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**DEVELOPMENT AND VALIDATION OF REVISIONS IN THE COUNSELOR
RATING FORM**

The Ohio State University

PH.D. 1981

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DEVELOPMENT AND VALIDATION OF
REVISIONS IN THE COUNSELOR RATING FORM

DISSERTATION

Presented in Partial Fulfillment of the Requirements
for the Degree Doctor of Philosophy in the
Graduate School of The Ohio State University

By

John D. Corrigan, B.A., M.A.

* * * * *

The Ohio State University

1981

Reading Committee:

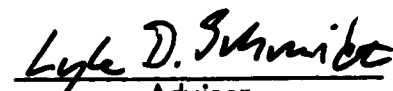
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**To my father, who cared enough to ask how things
were progressing when they weren't.**

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Many hands assisted in this work. Foremost were those of Lyle Schmidt, my adviser, who allowed me to recuperate from early setbacks but did not let me lose sight of my goals. The cooperation of counselors at Columbus Area Community Mental Health Center and Southeast Community Mental Health Center was indispensable, as was the coordination of research in these centers by Deryck D. Richardson, Ph.D., and Mary Anne Orcutt, Ph.D. Assistance in data collection provided by Mary Eggert and Denise Hatter made the replication portion of the design possible.

VITA

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Publications

- Corrigan, J.D. Salient attributes of two types of helpers: Friends and mental health professionals. Journal of Counseling Psychology, 1978, 25, 588-590.
- Corrigan, J.D., Dell, D.M., Lewis, K.N., & Schmidt, L.D. Counseling as a social influence process: A review. Journal of Counseling Psychology Monograph, 1980, 27, 395-441.
- Zamostny, K.P., Corrigan, J.D., & Eggert, M.A. Validation of social influence processes in counseling: A field study. Journal of Counseling Psychology, 1981, in press.

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Introduction

Processes by which persons influence others to change their attitudes, beliefs and/or behavior have been of interest to psychologists for several decades. More recently such influence processes have been investigated in the context of therapeutic relationships. J.D. Frank's (1961) cross-cultural consideration of healing processes was one of the earliest attempts to view psychotherapy as an instance of influence. Later, Goldstein (1966) and Goldstein, Heller and Sechrest (1966) explicitly extrapolated findings from social psychological studies of influence to the psychotherapeutic relationship. These early works apparently stimulated Strong (1968) to propose his two-stage model of counseling as a social influence process--a theoretical contribution that has demonstrated considerable heuristic value.

In the 1970's research on social influence processes in counseling flourished. A recent review of this literature conducted by Corrigan, Dell, Lewis and Schmidt (1980) referred to more than 60 investigations published during a ten-year period. These authors' observations suggested that, while some initial theoretical postulations about social influence in counseling have been supported, substantial additional investigation is required before our understanding of these processes will enhance the effectiveness of therapeutic interventions.

In their review, Corrigan et al. (1980) observed that measurement of the three social influence attributes--expertness, attractiveness and trustworthiness--

has varied greatly. Single-item scales or scales of a few items have been used, often constructed on face validity alone. The reliability of these scales was usually unknown or not reported. Such measurement practices limited the comparison of results from different studies. More important, perhaps, were the limitations in the validity of theoretical constructs that resulted from measurements of uncertain validity and/or reliability.

An exception to "case-by-case" operationalization of the social influence dimensions is the Counselor Rating Form (CRF) developed by Barak and LaCrosse (1975; LaCrosse & Barak, 1976). The CRF was constructed by using both rational and empirical methods. Item selection for each of the social influence dimensions was based on 75% agreement among expert judges. In two of three factor analyses computed by Barak and LaCrosse (1975), three orthogonal factors representing expertness, attractiveness and trustworthiness were identified. LaCrosse and Barak (1976) reported split-half reliabilities of .874, .850 and .908 for expertness, attractiveness and trustworthiness, respectively. Though moderate intercorrelations among scores on the three dimensions were found, subsequent investigators (Barak and Dell, 1977; Barak and LaCrosse, 1977) showed that the CRF differentiated attribute dimensions within and between counselors.

Even though validation of the CRF has been substantial when compared to alternate methods of measuring the social influence dimensions, some questions about its internal and external validity can be raised. Most of the validation studies for the CRF were conducted on subject pools drawn from college populations and used analogue methods to represent actual counseling situations. Factor analyses of the CRF since Barak and LaCrosse (1975) have not replicated their three-factor orthogonal structure, a finding the original authors questioned as well. Means and standard deviations reported for the CRF indicate that respon-

dents do not use the full range of ratings available on the seven-point, bi-polar scales. Finally, 18% of the adjectives used in the CRF require a tenth grade or above level of education for reliable comprehension of word meaning.

Several of these issues extend beyond the validity of the instrumentation and pose questions as to the validity of the theoretical constructs. However, the impetus of the present study was to address questions relevant to the measurement of clients' perceived expertness, attractiveness and trustworthiness in hopes that future research could more accurately assess the validity of these theoretical constructs. Revisions in the CRF are proposed that are designed to (a) increase the internal consistency of the three dimensions; (b) increase the unique variance accounted for by each dimension; (c) reduce the minimum level of comprehension required for understanding the adjectives used in rating scales; and (d) reduce the number of items in the instrument. A 12-item (four for each dimension) instrument was constructed in which the structure of each scale was revised to elicit greater variance. Items from the 36 original CRF scales were selected for inclusion based on the consistency with which high loadings resulted in previous factor analyses. No adjectives requiring more than an eighth-grade level of comprehension were included in the revision.

The resulting instrument, the Counselor Rating Form-Short version (CRF-S), was subjected to two phases of validation. In the first, Barak and LaCrosse's (1975) method for validation of the CRF was replicated for the CRF-S. In the second phase, validation was extended to a sample of actual clients receiving outpatient services in community mental health settings. Reliability and validity of the CRF-S were examined for both samples. In addition, the relationship between the social influence dimensions and differences in individuals and treatment situations were examined in the data collected from actual clients. The role of such differences in

mediating clients' perceptions of expertness, attractiveness and trustworthiness has not been explored in the literature (cf. Corrigan, et al., 1980). Identification of potential mediating variables may assist in the design of future studies by allowing greater control for extraneous sources of variance or providing direction for further elaboration of social influence theory.

Review of Literature

Measurement of Expertness, Attractiveness and Trustworthiness

The Counselor Rating Form (CRF) was developed by Barak and LaCrosse (1975; LaCrosse and Barak, 1976) to measure perceived expertness, attractiveness and trustworthiness. To construct the CRF, 83 adjectives were rated for their representativeness of the three attribute dimensions by four judges familiar with the constructs. Thirty-six adjectives that reached an interjudge agreement of at least 75% were selected, 12 representing each of the three dimensions. Seven-point bipolar scales (using the 36 adjectives and their opposites) were constructed and 202 subjects' ratings were elicited of the three counselors in the film Three Approaches to Psychotherapy (Shostrom, 1966).

Factor analysis indicated that, for ratings of Drs. Perls and Rogers, items representing expertness, attractiveness and trustworthiness separated into three orthogonal factors. For Dr. Ellis, expertness and trustworthiness items were contained in the same factor. In a subsequent study using the same film, LaCrosse and Barak (1976) found inter-item reliability coefficients of .874, .850 and .908 for expertness, attractiveness and trustworthiness respectively. Though they also found a moderate level of intercorrelation between the three dimensions, analyses of variance computed in subsequent studies (Barak and Dell, 1977; Barak and LaCrosse, 1977) revealed a significant interaction between counselors and attributes, indicating that the CRF distinguished both within and between counselors.

Additional factor analysis of the CRF was performed by Corrigan (1977). This author modified the CRF to elicit subjects' ratings of the importance of the

three attribute dimensions for a professional and a friend that they might seek for help with a personal problem. Only the adjective from each bipolar scale of the CRF that is a positive indication of an attribute dimension was used. Subjects rated the importance of each of these traits on seven-point scales with extremes labeled "very important" and "not important."

Though both instrument format and stimulus of the rating task differed from Barak and LaCrosse's (1975) analysis, Corrigan also found three distinct factors corresponding to items contained in the expertness, attractiveness and trustworthiness scales. However, while Barak and LaCrosse's factor structure resulted from an orthogonal rotation of factors, Corrigan determined that an oblique rotation resulted in a factor structure that best fit Thurstone's (1947) criteria for simple structure. The intercorrelations of factors allowed by the oblique rotation were generally small, the largest equaling .32. The Trustworthiness factor correlated positively with Expertness and Attractiveness factors. A negligible, negative correlation was found between these latter two.

Zamostny, Corrigan and Eggert (1981) recently completed a replication and extension of previous validation studies. Using clients at a university counseling center's walk-in service, this investigation examined subjects' pre- and post-intake assessments of counselor attributes. Prior to the intake interviews, subjects assessed their preferred counselors' expertness, attractiveness and trustworthiness using a revised form of the CRF similar to that used by Corrigan (1977, 1978). Post-intake perceptions of counselors were reported on the CRF. The research sought to re-examine the structure of counselor attributes and investigate the relationship between these perceptions and subjects' subsequent attitudes and behaviors.

Results of the study differed from those reported previously. Factor analysis of both pre-intake preferences and post-intake perceptions resulted in three-factor

oblique structures. Though Corrigan's (1977) analysis resulted in a similar structure, the intercorrelations among factors differed from those reported by Zamostny, Corrigan and Eggert. For pre-intake preferences, intercorrelations ranged from .32 for Expertness and Attractiveness to .56 for Expertness and Trustworthiness. For post-intake perceptions, intercorrelations were higher and closer in value. The correlations between the Expertness and Trustworthiness factors was .69; .63 for Attractiveness and Trustworthiness; and .62 for Attractiveness and Expertness.

