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An Examination of Client-Therapist Matching on Locus of Control and Its Effect in Therapy

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AN EXAMINATION OF CLIENT-THERAPIST MATCHING ON LOCUS OF CONTROL AND ITS EFFECT IN THERAPY

by

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VITA

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TABLE OF CONTENTS

Table of Contents (continued)

LIST OF TABLES

CONTENTS FOR APPENDICES

CHAPTER I

INTRODUCTION

Psychotherapy research has reached a level of sophistication wherein it is recognized that therapist uniformity, patient uniformity, and therapy process uniformity are myths. A number of literature reviews acknowledging this and seeking to clarify research findings regarding the relationship among the numerous variables contributing to the psychotherapy process and its eventual outcome have been done (Kiesler, 1966; Luborsky, Chandler, Auerbach, & Cohen, 1971; Strupp & Bergin, 1969). Out of the myriad variables thought to enter into the process of psychotherapy, the relationship between the factors of therapist personality and patient personality was chosen for examination in this study. More specifically, the possibility that therapist-patient personality pairing or matching leads to more effective therapy process was the prime concern of this research.

The possibility that therapist-patient pairing or matching on some variable or variables leads to more effective process has been entertained by numerous researchers and has begun to gain credibility (Graham, 1960; Hollingshead & Redlich, 1958; Landfield & Nawas, 1964; Lesser, 1961;

McLachlan, 1972; Sapolsky, 1965; Schonfield, Stone, Hoehn-Saric, Imber, & Pande, 1969; Sheehan, 1953; Tuma & Gustad, 1957; Welkowitz, Cohen, & Ortmeyer, 1967).

The variable chosen for investigation in the present research was internal-external locus of control. "Locus of control" refers to an individual's perception of causal relationship. When an individual tends to perceive events leading to reinforcement as being contingent upon his/her own behavior, his/her locus of control is said to be internal. When an individual tends to perceive events leading to reinforcement as having little or no relationship to his/her behavior, his/her locus of control is said to be external (Rotter, 1966).

Several studies have been done to determine the relationship between patient locus of control and response to different types of therapy (Abramowitz, Abramowitz, Roback, & Jackson, 1974; Browning & Friesen, 1974; Kilmann, Albert, & Sotile, 1975). Findings are not conclusive although they do suggest that internals seem to benefit most from an unstructured/non-directive therapy format and externals seem to benefit most from a structured/directive therapy format.

In these studies investigating the relationship between locus of control and patient response to different types of therapy, therapist locus of control was not determined. In some of the studies the same therapist(s) led all of the therapy groups but, reportedly, used different

modalities for different groups, as has been indicated. It is not clear whether the steps taken to insure that each therapist was indeed able to offer sufficiently differentiated modalities were adequate. It seems possible that a good therapist is able to utilize different modalities in different group and individual therapy situations, but it must also be considered that a therapist's personality (locus of control in this instance) tends to influence the type of therapy he/she provides (especially if modality to be used is not dictated).

Thus, it seems likely that just as a patient may respond more readily to a certain therapeutic modality, he/she may respond more readily to a certain type of therapist. Since the possibility that therapist-patient matching leads to more effective therapy process has begun to gain credibility, and an individual's locus of control or "perception of causal relationships" appears to play an important part in the way in which he/she responds to psychotherapy, it may be that matching of patients and therapists on the locus of control variable will lead to more effective, positive therapy process. An examination of client-therapist matching on the locus of control variable and its effect on the therapy process was the prime concern of this research.

Internality, as opposed to externality, often appears to be equated with better personal adjustment

and interpersonal functioning (Butterfield, 1964; Feather, 1967; Goss & Morosko, 1970; Hamsher, Geller & Rotter, 1968; Hersch & Scheibe, 1967; Liberty, Bernstein, & Moulton, 1966; Miller & Minton, 1969; O'Leary, Donovan, & Hague, 1974; Platt & Eisenman, 1968; Shybut, 1968; Tolor & Reznikoff, 1967; Williams & Vantress, 1969). Externals have generally been described as aloof, depressed, anxious, generally dissatisfied, aggressive, dogmatic, and distrustful. Internals have been described as calm, dependable, self-confident, socially out-going, interpersonally warm, and more constructive than externals in overcoming frustration.

There is some indication that those individuals in a "helping profession" tend to score more internally than normal, non-clinical subjects on Rotter's internal-external locus of control scale (I-E Scale) (1966). Since they are members of a "helping profession" and are oftentimes expected to be models of adjustment, therapists may tend to score more internally as a group than normals.

It is interesting and perhaps surprising to discover that alcoholics tend to be significantly more internal than normals (Chess, Neuringer, & Goldstein, 1971; DiStefano, Pryer, & Garrison, 1972; Goss & Morosko, 1970; Gozali & Sloan, 1971; O'Leary et al., 1974). Thus, it may be that alcoholics as a group score similarly to their therapists on scales measuring the locus of control construct. The findings are not

conclusive, however, since findings that alcoholics tend to score similarly to and significantly more externally than normals also exist (Nowicki & Hopper, 1974). The issue regarding whether alcoholic patients are more internal than normal subjects was also examined in this study.

It has been found that internality may increase as a result of some type of therapeutic intervention or experience (Chess et al., 1971; Coven, 1970; Dua, 1970; Gillis & Jessor, 1970; Lesyk, 1969; Masters, 1970; Nowicki & Barnes, 1973; Pierce, Schauble, & Farkas, 1970; Reimanis & Schaefer, 1970; Smith, 1970). Since internality is often correlated with personal adjustment, and since it appears that internality tends to increase as a result of a therapeutic intervention or therapeutic experience, it seems that it may be possible to utilize a comparison of pre- and post-therapy I-E Scale scores as one measure of the effectiveness of the therapy process. The difference between these two scores may be indicative of degree of improvement regarding personal adjustment after therapeutic intervention.

The present research also undertook to determine whether the alcoholic sample used herein would support the findings of other studies and demonstrate an increase in internality as a result of therapeutic intervention. Since the research, overall, indicated that alcoholics score more internally than normals, it was not clear

in which direction alcoholics would be expected to move throughout the course of therapy. A few studies have investigated the direction of change in locus of control over treatment for alcoholics. Three studies found no significant change in the I-E score (Burtle, Whitlock, & Franks, 1974; Costello & Manders, 1974; O'Leary, Rohsenow, & Donovan, 1976). Chess et al. (1971); O'Leary, Donovan, and O'Leary, and O'Leary, Donovan, Hague, and Shea, as cited in O'Leary; Rohsenow, and Donovan (1976), upon comparison of pre- and post-therapy I-E scores, ~~they~~ found that their samples of alcoholics became significantly more internal. Yet, it has been postulated that alcoholics may score more internally than normals because they are maladjusted and have placed no realistic limits on their perception of personal control (DiStefano et al., 1972; Rotter, 1966). Would an increase in internality indicate a move toward a greater degree of maladjustment for alcholoics? To counter this, Goss and Morosko (1974) suggested as an explanation that alcoholics "do understand the contingency between their behavior and what for them is a preferred state of reinforcement--alcohol . . . Past experience provides the problem drinker with the knowledge necessary to regulate the way he feels at any moment" (pp. 190-191).

In summary, an examination of client-therapist matching on the internal-external locus of control variable and its effect on the therapy process was the

main focus on this research. In addition, the issue regarding whether alcoholic patients are more internal than normal subjects was examined. The present research also undertook to determine whether the alcoholic sample used herein would support the findings of other studies and demonstrate an increase in internality as a result of therapeutic intervention.

The following hypotheses were tested.

(1) Alcoholic patients who have been matched with their therapists on the internal-external locus of control variable will demonstrate a more positive therapy process than those alcoholic patients who have not been matched with their therapists on locus of control.

(2) Alcoholic patients will be more internal than normal, non-clinical subjects.

(3) Alcoholic patients will move toward greater internality following psychotherapeutic intervention.

CHAPTER II

REVIEW OF RELATED LITERATURE

Internal-External Locus of Control and Rotter's I-E Scale

The construct of locus of control was derived from Rotter's social learning theory (Rotter, 1954). Scales were first developed for its measurement by Phares (1955) and James (1957) who expanded the construct's label to internal-external locus of control.

As has been mentioned earlier, "locus of control" refers to an individual's perception of causal relationships. When an individual tends to perceive events leading to reinforcement as being contingent upon his/her own behavior, locus of control is said to be internal. When an individual tends to perceive events leading to reinforcement as having little or no relationship to his/her own behavior, locus of control is said to be external (Rotter, 1966).

Several hundred studies concerned with the locus of control construct have been carried out. Five literature reviews have been published (Joe, 1971; Lefcourt, 1966, 1972; Minton, 1967; Rotter, 1966) and at least one dozen tests for the measurement of the construct for both

adults and children exist (Battle & Rotter, 1963; Bailer, 1961; Crandall, Katovsky, & Crandall, 1965; Dean, 1961; Delys, 1971; Dies, 1968; Gozali, & Bailer, 1968; Harrison, 1968; James, 1957; Jessor, Graves, Hansen, & Jessor, 1968; Keller, Sims, Henry, & Crawford, 1970; Levenson, 1972; Nowicki & Duke, 1974; Phares, 1955; Rhiengelheim, Bailer, & Morrissey, 1969; Rotter, 1966).

