapeutic outcomes (Stiles, Shapiro, & Firth-Cozens, 1990). This measure has also been shown to have moderate to high concurrent validity with the Session Impacts Scale, another measure of session impact (Stiles et al., 1994).

The Counselor Rating Form. The Counselor Rating Form (CRF) (Barak & Lacrosse, 1975; Lacrosse & Barak, 1976) is a 36-item rating form that asks the client to rate the counselor on numerous adjectives in a semantic differential format (i.e., agreeable vs. disagreeable, distant vs. close). The client places a check mark in one of seven places on a continuum between the adjectives. This measure is designed to evaluate several different areas that assess the client's perceptions of the counselor's attributes that may be related to the counselor's ability to influence clients during the therapy process (i.e., social influence). The measure provides ratings of the counselors on three scales: Expertness, Interpersonal Attractiveness, and Trustworthiness. Additionally, the measure provides a total score for all the scales (Overall Counselor Influence). The total score can range from 36 to 252, with higher scores indicating higher counselor influence (see Appendix A for a copy of the measure). Due to the high inter-correlations between the scales from previous research (Heesacker & Heppner, 1983) and the high inter-correlations in the present study of a .80 and above (see Appendix C), the Total Score is used in this study, termed Overall Counselor Influence. The reported internal consistency coefficients (coefficient alpha) from previous research for all scales range from .75 to .92. (Heppner & Claiborn, 1989; Lacrosse & Barak, 1976). In this study internal consistency was computed using Cronbach's alpha. Alpha coefficients for the present study for three

administrations ranged from .89 to .99 (see Appendix B for a table of the alpha coefficients). The CRF has often used in counseling research to evaluate counselor behaviors relevant to interpersonal influence and predict influence outcomes (Heppner & Claiborn, 1989). High CRF scale scores have been correlated to positive counseling outcomes and satisfaction with counseling, indicating predictive validity (Freeman, 1989; Grimes & Murdock, 1989; Heppner & Claiborn, 1989; Lacrosse, 1980).

The Assessment Questionnaire. The Assessment Questionnaire (AQ) (S.E. Finn, unpublished) is a 48- item measure that asks the client to rate the assessor and assessment on a 5-point scale. This measure is specifically designed to evaluate clients' perceptions of the impact of an assessment and feedback on the relationship with the examiner, positive and negative feelings about the assessment, and learning new information from the assessment (see Appendix A for a copy of the measure). Examples of items are "the assessment did not teach me anything new about myself," "the assessment made me feels important." Clients are asked to circle a number corresponding to 1 through 5, with 1 = Strongly Disagree and 5 = Strongly Agree. There are five scales in this measure. New Self-Awareness/ Understanding is a scale in which higher scorers report that they have learned new information about themselves from the assessment, and lower scorers reporting that they have not gained new knowledge from the assessment. Positive Accurate Mirroring is a scale in which higher scorers report that their views were verified during the assessment and report that they feel proud and secure, and low scorers do not feel their self -views were confirmed. Positive Relationship with the Examiner is a scale in which higher scorers report strong mutually positive feelings between themselves and the examiner, and low scorers report few positive feelings for the examiner. Negative

Feelings about the Assessment is a scale in which high scorers report feelings of hurt, judgment and exposure by the assessment/examiner, and low scorers report little or no discomfort with the assessment or examiner. Overall Satisfaction is a scale in which high scorers report feeling generally satisfied with the assessment and low scorers are dissatisfied and unhappy with the assessment. The reported internal consistency coefficients from previous research for all scales range from .85 to .89 (S.E. Finn, unpublished research). Internal consistency coefficients for this measure in this study, computed using Cronbach's alpha, were .84 to .92. (See Appendix B for alpha coefficients). Due to the high correlations of the scales with the Overall Satisfaction scale in this study (See Appendix C), the Overall Satisfaction score was used in the analysis. Due to the recent development of this measure, validity data is not yet available.

Self-Esteem Measure

The Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965) is a 10-item measure used to evaluate self-worth and self-acceptance in psychological and educational research (See Appendix A for a copy of the measure). An example of an item is "On the whole, I am satisfied with myself." The client is asked to circle numbers from 1 through 4 corresponding with Strongly Agree to Strongly Disagree. Consistent with recommendations from Blascovich and Tomaka (1991) negative items were reverse scored, and all items were added together resulting in a total score ranging from 10 to 40. The reported internal consistency values (coefficient alpha) from previous research range from .77 to .88 for this measure (Dobson, Goudy, Keith, & Powers, 1979; Fleming & Courtney, 1984). Internal consistency coefficients, computed using Cronbach's alpha, for all four administrations in the present study ranged from .86

to .95 (see Appendix B for all alpha coefficients). The RSES has shown convergent validity with other self-esteem related constructs including academic self-concept, popularity, and confidence (Lorr & Wunderlich, 1986; Reynolds, 1988). The RSES has also been correlated with the Lerner Self-Esteem Scale (Savin-Williams & Jaquish, 1981) and the Coopersmith Self-Esteem Inventory (Demo, 1985).

Outcome Measure

The Outcome Questionnaire-45.2. The Outcome Questionnaire (OQ-45.2) (Lambert et al., 1996) is a 45-item questionnaire designed to evaluate psychological/emotional symptoms and functioning. It may be administered repeatedly to assess outcomes of clients/patients in applied and research settings over time. It is commonly used to evaluate patient functioning and effectiveness of therapy and psychological treatment and research. The OQ-45.2 measures functioning in three areas: Symptom Distress, (specifically measuring depression and anxiety), Interpersonal Functioning, and Social Role. Additionally, the OQ-45.2 provides a Total Score. The measure also contains critical items that assess for suicide potential and violence. Increased scores indicate increased symptom distress. Reported means from samples from university counseling centers are: Symptom Distress = 49.40, Interpersonal Relations = 19.68, Social Role = 14.01, and Total Score = 75.16. The reported coefficient alpha's for the OQ-45.2 from previous research for the three scales and the total score range from .70 to .93. (Lambert et al.) For the present study, internal consistency was computed using Cronbach's alpha. Coefficient alpha's for the three scales and total score in this sample ranged from .68 to .92 (see Appendix B for a table of alpha coefficients). The OQ-45.2 has high to moderately high concurrent validity with a wide variety of

measures that evaluate similar variables including the General Symptom Index of the Symptom Check List-90-Revised, the Beck Depression Inventory, the Zung Self Rating Depression Scale, the Zung Self Rating Anxiety Scale, the Taylor Manifest Anxiety Scale, the State Trait Anxiety Inventory, the Inventory of Interpersonal Problems, and the Social Adjustment Scale (Lambert et al.). The OQ-45.2 has exhibited sensitivity to change related to treatment, and discriminatory validity in identifying clinical populations versus non-mentally ill populations (Lambert et al.).

Open-ended Survey. A measure was developed by the author and administered at the end of the follow-up meeting. The participant was instructed to write responses to several questions directly on this measure. Participants described the process they had completed, what was positive about the experience, what was negative about the experience, what suggestions or changes they may make to the process, what would improve the process, how likely they would be to participate in personality assessment, and how likely they would be to participate in counseling in the future (See Appendix A for a copy of this questionnaire). The questionnaires were coded and scored by the researcher, who was kept blind of the identity and group assignment of the participants.

Treatments

For all conditions counselors had cue sheets to assist them accurately and consistently follow the protocol(s). Guidelines for treatment conditions are detailed fully and completely in the *Minnesota Multiphasic Personality Inventory- 2 (MMPI-2); Test interpretation feedback studies counselor training manual* (Hanson, 2001). All sessions with counselors/assessors were 45 to 50 minutes long.

The treatments consisted of three conditions: (a) Condition 1, with MMPI-2 results *delivered* with minimal participant interaction; (b) Condition 2, with MMPI-2 results given to participants in an *interactive* manner, encouraging participant collaboration, and (c) Condition 3, the *control* condition, in which treatment is delayed for 3 weeks, then participants were provided MMPI-2 results in the interactive manner.

Condition 1, the delivered treatment, consisted of three sessions, the intake, feedback, and follow-up sessions. The participant was given feedback in a delivered, directive manner, and the counselor did not encourage collaboration by the participant. Condition 2, the interactive treatment also consisted of an intake, feedback, and follow-up session. The participant was given feedback that encouraged participant interaction, collaboration and applying results to their own lives. Condition 3 served as the control condition, with two sessions, an intake and feedback sessions, versus three sessions for Condition 1 and Condition 2. Condition 3 does not have a one-month follow-up. See Table 2 for treatment conditions, timeline, and when treatments are administered. See Table 3 for a comparison of the similarities and differences between Condition 1, delivered treatment, and Condition 2, interactive treatment. For a more detailed description of the treatment protocols and each session, see Appendix D.

Table 2

Timeline for Treatments and Measures Administered

<i>Time</i>	<i>Week 1 (Time 1)</i>	<i>Right after first contact</i>	<i>Week 2 (Time 2)</i>	<i>Week 3 (Time 3)</i>	<i>Week 4</i>	<i>One month after Session 3 (Time 4) (Delivered and Interactive Treatment)</i>
<u>Tx Conditions</u>						
Condition 1: Delivered Tx	Demo Form OQ-45.2 RSES <i>Session 1</i> SEQ CRF AQ	MMPI-2	<i>Session 2</i> SEQ CRF AQ OQ-45.2 RSES	<i>Session 3</i> SEQ CRF AQ OQ-45.2 RSES		OQ-45.2 RSES Open- ended Survey
Condition 2: Interactive Tx	Demo Form OQ-45.2 RSES <i>Session 1</i> SEQ CRF AQ	MMPI-2	<i>Session 2</i> SEQ CRF AQ OQ-45.2 RSES	<i>Session 3</i> SEQ CRF AQ OQ-45.2 RSES		OQ-45.2 RSES Open- ended Survey
Condition 3: Control Group	Demo Form OQ-45.2 RSES	MMPI-2	OQ-45.2 RSES	OQ-45.2 RSES <i>Session 1</i> SEQ CRF AQ	Session 2 OQ-45.2 RSES SEQ CRF AQ Open- ended Survey	

Table 3

Treatment Protocols

Condition 1/Condition 2: Delivered/ Interactive Treatment – Session 1
<i>Both Treatments</i>
1. Relationship/ rapport was established with the participant. 2. Exceptions of session and study were provided. 3. Three to five questions were framed for participants related to the MMPI-2. 4. Questions were written down. 5. Background information was collected and explored as related to the questions. 6. Inquiries were made about past assessment. 7. Questions were restated and modified if needed. 8. Client was encouraged to ask questions of assessor. 9. Contract for assessment was reviewed. 10. Wrap up/session closed.
Condition 1/ Condition 2: Delivered/Interactive Treatment - Session 2
<i>Similarities in Second Session</i>
1. Relationship was reestablished with participant: “We will go over the results of the MMPI-2.” 2. Participant was asked about reactions to taking MMPI-2, and feelings in anticipation of the interpretation. 3. Profile was shown to participant. 4. Feedback was given to the participant. 5. Session was closed/ wrapped up.

Table 3 (continued)

Differences in Session 2

<i>Condition 1: Directive</i>	<i>Condition 2: Interactive</i>
1. <i>Did not involve</i> the participant in the interpretation of the results.	1. Involved the participant in relating results to own life/meaning.
2. Participant <i>was read</i> the list of the 3-5 questions.	2. Participant was asked if they could <i>remember</i> the 3-5 questions.
3. Provided feedback - " <i>The results suggest...</i> "	3. Provided feedback - " <i>One hypothesis to consider ...</i> "
4. After every 4th or 5th item, participant was asked <i>close-ended</i> questions regarding accuracy of the statements.	4. After every 4th or 5th item, participant was asked <i>open-ended</i> questions regarding accuracy of statements.
5. Summary was provided by <i>therapist</i> .	5. <i>Participant</i> was asked to summarize the session.

Condition 1/ Condition 2: Delivered/Interactive – Session 3

<i>Both Treatments</i>
1. Relationship was reestablished.
2. Overview of final session was given.
3. Therapist probed reactions to the interpretation/ assessment.
4. Direct questions were answered by therapist.
5. Misunderstandings were corrected.
6. Counselor processed any lingering resistance or reservations about the assessment.
7. The implications of the interpretation were explored with participant related to their understanding of themselves.
8. Session/ treatment was terminated.

RESULTS

An alpha level of .05 was used for all statistical tests, unless otherwise noted. Variances were homogenous for all analyses, unless otherwise noted. Means and standard deviation tables for dependent variables are in Appendix E. All correlation tables between the dependent variables are provided in Appendix C.

Preliminary Analyses

Pretreatment Self-esteem and Symptom Scores

All participants completed the OQ-45.2 and the RSES prior to beginning treatment (Time 1). Scores for the RSES are presented in Table 4, and scores for the OQ-45.2 are presented in Table 5. Pretreatment scores for the OQ-45.2 are consistent with university students seeking treatment at a university-counseling center.

Table 4

Pretreatment (Time 1) Mean Scores and Standard Deviations for the RSES

	<i>All participants</i> (<i>N</i> = 33)	<i>Interactive</i> (<i>n</i> = 12)	<i>Delivered</i> (<i>n</i> = 13)	<i>Control</i> (<i>n</i> = 8)
	<u><i>M</i></u> (<u><i>SD</i></u>)	<u><i>M</i></u> (<u><i>SD</i></u>)	<u><i>M</i></u> (<u><i>SD</i></u>)	<u><i>M</i></u> (<u><i>SD</i></u>)
Total Score	28.27 (5.77)	25.83 (6.29)	30.23 (4.99)	28.75 (5.44)

Table 5

Pretreatment (Time 1) Mean Scores and Standard Deviations for the OQ.45-2

	<i>All participants</i>		<i>Interactive</i>		<i>Delivered</i>		<i>Control</i>		<i>Reference Group*</i>	
	<i>(n = 33)</i>		<i>(n = 12)</i>		<i>(n = 13)</i>		<i>(n = 8)</i>		<i>(N = 486)</i>	
<u>Scale</u>	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>
Symptom Distress	38.67	(12.82)	39.42	(15.69)	37.42	(14.04)	40.00	(6.78)	41.28	(14.53)
Interpersonal Relations	17.21	(8.21)	17.75	(11.66)	15.00	(6.00)	19.25	(4.68)	18.57	(4.28)
Social Role	13.61	(5.10)	13.00	(4.39)	13.33	(6.39)	14.25	(4.77)	14.64	(3.96)
Total Score	69.41	(23.09)	70.25	(29.09)	65.83	(22.69)	73.50	(13.38)	75.16	(16.74)

*The Reference Group was college students seeking treatment (University Counseling Center Means from the OQ-45.2 manual by Lambert et al., 1996).

To establish that the feedback groups and control group had equivalent levels of symptom distress and self-esteem prior to treatment, the feedback groups' and control group's scores on each scale of the OQ-45.2 and total score of the RSES were compared. The type of group (*interactive*, *delivered*, and *control*) was the independent variable, and the scores on the outcome measures were the dependent variables. The analyses used were separate univariate ANOVA.

RSES, Time 1. All three groups were compared using univariate ANOVA for Time 1 on the RSES: $F(2,30) = 1.96, p = .16$. The effect size for this analysis was $\eta^2 = .12$, which is considered a medium effect size. There was not a statistically significant difference on the pre-treatment self-esteem scores (RSES) among the three groups for

Time 1. Therefore, the mean pre-treatment self-esteem scores among the three groups were equivalent.