Thus, of the six factor analyses performed on the CRF, two have resulted in three-factor, orthogonal structures (Barak and LaCrosse, 1975). A two-factor, orthogonal structure where trustworthiness and expertness items were combined in the same factor resulted from Barak and LaCrosse's third factor analysis of the original CRF. Two factor analyses of an altered version of the CRF that assesses preferences for counselors resulted in three-factor, oblique structures (Corrigan, 1977; Zamostny, Corrigan and Eggert, 1981). In one (Corrigan, 1977), Expertness and Trustworthiness showed the highest correlation, with negligible negative correlation for Expertness and Attractiveness. For the second (Zamostny, Corrigan and Eggert, 1981), intercorrelations among all three factors were significantly higher; though, again Expertness and Trustworthiness showed the highest correlation and Attractiveness and Expertness the lowest. In the one factor analysis of actual clients' ratings of intake counselors, a three-factor, oblique structure also resulted (Zamostny, Corrigan and Eggert, 1981). Intercorrelations among factors were higher than any previously reported and comparable in value ($r = .62, .63$ and $.69$).

Theoretical postulations about the structure of counselor attributes have varied with factor analytic results. Strong's (1968) original thesis about social

influence in counseling might be interpreted as suggesting either three independent (orthogonal) dimensions of perception or two independent dimensions where expertness and trustworthiness are combined under the construct "credibility." Barak and LaCrosse (1975) acknowledged this latter interpretation, though LaCrosse (1977) later speculated that counselor attributes may be subsumed by a unitary perceptual dimension similar to Bergin's (1971) "good guy" factor. Corrigan (1978) speculated that two types of credibility may result from either perceived expertness or attractiveness in conjunction with trustworthiness, a conclusion similar to that posed by Hovland, Janis and Kelley (1953). Finally, based on the high intercorrelations among factors, Zamostny, Corrigan and Eggert (1981) posited that clients' actual perceptions of expertness, attractiveness and trustworthiness are affected by a "good guy" factor. However, the lower intercorrelations for pre-intake preferences may suggest that stereotypic conceptions are less effected by this unitary dimension. In particular, it would appear that expected expertness and trustworthiness are more relevant than expected attractiveness for stereotypic conceptions of counselors.

In development of the CRF-S for the present study, an attempt was made to elicit the unique variance that may be attributable to expertness, attractiveness and trustworthiness. By using items from each scale of the CRF that had consistently shown high loadings in previous analyses, it was hoped that the three factors, if they exist, could be better distinguished. Computation of both orthogonal and oblique factor rotations will allow comparison to previous findings. Replication of Barak and LaCrosse's (1975) original validation methodology and extension to perceptions of counselors actually seen in counseling will provide further information about the potential effects of a "good guy" factor. Though

previous theory and research would suggest a number of possible outcomes, factor analyses of the CRF-S are expected to result in three-factor, oblique structures.

Determinants of Perceptions of Expertness, Attractiveness and Trustworthiness

Corrigan et al.'s (1980) review of social influence processes in counseling revealed that a majority of the investigations in this area have focused on the cues used by subjects to infer counselors' expertness and attractiveness. These authors categorized cues as evidential, reputational and behavioral, a system suggested by Strong's (1968) consideration of the expertness component of counselor credibility. Evidential cues included non-behavioral aspects of the counselor such as appearance and attire, and situational or setting characteristics such as office location, decor and furnishings. Reputational cues included indications of the counselor's professional or social role, made known by introductions or inferred from information made available about the counselor's background, prior accomplishments, or theoretical or philosophical orientation. Behavioral cues encompassed the counselor's verbal and non-verbal behavior such as content and manner of speaking, body movement (kinesics) and body placement (proxemics). Reputational and behavioral cues appeared most salient for perceived expertness; behavioral cues for attractiveness. Perceived trustworthiness was successfully manipulated in two studies only and, other than non-verbal manner appearing more salient than verbal statements, cues that contributed to the differentiation of this attribute were not clear.

Though Corrigan et al. concluded that behavioral, reputational and evidential cues are used by subjects to infer counselor expertness, attractiveness and trustworthiness, they also allowed that clients' inferential processes may be

affected by variables other than the actual information available to them. They noted that:

...given some information about a counselor, whether coming directly from the counselor, the context of the interaction or from other sources, the inferences a client draws from that information, not the information itself, are what determine the counselor's influence potential for that client (p. 8).

Thus, identification of sources of systematic differences in clients' inferences, if such exist, might enhance our understanding of these perceptual processes and increase the strength of research designs used to investigate them. In the present study, three potential sources of intervening effects were explored: (a) individual differences among clients, (b) counselor/client group membership similarity and (c) the stage of the counseling relationship. The design of the study allowed examination of the relative contribution of variables from all three sources.

Individual differences. As Corrigan et al. noted, experimental designs have been utilized, almost exclusively, in studies of cues that affect client perceptions. Cronbach (1957, 1975) and others have pointed out that one characteristic of experimental designs is that individual differences are treated as error variance, precluding the possibility of examining their effect on dependent variables. As noted previously, studies of social influence processes have characteristically drawn upon samples of college populations, further inhibiting examination of certain individual differences because of this population's frequent homogeneity in terms of age, socio-economic status and, possibly, race. Furthermore, differences resulting from sex are often controlled for by selecting same-sex or balanced samples, even though the necessity for such procedures has not been systematically established.

The net result of these research practices is that little or no information is available concerning systematic effects on clients' inferences that might be related to individual differences. Some studies (Atkinson, Marumaya and Matsui, 1978; Dell and Schmidt, 1976; Hoffman-Graff, 1977; Roll, Schmidt and Kaul, 1972) have considered subjects' race or sex, usually in conjunction with corresponding counselor differences, but conclusions have been equivocal. Therefore, the present study will examine several client individual differences for their potential effect on perceptions of counselor expertness, attractiveness and trustworthiness. Client sex and race, which are further discussed below in terms of counselor/client similarity, were included because of their previous, though sparse, attention. In addition, individual differences that have been found to be related to clients' continuance in counseling were examined, including age, income, education, marital status, use of medication and previous treatment (Garfield, 1978; Dodd, 1970; Long, Note 1).

Counselor/client group membership. Corrigan et al. suggested that the effect of counselor/client similarity based on group membership may be an important area for future investigation. Results from research on the effects of counselor/client race or gender similarity have been equivocal. Though Merluzzi, Banikiotes and Missbach (1978) reported that counselor gender was an important determiner of subjects' perceptions of counselors' expertness, Dell and Schmidt (1976) found subjects' perceptions of this attribute to be unaffected by either counselor or client gender. In terms of perceived attractiveness, Hoffman-Graff (1977) found no effects for counselor or client sex, though studies of physical attractiveness have noted sex-related interactions (Lewis and Walsh, 1978; Carter, 1978).

Contradictory findings have also been reported concerning counselor/client race similarity. While Atkinson, Maruyama and Matsui (1978) found that racial similarity between counselor and client enhanced perceptions of expertness, Merluzzi, Merluzzi and Kaul (1977) reported that subjects exposed to racially similar, attractive counselors were influenced more than those exposed to racially similar, expert or racially dissimilar, attractive counselors. Roll, Schmidt and Kaul (1972) found no differences between black and white subjects' perceptions of counselors' trustworthiness. In the only investigation of counselor/client age differences, Wasserstein (1979) found no effects for similarity or dissimilarity.

The paucity of studies and conflicting findings concerning effects of counselor and client group membership do not allow generalization. In an attempt to further explore this area, the present study examined the relative contribution of counselor/client group membership similarity or dissimilarity based on two of the characteristics mentioned above, sex and race. It should be noted that, even though the present design allowed investigation of the relative contribution of two group membership criteria, this examination can only be considered exploratory. Corrigan et al. speculated that group membership may only have an effect when such membership is viewed by the client as a salient aspect of the felt need for help. The current design did not allow direct testing of this hypothesis.

Stage of counseling. A third variable that may intervene in clients' inferential processes is the stage of the therapeutic relationship. This area of exploration is the most speculative of those discussed. Corrigan et al. noted that in all but two studies (Hartley, 1969; Beutler, Johnson, Neville, Elkins and Jobe, 1975) the contact between counselor and subject has been for single interviews only. They observed that, consequently, generalization of existing findings must be limited to the initial phase of counseling. This limitation acknowledges the

possibility that at more advanced stages in the relationship social influence processes may act differently than during the initial stage.

One example of how perceptions may be affected by the stage of the relationship can be found in Corrigan et al.'s hypothesis concerning counselors' legitimate power. They observed that differential perceptions of expertness based on varying introductions of counselor status and/or experience did not always result in differential influence; counselors were influential regardless. From studies that elicited subjects' perceptions of the importance of counselor characteristics in help seeking (Cash, Kehr and Salzbach, 1978; Corrigan, 1978), it was speculated that expertness and trustworthiness, at least, may be attributed on the basis of "occupancy" of the counselor role, regardless of variations in "qualifications" for that role. "Clients may have a positive stereotype of counselors that, in the absence of evidence to the contrary, leads them to attribute certain desirable characteristics to persons identified as counselors" (Corrigan et al., 1980, p. 54). This initial attribution of characteristics was termed legitimate power (cf. Strong and Matross, 1973). If this speculation is warranted, it would appear that clients' "need" to view counselors as expert and trustworthy (i.e., that this person is a legitimate helper) intervenes between the actual information available to them and their perceptions of the counselor.

In the present study, an initial examination of the possibility that expertness, attractiveness and trustworthiness are differentially perceived at various stages in the relationship was undertaken. In lieu of a generally accepted and verifiable taxonomy of stages, the construct was operationalized using the number of previous contacts with the rated counselor. Such a procedure risks the obvious assumption that significant stages of relationship are related to a numerical count of previous sessions. Hopefully, the exploratory status of this examination will

preclude premature acceptance or rejection of the effect of differential stages of relationship on perceived counselor characteristics.

Method

Revision of the CRF

The CRF was developed using both rational and empirical methods (Barak and LaCrosse, 1975; LaCrosse and Barak, 1976). The shortened version (CRF-S) that was validated in the present study differed from the CRF in the structure of each scale and the number of scales used to assess expertness, attractiveness and trustworthiness. These revisions were based on empirical evidence from previous studies.