The Rotter scale (used with adults) is the most widely used scale in the literature on locus of control. There has been some criticism regarding various possible methodological weaknesses of the scale including its lack of unidimensionality and social desirability response bias. Gurin et al. (1969), Guttentag (1972), MacDonald and Tseng, (1971), Minton (1972), Mirels (1970) and various others have carried out factor analyses of the scale. Two major factors repeat themselves throughout these studies, one labeled "control ideology" and the other "personal control." The first refers to an individual's belief regarding the extent to which people have control generally and the second refers to the extent to which an individual believes in personal control (Gurin et al., 1969).

In support of the scale it has been pointed out that factors beyond the first factor account for little of the total scale variance and that such factors contain only a few items each (Franklin, 1963; Rotter, 1966). In addition, although correlations between Rotter's scale and measures of social desirability

(Marlowe-Crown Social Desirability Scale, Edwards Social Desirability Scale) have been found to range from -.20 to -.70 (Altriocchi, Palmer, Hellman, & Davis, 1968; Berzins, Ross & Cohen, 1970; Cone, 1971; Feather, 1967; Hjelle, 1971; MacDonald, 1972), these correlations have generally been found to be quite low.

Since this scale has been so widely used in the past and since its possible methodological weaknesses have not rendered it useless in the eyes of most researchers, Rotter's I-E Scale will most likely continue to be one of the most popular in studies of the internal-external locus of control construct.

Rotter's I-E Scale consists of 29 pairs of statements, including six filler statement pairs, and uses a forced-choice format (see Appendix A). Each statement pair consists of an internal and an external statement. The scale is self-administered. One point is given for each external statement selected. Scores can range from zero (most internal) to 23 (most external).

The scale has been administered to numerous samples (see literature reviews by Joe, 1971; Lefcourt 1966, 1972). Normative data were reported by Rotter (1966) for a number of his own samples as well as those of other researchers. Owens (1969), using the means of the samples reported by Rotter and also the means from a number of other samples (total N = 4,443), computed an overall mean of 8.2 (S.D. = 4.0) for males and an

overall mean of 8.3 (S.D. = 3.9) for females.

Rotter (1975) has pointed out that the final scale was developed on college students and that since the time the scale was developed the mean for college students appears to have risen from 8.0 to approximately 11.0. He also noted that the distribution of scores for most samples tends to be normal and, therefore, there is nothing to suggest a typology. Thus, if median scores are used to distinguish internal from external subjects, "subjects who were considered externals in early samples would now be considered internals" (p. 62). In view of this, the labels of Internal and External used in this study are not meant to suggest that a permanent typology exists but are used primarily to connote the statistical matching of subjects.

Internal consistency co-efficients have ranged from .65 to .79 with most of the correlations in the .70s (Rotter, 1966).

Reliability for the scale appears to be quite satisfactory. Rotter (1966), using non-clinical samples, obtained test-retest reliability co-efficients ranging from .49 to .83 for time periods between one and two months. Hersch and Scheibe (1967) found their test-retest reliability co-efficients ranged from .48 to .84 for a two month period for college students. Harrow and Ferrante (1969) obtained a co-efficient of .75 over a six week period for psychiatric patients.

As regards convergent validity, over fifty percent of the internal-external locus of control studies have used Rotter's scale. These studies indicate that there are individual differences in perception of contingency of reinforcement and that Rotter's scale is sensitive to these differences (Joe, 1971; Lefcourt, 1966, 1972; Minton, 1967; Rotter, 1966).

As regards discriminant validity, in addition to the generally low correlations with the social desirability scales mentioned previously, Rotter (1966) obtained correlations with three intelligence measures ranging from .03 to -.22, none of which were significant. Hersch and Scheibe (1967) also found non-significant correlations (ranging from -.07 to .17) between I-E scores and three different measures of intelligence. Minton (1969) found that I-E scores were unrelated to political liberalsim or conservatism, "left" versus "right" ideology, and attitudes on international relations for males. Females demonstrated a low significant correlation between external control and conservatism (r = -.42) as well as an attitude of exaggerated patriotism regarding international relations (r = .28).

Matching Patient Locus of Control and Therapy Modality

Several studies have been done to determine the relationship between patient locus of control and different types of therapy. Abramowitz, Abramowitz,

Roback and Jackson (1974) randomly assigned college students (N = 13 males and 12 females) wishing to improve interpersonal functioning and personal adjustment to either a directive or nondirective therapy group. Although the groups were all led by the same therapist, steps were taken to insure that the directive groups had been directive and the nondirective groups, nondirective. Psychology graduate students and a PhD level clinical psychologist were able to correctly discriminate the nondirective from directive groups using transcripts of randomly selected therapy segments. In addition, the levels of leader participation were monitored by two indexes of verbal interaction. The subjects' locus of control scores were determined by a brief form of Rotter's I-E Scale (1966). Ten different outcome measureswere used. It was found that overall outcome for internals was more positive when they had been in a nondirective group as opposed to a directive group. The opposite was found to be true for external subjects.

Kilmann (1974), also classified university students (N = 40 males and 42 females) using the I-E Scale. He found that externals, when asked to state their preference for membership in a shared leadership versus a controlled leadership counseling group, chose the former. This finding was opposite to what had been expected. No significant difference in preference was found for internals.

Kilmann and Howell (1974) classified 84 female drug addicts as internal or external and randomly assigned them to a directive or a nondirective marathon therapy group each led by different co-therapists. Therapists in the direct groups were instructed to adhere to a highly structured schedule of exercises. Therapists in nondirect groups were instructed to emphasize participant responsibility for the format--there was no preconceived schedule of exercises for these groups. The author were unable to find the predicted interaction between locus of control and type of therapy. They attributed the lack of predicted results to both the type of therapy and the type of subject population used.

In two further studies, Kilmann, Albert, and Sotile (1975), using male and female undergraduate volunteers, concluded that internals seem to gain more benefit from an unstrucutured group therapy format and externals from a structured format. Study 1 (N = 24) examined internals and externals in an unstructured and a structured marathon situation and Study 2 (N = 24) which was a replication of the first study, used a traditional therapy format with both structured and unstructured groups. Each of these studies used the same therapist in both the unstructured and structured therapy situation and incorporated a seven-point bipolar rating scale which the subjects used to rate the primary therapist on role functions having to do with control, influence, and structure. The treatment format for both

the structured and unstructured groups consisted of a sequence of group exercises. In the structured groups, the therapist was to control the order of member participation. In the structured groups participant responsibility was emphasized.

A study investigating the relationship between hypnotic induction modality and client locus of control (Browning & Friesen, 1974) found client response to induction is significantly enhanced if there is a match between locus of control and the intrinsic-extrinsic dimension of the induction stimuli. The subjects were 8 male and 12 female graduate students. Intrinsic induction consists of an "I am" format as opposed to extrinsic induction which consists of a "You will" format. Internals' induction responses were enhanced by an intrinsic format and externals' responses by an extrinsic format.

In these studies investigating the relationship between locus of control and treatment modality, therapist locus of control was not determined. In some of the studies the same therapist(s) led all of the therapy groups but, reportedly, used different modalities for different groups, as has been indicated. It is not clear whether the steps taken to insure that each therapist was indeed able to offer sufficiently differentiated modalities were adequate. It seems possible that a good therapist is able to utilize different modalities in different group and individual therapy

situations, but it must also be considered that a therapist's personality (locus of control in this instance) tends to influence the type of therapy he/she provides (especially if modality to be used is not dictated).

Hunt and Joyce (1967) present some support for this notion of personality, conceptual level in this case, influencing personal style. They found that parents and teachers of low conceptual level provide unilateral conditions and those of high conceptual level provide interdependent conditions. In addition, McLachlan (1972) found that cognitive orientation of therapists correlated highly with therapist style (degree of nondirectiveness). Alcoholic inpatients (N = 72 males and 20 females) who were matched with their therapists on conceptual level tended to improve more than mismatched patients according to the outcome measures used in the study. (It should be mentioned that although the therapists as a group scored higher than the patients, the range of their scores was one full conceptual level category such that the investigator felt it was possible to match patients with therapists.)

Given these findings, it seemed possible that a therapist's locus of control might also influence his/her therapy style and that matching of patients and therapists on locus of control might lead to results similar to those reported by McLachlan (1972).