OQ-45.2, Time 1. The interactive, delivered, and control groups were compared on the OQ-45.2 scales (Symptom Distress, Interpersonal Relations, Social Role, and Total Score) using separate univariate ANOVAs for each scale. There were no statistically significant differences on the pre-treatment scores for the interactive, delivered or control groups on the Symptom Distress, Interpersonal Relations, Social Role, and Total Score on the OQ.45-2 for Time 1 (see Table 6). Therefore, the mean pre-treatment symptom scores among the three groups were equivalent.

Table 6

Analysis of Variance for OQ.45-2 for Time 1

	<i>F</i>	<i>p</i>	η^2
<i>OQ.45-2 Scale</i>			
Symptom Distress	.15	.87	.01
Interpersonal Relations	.55	.58	.04
Social Role	.14	.87	.01
Total Score	.24	.79	.02

Note: *df* = 2,30 for these analyses.

Process Measures, Session 1 (Time 1).

At Session 1 the protocols for the interactive and delivered feedback groups were identical, therefore analyses were conducted to ascertain if the ratings of the process measures by clients in the interactive and delivered groups were significantly different.

The process measures were Session Impact as measured by the four scales of the SEQ, Counselor Influence as measured by the Total Score of the CRF, and ratings of the assessment as measured by the Overall Satisfaction score of the AQ. The interactive and delivered groups were compared on all of the process measures for Time 1, Session 1, using separate two-tailed independent *t*-tests. The two feedback groups, *interactive* and *delivered*, were the independent variables, and scores on each the process measures were the dependent variables.

SEQ, Session 1. Two-tailed, independent *t*-tests were used for these analyses. There were no statistically significant differences between the interactive and delivered feedback groups for ratings of Session Impact (SEQ) on Depth, Smoothness, Positivity, and Arousal for Session 1, Time 1 (see Table 7). Therefore, the ratings of Session Impact for Session 1 by the two assessment feedback groups were equivalent.

Table 7

Independent t-tests for the Session Evaluation Questionnaire for Time 1, Session 1

	<i>t</i>	<i>p</i>	<i>d</i>
<u>SEQ Session Impact</u>			
Depth	.61	.54	.28
Smoothness	.26	.79	.03
Positivity	.59	.56	.21
Arousal	.52	.60	.23

Note: *df* = 21 for all *t*-tests.

CRF, Session 1. A two-tailed, independent *t*-test was used for this analysis: $t(20) = .83, p = .42, d = .35$. There was not a statistically significant difference between the interactive and delivered feedback groups for the total rating of Counselor Influence at Session 1, Time 1. Therefore the rating of Counselor Influence for Session 1 by the two assessment groups was equivalent.

AQ, Session 1. A two-tailed, independent *t*-test was used for this analysis: $t(19) = 1.44, p = .16, d = .62$. There was not a statistically significant difference between the interactive and delivered feedback groups for the Overall Satisfaction with the assessment score (AQ) for Session 1, Time 1. Therefore, the rating of Overall satisfaction with the assessment for Session 1 by the two assessment groups was equivalent.

Analyses for Hypotheses

Hypothesis 1

Hypothesis 1 stated that the type of personality assessment feedback would interact with self-esteem: Participants who received *interactive* feedback would experience significant increases in self-esteem when compared to clients who received *delivered* feedback from Time 1 (pre-treatment) through Time 4 (one month follow-up). A separate repeated measures ANOVA was conducted for the analysis. The independent variable was Feedback Condition, with two between-subject levels (interactive and delivered). There were four levels of within subjects' factors for time (Time 1, Time 2, Time 3, and Time 4). The dependent variable for this analysis was the score on the RSES. The Time main effect and Feedback Condition X Time interaction effects were tested using the multivariate criterion of Wilk's lambda (λ). The main effect of Time was

statistically significant: $\Lambda = .15$, $F(3,9) = 17.39$, $p < .001$, partial $\eta^2 = .85$. The Feedback X Time interaction effect was not statistically significant: $\Lambda = .62$, $F(3,9) = 1.86$, $p = .21$, partial $\eta^2 = .38$. The univariate test associated with the main effect of Feedback Condition was not statistically significant: $F(1, 11) = .22$, $p = .65$, partial $\eta^2 = .02$.

Further analyses, Hypothesis 1. Due to the significant main effect of Time, six two-tailed paired sample t -tests (two-tailed) were computed to assess the differences in the self-esteem scores between the four levels of Time, controlling for familywise error rate using the Bonferroni approach. A significance level of $p = .008$ was computed to address familywise error. All paired samples are presented in Table 8 with means and standard deviations in Table 9. The difference in self-esteem scores was statistically significant for Time with two pairs. From Time 2 to Time 3, there was a statistically significant increase in self-esteem scores: $t(12) = 5.74$, $p < .001$, $d = 1.58$. Participants reported a mean increase in self-esteem scores from Time 2 ($M = 25.77$, $SD = 2.71$), to Time 3 ($M = 29.69$, $SD = 3.52$). From Time 2 to Time 4, there was also a statistically significant increase in self-esteem scores: $t(12) = 5.32$, $p < .001$, $d = 1.47$. Additionally, participants reported a mean increase in self-esteem scores from Time 2 ($M = 25.77$, $SD = 2.71$) to Time 4 ($M = 29.15$, $SD = 3.58$). The hypothesis that there would be a statistically significant interaction of Feedback Condition (interactive and delivered) and Time for self-esteem was not supported. However, for the main effect of Time there were statistically significant mean changes in self-esteem scores across both feedback groups.

Table 8

Follow up two-tailed Paired Samples t-tests for Time 1 to Time 4 on Self-Esteem Scores (RSES), Combined Interactive and Delivered Feedback Groups.

Pair	Group	<i>t</i>	<i>p</i>	Paired Differences Mean	Standard Deviation	<i>d</i>
1	Time 1 – Time 2	2.35	.04	-1.92	2.96	.65
2	Time 1 – Time 3	2.05	.06	2.00	3.51	.56
3	Time 1 – Time 4	1.21	.25	1.46	4.37	.33
4	Time 2 – Time 3	5.74	.000*	3.92	2.46	1.58
5	Time 2 – Time 4	5.32	.000*	3.39	2.29	1.47
6	Time 3 - Time 4	.60	.56	-.54	3.23	.16

Note: *df* = 12 for all paired samples.

To control for familywise error rate, the Bonferroni approach was used ($\alpha = .008$).

* Indicated significant at the .008 level.

(-) Reflects a decrease in self-esteem scores.

Table 9

Means and Standard Deviations for Time 1 to Time 4 on Self-Esteem Scores (RSES), Combined Interactive and Delivered Feedback Groups.

	Mean RSES Score	Standard. Deviation
Time 1	27.69	4.57
Time 2	25.77	2.71
Time 3	29.69	3.52
Time 4	29.15	3.59

Note: *n* = 13.

Hypothesis 2

Hypothesis 2 stated that the type of personality assessment feedback that participants received would interact with symptoms: Participants who received interactive feedback would experience significant decreases in reported symptoms over time (Symptom Distress, Interpersonal Relations, Social Role, and Total Score) when compared to clients who received *delivered* feedback from Time 1 (Pre-treatment) through Time 4 (one month follow-up). For this analysis, separate repeated measures ANOVAs were conducted to address each scale. The independent variable was Feedback Condition, with two between-subject levels (interactive and delivered). There were four levels of within subjects' factors for time (Time 1, Time 2, Time 3, and Time 4). The dependent variables for each analysis were the score on the OQ-45.2 Symptom Distress Score, OQ-45.2 Interpersonal Relations Score, OQ-45.2 Social Role Score, and the OQ-45.2 Total Score.

Symptom Distress. For the analysis for OQ-45.2 Symptom Distress scores, the Time main effect and Feedback Condition X Time interaction effects were tested using the multivariate criterion of Wilk's lambda (Λ). The main effect for Time was not statistically significant: $\Lambda = .87, F(3,9) = .45, p = .73$, partial $\eta^2 = .13$. The Feedback Condition X Time interaction was not statistically significant: $\Lambda = .80, F(3,9) = .71, p = .57$, partial $\eta^2 = .19$. The univariate test associated with the main effect of Feedback Condition was not statistically significant: $F(1, 11) = .23, p = .64$, partial $\eta^2 = .02$. The hypothesis that there would be a statistically significant difference between the interactive and delivered Feedback Conditions on the OQ-45 Symptom Distress scores over the four levels of Time was not supported.

Interpersonal Relations. For the analysis for OQ-45.2 Interpersonal Relations scores, the Time main effect and Feedback Condition X Time interaction effects were tested using the multivariate criterion of Wilk's lambda (Λ). The main effect for Time was not statistically significant: $\Lambda = .76$, $F(3,9) = .95$, $p = .46$, partial $\eta^2 = .24$. The Feedback Condition X Time interaction effect was not statistically significant: $\Lambda = .96$, $F(3,9) = .14$, $p = .94$, partial $\eta^2 = .04$. The univariate test associated with main effect of Feedback Condition was not statistically significant: $F(1, 11) = .88$, $p = .37$, partial $\eta^2 = .07$. The hypothesis that there would be a statistically significant difference between the interactive and delivered Feedback Conditions in the OQ-45 Interpersonal Relations scores over the four levels of Time was not supported.

Social Role. For the analysis for OQ-45.2 Social Role scores, the Time main effect and Feedback Condition X Time interaction effects were tested using the multivariate criterion of Wilk's lambda (Λ). The main effect of Time was not statistically significant: $\Lambda = .84$, $F(3,9) = .56$, $p = .65$, partial $\eta^2 = .16$. The Feedback Condition X Time interaction effect was not statistically significant: $\Lambda = .89$, $F(3,9) = .37$, $p = .78$, partial $\eta^2 = .11$. The univariate test associated with main effect of Feedback Condition was not statistically significant: $F(1, 11) = .19$, $p = .67$, partial $\eta^2 = .02$. The hypothesis that there would be statistically significant differences between the interactive and delivered Feedback Conditions on the OQ-45 Social Role scores over the four levels of Time was not supported.

Total Score. For the analysis for OQ-45.2 Total Scores, the four levels of Time, the Time main effect and Feedback Condition X Time interaction effects were tested using the multivariate criterion of Wilk's lambda (Λ). The main effect for Time was not

statistically significant: $\Lambda = .93$, $F(3,9) = .23$, $p = .87$, partial $\eta^2 = .07$. The Feedback Condition X Time interaction effect was not statistically significant: $\Lambda = .86$, $F(3,9) = .49$, $p = .70$, partial $\eta^2 = .14$. The univariate test associated with main effect of Feedback Condition was not statistically significant: $F(1, 11) = .006$, $p = .94$, partial $\eta^2 = .001$. The hypothesis that there would be statistically significant differences between the interactive and delivered Feedback Conditions in the OQ-45 Total Scores over the four levels of Time was not supported.

Hypothesis 3

Hypothesis 3 stated that whether participants received personality assessment feedback or did not receive personality assessment feedback would interact with self-esteem. Participants who received personality assessment feedback (*delivered* and *interactive* groups combined) would report significant increases in self-esteem as compared to participants who did not receive personality assessment feedback (*control* group) from Time 2 through Time 3. For this analysis a repeated measures ANOVA was conducted for self-esteem. The interactive and delivered feedback groups were combined for this analysis, resulting in the condition *feedback*. There were two between subjects' levels for Feedback Condition (*feedback* versus *control*), and three within subjects' levels for time (Time 1, Time 2, and Time 3). The dependent variable for the analysis was the score on the RSES. For the analysis for self-esteem (RSES), the Time main effect and Feedback Condition X Time interaction effects were evaluated using the multivariate criterion of Wilk's lambda (Λ). The main effect for Time was statistically significant: $\Lambda = .40$, $F(2,22) = 16.2$, $p < .001$, partial $\eta^2 = .59$. The Feedback Condition X Time interaction effect was not statistically significant: $\Lambda = .85$, $F(2,22) = 1.93$, $p = .17$,

partial $\eta^2 = .15$. The univariate test associated with the main effect of Feedback Condition was not statistically significant: $F(1, 23) = .98, p = .33$, partial $\eta^2 = .04$.

Further analysis, Hypothesis 3. Due to the significant main effect of Time, three paired sample t -tests (two-tailed) were computed to assess the differences in the self-esteem scores between the three levels of Time, controlling for familywise error rate using the Bonferroni approach. A significance level of .016 was computed to address familywise error. All paired sample t -tests statistics are in Table 10, with means and standard deviations following in Table 11. The difference in self-esteem scores was statistically significant for Time with two pairs. From Time 1 to Time 2, there was a statistically significant *decrease* in self-esteem scores: $t(24) = 4.53, p < .001, d = .90$. Participants reported that their self-esteem *decreased* from Time 1 ($M = 28.64, SD = 5.14$), to Time 2 ($M = 25.88, SD = 4.06$). From Time 2 to Time 3, there was a statistically significant *increase* in self-esteem scores: $t(24) = 3.39, p = .002, d = .70$. Participants reported that their self-esteem *increased* from Time 2 ($M = 25.88, SD = 4.06$) to Time 3 ($M = 28.24, SD = 4.64$). The hypothesis that there would be a statistically significant difference for interaction of Feedback Condition (*feedback* versus *control*) and Time for self-esteem was not supported. However, there was a statistically significant main effect of Time across both feedback groups, yielding both a statistically significant mean decrease in self esteem scores from Time 1 to Time 2, followed by a statistically significant mean increase in self-esteem scores from Time 2 to Time 3.

Table 10

Follow up two-tailed Paired Samples t-tests Time 1 to Time 3 on Self-Esteem Scores (RSES), Combined Feedback and Control Groups.

Pair	Group	Paired Difference Mean	Standard Deviation	<i>t</i>	<i>p</i>	<i>d</i>
1	Time 1 – Time 2	-2.76	3.05	4.53	.000*	.90
2	Time 1 – Time 3	.40	4.97	.40	.691	.08
3	Time 2 – Time 3	2.36	3.39	3.48	.002*	.70

Note: *df* = 24 for all paired samples t-tests.

Familywise error controlled using the Bonferroni approach. $\alpha = .016$.

*Significant at the .016 level.

(-) Reflects a mean decrease in self-esteem scores.

Table 11

Means and Standard Deviations for Time 1 to Time 3 on Self-esteem Scores (RSES), Combined Feedback and Control Groups.

	Mean	Standard Deviation
Time 1	28.64	5.14
Time 2	25.88	4.06
Time 3	28.24	4.64

Note: *n* = 25.

Hypothesis 4

Hypothesis 4 stated that whether participants received personality assessment feedback or no personality assessment feedback would interact with symptoms: Participants who received assessment feedback (*delivered* and *interactive* groups) would show decreases in symptoms (Interpersonal Relations, Social Role, and Total Score) as

compared to participants who do not received personality assessment feedback (*control* group) from Time 1 through Time 3. For these analyses separate repeated measures ANOVAs were conducted. The interactive and delivered feedback groups were combined for this analysis, resulting in the condition *feedback*. There were two between subjects' levels for Feedback Condition (*feedback* versus *control*), and three within subjects' levels for time (Time 1, Time 2, and Time 3). The dependent variable for the analysis were the OQ-45.2 Symptom Distress Score, the OQ-45.2 Interpersonal Relations Score, the OQ-45.2 Social Role Score, and the OQ-45.2 Total Score.