Scale revision. As described earlier, the CRF consists of 36 bi-polar scales, 12 for each of three attribute dimensions. Each scale has two adjectives that anchor the ends of a seven-point Likert scale:

inexpert ___:___:___:___:___:___:___ expert

One adjective is a positive indication of an attribute dimension and was selected based on rational and empirical criteria (Barak and LaCrosse, 1975). The other adjective is a negative indication of the attribute dimension and was chosen by Barak and LaCrosse to represent the opposite of the positive adjective. Respondents are instructed to rate a counselor on the seven-point scale anchored by the positive and negative adjectives.

The structure of scales in the CRF-S was revised by dropping the negative adjective from each scale. Respondents were asked to rate the extent to which a counselor demonstrates the characteristic of the positive adjective on a seven-point Likert scale anchored by the words "not very" and "very:"

EXPERT
not very ___:___:___:___:___:___:___ very

This revision is similar to that used by Corrigan (1977, 1978) and Zamostny, Corrigan and Eggert (1981) to measure subjects' expectations of counselors' expertness, attractiveness and trustworthiness.

Elimination of the negative adjectives in CRF scales was intended to increase the variance in ratings by decreasing the socially undesirable connotations of the negative adjectives in many CRF scales. These negative adjectives include such pejorative terms as deceitful, phony, ignorant, stupid, disagreeable and unattractive. Means and standard deviations reported in the literature indicate that a vast majority of respondents did not rate counselors in the negative end (three lowest ratings) of the CRF scales. As an example, in four studies by Barak and/or LaCrosse (LaCrosse and Barak, 1976; Barak and LaCrosse, 1977; LaCrosse, 1977, 1980), the lowest mean scores reported in each study resulted from average scale ratings between 4.66 and 5.91. For these attribute dimensions, the average rating one standard deviation below the mean ranged from 3.75 to 5.25. Thus, even for attribute dimensions with the lowest mean values, 84% of the respondents were making ratings at or above the mid-points of the seven-point scales.

Replacing the negative adjectives with the anchor "not very" was designed to increase the use of the lower ends of the seven-point scales, and thus increase the variance. It was hoped that an increase in the overall variance on each item would also allow the unique variance accounted for by each scale to increase.

Item selection. For the CRF-S, 12 scales (four for each dimension) were selected. Item selection was based on two criteria: (a) the extent of an item's loadings on the appropriate dimension in previous factor analyses, and (b) the comprehension level required for understanding of the positive adjective in the item. Application of these criteria, discussed below, indicated that the selection of four items for each scale maximized the selection criteria. Reducing the CRF

to four items per dimension versus five or six was weighed against the concomitant reduction in reliability by using Spearman-Brown's formula and the split-half reliabilities found by LaCrosse and Barak (1976) (Appendix A). The increased reliability for five or six items was not viewed as sufficient to sacrifice the selection criteria. However, inter-item reliabilities for the CRF-S were computed to ascertain that the instrument's reliability did not decrease more than would be expected.

To select which items should be included in the CRF-S, previous factor analyses of the CRF were inspected to see if particular items had consistently shown high loadings on the appropriate attribute dimensions. Three factor analyses reported by Barak and LaCrosse (1975), one by Corrigan (1977) and two by Zamostny, Corrigan and Eggert (1981) were inspected. For each analysis, the absolute values of loadings on each factor were rank-ordered. Those items that were among the highest five loadings in at least one analysis are listed in Table I. It was apparent that particular items consistently loaded higher than other items. Though a 67% (four out of six) criterion level was originally desired, this level was lowered to 50% because only two trustworthiness items attained the higher criterion.

The second criterion for item selection was the educational level required for comprehension of the adjective in the item. Dale and O'Rourke (1979) assessed the level of education required for 44,000 words. The minimum grade level for understanding each word was based on whether 67% of the students in that grade could identify the correct definition. Table I shows the grade levels for adjectives considered for inclusion in the CRF-S. For the 72 adjectives of the full CRF, 23 required a fourth-grade level, 22 sixth-grade, 14 eighth-grade, seven tenth-grade and six twelfth-grade. Though it was originally hoped that adjectives selected for

the CRF-S would be at the sixth-grade level or below, only two attractiveness items with high loadings in previous factor analyses were at or below this level. Therefore a higher grade level, eighth-grade comprehension, was set as the criterion.

As mentioned above, the application of these selection criteria not only determined which items would be included in the CRF-S, but how many for each dimension. Given that an equal number of items were required for each dimension, the selection of four allowed that all items were among the top five loadings in at least 50% of the previous factor analyses and that no adjective would exceed an eighth-grade comprehension level.

The four items for each scale selected by the above criteria are listed first in Table 1. For the CRF-S protocol, items from the attractiveness, expertness and trustworthiness scales, respectively, were alternated. Within each scale, items were taken in alphabetical order. The resulting instrument is shown in Figure 1. Items are scored from one for "not very" to seven for "very." Scale scores for expertness, attractiveness and trustworthiness are computed by adding ratings from the four items that comprise the scale. Thus, scale scores can range from four to 28.

Validation Samples and Procedures

Two validation procedures were conducted on the CRF-S. The first procedure replicated Barak and LaCrosse's (1975) validation methodology for the CRF. The second procedure extended validation to a sample of actual clients receiving outpatient services in community mental health settings.

Replication. One hundred and thirty-three volunteer college students received credit toward their coursework for participation in the replication sample.

Table I
Criteria for Item Selection for the CRF-S

	<u>Number of times among five highest loadings^a</u>	<u>Minimum grade level for 67% comprehension^b</u>
Expertness items		
experienced	6 of 6	6
expert	5 of 6	4
skillful	5 of 6	6
prepared	4 of 6	4
informed	3 of 6	6
intelligent	3 of 6	6
insightful	1 of 6	12
logical	1 of 6	8

(all others not among five highest loadings in any analysis)

Attractiveness items		
friendly	5 of 6	4
likeable	5 of 6	8
sociable	5 of 6	8
warm	5 of 6	8
cheerful	4 of 6	4
close	4 of 6	8
casual	1 of 6	8
compatible	1 of 6	12

(all other not among five highest loadings in any analysis)

Trustworthiness items		
trustworthy	5 of 6	6
honest	3 of 6	4
reliable	3 of 6	6
sincere	3 of 6	6
genuine ^c	2 of 3	10
dependable	2 of 6	4
respectful	2 of 6	6
responsible	2 of 6	4
open	2 of 6	4

(all others not among five highest loadings in any analysis)

^aFactor analyses reported by Barak and LaCrosse (1975); Corrigan (1977); Zamostny, Corrigan and Eggert (1981).

^bFrom Dale and O'Rourke (1979).

^cOne of two items substituted by LaCrosse and Barak (1976) based on results from Barak and LaCrosse (1975).

FRIENDLY
not very ___:___:___:___:___:___:___:___ very

EXPERIENCED
not very ___:___:___:___:___:___:___:___ very

HONEST
not very ___:___:___:___:___:___:___:___ very

LIKEABLE
not very ___:___:___:___:___:___:___:___ very

EXPERT
not very ___:___:___:___:___:___:___:___ very

RELIABLE
not very ___:___:___:___:___:___:___:___ very

SOCIABLE
not very ___:___:___:___:___:___:___:___ very

PREPARED
not very ___:___:___:___:___:___:___:___ very

SINCERE
not very ___:___:___:___:___:___:___:___ very

WARM
not very ___:___:___:___:___:___:___:___ very

SKILLFUL
not very ___:___:___:___:___:___:___:___ very

TRUSTWORTHY
not very ___:___:___:___:___:___:___:___ very

Figure 1. Format and ordering of items in the CRF-S.

Eighty-three were female, 50 male; the average age of subjects was 20 years old. Eighty-nine percent of the sample was Caucasian; 94% were single and 16% reported that they had seen a therapist to talk about a personal problem.

Counseling interviews of Carl Rogers, Fritz Perls and Albert Ellis from the film Three Approaches to Psychotherapy (Shostrom, 1966) were used as stimulus objects for subjects' ratings on the CRF-S. Each subject viewed 15-minute segments of each therapist. All introductory footage was excluded. To balance the design for any potential order effect, the sample was split into six groups, each of which viewed the film segments in a different order. No significant relationship between order of viewing and ratings of therapists was observed. Subjects were given the following instructions (a full protocol for the replication sample is contained in Appendix B):

You will be shown three tapes of three different therapists working with the same client. After each tape, we would like you to rate several characteristics of the therapist you just viewed.

On the following pages, each characteristic is followed by a seven-point scale that ranges from "not very" to "very." Please mark an "X" at the point on the scale that best represents how you viewed the therapist. For example:

FUNNY

not very X : ___ : ___ : ___ : ___ : ___ : ___ very

WELL DRESSED

not very ___ : ___ : ___ : ___ : ___ : X : ___ very

These ratings might show that the therapist did not joke around much, but was dressed well.

Though all of the following characteristics we ask you to rate are desirable, the therapists may differ in their strengths. We are interested in knowing how you view these differences.

Extension. The extension sample consisted of 155 clients receiving out-patient treatment in two community mental health centers serving a midwestern

urban area. Twenty-two counselors assisted in data collection by soliciting client cooperation. At the end of a regularly scheduled interview, counselors explained the research and acquired client consent for participation. Clients were then taken to a separate area to complete the research protocol. Potential counselor effects were balanced by limiting the sample to no more than ten clients per counselor. The following instructions were provided with the CRF-S (a full protocol for the extension sample can be found in Appendix C):

We would like you to rate several characteristics of your therapist. For each characteristic on the following page, there is a seven-point scale that ranges from "not very" to "very." Please mark an "X" at the point on the scale that best represents how you view your therapist. For example:

FUNNY

not very X : : : : : : very

WELL DRESSED

not very : : : : : X : very

These ratings might show that the therapist does not joke around much, but was dressed well.

Though all of the following characteristics are desirable, therapists differ in their strengths. We are interested in knowing how you view these differences. Remember, your responses are totally anonymous. There is no way to associate you or your therapist with the ratings you make.