Bordin (1968) had commented regarding patient-therapist compatibility that:

> Presumably, a patient is not functioning successfully either interpersonally or intrapersonally. If we say that he and his therapist are compatible because they now function similarly, are we saying either that the patient is already a very successful person or that his therapist is really a patient? If the former, then there seems little room for improvement. If the latter, can we expect the blind to lead the blind? (As cited in Bergin & Strupp, 1972)

Bergin and Strupp (1972), in an effort to more clearly conceptualize the area of therapist-patient similarity, suggested that research might

> . . . focus on which specific therapist characteristics are more often related to positive outcome with regard to specific client characteristics. Thus, for example, it might be found that clients who score low on a dominance scale, show the highest probability of improvement with a therapist who scores at a moderate level on the same scale but a lower probability of improvement with therapists who score high and low.(p. 27)

This appears to be what McLachlan (1972) was able to do in his study. Since therapists as a group scored higher than the patients, patients who scored low on conceptual level tended to be matched with therapists who scored at a moderate level and patients who scored at a moderate level tended to be matched with therapists of a higher conceptual level.

It was not clear how the alcoholic sample used in the present research would score on the matching variable (internal-external locus of control). Given this, it was decided that patient and therapist I-E scores would first be converted to t scores so that both groups, no matter what their original mean and standard deviation, would have equal means and standard deviations and matching could, therefore, be done more efficiently and accurately.

The Relationship Between Locus of Control and Personal Adjustment and Effectiveness

Internality, as opposed to externality, often appears to be equated with better personal adjustment and effectiveness and interpersonal functioning. Internally oriented college students (N = 169 males and 312 females) have been found to score higher than externally oriented subjects on the Dominance, Tolerance, Good Impression, Sociability, Intellectual Efficiency, Achievement via Conformance, and Well Being scales of the California Personality Inventory. On the Adjective Check List they tend to be more likely than externals to describe themselves as clever, efficient, egotistical, enthusiastic, independent, self-confident, ambitious, assertive, dependable, industrious, boastful, conceited, conscientious, deliberate, persevering, clear-thinking, determined, hard-headed, ingenious, insightful, organized, reasonable, and stubborn (Hersch & Scheibe, 1967).

Using the Child and Waterhouse Frustration Reaction Inventory and the Alpert-Huber Facilitation-Debilitating Test Anxiety Questionnaire with a sample of college students (N = 22 males and 25 females), Butterfield (1964) obtained a significant positive relationship between external control and intropunitive responses to frustration and a significant negative relationship between external control and constructive reactions to frustration. In addition, he obtained a significant

positive relationship between external control and debilitating anxiety as well as a significant negative relationship between external control and facilitating anxiety.

Studies comparing internals and externals on various other anxiety measures have obtained similar results. Feather (1967), Hountras and Scharf (1970), Liberty et al. (1966), Platt and Eisenman (1968), and Tolor and Reznikoff (1967) have also found that external college students tend to report more debilitating anxiety and neurotic symptoms than internal students. Each of these studies made use of different scales as measures of anxiety.

Using alcoholic out-patients (N = 200 males and 62 females), Goss and Morosko (1970) observed a relationship between locus of control and pathology on the MMPI. External patients tended to report greater anxiety, depression and clinical pathology than internal patients. O'Leary, Donovan, and Hague (1974), using a sample of 100 male alcoholics, also found that external patients tended to report greater aloofness, depression, anxiety and general dissatisfaction on the MMPI than internal patients. Shybut (1968) found that externals tended to be more disturbed than internals as measured by a Severity of Disturbance Scale he devised for the study. His sample consisted of neuropsychiatric patients (N = 90) and hospital personnel (N = 30). Harrow and Ferrante

(1969) also found that more external psychiatric patients tend to display greater psychopathology and fewer social skills than more internal patients (N = 45 males and 83 females).

There is some evidence that external college students (N = 114 males and 121 females) tend to score significantly higher than internal students on the Buss-Durke Hostility Inventory (Williams & Vantress, 1969).

Findings regarding the relationship between internal-external locus of control and authoritarianism have been equivocal, with one study finding no relationship (Baron, 1968) and another demonstrating a significant positive relationship between external control and authoritarianism (Rotter, Seeman, & Liverant, 1962). Both these studies used samples of college students. Clouser and Hjelle (1970) observed a positive relationship between locus of control and dogmatism for college students (N = 116 males and 125 females). External male students (N = 248 males and 329 females) have also demonstrated themselves to be less trustful and more suspicious of others than internal male students (Hamsher, Geller, & Rotter, 1968).

In general, externals, in contrast to internals, have been observed to be anxious, aggressive, dogmatic, less trustful and more suspicious of others, having low needs for social approval, and having a greater tendency to use sensitizing modes of defenses (Joe, 1971).

A criticism applicable to most of the studies described above is their use of college students as subjects. It would seem that if we are to establish the applicability of these results to the general population, samples other than college students will need to be examined.

Several researchers have suggested that while locus of control scores tend to correlate positively with self-report scales of anxiety and scales involving self-description of symptoms, hence indicating greater maladjustment of externals, it may be that internals tend to repress unpleasant experiences and stimuli and thus report less anxiety and fewer symptoms (Efran, 1964; Fontana, Klein, Lewis, & Levine, 1968; Lipp, Kolstoe, James, & Randall, 1968; Phares, 1968). Hence, one must be cautious in equating internal with "good" and external with "bad". Indeed, Tolor and Reznikoff (1967) and Altriocchi, Palmer, Hellman, & Davis (1968) observed that externality was significantly related to sensitization and internality to repression. It is unclear whether repression of this sort makes for better adjustment.

Rotter (1966) suggested a curvilinear relationship between adjustment and locus of control wherein those individuals scoring at either extreme would be considered maladjusted. This relationship has not yet been sufficiently demonstrated.

Locus of Control and the Alcoholic Population

Alcoholics have demonstrated a tendency to be significantly more internal than normals (Chess, et al., 1971; DiStefano et al., 1972; Goss & Morosko, 1970; Gozali & Sloan, 1971; O'Leary et al., 1974). The findings are not conclusive, however, since one study has found that female, in-patient alcoholics scored significantly more externally than a normal control group and male patients' scores did not differ significantly from scores of a normal control group. (Nowicki & Hopper, 1974)

If scoring on the internal end of the I-E dimension indicates better personal adjustment/effectiveness than scoring on the external end, then why is there evidence, albeit inconclusive, that alcoholic's tend to score lower on the I-E Scale (Rotter, 1966) (the lower the score the more internal the individual) than normals?

Goss and Morosko (1970) have suggested as an explanation that alcoholics "do understand the contingency between their behavior and what for them is a preferred state of reinforcement--alcohol . . . Past experience provides the problem drinker with the knowledge necessary to regulate the way he feels at any moment" (pp. 190-191). DiStefano et al. (1972) have offered an alternate explanation. They suggested that optimal internal and external scores may exist where more extreme scores would indicate that the individual's "perception of control of reinforcement may be deviant or unrealistic" (p. 37). This

explanation appears to be in accord with Rotter's (1966) formulation where "the individuals at both extremes of the internal versus external control of reinforcement dimension are essentially unrealistic . . . and are likely to be maladjusted by most definitions . . ." (p. 4). Still, it remains questionable whether alcoholics' scores can be considered extreme.

The mean for alcoholics in those studies in which alcoholics scored significantly more internally than normals was approximately 6.5 while the mean for normals at the time these studies were carried out was at least 8.0. The study done by Nowicki and Hopper (1974) finding female alcoholics (M = 16.7) to be more external than a normal control group (M = 11.0) as well as male patients (M = 11.1) was done about four years later than these other studies. It was mentioned previously that Rotter (1975) noted the mean for college students had risen from 8.0 in 1966 to approximately 11.0 in 1975. Perhaps the tendency for Nowicki and Hopper's entire sample to score more externally than these other samples may be partially explained by the fact that this study was carried out a few years later than the others. It may be that the general population mean has moved in the direction of greater externality over the past ten years. Even so, this does not explain why Nowicki and Hopper's alcoholic subjects did not score more internally than their normal control group as previous studies would cause one to expect.

Change in Locus of Control as a Result of Therapeutic Intervention

It has been found that internality may increase as a result of some type of therapeutic intervention or experience. This increase in internality may be interpreted as indicative of an improvement in personal adjustment.

Lesyk (1969) evaluated the impact of a token economy ward upon the behavior of 49 female schizophrenics. After five weeks patients demonstrated a significant move toward greater internality on the Bialer (1961) locus of control scale.

Coven (1970) assigned 35 disabled individuals in a rehabilitation center to either a verbal reinforcement, counseling, client-centered counseling, or no counseling group. He found that verbal reinforcement counseling was more effective than both client-centered counseling and no counseling in increasing the "internal control" of subjects.

Gillis and Jessor (1970) divided 29 psychiatric patients into a therapy (group and/or individual) and a no therapy group. Apparently (it is not made clear in the report), all patients were administered Rotter's I-E Scale (1966) within a week after admission. The patients in the therapy group were tested again after approximately ten sessions. Patients in the no therapy group were tested again after ten weeks. The authors found some

evidence that patients in the no-therapy group were somewhat more external than those selected for therapy. The therapy group made non-significant changes in the direction of internal control and the no therapy group showed some movement in the opposite direction. Most significantly, however, therapists rated 9 of 13 patients in the therapy group as showing "some improvement" or "marked improvement," and the post-therapy mean of this group was significantly different from the pre-therapy mean in the direction of greater internal control. It should be noted that there was no significant difference between this group and the no therapy group on pre-test means.