Symptom Distress. For the analysis of OQ-45.2 Symptom Distress Score, the main effect of Time, and the Feedback Condition X Time interaction effects were evaluated using the multivariate criterion of Wilk's lambda (Λ). The main effect of Time was not statistically significant: $\Lambda = .92$, $F(2,22) = .91$, $p = .42$, partial $\eta^2 = .08$. The Feedback Condition X Time interaction effect was not statistically significant: $\Lambda = .97$, $F(2,22) = .39$, $p = .68$, partial $\eta^2 = .03$. The univariate test associated with the main effect of Feedback Condition was not statistically significant: $F(1, 23) = 1.35$, $p = .26$, partial $\eta^2 = .06$. The hypothesis that there would be a statistically significant interaction for Feedback Condition and Time on the OQ-45 Symptom Distress scores was not supported.

Interpersonal Relations. For the analysis for OQ-45.2 Interpersonal Relations scores, the main effect of Time and the Feedback Condition X Time interaction effects were evaluated using the multivariate criterion of Wilk's lambda (Λ). The main effect of Time was not statistically significant: $\Lambda = .93$, $F(2,22) = .89$, $p = .43$, partial $\eta^2 = .08$. The Feedback Condition X Time interaction effect was not statistically significant:

$\Lambda = .93$, $F(2,22) = .78$, $p = .47$, partial $\eta^2 = .06$. The univariate test associated with the main effect of Feedback Condition was not statistically significant: $F(1, 23) = 2.02$, $p = .17$, partial $\eta^2 = .08$. The hypothesis that there would be a statistically significant interaction for Feedback Condition and Time on the OQ-45 Interpersonal Relations Score was not supported.

Social Role. For the analysis for OQ-45.2 Social Role scores, the main effect of Time and the Feedback Condition X Time interaction effects were evaluated using the multivariate criterion of Wilk's lambda (Λ). The main effect of Time was not statistically significant: $\Lambda = .99$, $F(2,22) = .04$, $p = .96$, partial $\eta^2 = .004$. The Feedback Condition X Time interaction effect was not statistically significant: $\Lambda = .97$, $F(2,22) = .38$, $p = .69$, partial $\eta^2 = .03$. The univariate test associated with the main effect of Feedback Condition was not statistically significant: $F(1, 23) = .11$, $p = .75$, partial $\eta^2 = .01$. The hypothesis that there would be a statistically significant interaction for Feedback Condition and Time on the OQ-45 Social Role Score was not supported.

Total Score. For the analysis for OQ-45.2 Total Score the main effect of Time and the Feedback Condition X Time interaction were evaluated using the multivariate criterion of Wilk's lambda (Λ). The main effect of Time was not statistically significant: $\Lambda = .97$, $F(2,22) = .32$, $p = .73$, partial $\eta^2 = .03$. The Feedback Condition X Time interaction effect was not statistically significant: $\Lambda = .99$, $F(2,22) = .07$, $p = .93$, partial $\eta^2 = .007$. The univariate test associated with the main effect of Feedback Condition was not statistically significant: $F(1, 23) = 1.16$, $p = .29$, partial $\eta^2 = .05$. The hypothesis that there was a statistically significant difference interaction for Feedback Condition and Time on the OQ-45 Total Score was not supported.

Hypothesis 5

Hypothesis 5 stated that participants who received *interactive* feedback would report higher ratings for session impact than participants who received *delivered* feedback at Time 2 (Session 2). For these analyses, independent one-tailed *t*-tests were used for each dependent variable to evaluate the differences between the two feedback groups. The independent variable was Feedback Condition (*interactive* feedback or *delivered* feedback). The dependent variables were the scores on the four scales of Session Impact of the SEQ. There were statistically significant differences between the interactive and delivered feedback groups for evaluation of Session Impact on Depth, Positivity, and Arousal at Time 2, Session 2 (see Table 12). Participants in the interactive feedback reported that Session 2 had more Depth ($M = 33.33, SD = 3.74$) as compared to participants in the delivered group ($M = 28.50, SD = 7.85$). For Depth, the effect size was $d = .80$, which indicated a large effect. Participants in the interactive condition reported that Session 2 was more Positive for them ($M = 31.33, SD = 5.74$) than participants in the delivered condition ($M = 26.40, SD = 5.21$). For Positivity the effect size was $d = .90$, which indicated a large effect. Participants in the interactive condition reported that they felt more Arousal in the Session 2 ($M = 26.00, SD = 7.62$), than the participants in the delivered condition ($M = 20.70, SD = 5.36$). For Arousal, the effect size was $d = .81$, which indicates a large effect. There was not a statistically significant difference for Session 2 Smoothness between the two feedback groups: $t(17) = 1.62, p = .06$. However, for Smoothness, the effect size was $d = .75$, which indicated a moderate to large effect, despite there not being a statistically significant difference in means.

Therefore, the hypothesis that the interactive group would report higher ratings of Session Impact for Time 2, Session 2 than the delivered group was supported.

Table 12

Independent one-tailed t-tests for the Session Evaluation Questionnaire for Time 2, Session 2.

	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
<u>Rating of Session</u>				
Depth	1.74* **	13.17	.05	.80
Smoothness	1.62	17	.06	.75
Positivity	1.96*	17	.03	.90
Arousal	1.77*	17	.05	.81

*Significant at the .05 level.

**Variances not homogenous, equal variances not assumed.

Hypothesis 6

Hypothesis 6 stated that participants who received *interactive* feedback would report higher ratings of counselor influence than participants who received *delivered* feedback at Time 2 (Session 2). An independent one-tailed *t*-test was performed to for this analysis. The independent variable was Feedback Condition (*interactive* feedback and *delivered* feedback), and the dependent variable was the total score for Counselor Influence. There was not a statistically significant difference in the means between the interactive and delivered feedback groups on the total score for Counselor Influence: $t(17) = .48, p = .32, d = .20$. Therefore, the hypothesis that the interactive group would rate Counselor Influence higher than the delivered group at Session 2, Time 2 was not supported.

Hypothesis 7

Hypothesis 7 stated that the participants who received *interactive* feedback would report higher ratings of the assessment than participants who received *delivered* feedback at Time 2 (Session 2). For this analysis, an independent one-tailed *t*-test was used to evaluate the differences between the two feedback groups. The independent variable was Feedback Condition (*interactive* feedback versus *delivered* feedback). The dependent variable was the score for Overall Satisfaction with the Assessment (AQ). There was a statistically significant difference between the interactive and delivered feedback groups for Overall Satisfaction with the assessment ratings during Session 2, Time 2:

$t(17) = 2.16, p = .02$. Effect size was $d = .99$, indicating a large effect. For Overall Satisfaction with the Assessment, the interactive group reported more general satisfaction with the assessment during the Session 2 ($M = 3.87, SD = .24$) as compared to the delivered group ($M = 3.38, SD = .64$). Therefore, the hypothesis that the interactive group would rate the assessment higher than the delivered group was supported.

Hypothesis 8

Hypothesis 8 stated that participants who received *interactive* feedback would report higher ratings of session impact than participants who received *delivered* feedback at Time 3 (Session 3). For these analyses, independent one-tailed *t*-tests were used for each dependent variable to evaluate the differences between the two feedback groups. The independent variable was Feedback Condition (*interactive* feedback versus *delivered* feedback). The dependent variables were the scores on the four scales of Session Impact of the SEQ. There were statistically significant differences between the interactive and

delivered feedback groups for evaluation of the session (SEQ) on Depth and Smoothness for Session 3, Time 3 (see Table 13). Participants in the interactive group reported Session 3 had more Depth ($M = 31.25$, $SD = 6.75$) as compared to participants in the delivered group ($M = 25.56$, $SD = 6.54$). For Depth, the effect size was $d = .86$, which indicated a large effect. Participants in the interactive group reported that the Session 3 had more Smoothness ($M = 37.75$, $SD = 5.68$) than participants in the delivered group ($M = 31.78$, $SD = 5.56$). For Smoothness, the effect size was $d = 1.06$, which indicated a large effect. There was not a statistically significant difference for Positivity in Session 3: $t(15) = 1.33$, $p = .10$. However, the effect size was $d = .65$, which is considered a moderate effect. There was not a statistically significant difference for Arousal in Session 3: $t(15) = 1.46$, $p = .08$. However, the effect size was $d = .71$, which is considered a moderate effect. Therefore, the hypothesis that the interactive group would rate the Session Impact higher for Time 3, Session 3 than the delivered group was supported in two of the four scales.

Table 13

Independent one-tailed t-tests for the Session Evaluation Questionnaire for Time 3, Session 3

	<i>t</i>	<i>p</i>	<i>d</i>
<u>Rating of Session</u>			
Depth	1.76*	.05	.86
Smoothness	2.19*	.02	1.06
Positivity	1.33	.10	.65
Arousal	1.46	.08	.71

Note: $df = 15$ for all t -tests in this table.

* Significant at the .05 level.

Hypothesis 9

Hypothesis 9 stated that participants who received *interactive* feedback would report higher ratings of counselor influence than participants who received *delivered* feedback at Time 3 (Session 3). An independent one-tailed *t*-test was performed for this analysis. The independent variable was Feedback Condition (*interactive* feedback versus *delivered* feedback), and the dependent variable was the total score of Counselor Influence (CRF) for Session 3, Time 3. There was a statistically significant difference for the total score of Counselor Influence: $t(14) = 2.05, p = .03$. Effect size was $d = 1.00$, which indicated a large effect size. Participants in the interactive group reported higher scores for Counselor Influence ($M = 223.38, SD = 20.62$) than participants in the delivered group ($M = 199.00, SD = 26.54$). Therefore, the hypothesis that the interactive group would report higher ratings for Counselor Influence than the delivered group for Session 3, Time 3 was supported.

Hypothesis 10

Hypothesis 10 stated that participants who received *interactive* feedback would report higher ratings of the assessment than participants who received *delivered* feedback at Time 3 (Session 3). An independent one-tailed *t*-test was performed for this analysis. The independent variable was Feedback Condition (*interactive* feedback versus *delivered* feedback) and the dependent variable was the score for Overall Satisfaction with the assessment (AQ) for Time 3, Session 3. There was not a statistically significant difference for Overall Satisfaction with the assessment for Time 3, Session 3: $t(15) = 1.44, p = .08, d = 1.01$. Therefore, the hypothesis that that the interactive group

would report higher ratings for Overall Satisfaction with the Assessment than the delivered group for Session 3, Time 3 was not supported.

For a summary of the Hypothesis 1 through 10 and final outcomes see Table 14.

Table 14

Summary of Hypotheses 1 through 10

Hypothesis #	Brief Description of Hypothesis	Supported/ NOT Supported
1	Participants who receive <i>interactive</i> feedback will experience significant increases in self-esteem when compared to clients who receive <i>delivered</i> feedback over time.	NOT Supported
2	Participants who receive <i>interactive</i> feedback will experience significant decreases in reported symptoms when compared to clients who receive <i>delivered</i> feedback over time.	NOT Supported
3	Participants who receive assessment feedback will report significant increases in self-esteem as compared to participants who do not receive personality assessment feedback over time.	NOT Supported
4	Participants who receive assessment feedback will report significant decreases in reported symptoms as compared to participants who do not receive assessment feedback over time.	NOT Supported
5	Participants who receive <i>interactive</i> feedback will report higher ratings of session impact than participants who receive <i>delivered</i> feedback at Time 2 (Session 2).	Supported
6	Participants who receive <i>interactive</i> feedback will report higher ratings of counselor influence than participants who receive <i>delivered</i> feedback at Time 2 (Session 2).	NOT Supported
7	Participants who receive <i>interactive</i> feedback will report higher ratings of the assessment than participants who receive <i>delivered</i> feedback at Time 2 (Session 2).	Supported
8	Participants who receive <i>interactive</i> feedback will report higher ratings of session impact than participants who receive <i>delivered</i> feedback at Time 3 (Session 3).	Partially Supported
9	Participants who receive <i>interactive</i> feedback will report higher ratings of counselor influence than participants who receive <i>delivered</i> feedback at Time 3 (Session 3).	Supported
10	Participants who receive <i>interactive</i> feedback will report higher ratings of the assessment than participants who receive <i>delivered</i> feedback at Time 3 (Session 3).	NOT Supported

Hypothesis 11

Hypothesis 11 stated that participants' written answers would be compared according to feedback group on an exploratory open-ended survey. Participants in the feedback groups completed the survey at the end of follow-up. The total n for this part of the analysis is 13 for the interactive and delivered groups, with 6 and 7 participants in each cell. (Seven of the control group participants completed the survey after the feedback session). For this analysis, only the answers of the interactive and delivered groups were compared. The author, who was kept blind to the group to which participants had been assigned, coded the answers (See Appendix F for coding keys).

Recounting the experience. It was hypothesized that participants who received *interactive* feedback would recount their experience with the assessment process more accurately in the survey versus participants who received *delivered* feedback. Participants were asked to describe the process that they had just completed. The answers were rated for accuracy of recounting the process. Accuracy of process was rated on a scale of 1-10, with 1 being the least amount of accuracy, and 10 being very accurate. Answers were rated on whether they recounted the (correct) number of sessions with the therapists, whether they mentioned the assessment process, the name of the personality assessment done (MMPI-2), described different sessions, described discussing results, follow-up session, and follow-up (See Appendix F for coding scale). The analysis was performed using an independent one-tailed t -test. There was not a statistically significant difference for accuracy of recounting the process between the interactive and delivered groups: $t(11) = 1.41, p = .09$. Effect size was $d = .78$, which is a large effect size, in favor of the interactive group, despite there not being a statistically significant difference in the

means. The hypothesis that the interactive group would recount the process more accurately than the delivered group was not supported.

Helpfulness of the experience. It was hypothesized that participants who received *interactive* feedback would find the experience more helpful than participants who receive *delivered* feedback. Participants were asked to describe what was helpful about the experience. An independent one-tailed *t*-test was performed to explore the difference in the number of words used for the answer to this question. For this answer, the number of words was counted. It was hypothesized that the participants in the interactive group would have *longer* answers for what was helpful in the experience than the delivered group. There was not a statistically significant difference between the groups for length of answer and what was helpful: $t(11) = .07, p = .47, d = .04$. Therefore the hypothesis that the interactive group would have longer answers for what was helpful about the experience than the delivered group was not supported.

The experience not being helpful. It was hypothesized that participants who received *delivered* feedback would report the experience was less helpful than participants who received *interactive* feedback. It was hypothesized that the interactive group would have *shorter* answers for what was *not* helpful in the experience than the delivered group. For this answer the number of words was counted. An independent one-tailed *t*-test was conducted for this analysis to explore the difference in the number of words used for this answer. Contrary to prediction, there was not a statistically significant difference between the groups: $t(11) = .67, p = .26, d = .37$. Therefore the hypothesis that the interactive group would have shorter answers for what was not helpful about the experience as compared to the delivered group was not supported.

Positive words. It was hypothesized that participants who received *interactive* feedback would use more positive words than participants who receive *delivered* feedback on the open-ended survey. The answers overall were examined for positive words. Amounts of positive words were calculated by developing definitions of positive words (i.e. “good,” “helpful,” and “proud”), and dividing this number by the total number of words written by each participant in the survey (see Appendix F for lists of definitions of positive words used). The analysis was performed using an independent one-tailed *t*-test. For amount of positive words, there was not a statistically significant difference between the interactive and delivered groups: $t(11) = .05, p = .48, d = .03$. Therefore, the hypothesis that the interactive group would use more positive words than the delivered group on the survey was not supported.