Of the 22 counselors assisting in data collection, 13 were from one center, nine from the second. Ten were male, 12 female; 15 of the counselors were Caucasian. The average age of counselors was 33 years old; average years of professional experience was six. Fifteen were married and, of the seven who were single, two had been married previously. Five counselors held Bachelor's degrees; 15 Master's; and two had Ph.D.'s. Eight counselors had psychology backgrounds; eight were from social work; three from nursing, one from sociology and two

counselors held theology degrees. (The form used to elicit counselor background information can be found in Appendix D.)

Of the 155 clients in the extension sample, 50 were male and 105 were female. Eighty-six percent of the sample was Caucasian; the average age was 32 years old. Thirty-eight percent of the sample was married; one-half of those not married had been previously. Twenty-three percent of the sample had 11 years or less of education; 28% were high school graduates; 36% had some college or vocational school; 7% were college graduates and 5% had some post-graduate study. The average income of the sample was \$8,900 per year. Forty-two percent of the clients reported that they had been previously hospitalized for psychiatric treatment; 48% reported they were currently taking medication as part of their treatment at the center. The average number of treatment sessions with the rated counselor was 11.8; the mode was four sessions.

Results

Measurement Characteristics

Missing values for scales were first examined to see if there were items that were consistently left blank, and whether these items required a higher grade level for word comprehension. Of the total 6,648 scale ratings that could have been completed, only eight were not. Six of these missing values occurred in the extension sample. One item, sincere, was not completed by two subjects; no other item was left blank by more than one subject. Of the seven items with missing values, three required a fourth-grade level of comprehension; three required a sixth-grade level; and one an eighth-grade level. Of the eight subjects who left items blank, four reported some college or vocational school education; one was a high school graduate only; and three reported eleven years of education or less.

Means and standard deviations for the twelve items, three scales scores and total score of the CRF-S are reported in Table 2. Examination of scale scores revealed that attractiveness, expertness and trustworthiness were differentially perceived across rating tasks. A 3x3 repeated measures ANOVA was computed on the replication sample's attractiveness, expertness and trustworthiness scores for Ellis, Perls and Rogers. The large interaction effect ($F = 101.36$; $df = 4, 524$; $p .01$) suggested that the CRF-S differentiated within and between counselors. Perceived expertness was the highest mean scale score for Ellis and Perls; the lowest for Rogers and community counselors. Perceived trustworthiness was not the lowest score in any rating task and was slightly higher than perceived

Table 2
Means and Standard Deviations for Items and Scales of the CRF-5

	<u>Ellis</u>		<u>Perls</u>		<u>Rogers</u>		<u>Community Counselors</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>
Attractiveness	18.15	5.87	13.86	5.78	21.05	5.17	25.42	3.85
Friendly	4.62	1.54	3.64	1.54	5.58	1.24	6.32	1.10
Likeable	4.56	1.60	3.48	1.71	5.28	1.49	6.54	0.93
Sociable	4.92	1.56	3.69	1.57	4.95	1.55	6.30	1.12
Warm	4.05	1.74	3.05	1.66	5.25	1.66	6.28	1.16
Expertness	23.20	4.03	22.02	4.97	18.31	6.12	24.82	3.46
Experienced	5.91	1.03	5.66	1.28	4.98	1.51	6.23	1.07
Expert	5.73	1.12	5.50	1.41	4.57	1.72	6.03	1.09
Prepared	5.83	1.11	5.37	1.39	4.34	1.62	6.25	1.03
Skillful	5.73	1.30	5.49	1.49	4.42	1.82	6.32	0.99
Trustworthiness	21.88	3.99	18.92	5.18	21.22	4.53	25.96	3.56
Honest	5.89	1.05	5.29	1.54	5.63	1.22	6.53	0.99
Reliable	5.33	1.16	4.58	1.41	4.69	1.44	6.41	1.00
Sincere	5.27	1.44	4.54	1.64	5.66	1.21	6.50	0.99
Trustworthy	5.36	1.30	4.50	1.55	5.23	1.44	6.49	1.03
Total Score	63.40	11.66	54.80	13.43	60.58	13.22	76.19	9.76

attractiveness for Rogers and community counselors. Attractiveness was the lowest mean score for Ellis and Perls.

In development of the CRF-S, items were restructured to encourage greater use of the seven-point range of each scale. In Table 3 average ratings one standard deviation below the mean are reported for the CRF-S. These ratings are compared to those for the original CRF, calculated from means and standard deviations reported by LaCrosse and Barak (1976). Inspection of results for the CRF-S versus the CRF suggested that the CRF-S did elicit greater use of the seven-point range for ratings of Ellis, Perls and Rogers. However, it also appeared that the extension sample made less use of the full range. Eighty-four percent of these subjects made ratings at or above the fifth point on the scale. As was evident in Table 2, mean scores for the extension sample were higher than those for the replication sample and standard deviations were lower. This mixed success in eliciting greater variance from the CRF-S is discussed later in light of a "good guy" factor.

Development of the CRF-S also sought to increase the internal consistency of each scale by selecting items that showed high loadings in previous factor analyses. Split-half reliabilities for the 12-item attractiveness, expertness and trustworthiness scales in the CRF were reported to be .850, .874 and .908, respectively (LaCrosse and Barak, 1976). Using these reliabilities in Spearman-Brown's formula, the expected values for the four-item attractiveness, expertness and trustworthiness scales would be .654, .698 and .766, respectively. These estimates assume no increase in the internal consistency of the scales selected for the CRF-S. Actual results, reported in Table 4, revealed that inter-item reliabilities were considerably greater than was estimated, and that in most cases these statistics equalled or exceeded inter-item reliabilities reported for the CRF.

Table 3

Average Ratings One Standard Deviation Below the Mean for the CRF-S and CRF

	<u>CRF-S</u>	<u>CRF^a</u>
Ellis		
Attractiveness	3.07	3.74
Expertness	4.79	5.08
Trustworthiness	4.47	4.50
Perls		
Attractiveness	2.02	3.15
Expertness	4.26	5.28
Trustworthiness	3.44	4.17
Rogers		
Attractiveness	3.97	4.07
Expertness	3.05	4.51
Trustworthiness	4.17	4.67
Community Counselors		
Attractiveness	5.39	---
Expertness	5.34	---
Trustworthiness	5.60	---

^aCalculated from means and standard deviations reported by LaCrosse and Barak (1976).

Table 4
Inter-item Reliability for the CRF-S and CRF

	<u>CRF-S^a</u>	<u>CRF^b</u>
Ellis		
Attractiveness	.93	.75
Expertness	.91	.85
Trustworthiness	.82	.89
Perls		
Attractiveness	.91	.89
Expertness	.91	.83
Trustworthiness	.86	.93
Rogers		
Attractiveness	.89	.88
Expertness	.94	.92
Trustworthiness	.87	.91
Community Counselors		
Attractiveness	.91	---
Expertness	.85	---
Trustworthiness	.91	---

^aCalculated using Kuder-Richardson's Formula 20.

^bSplit-half reliabilities calculated using Spearman-Brown's formula, reported by LaCrosse and Barak (1976).

Factor Structure

To validate the underlying structure of ratings on the CRF-S, confirmatory factor analysis with simultaneous groups was used (Joreskog, 1969; Joreskog and Sorbom, 1979). Confirmatory factor analysis is one of several applications of covariance structure analysis. A theoretical model is specified, against which sample statistics are compared for goodness of fit. In confirmatory factor analysis, item loadings on each factor and the relationship among factors are considered to be parameters of the theoretical model. These parameters may be fixed at a value dictated by the theoretical model, or they may be allowed to vary freely if their value is not specified by theory. Normally, parameters expected to equal zero are those that are fixed. For example, if an item is expected to load on only one of three factors, then its loadings on the other two could be fixed at zero. Its loading on the third factor would be free to vary to a level that allows optimal fit of the theoretical model to the observed values.

When a theoretical model is to be tested for its simultaneous goodness of fit to more than one sample of data, similarity of structure and/or values may be specified across samples. For example, the number of factors and whether they are orthogonal or oblique might be expected to be the same in all samples. Furthermore, the theoretical model might be constrained such that the value of free parameters are equal across samples. Thus, an item's loading on the factor with which it is expected to be associated may be free to vary as long as the value that is eventually estimated is the same for each sample of data.

As stated above, confirmatory factor analysis leads to an assessment of the goodness of fit of the theoretical model. A chi-square statistic is used to determine whether observed data differ significantly from values specified in the theoretical model. The null hypothesis is that the model fits the data (i.e., there is

no difference). A significant chi-square value indicates that there is a difference between the expected and the observed data and, thus, that the theoretical model does not fit. Rejection of the null hypothesis results in rejection of the theoretical model.

A weakness in this approach to testing the correspondence between theoretical model and observed values is that large sample sizes increase the likelihood that the chi-square value will be significant and thus necessitate rejection of the theoretical model. Bentler and Bonnet (1980) noted that the direct relationship between sample size and significance allows manipulation of significance by manipulating sample size. These authors recommended incremental indices of fit that are independent of sample size and statistical significance tests but allow comparison of models. Such indices evaluate the increase in information attained by application of a theoretical model versus that gained from a "null model." For confirmatory factor analysis, null models reflect no relationship (loadings equal to zero) between observed values and independent, underlying factors. The increase in information gained is reflected in the parameter ρ , where:

$$\rho = \frac{Q_0 - Q_m}{Q_0 - 1} \quad (1)$$

and $Q_0 = \chi^2/df$ for the null model, $Q_m = \chi^2/df$ for a theoretical model. Competing models are judged by the increase or decrease in ρ . Bentler and Bonnet observed that ρ values less than .9 can usually be improved substantially regardless of the relationship to competing models.