In a study comparing crisis therapy patients (N = 10 males and 20 females) with non-crisis therapy out-patients (N = 15 males and 15 females), Smith (1970) found a significant change from external toward internal control over six weeks for the crisis patients but not for the non-crisis patients.

Chess et al. (1971) administered I-E Scale (Rotter, 1966) four times at regular intervals to 13 alcoholic particiapnts in an alcoholism treatment program at a V. A. Hospital. A movement toward a more internal locus of control from trial to trial was found. A group of V. A. employees was also included as subjects in the study. They too completed the scale four times at regular intervals. The I-E scores for this group of

subjects did not move toward greater internality.

Nowicki and Barnes (1973) also demonstrated that locus of control scores can be induced to move toward greater internality in a therapeutic setting. Five out of eight groups (N = 291) of deprived, inner-city adolescents in a summer camp where effectance training was utilized showed significant increases in internality on the Nowicki-Strickland I-E measure from pre- to post-camp testing.

Various change techniques have been and are being developed to facilitate movement toward greater internality (Coven, 1970; Dua, 1970; Masters, 1970; Pierce et al., 1970; Reimanis & Schaefer, 1970).

Masters (1970) was able to successfully work with a 17 year old adolescent in therapy where the primary goal was an increase in internality. His technique appears to focus on altering the client's perception of his/her behavior from an external to an internal view rather than changing behavior per se. His technique implies a belief that individuals prefer to function under internal as opposed to external conditions.

Dua (1970), using 30 female college students as subjects, contrasted action-oriented with re-educative therapy regarding improvement of interpersonal skills. Decreases in externality were demonstrated for both groups in comparison with a control group, with clients in the action-oriented group demonstrating most change in the

internal direction.

Reimanis and Schaefer (1970) have developed a counseling technique which they have used to shift individuals to more internal orientations. This technique emphasizes making the individual believe that he/she has some power to effect change. The technique involves replacement of external statements regarding various problem situations with internal statements, rewarding internal statements, and getting the individual to recognize and focus on the contingencies of his/her behavior.

Finally, therapy clients (N = eight male and seven female college students) in a study carried out by Pierce et al., 1970) demonstrated a move toward greater internality following a brief therapeutic intervention which emphasized positive verbal reinforcement for internalizing behavior.

One weakness shared by many of these studies is that the number of subjects used in most of them is quite small. Also, Gurin and Gurin (1970) have critically pointed out that the measures of expectancy change typically employed in the internal-external locus of control change research are probably not very stable and may not be representative of changes in an individual's basic sense of self-confidence. Even in view of these criticisms, the research seems to indicate that a relationship exists between increased personal effectiveness

and increased perception of personal control.

Measuring Therapy Process

Traditionally, a distinction has been made between process and outcome research. The distinction has tended to be made as follows.

> The studies . . . can be roughly dichotomized into those with principal concern as to how changes took place, therefore focusing on the interchange between patient and therapist (i.e., the process), and those that focus on the end point, to answer the question of what change took place (i.e., the outcome). (Luborsky, 1959, pp. 320-321)

Kiesler (1966) has pointed out that there are two unfortunate effects of such a dichotomy.

> In the first place, the exclusive reliance upon pre-post measurement in outcome designs may lead to findings that are invalid or terminate research prematurely . . . if patient improvement (as tapped by a particular criterion measure) is not a monotonic function but rather curvilinear in some lawful fashion, a focus on only two points of time may obscure or distort meaningful patient improvement . . . The second unfortunate result of the process-outcome dichotomy has been that patient process change within the interview has not been considered explicitly as legitimate outcome. (pp. 126-127).

Kiesler suggested a discarding of the terms "process" and "outcome" and the use instead of the terms "in-therapy" (dealing with direct observation, transcripts, etc.) and "extra-therapy" (dealing with observations made outside the therapy interaction).

The term "therapy process" in this study encompasses both in-therapy and extra-therapy observations.

Repeated measures within therapy as well as pre- and post-therapy measures were used to obtain a more reliable measurement of therapy process in the present research, although obtaining information concerning the form of the function representing patient improvement was not a concern of this study.

As was mentioned previously, movement in the direction of greater internality on Rotter's I-E Scale as a result of some type of therapeutic intervention may be expected. Pre- and post-therapy administration of this scale was one of the process measures used in this study. Other process measures utilized were the Weibe and Pearce (1973) revision of the Barrett-Lennard Relationship Inventory (1962), the Profile of Mood States scale (McNair, Lorr, & Droppleman, 1971), and a process questionnaire developed by the present researcher for the purpose of this study.

The Barrett-Lennard Relationship Inventory and the Weibe-Pearce Revision of the Relationship Inventory. (Appendices B & C) Barrett-Lennard (1962) considered five areas of therapist functioning to be central in obtaining positive client change: regard for the client; empathic understanding, congruence, unconditionality of regard, and willingness to be known by the client. These five areas or variables were the basis for the scale designed by Barrett-Lennard to measure

the therapeutic relationship.

The Relationship Invnetory (1962) consists of 85 statements regarding the "variety of ways that one person could feel or behave in relation to another person." (p. 34). The inventory was prepared and used in four parallel forms--client-male, client-female, therapist-male and therapist-female. For each statement the subject is instructed to consider "whether you think it is true or not true in your present relationship with your therapist [client]." Each statement is marked according to how strongly the subject agrees (+1 to +3) or disagrees (-1 to -3). Responses to each statement are scored on one and only one of the five areas or sub-scales listed previously. A total score is obtained by summing the scores on the five subscales.

Statistical analysis of Barret-Lennard's original subject sample obtained a mean split-half reliability co-efficient for the five subscales of .86 and a mean intercorrelation co-efficient of .45. These correlations tend to support the scale's construct validity since they indicate that the subscales are measuring different things as per design. The results of the statistical analysis also indicated that the willingness to be known variable was essentially a component of the congruence variable,

and Barrett-Lennard, therefore, suggested that this subscale be omitted from the total scale. Subsequent research has supported the validity and reliability of the Relationship Inventory and Barrett-Lennard's findings regarding the willingness to be known variable (Lin, 1973; Mills & Zytowski, 1967; Walker & Little, 1969).

Based on the results of their item analysis of the Relationsihp Inventory, Weibe and Pearce (1973) suggested a shorter and more robust inventory omitting the W (willingness to be known) scale on Barrett-Lennard's recommendation and including only those items which had an item-scale correlation $>.50$ and discriminated significantly ($p<.05$) between high and low scorers. Their shorter and more robust inventory consists of 32 items.

Weibe and Pearce did not collect reliability or validity data on their instrument and this, of course, is a methodological weakness. Since such data has been collected on the original Relationship Inventory, the reliability and validity of this shortened version may be, to a certain extent, inferred.

The Profile of Mood States Scale. (Appendix D) The Profile of Mood States (POMS) scale (McNair, Lorr, & Droppleman, 1971) was developed to meet the need for a "rapid, economical method of identifying and assessing transient, fluctuating affective states."

(p.5). The POMS was designed to measure six mood or affective states: tension-anxiety; depression-dejection; anger-hostility; vigor-activity; fatigue-inertia; and confusion-bewilderment. The scale presently consists of 65, 5-point adjective rating scales and represents a refinement of 100 different adjective scales by means of repeated factor analyses.

Subjects are instructed for each adjective in the list to choose the modifier (not at all [0], a little [1], moderately [2], quite a bit [3], extremely [4]) which best describes how they have been feeling during the past week including the day of the rating. To obtain a score for each mood factor, the sum of the responses for the adjectives defining the factor is obtained. A total mood distrubance score may be obtained by summing the scores on the six factors (weighting vigor negatively).

The authors have reported that internal consistency correlations, regarding the extent to which the individual items within the six mood scales measure the same factors, are all near .90 or above. Test-retest reliability co-efficients reported by the authors range from .61 to .74.

The authors have stated that the "six factor analytic replications in the development of the POMS may be taken as evidence of the factorial validity of

the six mood factors" (p. 10). Results of these factor analyses were congruent for different subject samples, for different rating time periods and for two different versions of the POMS (the present form and one utilizing 4-point rating scales).

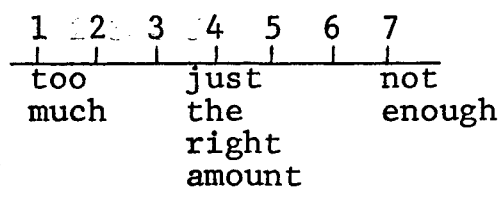
Several brief psychotherapy studies have demonstrated the predictive and construct validity of this instrument (Haskell, Pugatch, & McNair, 1969; Lorr, McNair, & Weinstein, 1964; Lorr, McNair, Weinstein, Michaux, & Raskin, 1961; Pugatch, Haskell, & McNair, 1969).