Negative words. It was hypothesized that participants who received *interactive* feedback would rate the process less negatively overall by using less negative words than participants who received *delivered* feedback. The answers overall were examined for negative words. Amounts of negative words were calculated by developing definitions of negative words (i.e. “upset,” “drained,” and “useless”), and dividing this number by the total number of words written by each participant in the survey (see Appendix F for lists of definitions of negative words used). For amount of negative words, there was not a statistically significant difference between the interactive and delivered groups: $t(11) = .99, p = .17, d = .55$. Therefore the hypothesis that the interactive group would use less negative words than the delivered group on the survey was not supported.

Suggestions for improvements. It was hypothesized that participants who received *interactive* feedback versus *delivered* feedback would suggest fewer changes (improvements) on the open-ended survey. Participants were asked to write down what would improve the process. It was hypothesized that the participants in the interactive group would make fewer suggestions than the participants in the delivered group. The analysis was performed using an independent one-tailed *t*-test. For number of suggestions, there was not a statistically significant difference between the interactive and delivered feedback groups: $t(11) = .45, p = .33, d = .25$. Therefore, the hypothesis that the interactive group would suggest fewer improvements was not supported.

Likelihood of participating in future assessment. It was hypothesized that participants who received *interactive* feedback versus *delivered* feedback would report they would be more likely to participate in personality assessment in the future. Participants were asked if they were likely to participate in personality assessment in the future, keeping the just completed experience with personality assessment in mind. Due to the small sample size, chi-square analysis was not performed (more than 80 % of the cells had an expected count less than 5), and the hypothesis could not be evaluated. Therefore, reported responses are presented in Table 15 with percentages within feedback groups indicated. Overall, 76.9 % of the participants in *both* feedback groups (10 out of 13) stated they would be likely to participate in personality assessment in the future.

Table 15

Number of participants indicating likeliness of participating in personality assessment in the future

	Yes		No		Possibly	
	<i>n</i> (% within group)		<i>n</i> (% within group)		<i>n</i> (% within group)	
<u>Feedback Group</u>						
Interactive (<i>n</i> = 7)	6	(85.7 %)	1	(14.3 %)	0	(0 %)
Delivered (<i>n</i> = 6)	4	(66.7 %)	1	(16.7%)	1	(16.7 %)
Overall (<i>n</i> = 13)	10	(76.9 %)	2	(15.4 %)	1	(7.7 %)

Likeliness of participating in future counseling. It was hypothesized that participants in the *interactive* group would be more likely to participate in future counseling after this experience than participants in the *delivered* group. Due to the small sample size, chi square analysis was not performed (more than 80% of the cells had an expected count of less than 5) therefore the hypothesis could not be evaluated. However, reported responses are in Table 16 with percentages within feedback group and overall noted. Overall, 61.5 % of the participants in both feedback groups (8 out of 13) stated that they would continue to stay in therapy or seek therapy after this experience with personality assessment.

Table 16

Number of participants indicating likeliness of seeking or participating in counseling in the future.

	Yes		No		Possibly	
	<i>n</i> (% within group)		<i>n</i> (% within group)		<i>n</i> (% within group)	
<u>Feedback Group</u>						
Interactive (<i>n</i> = 7)	4	(57.1 %)	2	(28.6 %)	1	(14.3 %)
Delivered (<i>n</i> = 6)	4	(66.7 %)	1	(16.7%)	1	(16.7 %)
Both groups (<i>n</i> = 13)	8	(61.5 %)	3	(23.1 %)	2	(15.4 %)

Themes in the answers. The author examined written answers for content.

Although there was a select group of surveys to examine, many participants wrote detailed answers to the questions presented, resulting in enough responses to gain insight into several themes. Themes were identified when two responses were similar or the same, and several themes emerged when participants were asked about what was positive in the process and what was negative in the process. Themes are presented in Table 17.

Table 17

Themes that emerged about positives and negatives of the process

Positives	Negatives
Having his/her thoughts and feelings confirmed	Feeling the results were overly negative
Being able to learn about strengths and weaknesses	Third session was not useful, not needed
Learning how to improve	(Not) having the results written down for the participants
Learning new information about difficulties	Concerns that the MMPI would give only negative feedback
Gaining new insights	
Confirming thoughts/information about myself	

When asked what would improve the process for participants, suggestions included having “a more in depth analysis,” having the third session be optional, suggesting not having the third session at all, and “better questions to learn different things about yourself.”

Participants were asked what about the experience had changed their lives. General themes included: feeling reassured, learning more and gaining understanding about themselves, gaining insight, feeling that there were problems they could work on, expressing hope, and feeling more comfortable with counseling. Specific statements by participants answering this question are presented in Table 18.

Table 18

What about this experience has changed you?

I will walk away with a more enlightened view of myself

I will also try and change some of the not so good things about myself

It has given a more positive image of counseling and I'm more likely to go to a counselor now

I don't have to take on the world alone

Has reconfirmed many things about my personality that I already assumed or knew

I am more aware of how my actions affect others around me

It is ok to be me

Just knowing that I am normal

DISCUSSION

This study attempted to ascertain if different feedback styles or not receiving feedback affected clients symptoms, self-esteem, perception of the process, or the subjective evaluation of the process. Results from the present study have some degree of implications for the future use of therapeutic assessment. Measures that specifically evaluated session impact, counselor influence, and satisfaction with the assessment revealed significant differences between the interactive versus delivered feedback style. Based on these results, it would appear that the way in which feedback was given influenced participants' perception of the process. As compared to clients who received delivered feedback, clients who received interactive feedback perceived the feedback session as more positive, having more depth, felt more alert, and had more overall satisfaction with the assessment. Additionally, as compared to clients that received delivered feedback, clients who received interactive feedback reported that counselors were more influential in the follow-up session. In contrast, evaluation of the symptom measures, self-esteem measures, and subjective responses did not reveal significant differences among the three feedback groups.

Hypotheses 1-4: Self-Esteem and Symptoms

Hypothesis 1. Contrary to prediction, the hypothesis that the type of personality feedback would affect self-esteem over time was not proven. However, self-esteem scores did have statistically significant changes when both feedback groups were

evaluated in aggregate. When participants from both feedback groups were combined, a statistically significant main effect was revealed. Self-esteem scores increased from Time 2 to Time 3, which corresponded to Session 2 and Session 3, and also increased from Time 2 to Time 4, which corresponded to Session 2 through follow-up. These differences had a large effect size of over $d = 1.40$, indicating noticeable changes in self-esteem scores. However, it is important to note that there was *not* a statistically significant increase in self-esteem scores from Time 1 through Time 4, indicating that receiving assessment feedback of either style did not significantly improve or change self-esteem from pre-treatment to post-treatment, just that self-esteem *changed* over the course of treatment. This result indicates that giving assessment feedback in and of itself did not change self-esteem, only that the passage of time appeared to change self-esteem.

Hypothesis 2. Contrary to prediction, the hypothesis that the type of personality assessment feedback that participants received would interact with symptoms over time was not proven. The different types of assessment feedback did not produce significant differences on symptom distress, interpersonal relations, social role, and the global measure of symptoms from pre-treatment to follow-up (Time 1 through Time 4). This result indicated that the two feedbacks ultimately had no detectable influence on symptom distress, interpersonal relations, or social role, despite the differences in the manner in which feedback was given.

Hypothesis 3. Contrary to prediction, the hypothesis that whether participants received personality assessment feedback or not would interact with self-esteem over time was not proven. When the feedback and no feedback groups were compared for self-esteem scores, there was not a statistically significant difference between the self-esteem

scores of the two groups. However, there was a significant main effect for self-esteem scores over time. When *all* participants were evaluated in aggregate, there were two changes evident in mean self-esteem scores. From Time 1 to Time 2, there was a statistically significant mean *decrease* in self-esteem scores, followed by a statistically significant mean *increase* in self-esteem scores from Time 2 to Time 3. When all the participants are evaluated together, the participants show a drop in self-esteem, regardless of whether they received treatment or not, and then an increase in self-esteem over the next week. One possible explanation of this phenomenon is that immediately following Time 1 and previous to Time 2, all participants, regardless of whether they were assigned to a feedback or control group, completed the MMPI-2. The act of taking a personality test such as the MMPI-2 may have evoked disturbing feelings or thoughts in clients that may have caused a temporary decrease in self-esteem, which subsequently returned to baseline level a week later. This premise would address the significant drop and subsequent increase in self-esteem that all participants experienced, regardless of receiving feedback or not.

Hypothesis 4. Contrary to prediction, the hypothesis that whether participants received personality assessment feedback or not would interact with symptoms over time was not proven. There were not significant differences between the participants who received assessment feedback versus the participants in the control group for symptom distress, interpersonal relations, social role, and the global measure for symptoms from Time 1, to Time 3.

Summary for self-esteem and symptoms (Hypotheses 1 – 4). The overall non-significant results for the effects of therapeutic assessment on self-esteem and symptoms

are in contrast to the findings of Finn and Tonsager (1992), who found that therapeutic assessment significantly improved self-esteem and symptoms. The lack of differences between assessment feedback and no feedback on self-esteem and symptoms, and the non-significant results for the differences between the interactive and delivered feedback styles on self-esteem and symptoms suggests some possibilities: that neither of the two feedback styles detectably influence symptom distress or self-esteem, and giving assessment feedback does not produce better symptom outcome or self-esteem than no feedback. For example, although the two styles differ during the feedback session, the first and third sessions are identical, reducing the possible differential impact on clients. Furthermore, there are two issues of importance in respect to these non-significant results: the possibility that the participants were not in sufficient emotional distress to show statistically significant improvement in their symptom scores, and/or the possibility that the OQ-45-2 was not sensitive to change for university counseling center students, or the small sample size for these analyses reduced the symptom differences between the groups to imperceptible levels.

To address the concern regarding the sensitivity of the OQ-45.2, we compared the OQ-45.2 scores with the reference samples. The mean OQ-45.2 Total Score for all participants in the sample at pretreatment was 69.4, and a comparison sample of University Counseling Center students had an OQ-45.2 Total Score of 75.2. A clinical sample of inpatients had OQ-45.2 Total Scores of 88.8, and a “normal” sample of undergraduate students showed OQ-45.2 Total Scores ranging from 42.2 to 51.3 (Lambert, et al., 1996). A one-sample two-tailed *t*-test comparing the study total score mean with the reference sample total score mean indicated there was not a statistically

significant difference between the pretreatment total score mean in this study and the reference total score mean: $t(32) = -1.42, p = .17$. Although the pre-treatment scores for this sample *appeared* lower than the comparison sample of university counseling center students, there was not a significant difference between the sample scores. To address the sensitivity of the OQ-45.2, specifically with college students seeking treatment, Vermeersch et al. (2004) examined this issue and found that for university counseling center students who received treatment and psychotherapy, the OQ-45.2 did show sensitivity to change with college students seeking treatment on most of the items of the measure at a statistically significant level, when a very large sample pool was utilized (5000+). However, the average effect size in the Vermeersch and colleagues study was in the moderate to low range, despite the very large sample size. In the present investigation, effect sizes for the interaction of symptoms/self-esteem with treatment group were moderate to large, despite not being significant. Thus, the sample of participants in the present study may not have been in sufficient emotional distress, or the sample may not have been large enough to evaluate the efficacy of the effects of therapeutic assessment feedback on symptom distress. It is of importance to note that Finn and Tonsager (1992) utilized the SCL-90-R as their symptom measure, which may also have impacted the results. Although the SCL-90-R and the OQ-45.2 are correlated as measures of symptoms distress (Lambert et al., 1996) the SCL-90-R, with double the items, may be more sensitive at detecting changes in symptom distress. Therefore, this difference in the study design may also have contributed to the non-significant results that were present in this study.

Hypotheses 5 – 10: Session Impact, Counselor Influence, and Satisfaction with the Assessment

Hypotheses 5. Consistent with prediction, the hypothesis that clients who received interactive feedback would report higher ratings of session impact at Session 2 than clients who received delivered feedback was proven. Clients who received interactive feedback reported significantly more Depth, Positivity, and Arousal than clients who received delivered feedback. All areas had concurrent large effect sizes, indicating that the size of the difference was noticeable. This result suggests that the clients in the interactive feedback group experienced the feedback session as being more powerful, valuable, and special, and having more depth as compared to clients in the delivered feedback group. Additionally, the types of feedback differentially impacted post-session mood: clients in the interactive group rated the feedback session more positively and with significantly more arousal than clients in the delivered group. Interactive clients reported feeling more energetic, happy, friendly, and confident than delivered clients after Session 2. However, there was not a statistically significant difference between the two feedbacks for Session 2 Smoothness, although there was a moderate to large effect size in the direction of the interactive group.

Hypothesis 6. Contrary to prediction, the hypothesis that clients who received interactive feedback would report higher ratings of counselor influence than participants who received delivered feedback at Time 2 (Session 2) was not proven. For Counselor Influence, there was not a statistically significant difference between the two feedbacks, with a concurrently small effect size. This result indicated that for the feedback session,

clients in the two feedback groups perceived counselors as equally expert, interpersonally attractive, and trustworthy, despite the difference in the way feedback was delivered.

Hypothesis 7. Consistent with the prediction, the hypothesis that participants who received interactive feedback would report higher ratings of the assessment than participants who received delivered feedback at Time 2 (Session 2) was proven. The type of feedback given significantly affected how the clients rated the feedback session. Clients who received the interactive style of feedback indicated greater Overall Satisfaction with the assessment than clients who received the delivered style of feedback, with a concurrently large effect size. This result indicated that clients in the interactive group felt that they had their self-views verified; the feedback session contained more positive accurate mirroring of their feelings; they felt proud, secure, and more positive; the assessment produced more useful information; the assessment encouraged a better relationship with the counselor; and the assessment produced fewer negative feelings than clients in the delivered group.

Hypothesis 8. Consistent with prediction, the hypothesis that participants who received *interactive* feedback would report higher ratings of session impact than participants who received *delivered* feedback at Time 3 (Session 3) was partially proven. In Session 3, there were statistically significant differences between the two feedback groups for two scales of Session Impact, although during this session, the feedback protocols *did not differ*. These differences indicated that the clients in the interactive group perceived more Depth and Smoothness in this session than clients in the delivered feedback group, with concurrently large effect sizes. This result indicated that interactive clients perceived that the follow-up session had more depth, was more powerful,

valuable, smoother, pleasant, and comfortable than delivered clients. However, clients in the interactive and delivered groups did not report significant differences for post-session mood (Positivity and Arousal) although effect sizes showed moderate to large differences in the direction of the interactive group.

Hypothesis 9. Consistent with prediction, participants in the interactive feedback group rated the counselors significantly higher for total Counselor Influence than participants in the delivered group for Session 3, with a concurrently large effect size. This result indicated that the interactive participants perceived the counselors as more expert, attractive, and trustworthy than the delivered participants in Session 3. These differences in ratings are in spite of the fact that in the Session 3, there was no *actual* difference between the feedback protocols, and there were no differences detected for counselor influence in the Session 2.

Hypothesis 10. Contrary to prediction, there was not a statistically significant difference between the interactive and directive groups overall satisfaction with the assessment, despite a concurrent large effect size in favor of the interactive group. This result indicates that when clients were evaluating the assessment, the positive impact of that evaluation was only present for the actual session that the feedback was given in.