For validation of the CRF-S, five competing models and one null model were tested. The LISREL computer package (Joreskog and Sorbom, 1978) for confirmatory factor analysis with simultaneous groups was used. Each of the four rating tasks (Ellis, Perls, Rogers and community counselors) were used as samples for

simultaneous analysis. The null model, against which the five theoretical models were compared, was constructed as described above. Factor loadings were fixed at zero with factors independent. The five competing theoretical models were based on previous factor analytic results and/or theoretical postulations. In general, the models varied along three dimensions: number of factors, factor loadings for each item and relationships between factors. Factor loadings were manipulated by fixing loadings at zero when an item was not expected to load on that factor and letting the loading vary freely if the item was expected to do so. Relationships among factors were manipulated by fixing the correlation between two factors at zero when they were expected to be orthogonal and letting the correlation vary freely if the two factors were expected to be oblique. The five competing theoretical models are defined below.

Model 1 tested a three-factor, orthogonal structure based on one interpretation of Strong's (1968) original thesis and results reported by Barak and LaCrosse (1975) for factor analyses from ratings of Perls and Rogers. Items from the attractiveness, expertness and trustworthiness scales of the CRF-S were expected to load on three independent factors.

Model 2 tested a two-factor, orthogonal structure based on a second interpretation of Strong's (1968) original thesis in which expertness and trustworthiness were viewed as components of a single "credibility" factor. Barak and LaCrosse (1975) reported similar factor analytic results for ratings of Ellis. Items from the expertness and trustworthiness scales of the CRF-S were expected to load on one factor; items from the attractiveness scale were expected to load on a second, independent factor.

Model 3 tested a two-factor, oblique structure similar to that tested in Model 2. The oblique relationship between the two factors was suggested by LaCrosse's

(1977) observation that the social influence attributes may be components of a unitary perceptual dimension or "good guy" factor (Bergin, 1971). Except for allowing intercorrelations among the factors, Model 3 was identical to Model 2.

Model 4 tested a two-factor, oblique structure based on Corrigan's (1977) factor analytic results. In this model, expertness and trustworthiness items were expected to load on one factor, while attractiveness and trustworthiness items loaded on the second. The intercorrelation between the two factors was free to vary, simulating Corrigan's (1977, 1978) speculation that either expertness or attractiveness combine with trustworthiness as the basis for credibility.

Model 5 tested a three-factor, oblique structure similar to Model 1. Factor analyses reported by Zamostny, Corrigan and Eggert (1981) suggested a three-factor structure with high intercorrelations among factors resulting from a "good guy" factor. Items from the three scales of the CRF-S were expected to load on different factors.

Results of confirmatory factor analysis for each model are reported in Table 5. All chi-square statistics were significant, a result that would be expected with an n of 554 ($n = 133$ for each of the three replication samples; $n = 155$ for the extension sample). Calculation of the incremental goodness of fit (ρ) for each model allowed comparison based on the gain in information from the null model. In general, the orthogonal models resulted in less information gained than the oblique models. Based on Bentler and Bonnet's (1980) criterion of $\rho \geq .9$, only Model 5 would be viewed as accounting for a substantial portion of the information. However, it should be noted that Model 4 almost attained the criterion level ($\rho = .896$).

Because validation of the CRF-S sought to both replicate previous validation of the CRF and extend this examination to an actual client population, incremental goodness of fit measures were also calculated by sample. These measures, shown

in Table 6, allowed consideration of a model's consistency of fit across replication and extension samples. It was notable that, in all five models, ratings of Ellis or Perls were best accounted for; Perls in Models 1, 4 and 5; Ellis in Models 2 and 3. Not surprisingly, Barak and LaCrosse's (1975) factor analysis from ratings of Ellis was the impetus for Models 2 and 3. For the orthogonal Models (1 and 2), the community sample was the least well accounted for. In Model 4, the ρ values for Ellis and Perls exceeded .9; however, those for Rogers and the community sample did not. Only in Model 5 were ρ values for all samples greater than .9. Furthermore, Model 5 appeared to show the greatest consistency between replication and extension samples. Except for the higher value of ρ for ratings of Perls, replication and extension samples showed almost equal levels of incremental fit.

The results reported above suggested that Model 5, the three-factor, oblique structure, best fit the observed values of ratings from the CRF-S. Factor loadings and intercorrelations among factors for this model are shown in Tables 7 and 8, respectively. In Table 7, it is notable that the factor loadings are relatively high, most greater than .75. It should be recalled that loadings equalling zero were fixed at that value. In Table 8, the intercorrelations among factors are higher than those reported for previous oblique factors structures. However, these intercorrelations are in the same range as the raw score intercorrelations reported by LaCrosse and Barak (1976). It is notable that for all four samples, the lowest intercorrelations were between the Expertness and Attractiveness factors. For ratings of Ellis, Perls and Rogers, the highest intercorrelations were between the Expertness and Trustworthiness factors. However, for the extension sample, the highest intercorrelation was between the Attractiveness and Trustworthiness factors.

Table 5
Comparison of Five Models of Factor Structure
Using Confirmatory Factor Analysis with Simultaneous Groups

	χ^2 *	df	p
Null Model	5,436.00	264	0
Model 1: 3-factor, orthogonal	1,242.53	216	.757
Model 2: 2-factor, orthogonal	1,112.48	216	.788
Model 3: 2-factor, oblique	833.23	212	.850
Model 4: 2-factor, oblique	594.66	196	.896
Model 5: 3-factor, oblique	497.93	204	.927

*p < .01 for all chi-square statistics.

Table 6
Comparison of Incremental Goodness of Fit (ρ)
for Five Models by Sample and Simultaneous

	Samples				Simultaneous
	<u>Ellis</u>	<u>Perls</u>	<u>Rogers</u>	<u>Community</u>	
Model 1	.762	.806	.782	.696	.757
Model 2	.839	.824	.779	.728	.788
Model 3	.885	.855	.801	.861	.850
Model 4	.909	.928	.867	.886	.896
Model 5	.918	.962	.914	.916	.927

Table 7
Factor Loadings by Sample for a Three-Factor, Oblique Structure
of Ratings from the CRF-S

<u>Factor:</u>	<u>Ellis</u>			<u>Perls</u>			<u>Rogers</u>			<u>Community</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
Attractiveness												
Friendly	.89	0	0	.88	0	0	.72	0	0	.82	0	0
Likeable	.94	0	0	.89	0	0	.88	0	0	.90	0	0
Sociable	.81	0	0	.77	0	0	.82	0	0	.79	0	0
Warm	.88	0	0	.87	0	0	.85	0	0	.85	0	0
Expertness												
Experienced	0	.80	0	0	.90	0	0	.92	0	0	.77	0
Expert	0	.92	0	0	.90	0	0	.95	0	0	.86	0
Prepared	0	.81	0	0	.77	0	0	.80	0	0	.66	0
Skillful	0	.86	0	0	.86	0	0	.89	0	0	.77	0
Trustworthiness												
Honest	0	0	.64	0	0	.76	0	0	.74	0	0	.89
Reliable	0	0	.82	0	0	.82	0	0	.84	0	0	.83
Sincere	0	0	.66	0	0	.77	0	0	.76	0	0	.88
Trustworthy	0	0	.79	0	0	.80	0	0	.84	0	0	.89

Table 8
Intercorrelations among Factors by Sample for a
Three-Factor, Oblique Structure of Ratings from the CRF-S

	Ellis			Perls		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
Attractiveness	1.000			1.000		
Expertness	.544	1.000		.411	1.000	
Trustworthiness	.676	.850	1.000	.704	.782	1.000

	Rogers			Community		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
Attractiveness	1.000			1.000		
Expertness	.417	1.000		.725	1.000	
Trustworthiness	.661	.771	1.000	.900	.791	1.000

Individual and Treatment Differences

In addition to developing and validating the CRF-S, the study sought to explore potential mediating factors in clients' perceptions of counselors. Three sets of variables collected from the extension sample were examined for their impact on perceived attractiveness, expertness and trustworthiness. The first set assessed clients' individual differences, including age, sex, race, marital status, income, education, previous psychiatric hospitalization and the prescription of medication. The second set, counselor/client group membership, included sex and race similarity. A third set of variables assessed the impact of the stage of the counseling relationship using the number of previous sessions with the rated counselor. Squared and cubed values for the number of sessions were included to assess potential non-linear relationships between ratings and the stage of relationship. The definitions of variables used in data collection are described in Appendix E.

Four multiple regressions were computed with attractiveness, expertness, trustworthiness and the total score as criterion variables. Fourteen predictor variables were included in each regression equation. (Because marital status was defined by three dichotomous, dummy variables, only two of the three were included in the regression equation.) The sample sizes for each regression varied because of missing data. The subjects to variables ratios ranged from 7.5:1 to 7.7:1. These ratios were somewhat below the desired 10:1 ratio. Furthermore, subsetting of the sample for cross-validation was not possible. Correlations among predictor and criterion variables are shown in Table 9. The results of the four multiple regressions are shown in Table 10. The R^2 values for the regression equations indicated that between 25% and 30% of the variance in clients' ratings of

their counselors was accounted for by the predictor variables. These values were both statistically and practically significant.

To further assess the impact of each predictor variable, Type II sums of squares were examined. Type II sum of squares is the amount of variance that would be deleted from the regression variance and added to error if that variable were removed from the regression equation. Thus, for each variable in this study, the ratio of the Type II sum of squares to total sum of squares was the percent of variance that would not be accounted for (the decrease in R^2) in a regression equation that included the 13 other predictor variables, but not the variable in question. The proportions of Type II sum of squares to total sum of squares are reported in Table 11.

Among predictor variables, client income accounted for the greatest amount of variance in all four regressions, ranging from 13% to 18% of the total variance. In all regressions, elimination of this variable would reduce the total R^2 by more than half. As reported in Table 9, the correlations between income and attractiveness, expertness, trustworthiness and total score were -.34, -.35, -.38 and -.41, respectively. These correlations were the only statistically significant relationships between the predictor variables and the criterion measures. The negative values of the correlation coefficients indicated that the ratings of counselors' attributes decreased as client income increased.