Studies have also been carried out by the authors which offer support for the concurrent validity of the POMS (McNair et al., 1971). The POMS factors were demonstrated to correlate moderately to highly (all *rs* significant, $p < .01$) with a modified version of the Hopkins Symptom Distress Scales (Parloff, Kelman, & Frank, 1954). A correlation of .80 ($p < .01$) was obtained between the POMS depression-dejection factor and ratings by therapists on a modified In-patient Multidimensional Psychiatric Scale (Lorr, Klett, McNair, & Lasky, 1962). A correlation of .32 ($p < .01$) was obtained between the POMS anger-hostility factor and ratings by therapists on the Interpersonal Behavior Inventory (Lorr & McNair, 1963).

One shortcoming of these validity and reliability studies is that most of them have been carried out using psychiatric out-patients and college students as subjects. The authors have indicated that the present norms should be considered as tentative.

The Process Questionnaire. (Appendix E) The process questionnaire was designed by this researcher for the purpose of assessing each subject's perceptions of the therapy session he/she had just completed. The questionnaire consists of six questions for which the subject must choose a response. Subjects were instructed for each question to circle the number on a 7-point bi-polar scale which "best indicates how you viewed today's session" (Appendix E). A sample question is as follows.

5. In general, how much advice did the counselor offer?



The value for each statement was the number circled by the subject. Each statement value was considered separately for the purpose of statistical analysis.

CHAPTER III

METHOD

Subjects

The subjects were two male and five female M. A. level psychologists and social workers, serving both as individual and group therapists, and their 103 male and 9 female alcoholic in-patients at Chicago's Alcoholic Treatment Center. The mean age for patients was 39.6 for males and 40.5 for females. For therapists the mean age was 42.5 for males and 30 for females. Fifty-five percent of the patients were minority group members (Black, American Indian). Three of the female therapists were minority group members (Black).

Measures

Rotter's I-E Scale (1966) was used to measure locus of control for all subjects.

A shortened form of the Barrett-Lennard Relationship Inventory (1962) developed by Weibe and Pearce (1973) was used to measure the quality of the therapeutic relationship. The shortened rather than the extended version of the Relationship Inventory was used to insure greater cooperation from the therapists who were expected to complete up to 16 scales every 1½ weeks.

The Profile of Mood States (POMS) scale developed by McNair, Lorr, and Droppleman (1971) was used to measure client/therapist affective states throughout the course of therapy.

A brief process questionnaire developed by the researcher was used to measure client/therapist perceptions of group therapy sessions.

Procedure

The treatment program at Chicago's Alcoholic Treatment Center is designed so that the alcoholic remains an in-patient for approximately six weeks. Each patient begins therapy within one week after entering the program. Therapy groups are open. Male patients are assigned to one of seven therapy groups by intake workers. An attempt is made to keep the number of members in each group equal. This is the factor which determines to what group an individual will be assigned. Women are placed in one of three mixed-sex therapy groups led by two female and one male therapist, also with an attempt being made to keep the number of members in each of the three groups equal. Group therapy (four times weekly) and individual therapy (once per week) sessions continue throughout the patient's entire stay.

Therapists were pre-tested with the I-E Scale and three were identified as internals and four as externals. (The criteria for classification are explained in the following section.) Patients were administered the I-E

Scale before their first therapy session and following their sixteenth group therapy session. Both patients and therapists completed the process questionnaire immediately following every other therapy session. Finally, therapists and patients completed the POMS Scale and the shortened form of the Relationship Inventory following every sixth therapy session. In this way, patients completed these two scales at least twice during the course of therapy. Each therapist was given a form to aid him/her in keeping a record of the number of sessions each patient had completed (Appendix F). (Therapists were given numbers rather than names to identify scales.)

Therapist and patient test results were coded so that they would remain anonymous. This was explained to both patients and therapists. Each therapist selected a packet of codes prepared for this study. Each packet contained sixty slips of paper with a letter of the alphabet followed by one of the numbers from 1 through 60 (ex., A1, A2, A3 . . .). The therapist's code was the letter preceding each number. Each therapist had patients select one of the code slips the first time he/she completed a test scale. During each patient's first testing session, he/she was instructed to write his/her code, his/her admission date, and M (male) or F (female) at the top of the scale. The patient was instructed to write his/her code on each scale he/she completed thereafter.

Each therapist was provided with a typed sheet of instructions.

Following each group test administration the therapist deposited the batch of scales in a large box provided by the researcher after indicating the number of the test administration on the top scale and binding the scales together with a paper clip. These were collected later by the researcher. Each therapist was given a form to aid him/her in keeping a record of the number of times he/she had administered each scale (Appendix G).

Statistical Design

Statistical analysis began with the scoring of the locus of control scales for patients. Next, locus of control scores were converted to t scores for patients as a group and for therapists as a group. (t score = $\frac{X-M}{SD} \times 10 + 50$) After the scores were converted, the mean for each group was 50. Patients and therapists having scores of 50 and above were classed as external. Patients and therapists having scores below 50 were classed as internal. A therapist and his/her patient were considered matched if they belonged to the same locus of control class. (The scores from the first administration of the scale to the patients were used for the purposes of matching.)

Examination of the first hypothesis, that alcoholic patients who have been matched with their therapists on

the internal-external locus of control variable will demonstrate a more positive therapy process than those alcoholic patients who have not been matched with their therapists on locus of control, entailed (1) calculation of the mean score across administrations for each of the questions on the process questionnaire (for each patient); (2) calculation of the mean score across administrations (for each patient) for each of the six factors of the POMS as well as for the total mood disturbance score; and (3) calculation of the mean score across administrations (for each patient and for each therapist) for each of the four subscales and the total score on the shortened form of the Relationship Inventory. A three-way analysis of variance using locus of control match, sex of client, and sex of therapist as the independent variables was carried out for each of the mean scores obtained above. Further refinement of this analysis included repetition of each ANOVA substituting a mixed-sex group versus all male group variable for the sex of client variable.

Examination of the second hypothesis, that alcoholic patients will be more internal than normal, non-clinical subjects, consisted of a t test comparing the mean scores of this alcoholic sample (first administration) and Rotter's sample of normals (1975) on the I-E Scale.

Finally, examination of the third hypothesis, that alcoholic patients will move toward greater internality following psychotherapeutic intervention, consisted of (1) a *t* test comparing the mean scores for all patients who had completed both administrations of the I-E scale, (2) a *t* test comparing the mean scores for patients matched with their therapists on the locus of control variable, and (3) a *t* test comparing the mean scores for patients not matched with their therapists on the locus of control variable.

CHAPTER IV

RESULTS AND DISCUSSION

Evaluation of Experimental Hypotheses

Effect on Therapy Process of Matching Patients and Therapists on Locus of Control. The first hypothesis was that alcoholic patients who have been matched with their therapists on the locus of control variable will demonstrate a more positive therapy process than those alcoholic patients who have not been matched with their therapists on locus of control. Conversion of internal-external locus of control (I-E) scores to t scores for patients and for therapists separately and subsequent assignment of patients and therapists to groups depending upon whether their t score was ≥ 50 (external) or < 50 (internal) resulted in 4 therapists (M = 12.3, SD = 1.3) and 59 patients (M = 18.2, SD = 1.8) in the external group and 3 therapists (M = 7.3, SD = 3.2) and 53 patients (M = 12.3, SD = 2.5) in the internal group. Patients and therapists were considered matched if they belonged to the same group.

An analysis of variance was carried out for the six questions composing the process questionnaire (1) perception of overall group member involvement,

(2) perception of positive influence of session on members, (3) perception of directiveness of therapist, (4) perception of how often therapist was in charge of group process, (5) satisfaction with amount of advice offered by therapist, and (6) overall satisfaction with session); for the four subscales (regard, empathy, congruence, and unconditionality) and the total score of the Weibe-Pearce revision of the Relationship Inventory, on client form as well as therapist form; and on the six subscales (tension-anxiety, depression-dejection, anger-hostility, vigor-activity, fatigue-inertia, and confusion-bewilderment) as well as the total mood disturbance score of the POMS. The independent variables for these analyses were locus of control match (MATCH), sex of client (PTSEX), and sex of therapist (THSEX). Further refinement of the analysis of the first hypothesis included a replication of the above ANOVAs substituting a mixed-sex group versus all male group variable (MXGR) for the sex of client variable (PTSEX).

The results of the present research indicate that therapist-patient matching on the locus of control variable only minimally affected therapy process. In fact, the main effect of locus of control matching (MATCH) was not significant in any one of the 46 ANOVAs used to investigate the first hypothesis. As is indicated in Tables 1 and 2, locus of control matching (MATCH) was one of the variables in 12 significant two-way

interactions. Eight of these 12 interactions involved locus of control matching (MATCH) and sex of therapist (THSEX). The fact that these two variables tended to interact significantly was most likely related to the fact that male and female therapists tended to score significantly differently on the I-E Scale, as indicated in Table 3. For the purposes of matching, two males and one female therapist were classed as internal and four females were classed as external.