Summary for Session Impact, Counselor Influence, and Satisfaction with the Assessments (Hypotheses 5 – 10). Overall, these outcomes showed that the interactive style of feedback not only positively impacted the actual session when it was performed, but influenced the participants' perceptions of the counselor in the following session. Results suggest that on measures of the therapeutic process the interactive feedback style positively impacted clients when compared to the delivered style of feedback. It appears

that encouraging clients to engage and interact with the counselors specifically during the feedback portion of the assessment had positive effects on how the clients felt the session affected them, on their post-session mood, on how they perceived attributes of the counselors, and on their overall satisfaction with the assessment. It was also interesting to note that although the true differences in feedback styles were in Session 2, these differences in feedback influenced clients' perceptions of counselors in the next session. These results were generally consistent with previous research on the different effects of these two interpretation styles (Finn & Tonsager, 1992; Hanson et al., 1997). Several explanations may account for the mechanisms for the way the clients' perceptions were influenced, including the ELM, counselor influence theory, and Swann's self-verification theory. For example, it may be that through the process of collaboration on the feedback, the mechanisms of the ELM were utilized. For instance, in the interactive style of feedback, clients were asked to recall the questions that they had decided on for the feedback session, they were asked to verify or refute findings, they were asked to apply findings to their own life, and they were asked to summarize the findings just discussed. In contrast, the delivered clients had feedback delivered to them, with minimal collaboration, the counselor read the questions to them, and the counselor summarized the findings for them at the end of the session. Theoretically, this act of effortful cognitive processing and elaboration in the interactive feedback style may make the information received in the feedback session more understandable, relevant, and useful to the client. This effortful cognitive processing then in turn results in central route processing that creates change. These cognitive mechanisms then result in more positive evaluation of the information, as well as a more positive evaluation of the influence

process (Petty & Cacioppo, 1986; Petty, Cacioppo, & Kasmer, 1988). The ELM may then explain why the interactive clients rated session impact and post-session mood higher than the delivered clients.

The social influence perspective of counseling may explain how therapeutic intervention increases clients' positive perceptions of the counselors. The social influence perspective posits that client changes in the counseling process are the result of the counselor's influential impact on the client. The counselor characteristics of expertness, trustworthiness, and interpersonal attractiveness have been attributed to positive client change (Claiborn & Hanson, 1999; Freeman, 1989; Grimes & Murdock, 1989; Heppner & Claiborn, 1989; Lacrosse, 1980). The interactive clients perceived their counselors as more socially influential (expert, attractive, and trustworthy) than delivered clients in the third session. It appears that the way feedback was delivered in the *previous* session contributed to the perceived social power of the counselors in later sessions. The act of involving clients in the feedback process by encouraging collaboration and participation combined with at least three hours of session contact (by the end of the third session) increased positive perception of the counselor, whereas when counselors did not encourage client participation or collaboration, perception of the counselor was less positive. Perhaps Hanson et al. (1997) stated this phenomenon best "...it seems that counselors who attempt to involve clients in the interpretive process – acknowledging the clients' expertise in collaborating with them - are perceived as more influential than counselors who do most of the interpreting themselves (p. 404).

Clients reported that they felt more self-verified when they were given feedback in an interactive style versus a delivered style. These results may partially correspond

with Swann's self-verification theory (1983), which proposes that people seek feedback from others that fits their own conceptions of themselves, whether the information is positive or negative. Although individuals generally want to be praised and feel valued by other people, they also want others to see them as they see themselves, and this desired for self-verification may override the desire for positive self-enhancing feedback. The act of being able to participate in the feedback session when information about their test results was given to the clients, versus being told the results with minimal client participation, may have given the interactive clients an opportunity to verify their feelings and thoughts to themselves. For example, interactive clients are asked to modify and verify findings during the feedback session, and asked to give examples from their own life. These actions of modifying and verifying the results may make the test feedback less discrepant and more self-verifying to the interactive clients.

Hypothesis 11: The Open-Ended Survey

The administration of the open-ended survey attempted to ask direct questions of the clients regarding how helpful they felt the experience was, what they would change about the experience, and whether they would participate in personality assessment in the future. It is important to note that the analysis of the answers on the open-ended survey was exploratory and was impeded by the small sample size. Significant results were not found for the analyses of the answers on the open-ended survey. However, there were moderate to large effect sizes for some of the analyses, in favor of the interactive group. These moderate to large effect sizes were found for accuracy of recounting the feedback process and amount of negative words written. These questions and analyses may be fertile future areas of research, especially utilizing a larger sample size. Small effect sizes

were found for the analyses for the length of the answers relating to what about the experience was helpful or not helpful, amount of positive words written, and the number of suggestions given, indicating that these specific areas may not be productive spheres for further research.

This study investigated whether participants would be interested future personality assessment. Due to the small sample size, no statistical analysis of this analysis was performed. However, by examining the percentages of yes/no answers to this question in each group and both groups together, we can glean some important information. For the interactive group, 85% stated that they would participate in personality assessment in the future. Of the delivered group, 66 % stated that they would participate in personality assessment in the future. Overall, 77% of the participants from both of these groups (10 out of 13) stated that they would participate in personality assessment again. This result suggested that generally, participants felt that the experience was useful, important, and satisfactory, and personality assessment could be useful in the future.

There were slightly different results when participants were asked about the likeliness of continuing or seeking therapy/counseling when keeping this experience of personality assessment in mind. Due to the small sample size, statistical analysis was not performed in this area, thus percentages of the yes/no answers to this question were examined. In the interactive group, approximately 57 % of participants stated they would seek or continue counseling after this experience. In the delivered group, approximately 67 % stated they would seek or continue counseling, keeping this experience in mind. Overall, 61.5 % (8 out of 13) of the participants in both feedback groups combined stated

that they would continue to stay in counseling or seek therapy after this experience with personality assessment. Examining specifically the text of the answers of those participants who said they were unwilling to participate in counseling, the answers consisted of “therapy does no good; my life was far too complex for any counselor to help me with my problems,” “I don't think I would talk to a counselor unless I had problems,” and “(this was) not helpful for therapy.” It was interesting to note that these particular participants seemed to not equate their experience(s) therapeutic personality assessment with counseling or therapy.

Themes in answers. A theme that was repeated in answers from several questions from the participants in the interactive and delivered groups was that the third session was not needed or not useful. Comments regarding positive aspects of the experience mentioned that the results were confirmatory, and helped participants gain new insights. However, participants did mention some negatives, specifically feeling that the results of the assessment were overly negative. When participants were asked about what about the process had changed them, several participants stated that the process did not change them. The participants that did report the process changed them stated that the process/treatment gave them a more positive image of counseling, they were more likely to go to a counselor, they felt enlightened, they knew that they were “normal,” and “knowing how my actions affected others.” Overall the answers in the survey generally revealed that participants had a lot of positive feelings about the experience, had some negative thoughts, and felt the process could be likely improved by not having the third session.

Limitations of this Study

Limitations of the present study included low power, a small sample size, and a significant drop-out rate, due mostly to invalid MMPI-2 profiles. Finally, limited therapist and participant samples in ethnicity and gender composition were an additional limitation.

Statistical power. Power in any study is related to several variables: sample size, the type of statistical test being used, strength or size of the effect, significance criteria, and whether directional or non-directional statistical tests are used (Cohen, 1962, 1988, 1992). Manipulating power by manipulating sample size is the often most accessible power manipulation to an experimenter. To ensure the adequate power of .80 as defined by Cohen (1992), he recommended minimum sample sizes for experiments. For example, to achieve power of .80, if one has independent variables with an expected medium effect on the dependent variable(s), using independent *t*-tests, Cohen (1992) recommends 64 participants *in each cell* with a non-directional significance criterion of .05. For a treatment study that was relying not on convenience samples but clinical samples (samples that are appropriate for counseling, psychological assessment, and psychological treatment) as this study did, recruiting 128 participants for two cells would produce significant challenges that may be difficult to overcome, and would be potentially prohibitive for such research to be conducted. In response to Cohen, other researchers have recommended manipulating the independent variable to stronger or more powerful levels, or examining what the importance of the effect is, i.e., when small effects are important (see Jacobson, Roberts, Berns, & McGlinchey, 1999; and Prentice & Miller, 1992, for further discussions on this topic).

Sample size. The sample size in the present study was small, with a total of 33 participants for three groups. This effectively limited the power in some of the analysis, specifically in the analysis of the outcome variables, and the analyses at Time 4 (follow-up). Small sample size in the present study consequently resulted in an increased Type II error, or the increased chance that due to the small sample size, a resulting difference in the outcome variables from the differing treatments was not detected.

Early termination issues. It was important to note that several of the participants dropped out of the study before completing feedback and follow-up. It appeared at first glance that one-third of the participants dropped out of treatment. However, a closer look at the reasons for drop-out provided some valuable information. Although only about two-thirds (67%) of the participants finished all aspects of the study of treatment through follow-up measures, when determining specifically what percentage of the participants actually completed at least treatment, the percentage increased to about 76%. When examining the reasons for participant attrition, five participants were unable to complete the study due to having MMPI-2 profiles that were invalid (15%). Only three participants (9%) chose not to continue or were not able to continue on in the study for other reasons. It was interesting to observe that of the participants who completed treatment but did not complete the one-month follow-up, all were in the delivered feedback group. Otherwise, there was no difference between the two feedback groups in rates of attrition. It was also evident that in this study, true drop-out during feedback was relatively small (3 out of 33 participants).

Ethnicity and gender of the sample. Finally, it was important to note the make-up of the actual sample in terms of ethnicity and gender. The majority of the participants in

the present study were of White, Non-Hispanic background (81%), and most were female (78%). Although reflective of the referral sources in this study, this also limited the generalizability of this study in terms of addressing the needs of a broader, more general population and diverse clientele.

Implications for Clinicians

Although tentative, the present study supported the premise that counselors should consider how they deliver MMPI-2 feedback to their clients, with an interactive style of assessment feedback most likely to positively influence a client's perception of the counselor, session and assessment. This style encourages the client to participate in the integration of the assessment results with examples in their life. It appeared that these interactive participants had less negative feelings about the assessment itself, found the assessment overall more favorable, and rated the counselors doing interactive feedback more favorably than the delivered participants. However, if the identified purpose of feedback was primarily to improve symptoms of distress or self-esteem, results from the present study suggested that there were no differences when giving feedback in a directive, delivered manner, as opposed to giving feedback in an interactive manner.

It is important to note that the results suggested that the self-esteem scores dropped after all the participants took the MMPI-2, and then improved a week later. One possible explanation was that the process of taking the MMPI-2 for persons seeking feedback may cause a *temporary* decrease in self-esteem, possibly due to the nature of questions on this instrument, and the subsequent thoughts and feelings that they evoke for clients.

Recommendations for Future Research

Results from the present study highlight the importance of exploring the manner in which clinicians provide assessment feedback to clients. It is recommended that future research pursue the question of examining the differences between these two models (delivered and interactive) by increasing the sample size of the participant pool, thus increasing power. Additionally, expanding the participant pool to include more of a variety of clientele could be revealing. It may be helpful to include participants who are referred from inpatient services, EAP referrals, and medical settings, as well as more gender-diverse and ethnically diverse clients. It may also be valuable to vary the amount of sessions; for example, comparing outcome and process variables when employing two versus three sessions, as many of the participants stated that the third session was not needed. Further exploration of assessment feedback models using qualitative tools, such as written, open-ended questions or qualitative interviews, should be investigated, as this may reveal more data about the experience of clients with assessment and feedback. Finally, although this study utilized a widely used measure of personality, e.g., the MMPI-2, utilizing other personality measures (e.g. the Millon Clinical Multiaxial Inventory-III or Personality Assessment Inventory) would be recommended to explore the effects of feedback.

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APPENDICES

APPENDIX A

Measures, Demographic Forms, Consent Form

C# _____
S: 1 2 3 4

Counselor Information Sheet

Name: _____

Age: _____

Sex: _____ M _____ F

Race/Ethnicity:

_____ African American/African Origin

_____ American Indian/Alaskan Native

_____ Asian American/Pacific Islander

_____ Biracial/Multiracial

_____ European American

_____ Hispanic/Latino (a)

How many graduate-level practicum/field placement classes have you completed:

Approximately how many supervised, program-sanctioned practicum hours have you completed: _____

How many graduate-level psychological assessment classes have you completed: _____

What is your primary theoretical orientation:

_____ Behavioral

_____ Cognitive Behavioral

_____ Eclectic

_____ Humanistic/Existential

_____ Integrative

_____ Interpersonal

_____ Psychodynamic

_____ Systems

_____ Other (Specify): _____

Demographic Information Sheet

Client # _____

Age _____

Gender:

_____ Male

_____ Female

Ethnic Identity:

_____ White/Non-Hispanic

_____ African-American

_____ Asian-Pacific Islander

_____ Native American

_____ Hispanic-Latino-(a)

_____ Other (specify) _____

Referring Agency:

_____ University Counseling Center

_____ Learning Assistance Center

_____ Psychological Services Center

_____ Other (specify) _____

Instructions for the Assessment Questionnaire

In the following questionnaire, you will be asked to rate your thoughts and feelings about the assessment.

On the next page are a list of statements. Please read each one carefully and think about the assessment. Then decide how much you agree or disagree with each statement, according to how you are feeling right now. Use the scale below to rate each statement:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Once you decide how much you agree or disagree with a statement, circle the number that best matches how the statement applies to you. For example, if you strongly agree with the statement, you would then circle

1 2 3 4 5

Please do not skip any item and circle only one number for each statement

Client ID _____

Date: _____

Assessment Questionnaire

	Strongly Disagree			Strongly Agree		
1. The assessment did not teach me anything new about myself.	1	2	3	4	5	
2. The assessment made me proud of who I am.	1	2	3	4	5	
3. The assessor earned my respect.	1	2	3	4	5	
4. I felt I was under a microscope.	1	2	3	4	5	
5. The assessor introduced me to new aspects of myself.	1	2	3	4	5	
6. The assessment made me feel good about myself.	1	2	3	4	5	
7. It was easy to trust the assessor.	1	2	3	4	5	
8. The assessment hurt me.	1	2	3	4	5	
9. I gained a new understanding of myself.	1	2	3	4	5	
10. The assessment captured the "real" me.	1	2	3	4	5	
11. The assessor seemed to like me.	1	2	3	4	5	
12. The assessment was unsettling to me.	1	2	3	4	5	
13. The assessment confirmed parts of me that I had only suspect.	1	2	3	4	5	
14. The assessor said nice things about me.	1	2	3	4	5	
15. I felt very close to the assessor.	1	2	3	4	5	
16. The assessment was a humiliating and degrading experience.	1	2	3	4	5	
17. The assessment made me think of myself.	1	2	3	4	5	
18. The assessment made me feel important.	1	2	3	4	5	

	Strongly Disagree			Strongly Agree	
19. The assessor treated me warmly.	1	2	3	4	5
20. The assessment was emotionally draining.	1	2	3	4	5
21. I'm more aware of how I behave with other people.	1	2	3	4	5
22. I felt special.	1	2	3	4	5
23. I really connected with the assessor.	1	2	3	4	5
24. At times during the assessment, I felt like I did when I was a child.	1	2	3	4	5
25. The assessment helped me organize my thoughts about myself.	1	2	3	4	5
26. The assessment confirmed how I see myself.	1	2	3	4	5
27. I liked the assessor.	1	2	3	4	5
28. The assessment made me feel that my life is nothing but problems.	1	2	3	4	5
29. I have changed the way I think about my problems.	1	2	3	4	5
30. I feel more sure of who I am.	1	2	3	4	5
31. The assessor was interested in what I had to say.	1	2	3	4	5
32. I felt judged by the assessor.	1	2	3	4	5
33. I am more aware of how I am feeling.	1	2	3	4	5
34. I felt my strengths were recognized.	1	2	3	4	5
35. The assessor treated me as an equal.	1	2	3	4	5
36. The assessor made me feel inadequate.	1	2	3	4	5
37. The assessment will make a difference in my upcoming decision.	1	2	3	4	5

	Strongly Disagree			Strongly Agree	
38. The assessment made me think about where I am headed in my life.	1	2	3	4	5
39. I felt that the assessor respected me.	1	2	3	4	5
40. The assessor insulted me.	1	2	3	4	5
41. I m more aware of why people react to me the way they do.	1	2	3	4	5
42. I know that how I see myself is really true.	1	2	3	4	5
43. The assessor and I worked as a team to learn more about me.	1	2	3	4	5
44. I felt exposed.	1	2	3	4	5
45. I came to think of myself as I never had before.	1	2	3	4	5
46. The assessment described thoughts and feelings I have about myself.	1	2	3	4	5
47. The assessor was on my side.	1	2	3	4	5
48. The assessment made me rethink the way I already viewed myself	1	2	3	4	5

CRF-LF

Please rate the counselor you just saw using the following example.