A second individual difference also contributed significantly to clients' perceptions. Clients who were not married currently but had been previously tended to rate their counselors higher. The percent of total variance accounted for by this predictor was 4.8%, 4.2% and 4.0% for expertness, trustworthiness and total

Table 9
Intercorrelations among Predictor and Criterion Variables for the Community Sample

	Predictors															Criteria			M	SD	
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>			<u>19</u>
Predictor variables:																					
1. Age	--	.16	.11	.07	.32*	-.39*	-.07	-.03	-.18	-.20	.08	.09	-.01	-.05	-.08	.09	.08	.09	.12	32.40	9.56
2. Sex		--	-.09	.00	.26*	-.25*	-.09	-.03	.02	.03	-.07	-.01	.03	.04	.04	.07	.00	.10	.07	1.68	0.47
3. Race			--	-.08	.02	.06	.04	-.08	-.04	-.03	.15	.21*	.00	.00	.01	-.03	.10	.05	.04	1.14	0.34
4. Married currently				--	-.52*	-.52*	.27*	.05	.16	.17	.00	-.07	-.10	-.08	-.07	-.20	-.19	-.14	-.18	.38	.49
5. Not married currently but have previously never married					--	-.45*	-.09	-.03	-.08	-.09	-.10	.01	-.02	-.04	-.05	.15	.21	.18	.20	.31	.46
6. Income						--	-.19	-.02	-.09	-.09	.10	.07	.13	.12	.12	.06	-.01	-.04	-.02	.31	.46
7. Education							--	.11	.13	.17	-.11	-.16	.04	.10	.14	-.34*	-.35*	-.38*	-.41*	8,905.92	9,875.63
8. Previous psychiatric hospitalization								--	.21*	.13	-.06	.08	.22*	.18	.13	-.06	-.10	-.01	-.05	2.43	1.08
9. Currently prescribed medication									--	.67*	.02	-.03	.07	.01	-.05	.01	.01	.02	.01	1.58	.50
10. Counselor sex similarity										--	-.08	-.04	-.05	-.07	-.07	-.05	.04	-.04	-.03	1.52	.50
11. Counselor race similarity											--	.17	-.01	-.03	-.04	-.10	-.04	-.05	-.09	1.47	.50
12. Number of counseling sessions												--	.11	.07	.05	.02	.11	.00	.05	1.33	.49
13. Number sessions squared													--	.96*	.88*	.12	-.01	.10	.11	11.77	11.36
14. Number sessions cubed														--	.98*	.10	-.03	.09	.09	266.67	487.10
15. Total score															--	.10	-.02	.08	.08	8,387.43	20,856.51
Criterion variables:																					
16. Attractiveness																--	.61*	.80*	.90*	25.42	3.85
17. Expertness																	--	.71*	.85*	24.82	3.46
18. Trustworthiness																		--	.94*	25.96	3.56
19. Total score																			--	76.19	9.76

*n = 155; p < .01

Table 10

Results of Four Multiple Regressions on CRF-S Ratings from the Community Sample

Criterion Variable	n	R ²	F*	df
Attractiveness	115	.2448	2.32	14, 114
Expertness	116	.3025	3.13	14, 115
Trustworthiness	116	.2505	2.41	14, 115
Total Score	113	.3020	3.03	14, 112

*p < .01

Table 11

Percent of Variance Accounted for by Each Predictor Variable in Four Multiple
Regressions of CRF-S Ratings from the Community Sample

Predictor Variables	Criterion Variables for Each Multiple Regression			
	<u>Attractiveness</u>	<u>Expertness</u>	<u>Trustworthiness</u>	<u>Total Score</u>
Age	0.1	0.0	0.1	0.0
Sex	0.3	0.2	0.3	0.1
Race	0.8	0.9	1.6	1.1
Married currently	0.1	0.6	1.4	0.9
Not married currently but have previously	1.0	4.8*	4.2*	4.0*
Income	13.6*	15.8*	15.9*	17.7*
Education	0.1	0.1	0.0	0.0
Previous psychiatric hospitalization	1.2	0.2	0.3	0.5
Currently prescribed medication	0.2	0.4	0.0	0.0
Counselor sex similarity	1.2	0.9	0.6	1.2
Counselor race similarity	0.6	0.0	0.9	0.2
Number of counseling sessions	2.8	5.0*	1.3	3.5*
Number sessions squared	2.8	6.1*	1.3	3.7*
Number sessions cubed	3.2*	6.8*	1.5	4.1*

* $p < .05$

Note: The percent of variance reported in the table is the ratio of Type II sum of squares to total sum of squares.

score, respectively. However, for attractiveness, this variable only accounted for 1% of the total variance.

Though the two variables related to group membership did not account for a significant proportion of variance, those associated with the stage of relationship did. The number of previous sessions with the rated counselors and the two exponential transformations of this value each accounted for significant proportions of the total variance in expertness and total scores. The number of sessions cubed accounted for a statistically significant proportion of the variance in attractiveness ratings. Though for attractiveness the number of sessions and sessions squared did not reach statistical significance, the elimination of either would have resulted in a 10% decrease in the variance accounted for by the regression equations. Variables related to stage of relationship did not account for a significant proportion of the variance in trustworthiness.

The significance of the exponential transformation of the number of sessions suggested a non-linear relationship between ratings and sessions. In Figure 2, ratings of attractiveness, expertness and trustworthiness were plotted against the number of sessions. Several interesting characteristics of this plot were noted from visual inspection. First "low points" in clients' perceptions were observed for those who had had one or six previous sessions. This configuration could have accounted for the greater significance of the second order transformation (sessions cubed). Finally, it was also noted that expertness and attractiveness varied more across sessions than trustworthiness. Indeed, closer inspection revealed that trustworthiness increased when either attractiveness or expertness increased, but only decreased when both decreased.

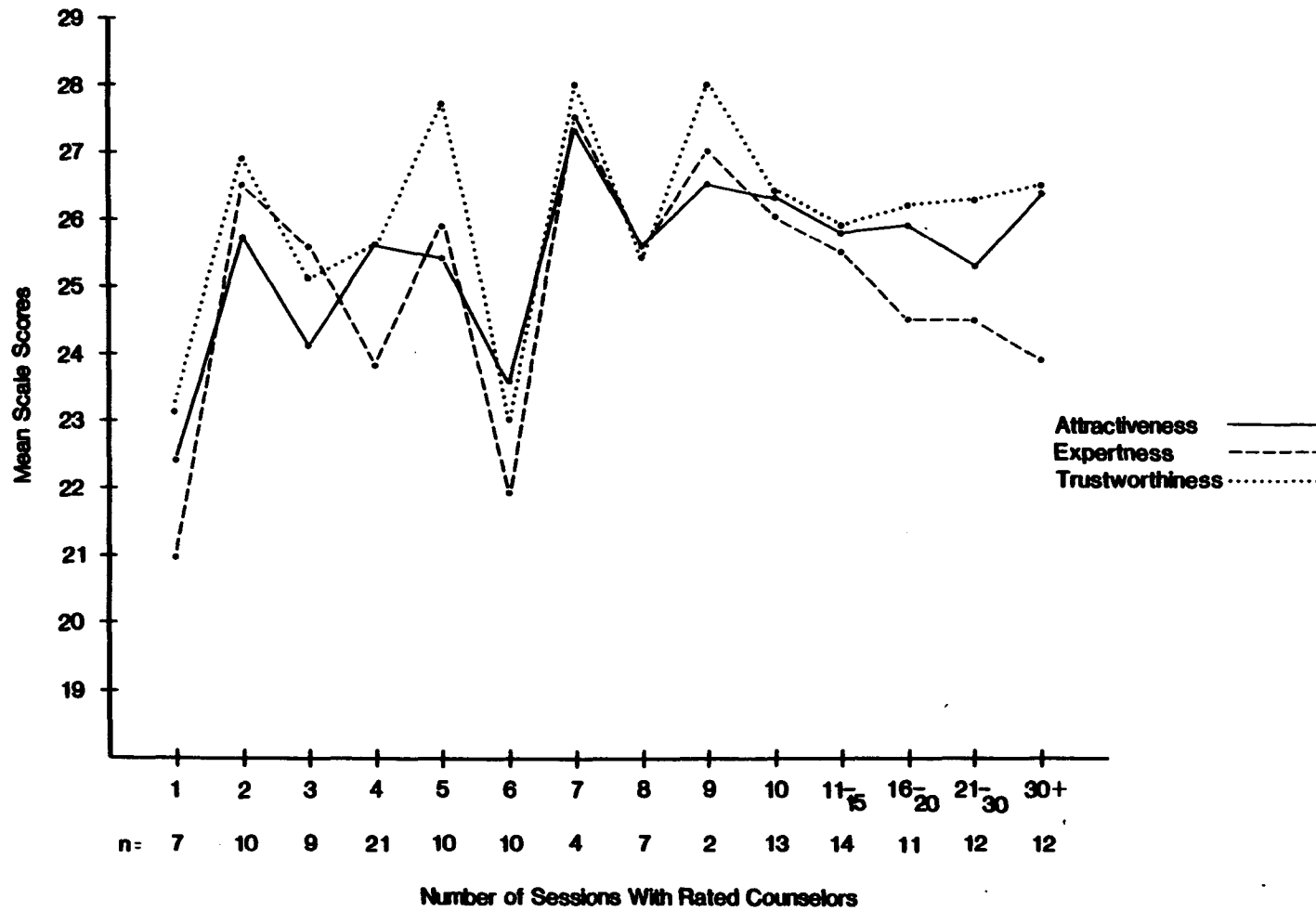


Figure 2. Mean scale scores across sessions for CRF-S ratings from the community sample.

Discussion

Validation of the CRF-S

Development of the CRF-S was guided by the desire to improve the utility of the CRF without sacrificing the reliability and validity that the original instrument had demonstrated. In reducing the number of items and decreasing the educational level required to comprehend the adjectives, it was expected that the internal consistency and unique variance of the dimensions could be maintained or increased. Validation of the CRF-S sought to demonstrate that ratings on the new instrument conformed to a theoretically interpretable factor structure. It was hoped that this factor structure would prove to be equally descriptive of observations drawn from a sample and procedure that replicated Barak and LaCrosse's (1975) validation of the CRF, as well as a sample of actual clients from a non-college population who provided ratings of their counselors. Results of this study, discussed below, indicated that the CRF-S attained or exceeded these objectives.