While the results indicated that therapist-patient matching on the locus of control variable was of little significance for the subjects used in the present research, this does not necessarily mean that therapist-patient matching on this variable is not effective. It may be that the way in which therapist-patient matching was carried out for statistical analysis was primarily responsible for the lack of significant results. Since therapists generally scored more internally that patients, patients tended to be considered matched with therapists who had more internal scores than they did. Therapist scores were up to 12 scale points more internal than patient scores in groups where patients and therapists were considered matched. Although not feasible for this study, more meaningful matching might consist of pairing therapists and patients who are within three I-E Scale points of one another. This type of matching might lead to more significant findings

Table 1

Summary of Significant Findings of Analyses of Variance for Therapist-Patient Matching on Locus of Control by Sex of Patient by Sex of Therapist

Variable	Source of Variation	F	df
Process Questionnaire			
Question 2 (positive influence)	PTSEX	5.74	1,92
Question 3 (direction)	MATCH X THSEX	5.41	
Relationship Inventory (revised form)			
Client Form			
- Unconditionality Subscale	PTSEX	4.72	1,52
- Total Score	MATCH X THSEX	4.45	1,52
Therapist Form			
- Regard Subscale	THSEX	6.34	1,52
- Empathy Subscale	THSEX	11.23	
- Congruence Subscale	THSEX	5.71	
- Unconditionality Subscale	THSEX	4.21	
- Total Score	THSEX	6.35	1,49
POMS			
Depression - Dejection Subscale	PTSEX	8.95	1,49
	MATCH X PTSEX	4.25	
Vigor - Activity Subscale	THSEX	14.25	
	MATCH X THSEX	7.90	

Table 1

(continued)

Variable	Source of Variation	F	df
Fatigue - Inertia Subscale	MATCH X THSEX	3.92	1,60

Note. All F ratios are significant at the .05 level or better.

Note. The df changes since data is not available for all subjects for each administration of each measure. Scales were not completed when subjects went on pass, were ill or dropped out of treatment between the fifth and sixteenth therapy sessions. Each df is equal to the one directly above it unless otherwise indicated.

Table 2

Summary of Significant Findings of Analyses of Variance for Therapist-Patient Matching on Locus of Control by Mixed-Sex vs. All Male Group by Sex of Therapist

Variable	Source of Variation	F	df
Process Questionnaire			
Question 3 (direction)	MATCH X THSEX	4.87	1,92
	MXGR X THSEX	6.00	
Relationship Inventory (revised form)			
Client Form			
- Regard Subscale	MXGR	4.82	1,50
- Empathy Subscale	MXGR	4.06	
	MATCH X MXGR	4.71	
- Congruence Subscale	MATCH X THSEX	4.28	
- Unconditionality Subscale	MXGR	5.18	
- Total Score	MXGR	4.15	
	MATCH X THSEX	7.27	
Therapist Form			
- Regard Subscale	THSEX	6.66	1,51
- Empathy Subscale	THSEX	15.62	
- Congruence Subscale	THSEX	6.62	
- Unconditionality Subscale	THSEX	4.72	
- Total Score	THSEX	8.98	1,48

Table 2

(continued)

Variable	Source of Variation	F	df
POMS			
Depression - Dejection Subscale	MATCH X MXGR	4.97	1,48
Vigor - Activity Subscale	THSEX	12.04	
	MATCH X THSEX	5.34	
Total Mood Disturbance	MATCH X MXGR	4.47	1,59

Table 3

Mean I-E Scores for Therapists and Patients by Sex

	Males	Females	All	t
Therapists	(N = 2)	(N = 5)	(N = 7)	(df = 5)
	6	11.8	10.1	3.78*
Patients				
Pre-therapy	(N = 103)	(N = 9)	(N = 112)	(df = 110)
	15.6	14.1	15.4	1.11
Post-therapy	(N = 44)	(N = 4)	(N = 48)	(df = 46)
	17.0	16.5	16.9	.23

Note. The value of N changes since data was not available for subjects who dropped out of treatment between the fifth and sixteenth therapy sessions.

*Significant at .05 level or better.

than were obtained herein.

Locus of Control Scores for the Alcoholic Subjects Used in the Present Study. The second hypothesis, that alcoholic patients will be more internal than normal subjects, was not supported. A t test comparing the mean I-E score of the normal subjects in Rotter's (1975) sample (M = 11.0, SD = 4.0) with the mean of the sample of alcoholics used in this study (M = 15.4, SD = 3.6) obtained a significant difference, although not in the predicted direction (t ([1]) = 11.0, $p < .001$).

Although most of the literature mentioned previously states that alcoholics tend to score more internally than normals on Rotter's I-E Scale, the alcoholic sample used in the present research scored significantly more externally than those normal samples of college students presented most recently by Rotter (1975). Perhaps these results can be explained, in part, by the fact that most of this alcoholic sample was of low socioeconomic status (70% earning less than $3,000 per year) and background. A number of studies have found that persons of low socioeconomic status and/or background tend to score more externally than individuals of higher socioeconomic status and background (Battle & Rotter, 1963; Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966; Gurin, Gurin, Lao, & Beattie, 1969; Kagan, 1969;

[1]Since the N for Rotter's sample was not available, it was assumed that $N > 120$.

Lefcourt, 1966; Lefcourt & Ladwig, 1965, 1966). These studies have also shown that individuals of Black and American Indian minority groups tend to be more externally oriented than Caucasians. This factor may also have contributed to the difference in means between this and Rotter's samples since approximately 55% of the present sample were Black and American Indian minority group members. Although data on Rotter's samples were not available, it is likely that they did not contain such a large percentage of minority group members.

Change in Locus of Control as a Result of Psychotherapy. The third hypothesis, that alcoholic patients will move toward greater internality following psychotherapeutic intervention, was not supported.

A t test comparing the mean scores for all alcoholic subjects on the two administrations of the I-E Scale ($M = 16.4$, $SD = 3.1$; $M = 16.9$, $SD = 3.5$) obtained no significant difference ($t(47) = -1.28$, $p > .05$).

In addition, a t test comparing the mean scores for patients matched with their therapists on the locus of control variable ($M = 17.0$, $SD = 3.2$; $M = 18.0$, $SD = 2.8$) obtained no significant differences ($t(20) = -1.72$, $p > .05$).

Also, a t test comparing the mean scores for patients not matched with their therapists on the locus of control variable ($M = 15.9$, $SD = 3.0$; $M = 16.1$, $SD = 3.8$) obtained no significant difference ($t(26) =$

-.31, $p > .05$).

The patients in this sample did not move toward greater internality following psychotherapeutic intervention as was predicted. A partial explanation for these results might be the high attrition rate for subjects. Out of the 112 patients who began the study and completed at least five psychotherapy sessions, only 48 of these completed the second administration of the I-E Scale after completing 16 therapy sessions. Those subjects who completed the 16 therapy sessions and the second administration of the locus of control scale were significantly more external than those subjects who did not ($t(110) = -2.36$, $p < .025$). Comparison of pre- and post-scores for this more external group yielded a nonsignificant increase in externality as was indicated previously in this section. The results may have indicated an overall significant increase in internality if the more internal group of patients had remained in therapy the full 16 sessions.

Another contributing factor to the lack of expected results may be the type of patient sample used herein. Perhaps alcoholics of predominantly low socioeconomic status and/or background and with a majority of minority group members do not respond positively to psychotherapy.

Finally, it may be that the therapeutic community at Chicago's Alcoholic Treatment Center, which is quite directive and structured, is not conducive to increasing internality and independent behavior and/or thinking.

Additional Relevant Findings

Significance of Sex of Therapist, Sex of Client, and Mixed-Sex Group versus All Male Group Variables. In general, it appeared that sex of therapists (THSEX) was the most significant independent variable, of those examined in this study, influencing the therapy process. As is indicated in Tables 1 and 2, the sex of therapist variable (THSEX) was significant as a main effect in 12 ANOVAs and significant in 9 ANOVAs as part of a two-way interaction.

Overall, female therapists tended to perceive themselves as offering a higher level of therapeutic conditions than male therapists. Table 4 indicates that differences between male and female therapist means on the subscales of the revised form of the Relationship Inventory, therapist form, were all significant. In addition, patients tended to perceive female therapists as offering greater unconditionality of regard than male therapists.

These findings can be explained, in part, as a result of cultural expectation, wherein women are expected not only to be more understanding, empathic, caring, etc., than men but are also expected to demonstrate these conditions more openly and more often than men. It is not clear if these conditions were demonstrated to a greater degree by female as opposed to male therapists if patient and therapist expectations led to higher ratings for females.