If you believe that the counselor was just like the word at one end of the scale, place a check mark as follows:

fair ____ : ____ : ____ : ____ : ____ : ____ : X unfair

OR

fair X : ____ : ____ : ____ : ____ : ____ : ____ unfair

If you believe that one end of the scale just about describes the counselor, then make your check mark as follows:

rough ____ : X : ____ : ____ : ____ : ____ : ____ smooth

OR

rough ____ : ____ : ____ : ____ : ____ : X : ____ smooth

If you believe that one end of the scale very little describes the counselor, then check the scale as follows:

active ____ : ____ : X : ____ : ____ : ____ : ____ passive

OR

active ____ : ____ : ____ : ____ : X : ____ : ____ passive

If both sides of the scale seem equal, then place a check mark in the middle space:

hard ____ : ____ : ____ : X : ____ : ____ : ____ soft

Note: Place check marks in the middle of the spaces.

CRF-LF

- | | | | |
|-----|----------------|---|----------------|
| 1. | agreeable | _____ : _____ : _____ : _____ : _____ : _____ : _____ | disagreeable |
| 2. | unalert | _____ : _____ : _____ : _____ : _____ : _____ : _____ | alert |
| 3. | scientific | _____ : _____ : _____ : _____ : _____ : _____ : _____ | unscientific |
| 4. | appreciative | _____ : _____ : _____ : _____ : _____ : _____ : _____ | unappreciative |
| 5. | attractive | _____ : _____ : _____ : _____ : _____ : _____ : _____ | unattractive |
| 6. | casual | _____ : _____ : _____ : _____ : _____ : _____ : _____ | formal |
| 7. | cheerful | _____ : _____ : _____ : _____ : _____ : _____ : _____ | depressed |
| 8. | vague | _____ : _____ : _____ : _____ : _____ : _____ : _____ | clear |
| 9. | distant | _____ : _____ : _____ : _____ : _____ : _____ : _____ | close |
| 10. | compatible | _____ : _____ : _____ : _____ : _____ : _____ : _____ | incompatible |
| 11. | unsure | _____ : _____ : _____ : _____ : _____ : _____ : _____ | confident |
| 12. | suspicious | _____ : _____ : _____ : _____ : _____ : _____ : _____ | believable |
| 13. | undependable | _____ : _____ : _____ : _____ : _____ : _____ : _____ | dependable |
| 14. | unenthusiastic | _____ : _____ : _____ : _____ : _____ : _____ : _____ | enthusiastic |
| 15. | inexperienced | _____ : _____ : _____ : _____ : _____ : _____ : _____ | experienced |
| 16. | inexpert | _____ : _____ : _____ : _____ : _____ : _____ : _____ | expert |
| 17. | unfriendly | _____ : _____ : _____ : _____ : _____ : _____ : _____ | friendly |
| 18. | honest | _____ : _____ : _____ : _____ : _____ : _____ : _____ | dishonest |
| 19. | informed | _____ : _____ : _____ : _____ : _____ : _____ : _____ | ignorant |
| 20. | insightful | _____ : _____ : _____ : _____ : _____ : _____ : _____ | insightless |
| 21. | stupid | _____ : _____ : _____ : _____ : _____ : _____ : _____ | intelligent |

- | | | | |
|-----|---------------|---|-----------------|
| 22. | unlikable | _____ : _____ : _____ : _____ : _____ : _____ : _____ | likable |
| 23. | logical | _____ : _____ : _____ : _____ : _____ : _____ : _____ | illogical |
| 24. | open | _____ : _____ : _____ : _____ : _____ : _____ : _____ | closed |
| 25. | prepared | _____ : _____ : _____ : _____ : _____ : _____ : _____ | unprepared |
| 26. | unreliable | _____ : _____ : _____ : _____ : _____ : _____ : _____ | reliable |
| 27. | disrespectful | _____ : _____ : _____ : _____ : _____ : _____ : _____ | respectful |
| 28. | irresponsible | _____ : _____ : _____ : _____ : _____ : _____ : _____ | responsible |
| 29. | selfless | _____ : _____ : _____ : _____ : _____ : _____ : _____ | selfish |
| 30. | sincere | _____ : _____ : _____ : _____ : _____ : _____ : _____ | insincere |
| 31. | skillful | _____ : _____ : _____ : _____ : _____ : _____ : _____ | unskillful |
| 32. | sociable | _____ : _____ : _____ : _____ : _____ : _____ : _____ | unsociable |
| 33. | tricky | _____ : _____ : _____ : _____ : _____ : _____ : _____ | straightforward |
| 34. | trustworthy | _____ : _____ : _____ : _____ : _____ : _____ : _____ | untrustworthy |
| 35. | genuine | _____ : _____ : _____ : _____ : _____ : _____ : _____ | phony |
| 36. | warm | _____ : _____ : _____ : _____ : _____ : _____ : _____ | cold |

SEQ

Please place an “X” on each line to show how you feel about this session.

This session was:

bad	_____ : _____ : _____ : _____ : _____ : _____ : _____	good
safe	_____ : _____ : _____ : _____ : _____ : _____ : _____	dangerous
difficult	_____ : _____ : _____ : _____ : _____ : _____ : _____	easy
valuable	_____ : _____ : _____ : _____ : _____ : _____ : _____	worthless
shallow	_____ : _____ : _____ : _____ : _____ : _____ : _____	deep
relaxed	_____ : _____ : _____ : _____ : _____ : _____ : _____	tense
unpleasant	_____ : _____ : _____ : _____ : _____ : _____ : _____	pleasant
full	_____ : _____ : _____ : _____ : _____ : _____ : _____	empty
weak	_____ : _____ : _____ : _____ : _____ : _____ : _____	powerful
special	_____ : _____ : _____ : _____ : _____ : _____ : _____	ordinary
rough	_____ : _____ : _____ : _____ : _____ : _____ : _____	smooth
comfortable	_____ : _____ : _____ : _____ : _____ : _____ : _____	uncomfortable

Right now I feel:

happy	_____ : _____ : _____ : _____ : _____ : _____ : _____	sad
angry	_____ : _____ : _____ : _____ : _____ : _____ : _____	pleased
active	_____ : _____ : _____ : _____ : _____ : _____ : _____	still
uncertain	_____ : _____ : _____ : _____ : _____ : _____ : _____	definite
involved	_____ : _____ : _____ : _____ : _____ : _____ : _____	detached
calm	_____ : _____ : _____ : _____ : _____ : _____ : _____	excited
confident	_____ : _____ : _____ : _____ : _____ : _____ : _____	afraid
alert	_____ : _____ : _____ : _____ : _____ : _____ : _____	sleepy
friendly	_____ : _____ : _____ : _____ : _____ : _____ : _____	unfriendly
slow	_____ : _____ : _____ : _____ : _____ : _____ : _____	fast
joyful	_____ : _____ : _____ : _____ : _____ : _____ : _____	joyless
quiet	_____ : _____ : _____ : _____ : _____ : _____ : _____	aroused

C# _____
S: 1 2 3 4

RSES

Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle 1. If you agree with the statement, circle 2. If you disagree, circle 3. If you strongly disagree, circle 4.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

- | | | | | |
|---|---|---|---|---|
| 1. On the whole I am satisfied with myself. | 1 | 2 | 3 | 4 |
| 2. At times I think I am no good at all. | 1 | 2 | 3 | 4 |
| 3. I feel that I have a number of good qualities. | 1 | 2 | 3 | 4 |
| 4. I am able to do things as well as most other people. | 1 | 2 | 3 | 4 |
| 5. I feel that I do not have much to be proud of. | 1 | 2 | 3 | 4 |
| 6. I certainly feel useless at times. | 1 | 2 | 3 | 4 |
| 7. I feel that I'm a person of worth, at least on an equal plane with others. | 1 | 2 | 3 | 4 |
| 8. I wish I could have more respect for myself. | 1 | 2 | 3 | 4 |
| 9. All in all, I am inclined to feel that I am a failure. | 1 | 2 | 3 | 4 |
| 10. I take a positive attitude toward myself | 1 | 2 | 3 | 4 |

Final Questionnaire

1. Describe the process that you completed. You can use as much or as little description/detail as you would like.

2. Describe what about this experience that was helpful and positive for you.

3. Describe what about his experience was not helpful or positive for you.

4. What would improve this process for you? (What would be more helpful in the future)?

- 5. How likely would you be to participate in a personality assessment in the future?**

Why or why not?

- 6. Keeping this experience in mind, are you likely to participate in personal counseling (group or individual) in the future?**

Or if you are in counseling was this experience helpful for you in therapy?

How?

7. What about this experience has affected your life?

Colorado State University

Informed Consent to Participate in a Research Project

Title of Project: The MMPI-2 and Client Feedback: A Qualitative and Quantitative Investigation of Feedback Models

Principal Investigator: Tammi Vacha-Haase, Ph.D.

Co-Investigator: Muna El-Shaieb, M.A.

Contact Name and Phone Number for Questions/Problems:

Tammi Vacha Haase, Ph.D. XXX XXX XXXX

Muna El-Shaieb, M.A. XXX XXX XXXX

Julie Kellaway, B.A. XXX XXX XXXX

Purpose of the Research:

You are invited to participate in a research study of personality interpretation. The aim of the research is to explore how different types of personality interpretation can be helpful to client in counseling. Eligibility requirements for this study include being 18 years or older and seeking counseling. If you are eligible for the study and choose to participate, you will be asked to do the following:

Procedures/Methods to be Used:

First, you will be assigned to a feedback that includes up to three individual counseling sessions. Due to circumstances including availability of counselors, you may be asked to wait for feedback for a few weeks. If this is the case, you will be asked to complete two brief questionnaires that are about how you are feeling on a weekly basis while you are waiting for feedback. Completion of these questionnaires should take less than 20 minutes. Although your wait may be up to six weeks, you will have the opportunity to complete the assessment measure and receive the personality interpretation feedback.

Second, you will be asked to complete the MMPI-2 (the current version of the Minnesota Multiphasic Personality Inventory) a well-known and widely used measure of personality, distress, and coping. The MMPI-2 usually takes about 1 ¼ to 1 ½ hours to complete.

Third, you will be asked to attend counseling sessions and fill out several brief questionnaires. The sessions will focus on your goals for self-understanding and on your assessment results and their implications for you. You will be asked to attend 3 counseling sessions, one week apart. Each session last about 45-50 minutes. At the end of each session, we will ask you to complete 4 questionnaires, taking a total of about 30 minutes. One is about what you think of the assessment; one is about how you feel about yourself; one rates your counselor, and one is about how you rated the counseling session. One month after the sessions, we will re-contact you to complete several questionnaires. Two questionnaires will ask about how you are feeling, and one questionnaire has open-ended questions about what you liked and disliked about the experience. This follow-up should take about 30 minutes. After the study is over, you may request additional sessions, should you want to explore your results further.

Page 1 of 3

Participants Initials _____

Date _____

To ensure that the personality interpretation is being performed as accurately as possible, the sessions are videotaped. Videotapes will be destroyed (erased) at the end of the study.

The counselors in the study are advanced graduate students in counseling psychology. They are experienced in working with clients; they have been specially trained in MMPI-2 interpretation; and are supervised by Dr. Tammi Vacha-Haase, a licensed psychologist.

Benefits:

The benefits of participating in the research include receiving a complete MMPI-2 interpretation in the context of a counseling relationship in which the results can be discussed and applied to areas of your life. In addition, the services you receive as part of the study are free of charge.

Risks Inherent in the Procedures:

Possible risks of participating in the research include the distressing feeling sometimes associated with taking the MMPI-2, as well as those that can occur in any counseling or personality interpretation situation. You are encouraged to discuss any of the feelings you experience with your counselor. It is also important that any personality interpretation, including those based on the MMPI-2, can contain some error. If you feel that this is the case, you should discuss this with your counselor. It is not possible to identify all potential risks in research procedures, but the researchers have taken reasonable safeguards to minimize any known and potential, but unknown, risks. If you feel you need further mental health counseling, you will be referred to the University Counseling Center or the Psychological Services Center. The University Counseling Center provides feedback that is free to full fee-paying Colorado State University students for the first 5 sessions. The Psychological Services Center provides feedback to community members according to a sliding scale fee.

Confidentiality:

All of the information you provide in the course of the study will be maintained by the researchers in the strictest confidence. Even your counselor will not have access to your questionnaire responses, except for the MMPI-2. Data from the study will be analyzed and presented in group form only and no individual identifiers will be included.

You may direct any questions you have about the research- either now or at any time- to Tammi Vacha-Haase, Ph.D., principal investigator at XXX XXX-XXXX; or to Muna El-Shaieb, M.A., co- investigator, at XXX XXX-XXXX.

Liability:

The Colorado Governmental Immunity Act determines and may limit Colorado State University's legal responsibility if an injury happens because of this study. Claims against the University must be filed within 180 days of the injury.

Questions about participants' rights may be directed to Celia S. Walker at (970) 491-1563.

Participation:

Participation in the research is voluntary. You may choose not to participate, and you may withdraw from the study at any time and it will not affect the counseling you receive or with any penalty or loss of benefits to which you are otherwise entitled.

Your signature acknowledges that you have read the information stated and willingly sign this consent form. Your signature also acknowledges that you have received, on the date signed, a copy of this document containing 3 pages.