A reduction in the educational level required for comprehension of adjectives in the CRF-S was operationalized in the criteria for item selection. Though a maximum sixth-grade level was desired, other selection criteria required that the maximum level be increased to the eighth grade. Support for success in making the CRF-S more understandable was suggested by the negligible number of items that were not completed. In the few instances where missing values occurred (eight out of 6,648 ratings), no consistent pattern was observed for particular items, required level of comprehension or education of the subjects.

Decreasing the number of items on the CRF-S was intended to reduce the administrative difficulties, not only for subjects with short attention spans but for experimenters with ambitious protocols. A random process of reducing scales from 12 to four items would be expected to result in a loss in reliability. Item selection for the CRF-S sought to maintain internal consistency by selecting items that had shown high factor loadings in previous analyses. The success of this criterion was demonstrated by the extent to which observed reliabilities exceeded the values that would have been expected from random item selection. In most cases, observed reliabilities also equalled or exceeded those reported for the CRF (LaCrosse and Barak, 1976) where scales had three times as many items. Furthermore, repeated measures ANOVA on data from the replication sample revealed that ratings differentiated within and between counselors.

One objective that was only partially accomplished was the desire to increase the variance in ratings. The structure of the items in the CRF was revised by eliminating negative adjectives (or opposites) and rating adjectives indicative of the attributes on a scale anchored by "not very" and "very." Elimination of the negative adjectives which were often quite pejorative (and frequently required a higher grade level for comprehension) was intended to encourage greater use of the full seven-point scale. Results for the replication sample indicated slightly greater scale use when compared to a sampling of other studies, including previous ratings of the same stimuli (Ellis, Perls and Rogers). However, for the extension sample almost all ratings were at or above the mid-point of the seven-point scales.

The high mean scores and low standard deviations for the extension sample may be understandable in terms of the cognitive consistency exigent upon clients who rated their actual counselor ("I'm getting help from this person so he/she must be good"). However, it is also possible that the procedure for the replication

sample, requiring ratings of three different counselors, may have elicited results affected by cognitive consistency ("I'm being asked to compare these counselors so there must be differences"). Though the results observed here may have been influenced by artifact, revision of the structure of scales was still viewed as preferable. It seems likely that greater scale use will be observed in items anchored by "not very" warm, "not very" intelligent or "not very" likeable versus "cold," "stupid" or "unlikeable," respectively.

Validation of the factor structure of items in the CRF-S revealed that a three-factor, oblique model accounted for the observed data in both the replication and extension samples. This structure was judged superior to several competing models, both in terms of the extent and consistency of fit across samples. Characteristics of this three-factor, oblique model were very similar to factor analytic results reported by Zamostny, Corrigan and Eggert (1981) for clients' perceptions of intake counselors. Though Barak and LaCrosse (1975) observed that a three-factor, orthogonal model best fit two of their three original factor analyses, subsequent studies did not replicate this finding (Corrigan, 1977; Zamostny, Corrigan and Eggert, 1981). Observing high raw score correlations among the social influence attributes, LaCrosse (1977) suggested that expertness, attractiveness and trustworthiness may be components of a unitary dimension of perceived counselor behavior or "good guy" factor (c.f. Bergin, 1971). Equally high values for inter-factor correlations were observed in the present study, lending support to LaCrosse's observations.

Further theoretical implications of these findings are discussed below; however, it did appear that the factor structure of the CRF-S can be interpreted in terms of existing theory. Furthermore, results suggested that the CRF-S can be used with college and non-college populations, in experimental and field settings.

High item loadings indicated that raw score values can be used with confidence, as well. The intercorrelations among the attributes would suggest that experimenters measure and account for all three dimensions when using any one of them as an independent or dependent variable. This methodological precaution was also recommended by Corrigan et al. (1980).

Implications for Theory

Data from the present study provided results that may have implications for further understanding of social influence processes in counseling. Perhaps most notable was the support provided for LaCrosse's (1977) observation that social influence attributes may be subject to a unitary dimension of perceived counselor behavior or "good guy" factor (c.f. Bergin, 1971). In confirmatory factor analysis, oblique factor structures that allowed intercorrelations among factors were superior to orthogonal structures that presumed the factors were independent. These results suggested that when counselors are viewed positively or negatively in terms of one attribute there is a high likelihood that they will be viewed similarly on the other two. Furthermore, a greater "good guy" effect for actual clients in counseling was suggested by the higher factor intercorrelations, higher mean scale scores and lower standard deviations for the extension versus replication samples.

The high values of the intercorrelations among factors for the three-factor, oblique model might suggest that the "good guy" effect is so pervasive that differentiation of attractiveness, expertness and trustworthiness is unnecessary. First, it should be noted that when factor loadings are fixed at zero as was done for confirmatory factor analysis, the values of the inter-factor correlations will become more comparable to raw score correlations. More important in terms of confirmation of the distinction among the three attributes was the greater

information accounted for in the three-factor oblique model versus either of the two-factor, oblique models. Furthermore, differences in factor intercorrelations across samples suggested that the "good guy" effect had a differential impact on the relationships between dimensions depending on the rating situation. The relationship between expertness and attractiveness was the least affected across all samples. However, for the replication sample, the relationship between expertness and trustworthiness was the most affected; attractiveness and trustworthiness was most affected for the extension sample.

Differences between the replication and extension samples may be indicative of two situations in which counselor credibility is derived from different attributes. Corrigan et al. (1980) speculated that previous findings regarding counselor influence may be accounted for by the power associated with a social role that is sanctioned to prescribe behavior. This source of influence, called legitimate power (c.f. Strong and Matross, 1973), was based on the expected expertness and trustworthiness of anyone who "occupied" the counselor role. These two attributes have been found to be integral parts of stereotypic conceptions of counselors (Cash, Kehr and Salzbach, 1978; Corrigan, 1978; Zamosny, Corrigan and Eggert, 1981). In the present study, the replication sample also appeared to perceive expertness and trustworthiness as more closely related than attractiveness was with either. However, for the extension sample, attractiveness and trustworthiness were more closely associated. A similar contrast between stereotypic conceptions and actual clients' perceptions of their counselors was observed by Zamosny, Corrigan and Eggert (1981). Perhaps as Corrigan et al. speculated, legitimate power based on a socially expected expert and trustworthy role differs from bases of power (expert or referent, c.f. Strong and Matross, 1973) derived from information about the actual counselor providing treatment.

In general, the findings suggest that attractiveness, expertness and trustworthiness should continue to be considered as distinct, though interdependent, counselor attributes. Further study is needed to determine how these attributes interact to affect the process and outcome of counseling. Future speculation about the structure of perceptions may need to be grounded in evidence of the impact on counselor influence.

Implications for Research

Beyond validation of the CRF-S, an additional objective of the present study was to explore potential mediating factors in clients' perceptions of counselors. Corrigan et al. (1980) noted the predominance of studies that examined cues used by subjects to infer attractiveness, expertness and trustworthiness. However, the use of experimental, analogue designs and reliance on college populations for sampling had not allowed examination of individual or treatment differences that affect perceived attributes. Data from the extension sample in the present study were investigated for the effects of such differences.

Multiple regressions using clients' ratings as criterion variables revealed that between 25% and 30% of the total variance in ratings was accounted for by individual and treatment differences. Given that perceived counselor attributes have been shown to be affected by behavioral, reputational and evidential cues about the counselor (c.f. Corrigan et al., 1980), the mediating effects studied here may be important secondary sources of differential perceptions. In particular, specific differences seemed to have strong effects.

Among the individual differences examined in the study, only two variables contributed significantly to perceived ratings. The most salient effect was associated with client income; more than half of the variance accounted for by all

variables could be attributed to this client difference. Client marital status, particularly whether the client was divorced or not, contributed a significant proportion of variance to all ratings except counselors' perceived attractiveness. Perhaps as notable as those individual differences that contributed significantly to perceptions were those that did not. Age, sex, race, education, previous psychiatric hospitalization and the use of medication did not account for significant proportions of variance. These results may suggest that the generalizability of laboratory findings based on subjects from college populations has not been greatly limited by the homogeneity of these samples. However, the salient effect for income, if not marital status, would suggest the continued need to investigate the generalizability of findings.

Among treatment differences, client/counselor group membership similarity was examined for its mediating effect on perceptions. Neither counselor/client race nor sex similarity contributed significantly to prediction. It was noted in proposing this examination of group membership similarity that Corrigan et al.'s speculation about this effect could not be tested directly. These authors proposed that similarity may only be a salient attribute when group membership is felt to be a salient aspect of the need for help. Furthermore, more recent conceptualizations of gender effects in counseling (c.f. Bem, 1979) suggest that sex role orientation, as opposed to actual sex, may be the most salient criterion in counselor/client matching. In a recent analogue study, Banikiotes and Merluzzi (1981) did not find confirmation that either client sex role orientation or content of the problem discussed affected clients' perceptions of the counselor. However, counselor gender, counselor sex role orientation and the interaction between these differences did affect perceived expertness and trustworthiness. It would appear that the effects of group membership similarity require considerable additional study.

A second treatment difference examined in the present study was the stage of counseling relationship. The number of previous sessions with the rated counselor and first and second order exponential transformations of this value were included in multiple regressions. Results indicated that perceived trustworthiness was not significantly affected by these indicators. However, each of the three variables used to assess stage of relationship accounted for significant proportions of the variance in perceived expertness. The second order transformation (sessions cubed) accounted for a smaller, but significant, proportion of the variance in perceived attractiveness.