Table 4

A Comparison of Mean Scores for Groups Led by Male vs. Female Therapists

Variable	Male Therapist	Female Therapist	t
Process Questionnaire	(N=43)	(N=57)	(df=98)
Question 1 (involvement)	5.5	5.7	-.67
Question 2 (positive influence)	3.3	3.5	-.77
Question 3 (direction)	3.2	3.4	-.81
Question 4 (in charge)	5.0	5.3	-.74
Question 5 (advice)	4.1	4.1	-.73
Question 6 (satisfaction)	5.8	5.7	.67
Relationship Inventory (revised form)			
Client Form	(N=19)	(N=45)	(df=62)
- Regard Subscale	13.7	13.2	.30
- Empathy Subscale	5.1	7.0	-1.14
- Congruence Subscale	13.4	13.6	-.09
- Unconditionality Subscale	2.0	5.0	-1.90*
- Total Score	34.0	38.1	-.64
Therapist Form	(N=22)	(N=47)	(df=67)
- Regard Subscale	14.1	18.2	-2.68*
- Empathy Subscale	4.8	9.4	-3.49*
- Congruence Subscale	12.1	15.9	-2.38*

Table 4

(continued)

Variable	Male Therapist	Female Therapist	t
- Unconditionality Subscale	4.6	6.6	-1.71*
- Total Score	35.6	49.0	-2.65*
POMS	(N=19)	(N=48)	(df=65)
Tension - Anxiety Subscale	11.7	11.0	.45
Depression - Dejection Subscale	11.2	11.6	-.16
Anger - Hostility Subscale	6.6	6.3	.16
Vigor - Activity Subscale	14.1	18.2	-3.09*
Fatigue - Inertia Subscale	6.0	7.0	-.66
Confusion - Bewilderment Subscale	7.1	7.4	-.37
Total Mood Disturbance	28.3	24.5	.55

Note. Data was not available for some subjects on some scales due to misreading of directions or absence from therapy sessions when scale was administered.

*Significant at .05 level or better.

It might be noted at this point that Table 4 indicated no significant differences between male and female therapists on questions one, two, five and six of the process questionnaire dealing with perceived overall member involvement, perceived positive influence of session on members, satisfaction with amount of advice given by therapist, and general satisfaction with therapy session. It appears that patients perceived themselves as equally involved, positively influenced and satisfied by sessions led by males and females.

Another notable finding is that female patients tended to perceive their therapists as offering them a higher level of therapeutic conditions than did male patients. Table 5 indicates that differences between male and female patient means on the empathy and unconditionality subscales and the total score of the revised form of the Relationship Inventory, client form, were all significant.

Just as women tend to be treated differently than men in our society, perhaps they are also treated differently or at least perceive that they are treated differently in the therapy situation. However, the nature of the differences in treatment of men and women in the therapy situation is not clear from these data. These results regarding male-female differences should be interpreted with caution since the number of male and female patients was not comparable (103 male

Table 5

A Comparison of Mean Scores for

Male vs. Female Patients

Variable	Males	Females	t
Process Questionnaire	(N=91)	(N=9)	(df=98)
Question 1 (involvement)	5.6	5.8	-.75
Question 2 (positive influence)	3.3	4.3	-2.46*
Question 3 (direction)	3.3	2.9	.98
Question 4 (in charge)	5.1	5.8	-1.54
Question 5 (advice)	4.1	4.1	-.34
Question 6 (satisfaction)	5.7	6.1	-1.07
Relationship Inventory (revised form)			
Client Form	(N=61)	(N=3)	(df=62)
- Regard Subscale	13.2	17.5	-1.09
- Empathy Subscale	6.1	12.7	-1.90*
- Congruence Subscale	13.3	20.0	-1.40
- Unconditionality Subscale	3.7	11.5	-2.31*
- Total Score	35.7	61.7	-1.95*
Therapist Form	(N=66)	(N=3)	(df=67)
- Regard Subscale	16.9	16.7	.06
- Empathy Subscale	7.7	11.8	-1.29

Table 5

(continued)

Variable	Males	Females	t
- Congruence Subscale	14.5	18.2	-.98
- Unconditionality Subscale	5.8	9.2	-1.27
- Total Score	44.2	55.8	-.97
POMS	(N=63)	N=4)	(df=65)
Tension - Anxiety Subscale	11.0	14.5	-1.15
Depression - Dejection Subscale	10.8	21.4	-2.42*
Anger - Hostility Subscale	6.2	9.3	-.94
Vigor - Activity Subscale	17.1	16.0	.41
Fatigue - Inertia Subscale	6.5	9.1	-1.02
Confusion - Bewilderment Subscale	7.3	7.6	-.19
Total Mood Disturbance	24.3	45.9	-1.65

*Significant at .05 level or better.

patients and nine female patients).

Perhaps having females in a therapy group influences how group members perceive the sessions. As indicated in Table 6, comparison of mixed-sex versus all male groups revealed that members of a mixed-sex group were significantly more satisfied than members of all male groups. This conclusion is derived from a comparison of mixed-sex group versus all male group means on question six of the process questionnaire dealing with overall satisfaction with each therapy session. In addition, members of mixed-sex groups perceived therapists as providing a higher level of therapeutic conditions than did members of all male groups. Differences between mixed-sex group and all male group members on the regard, empathy and unconditionality subscales as well as on the total score of the revised form of the Relationship Inventory, client form, were all significant. Does having females in a group also influence the behavior of the therapist? Further research is necessary to answer this question.

Relationship of Therapist Locus of Control to Therapy Style. Post hoc analysis revealed that therapist locus of control tended to be only slightly and inversely related to patient perception of degree of directiveness of therapist (r = -.11) and only moderately related to therapist perception of degree of directiveness of therapist (r = .43). (Perception of directiveness of therapist was determined by question three of the process

Table 6

A Comparison of Mean Scores for Mixed-Sex vs. All Male Groups

Variable	~~Middle~~ mixed-Sex Group	All Male Group	t
Process Questionnaire	(N=36)	(N=64)	(df=98)
Question 1 (involvement)	5.6	5.6	.37
Question 2 (positive influence)	3.5	3.4	.23
Question 3 (direction)	3.0	3.5	-1.68*
Question 4 (in charge)	5.2	5.2	.16
Question 5 (advice)	4.2	4.0	1.49
Question 6 (satisfaction)	6.1	5.6	2.43*
Relationship Inventory (revised form)			
Client Form	(N=15)	(N=49)	(df=62)
- Regard Subscale	16.0	12.6	1.72*
- Empathy Subscale	9.1	5.6	2.02*
- Congruence Subscale	16.2	12.8	1.44
- Unconditionality Subscale	7.5	3.0	2.70*
- Total Score	48.1	33.4	2.22*
Therapist Form	(N=18)	(N=51)	(df=67)
- Regard Subscale	17.0	16.9	-.03
- Empathy Subscale	7.0	8.2	-.81
- Congruence Subscale	14.5	14.8	-.17

Table 6

(continued)

Variable	Mixed-Sex Group	All Male Group	t
- Unconditionality Subscale	6.0	5.9	.05
- Total Score	42.4	45.5	-.55
POMS	(N=18)	(N=49)	(df=65)
Tension - Anxiety Subscale	11.8	11.0	.52
Depression - Dejection Subscale	14.0	10.6	1.40
Anger - Hostility Subscale	7.4	6.0	.78
Vigor - Activity Subscale	18.3	16.6	1.20
Fatigue - Inertia Subscale	6.7	6.6	.06
Confusion - Bewilderment Subscale	7.6	7.2	.44
Total Mood Disturbance	30.5	23.8	.95

*Significant at .05 level or better.

questionnaire.) This is surprising since the literature mentioned previously suggests such relationships may exist since internal and external patients tend to respond differently to directive versus nondirective therapy groups. Indeed, patients did perceive a significant difference among their therapists in degree of directiveness (F (6,93) = 2.22, $p < .05$), and also, therapists perceived themselves significantly differently regarding how directive they tended to be during therapy sessions (F 6,88) = 13.56, $p < .001$). In addition, Table 7 indicates that patient locus of control was related to how directive a patient perceived his/her therapist. Internal patients saw their therapists as more directive than did external patients.

It seems reasonable that a patient's locus of control will influence how he/she perceives a therapy session in terms of directiveness of therapist. Individuals whose locus of control of reinforcement is external appear to seek more outside direction than individuals whose locus of control of reinforcement is internal. Externals will probably experience their therapists as more nondirective than will internals since externals, who are seeking more outside direction, seem to respond more positively to directive therapy and are probably looking for even greater direction in their therapy sessions. The reverse appears to be true for internals. They will perceive the same therapist as being more

directive than externals since they are seeking less outside direction and respond more positively to more nondirective therapy.

It appears, for this sample of subjects, that therapist locus of control had little to do with how directive therapists tended to be during therapy sessions. It is not clear what personality or environmental factors influence how directive a therapist will be with clients. Although outside the scope of this study, this appears to be a promising topic for future research.