Participant Name (printed)

Participant Signature

Date

Witness to Signature (project staff)

Date

APPENDIX B
Reliability Tables

Table 19

Rosenberg Self-Esteem Scale Internal Consistency Coefficients

<u>Administration</u>	<u>Alpha</u>
Time 1	.90
Time 2	.86
Time 3	.85
Time 4	.86

Table 20

Outcome Questionnaire 45.2 Internal Consistency Coefficients

Scale				
	Symptom Distress	Interpersonal Relations	Social Role	Total Score
<u>Administration</u>	<u>Alpha</u>	<u>Alpha</u>	<u>Alpha</u>	<u>Alpha</u>
Time 1	.91	.75	.69	.92
Time 2	.89	.74	.70	.90
Time 3	.90	.73	.68	.91
Time 4	.89	.70	.69	.90

Table 21

Session Evaluation Questionnaire Internal Consistency Coefficients

	Scale			
	Depth	Smoothness	Positivity	Arousal
<u>Administration</u>	<u>Alpha</u>	<u>Alpha</u>	<u>Alpha</u>	<u>Alpha</u>
Time 1	.79	.91	.90	.65
Time 2	.81	.92	.93	.70
Time 3	.80	.91	.91	.65

Table 22

Counselor Rating Form Internal Consistency Coefficients

	Scale			
	Expertness	Interpersonal Attractiveness	Trustworthiness	Total
<u>Administration</u>	<u>Alpha</u>	<u>Alpha</u>	<u>Alpha</u>	<u>Alpha</u>
Time 1	.89	.94	.94	.97
Time 2	.98	.97	.97	.99
Time 3	.93	.93	.96	.97

Table 23

Assessment Questionnaire, Internal Consistency Coefficients

	<i>Scale</i>				
	<u>New Self-Awareness</u>	<u>Positive Accurate Mirroring</u>	<u>Positive Relationship w/ Examiner</u>	<u>Negative Feelings</u>	<u>Total Score</u>
<u>Administration</u>					
Time 1	.88	.87	.94	.89	.94
Time 2	.90	.84	.89	.92	.95
Time 3	.89	.90	.89	.85	.94

APPENDIX C

Correlation Tables

Table 24

Two-Tailed Pearson Correlations, Time 1, All Dependent Variables

	OQ-45.2 Symptom Distress	OQ-45.2 Interpersonal Relations	OQ-45.2 Social Role	OQ-45.2 Total	RSES	SEQ Depth	SEQ Smoothness	SEQ Positivity	SEQ Arousal
OQ-45.2 Interpersonal Relations	.578**	1	.477**	.794**	-.525**	-.045	-.331	-.328	-.173
OQ-45.2 Social Role	.741**	.477**	1	.816**	-.270	-.293	-.031	-.030	-.059
OQ-45.2 Total	.939**	.794**	.816**	1	-.599**	-.293	-.322	-.348	-.179
RSES	-.618**	-.525**	-.270	-.599**	1	.183	.389	.387	.144
SEQ Depth	-.380	-.045	-.293	-.293	.183	1	.635**	.459*	.723**
SEQ Smoothness	-.347	-.331	-.031	-.322	.389	.635**	1	.754**	.660**
SEQ Positivity	-.401	-.328	-.030	-.348	.387	.459*	.754**	1	.652**
SEQ Arousal	-.188	-.173	-.059	-.179	.144	.723**	.660**	.652**	1
CRF Expertness	-.298	-.125	-.105	-.243	.203	.595**	.564**	.597**	.391
CRF Interpersonal Attractiveness	-.306	-.169	-.031	-.249	.255	.274	.404	.649**	.192
CRF Trustworthiness	-.246	-.140	-.013	-.199	.226	.418	.489*	.663**	.329
CRF Total	-.293	-.151	-.048	-.238	.238	.435*	.499*	.663**	.310

Table 24 (continued)

Two- Tailed Pearson Correlations for Time 1, All Dependent Variables

	OQ-45.2 Symptom Distress	OQ-45.2 Interpersonal Relations	OQ-45.2 Social Role	OQ-45.2 Total	RSES	SEQ Depth	SEQ Smoothness	SEQ Positivity	SEQ Arousal
AQ New Self-Awareness/Understanding	-.077	.288	-.166	.029	-.189	.421	.007	.242	.146
AQ Positive Accurate Mirroring	-.495*	-.162	-.179	-.386	.362	.508*	.670**	.739**	.370
AQ Positive Relationship w /Examiner	-.128	-.002	.149	-.045	-.055	.316	.273	.584**	.275
AQ Negative Feelings	.378	.715**	.071	.505*	-.400	-.067	-.564**	-.513*	-.234
AQ Overall Satisfaction	-.145	.082	.063	-.042	-.025	.405	.325	.611**	.285

Table 24 (continued)

Two-tailed Pearson Correlations for Time 1, All Dependent Variables

	CRF Expertness	CRF Interpersonal Attractiveness	CRF Trust- worthiness	CRF Total	AQ New Self- awareness	AQ – Positive Accurate Mirroring	AQ Positive Relationship w/ Examiner	AQ Negative Feelings	AQ Overall Satisfaction
OQ-45.2 Interpersonal Relations	-.125	-.169	-.140	-.151	.288	-.162	-.002	.715**	.082
OQ-45.2 Social Role	-.105	-.031	-.013	-.048	-.166	-.179	.149	.071	.063
OQ-45.2 Total Score	-.243	-.249	-.199	-.238	.029	-.386	-.045	.505*	-.042
RSES	.203	.255	.226	.238	-.189	.362	-.055	-.400	-.025
SEQ Depth	.595**	.274	.418	.435*	.421	.508	.316	-.067	.405
SEQ Smoothness	.564**	.404	.489*	.499*	.007	.670**	.273	-.564**	.325
SEQ Positivity	.597**	.649**	.663**	.663**	.242	.739**	.584**	-.513*	.611**
SEQ Arousal	.391	.192	.329	.310	.146	.370	.275	-.234	.285
CRF Expertness	1	.838**	.886**	.936**	.519*	.473*	.739**	-.308	.663**
CRF Interpersonal Attractiveness	.838**	1	.947**	.969**	.393	.481*	.856**	-.476*	.753**
CRF Trustworthiness	.886**	.947**	1	.983**	.353	.469*	.850**	-.455*	.718**
CRF Total	.936**	.969**	.983**	1	.432	.492*	.850**	-.435*	.741**

Table 24 (continued)

Two-Tailed Pearson Correlations for Time 1, All Dependent Variables

	CRF Expertness	CRF Interpersonal Attractiveness	CRF Trust- worthiness	CRF Total	AQ New Self- awareness	AQ – Positive Accurate Mirroring	AQ Positive Relationship w/ Examiner	AQ Negative Feelings	AQ Overall Satisfaction
AQ New Self-Awareness	.519*	.393	.353	.432	1	.438*	.483*	.194	.744**
AQ Positive Accurate Mirroring	.473*	.481*	.469*	.492*	.438*	1	.415	-.422	.692**
AQ Pos Relationship w/ Examiner	.739**	.856**	.850**	.850**	.483*	.415	1	-.283	.843**
AQ Negative Feelings	-.308	-.476*	-.455*	-.435*	.194	-.422	-.283	1	-.301
AQ Overall Satisfaction	.663**	.753**	.718**	.741**	.744**	.692**	.843**	-.301	1

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

Note: *n* varies from *x* to *y*.

Table 25

Two-tailed Pearson Correlations Table, Time 2, All Dependent Variables

	OQ-45.2 Symptom Distress	OQ-45.2 Interpersonal Relations	OQ-45.2 Social Role	OQ-45.2 Total	RSES	SEQ Depth	SEQ Smoothness	SEQ Positivity	SEQ Arousal
OQ-45.2 Interpersonal Relations	.351	1	.349	.597**	-.521**	-.137	.016	-.402	-.087
OQ-45.2 Social Role	.741**	.349	1	.836**	-.565**	.256	-.051	-.377	.087
OQ-45.2 Total	.924**	.597**	.836**	1	-.481**	.188	-.042	-.583**	-.057
RSES	-.319	-.521**	-.565**	-.481*	1	.067	.066	.229	.013
SEQ Depth	.246	-.137	.256	.188	.067	1	.189	.093	.300
SEQ Smoothness	-.051	.016	-.051	-.042	.066	.189	1	.540*	.728**
SEQ Positivity	-.571*	-.402	-.377	-.583**	.229	.093	.540*	1	.534*
SEQ Arousal	-.084	-.087	.087	-.057	.013	.300	.728**	.534*	1
CRF Expertness	-.198	-.280	-.317	-.289	.323	.164	-.201	.280	-.253
CRF Interpersonal Attractiveness	-.188	-.360	-.263	-.291	.304	.357	-.191	.330	-.188
CRF Trustworthiness	-.179	-.320	-.261	-.273	.310	.264	-.186	.287	-.225
CRF Total	-.190	-.323	-.284	-.287	.316	.264	-.195	.302	-.225

Table 25 (continued)

Two-Tailed Pearson Correlations Table, Time 2, All Dependent Variables

	OQ-45.2 Symptom Distress	OQ-45.2 Interpersonal Relations	OQ-45.2 Social Role	OQ-45.2 Total	RSES	SEQ Depth	SEQ Smoothness	SEQ Positivity	SEQ Arousal
AQ New Self Awareness	-.321	.024	-.422	-.312	.026	.298	-.143	.045	-.163
AQ Pos Acc Mirroring	-.306	-.044	-.363	-.306	.182	.432	.029	.298	-.016
AQ Positive Rel w Examiner	-.125	.004	-.151	-.119	.211	.687**	.270	.143	.267
AQ Negative Feelings	.224	-.005	.212	.199	-.072	-.439	-.451*	-.429	-.397
AQ Overall Satisfaction	-.292	-.001	-.344	-.279	.128	.517*	.169	.266	.132

Table 25 (continued)

Two-tailed Pearson Correlations Table for Time 2, All Dependent Variables

	CRF Expertness	CRF Interpersonal Attractiveness	CRF Trustworth- iness	CRF Total Score	AQ New Self- awareness/ Understanding	AQ Positive Accurate Mirroring	AQ Positive Relationship with the Examiner	AQ Negative Feelings about the Assessment	AQ Overall Satisfaction
OQ-45.2 Symptom Distress	-.198	-.188	-.179	-.190	-.321	-.306	-.125	-.224	-.292
OQ-45.2 Interpersonal Relations	-.280	-.360	-.320	-.323	.024	-.044	.004	-.005	-.001
OQ-45.2 Social Role	-.317	-.263	-.261	-.284	-.422	-.363	-.151	.212	-.344
OQ-45.2 Total Score	-.289	-.291	-.273	-.287	-.312	-.306	-.119	.199	-.279
RSES	.323	.304	.310	.316	.026	.182	.211	-.072	.128
SEQ Depth	.164	.357	.264	.264	.298	.432	.687**	-.439	.517*
SEQ Smoothness	-.201	-.191	-.186	-.195	-.143	.029	.270	-.451*	.169
SEQ Positivity	.280	.330	.287	.302	.045	.298	.143	-.429	.266
SEQ Arousal	-.253	-.188	-.225	-.225	-.163	-.016	.267	-.397	.147

Table 25 (continued)

Two-tailed Pearson Correlations Table, Time 2 All Dependent Variables

	CRF Expertness	CRF Interpersonal Attractiveness	CRF Trustworth- iness	CRF Total Score	AQ New Self- awareness/Und erstanding	AQ Positive Accurate Mirroring	AQ Positive Relationship with the Examiner	AQ Negative Feelings about the Assessment	AQ Overall Satisfaction
CRF Expertness	1	.947**	.976**	.986**	.140	.436	.180	-.182	.262
CRF Interpersonal Attractiveness	.947**	1	.975**	.985**	.180	.448*	.212	-.198	.291
CRF Trustworthiness	.976**	.975**	1	.995**	.103	.386	.211	-.167	.238
CRF Total Score	.986**	.985**	.995**	1	.143	.428	.203	-.185	.267
AQ New Self-Awareness	.140	.180	.103	.143	1	.853**	.486*	-.488*	.838**
AQ Positive Accurate Mirroring	.436	.448*	.386	.428	.853**	1	.657**	-.702**	.934**
AQ Pos Relationship w/ Examiner	.180	.212	.211	.203	.486*	.657**	1	-.764**	.819**
AQ Negative Feelings	-.182	-.198	-.167	-.185	-.488*	-.702**	-.764**	1	-.854**
AQ Overall Satisfaction	.262	.291	.238	.267	.838**	.934**	.819**	-.854**	1

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

Note: *n* varies from *x* to *y*.

Table 26

Two-Tailed Pearson Correlations for Time 3, All Dependent Variables

	OQ-45.2 Symptom Distress	OQ-45.2 Interpersonal Relations	OQ-45.2 Social Role	OQ-45.2 Total Score	RSES	SEQ Depth	SEQ Smoothness	SEQ Positivity	SEQ Arousal
OQ-45.2 IR	.576**	1	.274	.688**	-.511**	.036	-.433	-.301	.087
OQ-45.2 SR	.818**	.274	1	.826**	-.456*	-.259	-.191	-.311	.037
OQ-45.2 Total Score	.980**	.688**	.826**	1	-.667**	-.264	-.484*	-.447	-.002
RSES	-.674**	-.511**	-.456*	-.667**	1	-.012	.369	.333	.078
SEQ Depth	-.321	.036	-.259	-.264	-.012	1	.574*	.302	.249
SEQ Smoothness	-.471	-.433	-.191	-.484**	.369	.574*	1	.632**	.417
SEQ Positivity	-.484*	-.301	-.311	-.447	.333	.302	.632**	1	.779**
SEQ Arousal	-.075	.087	.037	-.002	.078	.249	.417	.779**	1
CRF Expertness	-.075	.020	.095	-.028	-.036	.848**	.525*	.217	.232
CRF Interpersonal Attractiveness	-.146	-.105	.093	-.139	.160	.769**	.804**	.268	.246
CRF Trustworthiness	-.220	-.138	.015	-.210	.167	.746**	.789**	.380	.324
CRF Total Score	-.158	-.082	.069	-.136	.108	.822**	.747**	.306	.282

Table 26 (continued)

Two-Tailed Pearson Correlations for Time 3, All Dependent Variables

	OQ-45.2 Symptom Distress	OQ-45.2 Interpersonal Relations	OQ-45.2 Social Role	OQ-45.2 Total Score	RSES	SEQ Depth	SEQ Smoothness	SEQ Positivity	SEQ Arousal
AQ New Self Awareness	-.069	.122	-.108	-.021	.128	.669**	.289	.203	.260
AQ Positive Accurate Mirroring	-.061	-.104	.124	-.026	.327	.422	.410	.223	.428
AQ Pos Relationship w/ Examiner	-.393	-.249	.003	-.349	.402	.611	.777**	.282	.189
AQ Negative Feelings	-.619**	.373	.371	.585*	-.677**	-.476*	-.686**	-.598*	-.374
AQ Overall Satisfaction	-.011	.000	.017	-.006	.459	.716**	.657**	.410	.416

Table 26 (continued)

Two-Tailed Pearson Correlations for Time 3, All Dependent Variables

	CRF Expertness	CRF Interpersonal Attractiveness	CRF Trustworth- iness	CRF Total	AQ New Self- Awareness/	AQ Positive Accurate Mirroring	AQ Positive Relationship w/ Examiner	AQ Negative Feelings	AQ Overall Satisfaction
OQ-45.2 Symptom Distress	-.075	-.146	-.220	-.158	-.069	-.061	-.393	.619**	-.011
OQ-45.2 Interpersonal Relations	.020	-.105	-.138	-.082	.122	-.104	-.249	.373	.000
OQ-45.2 Social Role	.095	.093	.015	.069	-.108	.124	.003	.371	-.017
OQ-45.2 Total Score	-.028	-.139	-.210	-.136	-.021	-.026	-.349	.585*	-.006
RSES	-.036	.160	.167	.108	.128	.327	.402	-.677**	.459
SEQ Depth	.848**	.769**	.746**	.822**	.669**	.422	.611**	-.476*	.716**
SEQ Smoothness	.525*	.804**	.789**	.747**	.289	.410	.777**	-.686**	.657**
SEQ Positivity	.217	.268	.380	.306	.203	.223	.282	-.598**	.398
SEQ Arousal	.232	.246	.324	.282	.260	.428	.189	-.374	.411

Table 26 (continued)

Two-tailed Pearson Correlations for Time 3, All Dependent Variables

	CRF Expertness	CRF Interpersonal Attractiveness	CRF Trustworth- iness	CRF Total	AQ New Self- Awareness Understand- ing	AQ Positive Accurate Mirroring	AQ Positive Relationship w/ Examiner	AQ Negative Feelings	AQ Overall Satisfaction
CRF Expertness	1	.816**	.820**	.915**	.792**	.636**	.605**	-.325	.816**
CRF Interpersonal Attractiveness	.816**	1	.957**	.972**	.537*	.508*	.850**	-.467	.768**
CRF Trustworthiness	.820**	.957**	1	.974**	.515	.454	.811**	-.447	.723**
CRF Total	.915**	.972**	.974**	1	.636**	.553*	.797**	-.436	.803**
AQ New Self Awareness	.792**	.537*	.515*	.636**	1	.737**	.303	-.218	.813**
AQ Pos Accurate Mirroring	.636**	.508*	.454	.553*	.737**	1	.391	-.400	.873**
AQ Positive Relationship w/ Examiner	.605**	.850**	.811**	.797**	.303	.391	1	-.539*	.677**
AQ Negative Feelings	-.325	-.467	-.447	-.436	-.218	-.400	-.539*	1	-.644**
AQ Overall Satisfaction	.816**	.768**	.723**	.803**	.813**	.873**	.677**	-.644**	1

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

Note: *n* varies from *x* to *y*.