Visual inspection of the relationship between counselor attributes and number of previous sessions suggested two interesting dynamics. First, low mean values were observed for clients who had had one or six previous sessions. It may be that distinct stages in the relationship are reflected in (or caused by) these points of diminished perception. The design of the present study was not longitudinal; thus, this observation is only speculative. However, the greater proportion of variance accounted for by the cubed number of sessions can be explained by this configuration of ratings. Visual inspection also revealed the lack of significance between stage of relationships and perceived trustworthiness. This attribute varied the least across sessions; indeed, it appeared that trustworthiness increased when either expertness or attractiveness increased, but only decreased when both did. Again, because the design of the study was not longitudinal, this effect will have to be examined more closely in future investigations.

The findings concerning mediating variables in clients' perceptions suggest that future research may need to consider characteristics of the sample and the treatment situation when assessing the generalizability of results. Certainly, the results supported the need to verify findings in the general population of actual

clients. Potential differences across the stage of relationship and shifts from stereotypic conceptions to perceptions of actual counselors suggest the need for continued field studies. As noted above with regards to the effects of counselor attributes on influence, future investigations might consider the mediating effects of perceptions as they relate to subsequent influence. For instance, Garfield (1978) suggested that premature termination among low socio-economic status clients may result from their attitudes about the effectiveness of treatment and/or the credibility of counselors. The tendency observed here for low income clients to view their counselors more favorably would seem to run counter to this postulation. An interesting topic for future study may be the relationship between counselor attributes and premature termination. This latter phenomenon might be conceived of as an indicator of counselor lack of influence, i.e. failure to persuade the client to continue treatment.

As noted in Corrigan et al. (1980), LaCrosse (1980) and Zamostny, Corrigan and Eggert (1981), social influence theory requires confirmation of the eventual impact on actual influence if the study of such processes in counseling is to continue to demonstrate heuristic and practical value. Perhaps development of the CRF-S will allow greater expediency in this theory testing, in both laboratory and field settings.

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Appendix A

Estimates of Reliability for Shortened Versions of the Counselor Rating Form

	Number of Items per Scale			
	<u>12</u> ^a	<u>6</u> ^b	<u>5</u> ^b	<u>4</u> ^b
Expertness	.874	.776	.743	.698
Attractiveness	.850	.739	.702	.654
Trustworthiness	.908	.832	.804	.766

^aSplit-half reliabilities reported by LaCrosse and Barak (1976).

^bCalculated using Spearman-Brown's formula for estimating reliability.

Appendix B

Research Protocol for Replication of Barak and LaCrosse's (1975)

Validation of the Counselor Rating Form

INSTRUCTIONS

You will be shown three tapes of three different therapists working with the same client. After each tape, we would like you to rate several characteristics of the therapist you just viewed.

On the following pages, each characteristic is followed by a seven-point scale that ranges from "not very" to "very." Please mark an "X" at the point on the scale that best represents how you viewed the therapist. For example:

FUNNY

not very X:__:__:__:__:__ very

WELL DRESSED

not very __:__:__:__:__X:__ very

These ratings might show that the therapist did not joke around much, but was dressed well.

Though all of the following characteristics we ask you to rate are desirable, the therapists may differ in their strengths. We are interested in knowing how you view these differences.

After you have watched the third tape and made your ratings, there are a few background questions to answer on the last page.

PI

FRIENDLY

not very ___:___:___:___:___:___:___ very

EXPERIENCED

not very ___:___:___:___:___:___:___ very

HONEST

not very ___:___:___:___:___:___:___ very

LIKEABLE

not very ___:___:___:___:___:___:___ very

EXPERT

not very ___:___:___:___:___:___:___ very

RELIABLE

not very ___:___:___:___:___:___:___ very

SOCIABLE

not very ___:___:___:___:___:___:___ very

PREPARED

not very ___:___:___:___:___:___:___ very

SINCERE

not very ___:___:___:___:___:___:___ very

WARM

not very ___:___:___:___:___:___:___ very

SKILLFUL

not very ___:___:___:___:___:___:___ very

TRUSTWORTHY

not very ___:___:___:___:___:___:___ very

RI

FRIENDLY
not very ___:___:___:___:___:___:___ very

EXPERIENCED
not very ___:___:___:___:___:___:___ very

HONEST
not very ___:___:___:___:___:___:___ very

LIKEABLE
not very ___:___:___:___:___:___:___ very

EXPERT
not very ___:___:___:___:___:___:___ very

RELIABLE
not very ___:___:___:___:___:___:___ very

SOCIABLE
not very ___:___:___:___:___:___:___ very

PREPARED
not very ___:___:___:___:___:___:___ very

SINCERE
not very ___:___:___:___:___:___:___ very

WARM
not very ___:___:___:___:___:___:___ very

SKILLFUL
not very ___:___:___:___:___:___:___ very

TRUSTWORTHY
not very ___:___:___:___:___:___:___ very

Please complete the following background questions.

1. How old are you? _____ years old
2. Are you male or female? _____ male _____ female
3. What is your race? _____ white _____ black _____ other
4. What is your current marital status?
_____ never married
_____ currently married
_____ not married currently, but have been previously
5. Have you ever seen a therapist to talk about a personal problem?
_____ yes _____ no

THANK YOU FOR YOUR PARTICIPATION.

Appendix C

Research Protocol for Extension of Validation to Actual Clients in a Community Mental Health Setting

RESEARCH CONSENT FORM

In an effort to understand more about psychotherapy, this agency and your therapist have agreed to help with a research project. We would like to request your participation, as well.

The purpose of the study is to develop a new method for assessing how people view their therapists. If you are willing, the research will only take about five minutes of your time.

On the following pages we ask you to rate several characteristics of your therapist. We also ask for some background information about you. Your responses will be totally anonymous. Neither you nor your therapist can be identified with your ratings.

Your participation is completely voluntary. If you have any questions, please ask your therapist.

If you are willing to help us, please sign your name below. This consent form should be left with your therapist. You will be directed to an office where you can complete the attached questionnaire in private.

Client signature

date

Therapist signature

date

INSTRUCTIONS

We would like you to rate several characteristics of your therapist. For each characteristic on the following page, there is a seven-point scale that ranges from "not very" to "very." Please mark an "X" at the point on the scale that best represents how you view your therapist. For example:

FUNNY

not very X:__:__:__:__:__ very

WELL DRESSED

not very __:__:__:__:__X:__ very

These ratings might show that the therapist does not joke around much, but was dressed well.

Though all of the following characteristics are desirable, therapists differ in their strengths. We are interested in knowing how you view these differences. Remember, your responses are totally anonymous. There is no way to associate you or your therapist with the ratings you make.

After you have completed the ratings, please complete the background information requested on the last page.

FRIENDLY
not very ___:___:___:___:___:___:___:___ very

EXPERIENCED
not very ___:___:___:___:___:___:___:___ very

HONEST
not very ___:___:___:___:___:___:___:___ very

LIKEABLE
not very ___:___:___:___:___:___:___:___ very

EXPERT
not very ___:___:___:___:___:___:___:___ very

RELIABLE
not very ___:___:___:___:___:___:___:___ very

SOCIABLE
not very ___:___:___:___:___:___:___:___ very

PREPARED
not very ___:___:___:___:___:___:___:___ very

SINCERE
not very ___:___:___:___:___:___:___:___ very

WARM
not very ___:___:___:___:___:___:___:___ very

SKILLFUL
not very ___:___:___:___:___:___:___:___ very

TRUSTWORTHY
not very ___:___:___:___:___:___:___:___ very

We would like you to provide some background information by completing the following questions. Again, remember your responses are anonymous.

1. How old are you? _____ years old
2. Are you male or female? _____ male _____ female
3. What is your race? _____ white _____ black _____ other
4. What is your current marital status?
 _____ never married
 _____ currently married
 _____ not married currently, but have been previously
5. What is your yearly income? \$ _____
6. How much education have you completed?
 _____ 11th grade or less
 _____ high school graduate
 _____ some college or vocational school
 _____ college graduate
 _____ post-graduate study
7. Are you and your therapist of the same sex?
 _____ yes _____ no
8. Are you and your therapist of the same race?
 _____ yes _____ no
9. Including your visit today, how many sessions have you had with this therapist?
 _____ sessions
10. Have you ever been hospitalized for psychiatric treatment?
 _____ yes _____ no
11. Are you currently taking medication that has been prescribed as part of your treatment?
 _____ yes _____ no

THANK YOU FOR YOUR HELP.

Appendix D

Supplemental Therapist Information

1. Sex: Male Female
2. Race: White Black Other
3. Age: Yrs.
4. Marital Status: currently married
 never married
 not married currently, but have been previously
5. Experience: For how many years have you worked professionally as a therapist? years
6. Education: Highest degree attained:
 Bachelor's
 Master's
 Ph.D.
 Other (please specify) _____
7. Discipline: The degree indicated in #6 was attained in what discipline or field? _____

Appendix E

Definition of Variables Used as Predictors for Multiple Regression

Client age:	One continuous variable counted in years.
Client sex:	One dichotomous variable indicating male (1) or female (2).
Client race:	One dichotomous variable indicating whether the client is Caucasian (1) or not (2).
Client marital status:	Three dichotomous variables indicating (a) never married (1), (b) currently married (1), and (c) not married currently but has been previously (1), respectively (no = 0).
Client income:	One continuous variable counted in dollars.
Client education:	One ordinal variable where client's highest successfully completed level of education is indicated as 0 for none; 1 for grades 1 to 8; 2 for grades 9 to 11; 3 for high school graduate; 4 for some college or vocational training after high school; 5 for college graduate; 6 for post-graduate studies; 7 for a graduate degree.

- Client/counselor sex similarity:** One dichotomous variable indicating same (1) or different (2) sex.
- Client/counselor race similarity:** One dichotomous variable indicating same (1) or different (2) race.
- Client previous hospitalization:** One dichotomous variable indicating whether the client has ever received in-patient psychiatric treatment (1) or not (2).
- Client use of medication:** One dichotomous variable indicating whether client has been prescribed medication as part of treatment (1) or not (2).
- Client prior sessions:** One continuous variable indicating number of sessions the client has had with the counselor being rated.