Table 27

Two-Tailed Pearson Correlations for Time 4, All Dependent Variables

	OQ-45.2 Symptom Distress	OQ-45.2 Interpersonal Relations	OQ Social Role	OQ-45.2 Total Score
OQ-45.2 Interpersonal Relations	.906**	1	.811**	.951**
OQ-45.2 Social Role	.839**	.811**	1	.894**
OQ-45.2 Total Score	.983**	.951**	.894**	1
RSES	-.471	-.567	-.118	-.461

** Correlation is significant at the .01 level (2-tailed).

*Correlation is significant at the 05 level (2-tailed).

Note: *N* varies in each cell.

APPENDIX D
Feedback Protocols

Feedback Protocols

Condition 1: Delivered Feedback

Time 1, Session 1. Initially, participant completed demographic forms, the OQ-45.2, RSES, IRB forms, and releases. Components of the interview/intake included: building rapport, discussing the study, and outlining the structure of the three sessions. The interview was introduced from a collaborative perspective. The participant and counselor framed questions to be addressed by the MMPI-2. Three to five questions and goal areas were decided on by the counselor and participant and recorded *verbatim* by the counselor. Background information was collected as part of the relevant questions and goal areas. Past assessment experiences were explored and supported. The counselor restated the assessment questions, the participant was invited to modify the questions, and participant was invited to pose further questions as they arise. At the end of the session the contract for assessment was reviewed: when the MMPI-2 would be completed, the meeting for feedback (2nd meeting) and the wrap up meeting (3rd meeting) were scheduled, with each meeting about 1 week apart. The participant completed the SEQ (rating the session), CRF (rating the counselor), and AQ (rating the assessment/assessor).

As soon as possible after the initial session, the participant completed the MMPI-2. The MMPI-2 was scored using the National Computer Systems Computer MMPI-2 scoring program, which produced the *Minnesota Report: Adult Clinical System-Revised Interpretive Report* (Butcher, 1993). In addition, the MMPI-2 was scored with another computer scoring program, the *Marks Adult Feedback and Feedback Report*, which provided feedback statements used in the feedback sessions (Marks & Lewak, 1996).

Time 2, Session 2. During this session, the counselor was supportive, but did not encourage participant collaboration. The counselor focused on attending to participant reactions and feelings through the use of reflection and paraphrasing. At the beginning of the session the counselor provided an overview and outline of the session. The counselor stated that they would be looking at the results of the MMPI-2: "I will begin the interpretation by giving you some information about the test and scales. What I would like you to do is carefully consider the interpretation in light of the goals and questions we set in the last interview." The participant was read back a list of the three to five questions/goals from the last session. The participant was asked if they have anything further to add. The counselor explained that the participant

would be asked to verify the findings. The counselor discussed any feelings about testing and about the feedback session, including reactions to taking the MMPI-2, and feelings in anticipation of the interpretation. The counselor accepted affective reactions, and very negative reactions were explored.

The participant was shown the MMPI-2 profile (a graphical representation, see manual for precise details in how this was presented). The participant's assessment questions were answered using preparatory notes, based on the NCS and Marks computerized testing reports. In this session, the counselor talked about feedback items with positive feedback initially. The counselor started with a finding that a participant would accept, then gradually moved to findings that were more challenging for the participant. Language was used when discussing results such as "...the results suggested..." After every fourth or fifth feedback item the participant was asked about the accuracy of the interpretation using close-ended questions ("Does this seem accurate?") The participant was asked for modifications that they may offer to make the interpretation more accurate. The counselor accepted the examples that the participant offered with minimal reaction. The counselor accepted affective reactions and they were supported as they occur.

The counselor closed the feedback session by asking the participant if they had any questions. The counselor then provided a summary of the session by giving one problem-oriented theme and one strength-based theme. The counselor checked for distortions in what the participant heard and/or understood, asked if there are any other questions, and wrapped up the session. The counselor/assessor also confirmed the next appointment in 1 week. After this session was completed, the participant completed the SEQ, the CRF, AQ, OQ-45.2, and RSES.

Time 3, Session 3. An overview of the final session was provided. The counselor stated "...this is the last time that we will be meeting. You may have had a chance to think about your test feedback over the past week. I want to give you an opportunity now to process some of what you have been thinking about." The counselor probed the participant for any further reaction to the interpretation. The counselor also answered direct questions, corrected any misunderstandings, and addressed any lingering resistance/reservation about assessment. Reactions were responded to appropriately, but minimally. Any implications of the interpretation were explored with the participant on his/ or her self-understanding. The session was terminated and the participant completed the SEQ, CRF, AQ, OQ-45.2, and the RSES.

Condition 2: Interactive Feedback

Time 1, Session 1. This session was the same as in Condition 1, including measures administered at the end of the session and administration of the MMPI-2.

Time 2, Session 2. The counselor was both supportive and encouraging of participant collaboration. The counselor greeted the participant and provided an overview of the session: the results of the MMPI-2 were examined; the participant was given information about the test and scales. The participant was also told “I want to involve you as much as possible in relating these results to your own life. I look forward to our working together on what the findings of the test might mean for you.” The counselor emphasized the collaborative nature of the relationship, and participant input was encouraged throughout the session. The three to five assessment questions were reviewed. Then, the counselor asked, “Do you remember those three (or five) questions that we came up with last week? What are they?” The participant was asked if they have anything further to add. The MMPI-2 was framed as a communication from the participant “I look at the test as a source of information from you. It’s another way for letting me know what is going on with you.” The counselor explained that the participant would be asked to verify the findings.

Feelings about the testing and feedback session were discussed, the participant’s reaction to taking the MMPI-2 were discussed, and feelings in anticipation of the interpretation. The reactions were accepted with interest, but the counselor explored only very negative reactions. The participant was shown the MMPI-2 graphical profile, and was “taught” to understand it (see manual). The participant’s three to five assessment questions were answered using notes based on the NCS and Marks computerized testing reports. The counselor started the feedback with positive information, with findings the participant would accept, and then moved gradually to findings that were more challenging. Language used in providing feedback items included “the test results are not necessarily right or wrong. Rather, they provided hypotheses for us to consider. A hypothesis to consider about yourself is...” After each finding the participant was enlisted in verifying or modifying the test findings: after every fourth or fifth feedback item the participant was asked about the accuracy of the interpretation using *open-ended questions* (“How does that fit with the way you see yourself?”) The participant was encouraged to offer modifications to make interpretations more accurate. The participant was asked to give at least one, preferably two, examples for

each major finding. The counselor discussed each example with the participant. Each example was discussed regarding (a) its implications if it seemed to reflect an accurate understanding; or (b) with a gentle correction plus its implications if the participant seemed off the mark in some way. The counselor supported the participant's affective reactions as they occur.

The counselor closed the feedback session by asking the participant if they have any questions. Then the *participant was asked to summarize the session*: "We've talked about quite a bit today. Can you summarize for me what specifically you learned?" The counselor checked for distortions by the participant in what the participant heard and understood. The counselor asked if there are any questions, wrapped up and closed the session, and confirmed when they would be meeting about 1 week later. The participant then completed the SEQ, CRF, AQ, RSES, and OQ-45.2.

Time 3, Session 3: Same as in Condition 1 (see Condition 1 for a description). The SEQ, CRF, AQ, OQ-45, and RSES were administered at the end of the session (see Table 3 for comparisons of the two feedbacks).

Condition 3: No Feedback Waitlist Control

This condition was the control condition. Participants were given same feedback as in Condition 2 (for reasons of providing ethical feedback to participants), however feedback was delayed until after Condition 1 and Condition 2 have had 2 sessions, and started at the same time as Session 3 of the Feedback conditions. The structure of this feedback was as follows:

Time 1. Participant completed the RSES and the OQ-45.2. Participants completed the MMPI-2 at that time or soon after.

Time 2. Participant completed the OQ-45.2 and the RSES.

Time 3. Participant first completed the OQ-45.2, and the RSES. Then the participant started the feedback process. This session corresponded with Session 1 in the Interactive/ Delivered Feedback (See Condition 1, Session 1). Participants completed the SEQ, CRF, and the AQ.

Time 4. This session corresponded with Session 2 in the Interactive Feedback (See Condition 2, Session 2). Participants completed the SEQ, CRF, AQ, OQ-45.2, and the RSES, and the Qualitative Questionnaire.

One month follow-up. Four weeks after the Session 3 was completed the participants in Condition 1: Delivered Feedback and Condition 2: Interactive Feedback were contacted by the researcher(s) by phone and asked to come in to complete the follow-up measures. At this time, participants completed the OQ-45, the RSES, and an open-ended survey measure developed by the author.

APPENDIX E

Means and Standard Deviations Tables

Table 28

Means and Standard Deviations for Dependent Variables, Time 1

	Mean	Standard Deviation	N
OQ-45.2 Symptom Distress	38.67	12.82	33
OQ-45.2 Interpersonal Relations	17.21	8.21	33
OQ-45.2 Social Role	13.61	5.18	33
OQ-45.2 Total Score	69.55	22.74	33
RSES	28.27	5.77	33
SEQ Depth	29.87	5.69	23
SEQ Smoothness	30.78	8.39	23
SEQ Positivity	27.65	7.56	23
SEQ Arousal	24.35	7.23	23
CRF Expertness	69.95	9.14	22
CRF Attractiveness	64.07	11.11	22
CRF Trustworthiness	70.05	10.96	22
CRF Total	204.07	30.09	22
AQ New Self-Awareness/Understanding	2.74	.60	21
AQ Positive Accurate Mirroring	3.09	.81	21
AQ Pos. Relationship w/ the Examiner	3.82	.77	21
AQ Neg. Feelings about the Assessment	2.29	.93	21
AQ Overall Satisfaction	3.41	.56	21

Table 29

Means and Standard Deviations for Dependent Variables, Time 2

	Mean	Standard Deviation	<i>N</i>
OQ-45.2 Symptom Distress	37.15	12.88	27
OQ-45.2 Interpersonal Relations	16.52	5.47	27
OQ-45.2 Social Role	13.44	4.77	27
OQ-45.2 Total	66.48	19.63	27
RSES	26.29	4.23	27
SEQ Depth	30.79	6.57	19
SEQ Smoothness	33.68	5.57	19
SEQ Positivity	28.74	5.89	19
SEQ Arousal	23.21	6.89	19
CRF Expertness	66.63	18.16	19
CRF Arousal	66.58	17.79	19
CRF Trustworthiness	67.95	17.97	19
CRF Total Score	201.16	53.32	19
AQ New Self Awareness/ Understanding	3.39	.69	19
AQ Positive Accurate Mirroring	3.50	.56	19
AQ Pos. Relationship with the Examiner	3.71	.49	19
AQ Neg. Feelings about the Assessment	2.10	.78	19
AQ Overall Satisfaction	3.61	.54	19

Table 30

Means and Standard Deviations for Dependent Variables, Time 3

	Mean	Standard Deviation	N
OQ-45.2 Symptom Distress	35.64	12.73	25
OQ-45.2 Interpersonal Relations	16.24	4.82	25
OQ-45.2 Social Role	13.64	5.06	25
OQ-45.2 Total Score	65.76	20.11	25
RSES	28.24	4.64	25
SEQ Depth	28.24	7.07	17
SEQ Smoothness	34.59	6.25	17
SEQ Positivity	32.82	5.76	17
SEQ Arousal	28.29	7.42	17
CRF Expertness	70.38	8.41	16
CRF Arousal	70.81	9.23	16
CRF Trustworthiness	70.00	9.77	16
CRF Total	211.13	24.79	16
AQ New Self-awareness/Understanding	3.36	.71	17
AQ Positive Accurate Mirroring	3.56	.69	17
AQ Positive Relationship with the Examiner	3.87	.51	17
AQ Negative Feelings about the Assessment	1.87	.55	17
AQ Overall Satisfaction	3.71	.47	17

Table 31

Means and Standard Deviations for Dependent Variables, Time 4

	Mean	Standard Deviation	N
OQ-45.2 Symptom Distress	29.23	15.30	13
OQ-45.2 Interpersonal Relations	13.46	7.71	13
OQ-45.2 Social Role	10.85	4.98	13
OQ-45.2 Total Score	54.00	26.85	13
RSES	29.15	3.58	13

APPENDIX F

Coding Keys for Survey

Coding Key – Survey

Accuracy of Recounting Experiences Key

Elements Required	Points
Stated “I took a test”	1
Stated “I participated in a research study” or “I participated in a study” or “I participated in research”	1
I took a personality assessment” “or “I took an assessment” (instead of “I took a test”) OR	2
Stated “I took the MMPI-2” (instead of I took a test)	3
Stated “I was in <u>three</u> meetings/sessions/interviews with a counselor/therapist” or mentioned each meeting (i.e., first, I had a meeting, then, I took the MMPI, then... OR	3
If the three meetings are not mentioned – “counseling session(s) or counseling	1
Stated: “I was given/had feedback” or “we went over the results” or “we discussed results” or “we talked about results”	2
Talked about filling out filling out surveys or measures.	1
<i>Note: If anything is written to answer the question, but none of the previous statements or elements is found</i>	1

Points are additive

Coding Key - Survey – Negative and Positive Words

Lists of negative and positive words used to code. Each code or phrase counts as one word.

Positive	Negative
	(Note: words on the positives list prefaced by not or no are counted as a negative, ie: "not accurate, not helpful")
sharing	negative
positive	no/not
liked/like	dislike/disliked
accurate	bad
appropriate	angry
happy	sad
yes	evil
open/opened	nothing (nothing was helpful)
resolve/resolved	downer
aware (more aware)	invasive
proud	drained
change	vulnerable
okay	mean
comforting	pointless
nice	wrong
new	never
enjoyed	depressed
insight	confused
good	tired
useful	rough
gave/has given	difficult
worth it	hurt
appreciated	
learned, learning	
more	
understanding	
awesome	
enlightened	
strength(s)	
taught, teach	
better	
confirm	
clear	
helpful	

Note: Double negatives are counted as neutral, ie: (not bad).