Locus of Control Scores for Subjects Used in the Present Research. Therapists who participated in the present research obtained a mean I-E score of 10.1 which suggests they may be more internal than the normals in Rotter's (1975) samples (M = 11.0). This is consistent with Gore and Rotter's (1963) finding that individuals in a helping profession (Peace Corps volunteers) tend to score more internally than normals.

As indicated in Table 3, male and female patients demonstrated no significant difference in I-E scores, although females tended to score more internally than males. In contrast, male and female therapists demonstrated a significant difference in I-E Scale means. The mean for male therapists was 6 and for female therapists 11.8. The literature does not indicate that males tend to score differently than females on the I-E Scale nor that there is a difference in locus of control between

Table 7

A Comparison of Mean Scores for

Internal and External Patients

Variable	Externals	Internals	t
Process Questionnaire	(N=54)	(N=46)	(df=98)
Question 1 (involvement)	5.7	5.5	.86
Question 2 (positive influence)	3.4	3.5	-.32
Question 3 (direction)	3.0	3.6	-2.35*
Question 4 (in charge)	5.2	5.2	-.04
Question 5 (advice)	4.1	4.1	-.35
Question 6 (satisfaction)	5.8	5.7	.60
Relationship Inventory (revised form)			
Client Form	(N=36)	(N=28)	(df=62)
- Regard Subscale	14.4	12.0	1.42
- Empathy Subscale	7.4	5.2	1.48
- Congruence Subscale	15.3	11.4	1.91*
- Unconditionality Subscale	4.4	3.7	.50
- Total Score	40.5	32.2	1.45
Therapist Form	(N=40)	(N=29)	(df=67)
- Regard Subscale	17.3	16.2	.73
- Empathy Subscale	8.1	7.7	.34
- Congruence Subscale	14.7	14.6	.08

Table 7

(continued)

Variable	Externals	Internals	t
- Unconditionality Subscale	5.9	6.0	-.07
- Total Score	45.2	44.0	.22
POMS	(N=37)	(N=30)	(df=65)
Tension Anxiety Subscale	11.2	11.2	-.03
Depression - Dejection Subscale	10.6	12.5	-.86
Anger - Hostility Subscale	5.8	7.0	-.73
Vigor - Activity Subscale	18.6	15.1	2.97*
Fatigue - Inertia Subscale	5.7	7.8	-1.76*
Confusion - Bewilderment Subscale	7.0	7.7	-.87
Total Mood Disturbance	22.0	30.1	-1.30

*Significant at .05 level or better.

males and females.

It is rather surprising that few significant differences between males and females have been demonstrated in the locus of control research. Rotter (1966) suggested that sex differences observed with the I-E Scale may be related to geographical differences as well as differences in sex-role identification. The latter part of this statement appears especially feasible if men in our society tend to perceive themselves as having greater personal control over events in their lives than females. Certainly in this era of "women's liberation" the difference between males and females might not be as accentuated as in past years, but it seems that some difference might still be observable. In view of this, the lack of supportive evidence for male-female differences in locus of control remains surprising.

Locus of Control and Personal Adjustment. It has been previously indicated that internality, as opposed to externality, tends to be equated with more positive personal adjustment and interpersonal functioning. Most of the research investigating this relationship has made use of self-report inventories for subjects.

As shown in Table 7, external patients in this study did not report significantly greater mood disturbance than internal patients on the POMS. Surprisingly, externals reported feeling significantly more vigorous

than internals, and internals reported feeling significantly more fatigued than externals.

These results are puzzling since they are not in accord with previous findings on self-report inventories. Perhaps the previous findings do not apply to an alcoholic sample such as this; perhaps the findings for the present sample can be attributed to the POMS, which has been standardized primarily on out-patient psychiatric samples. The mean scores for this alcoholic sample tend to be lower than the means of all the patient samples presented by McNair et al.,(1971) (including those patients who were considered to be no longer in need of therapy). It may be that the alcoholics at Chicago's Alcoholic Treatment Center, the majority of whom are intoxicated, physically ill, unemployed, homeless and penniless at the time of admission, are notably affected by the sudden, radical change in their living conditions upon admission to the treatment center. The effect of being well-fed, clothed, and generally, having their needs met may be reflected in the low level of mood disturbance demonstrated by this sample. Further research with other alcoholic and in-patient samples seems appropriate in order to clarify these findings.

Therapist vs. Patient Perception of Therapeutic Relationship. Notably, therapists and patients differed in their perceptions of level of therapeutic conditions by therapists. Therapists rated themselves significantly

higher than did their patients, on the regard and unconditionality subscales of the revised form of the Relationship Inventory. These results are summarized in Table 8. Perhaps such a difference is unique to the therapy relationships in the present sample. Certainly, the rather limited experience of these therapists (M = 6.3 years) may have contributed to this difference as well as may have the patient sample used in this study.

It is generally agreed that a high level of therapeutic conditions--empathy, regard, congruence, unconditionality--makes for more positive therapy outcome. It also seems that the objective level of therapeutic conditions offered might be perceived more accurately by either patient or therapist, but the most important perception appears to be that of the patient who is seeking help. The therapist may be offering a higher level of therapeutic conditions than is perceived by the patient, but it is what the patient perceives that is most important to him/her. The more accurately the therapist can assess what the patient perceives, the more empathic the therapist and, therefore, the higher the level of therapeutic conditions he/she is offering.

Examination of the Relationship Inventory, therapist form, reveals that the therapist is expected to: (1) assess the patient's perception of therapeutic conditions offered as well as (2) indicate what level of conditions he/she perceives her/himself as providing. The inclusion of

Table 8

A Comparison of Patient and Therapist Ratings on the Revised Form of the Relationship Inventory

Variable	Therapist Mean Rating	Patient Mean Rating	t^a
Regard Subscale	16.4	13.5	-2.91*
Empathy Subscale	7.5	6.7	-1.00
Congruence Subscale	14.0	13.7	-.31
Unconditionality Subscale	5.7	4.1	-2.01*
Total Score	43.0	37.5	-1.86*

[a] $df = 57$

*Significant at .05 level or better.

these two types of statements makes it difficult to determine the therapist's score from each of these viewpoints. Since the patient's perception of conditions is most likely of greater importance in his/her progress in therapy, it may be more useful if a therapist form of the Relationship Inventory could be developed focusing primarily on the therapist's assessment of the patient's perceptions. Since it may be that therapists generally tend to feel that they are offering a higher level of therapeutic conditions than the patient is perceiving, such a scale might be useful in helping the therapist to compare his/her perceptions more accurately with those of the patient.

CHAPTER V

SUMMARY

An examination of client-therapist personality matching and its effect on the therapy process was the main focus of this research. The literature indicates that therapist-patient pairing or matching on some variable or variables may lead to more effective therapy process (Graham, 1960; Hollingshead & Redlich, 1958; Landfield & Nawas, 1964; Lesser, 1961; McLachlan, 1972; Sapolsky, 1965; Schonfield, Stone, Hoehn-Saric, Imber, & Pande, 1969; Sheehan, 1953; Tuma & Gustad, 1957; Welkowitz, Cohen, & Ortmeyer, 1967). The personality variable investigated in the present research was internal-external locus of control.

"Locus of control" refers to an individual's perception of causal relationship. When an individual tends to perceive events leading to reinforcement as being contingent upon his/her own behavior, his/her locus of control is said to be internal. When an individual tends to perceive events leading to reinforcement as having little or no relationship to his/her own behavior, his/her locus of control is said to be external (Rotter, 1966).

Internality, as opposed to externality, has been equated with better personal adjustment and interpersonal functioning since externals tend to report greater anxiety and other symptoms of maladjustment than internals (Butterfield, 1964; Feather, 1967; Goss & Morosko, 1970; Hamsher, Geller, & Rotter, 1968; Liberty, Bernstein, & Moulton, 1966; Miller & Minton, 1969; Hersch & Scheibe, 1967; O'Leary, Donovan, & Hague, 1974; Platt & Eisenman, 1968; Shybut, 1968; Tolor & Reznikoff, 1967; Williams & Vantress, 1969).

There is some indication that individuals in a "helping profession" tend to score more internally than normals on Rotter's internal-external locus of control scale (Rotter, 1966). This appears likely in view of the findings reported above which suggest that internality may correlate positively with personal adjustment and effective interpersonal functioning. In view of this, the findings that alcoholics tend to score more internally than normal, non-clinical subjects are puzzling (Chess, Neuringer, & Goldstein, 1971; DiStefano, Pryer, & Garrison, 1972; Goss & Morosko, 1970; Gozali & Sloan, 1971; O'Leary et al., 1974). In order to achieve further clarification, the issue regarding whether alcoholic patients are more internal than normal subjects was also examined in this study.

Finally, it has been found that internality may increase as a result of some type of therapeutic intervention

or experience (Chess et al., 1971; Coven, 1970; Dua, 1970; Gillis & Jessor, 1970; Lesyk, 1969; Masters, 1970; Nowicki & Barnes, 1973; Pierce, Schauble, & Farkas, 1970; Reimanis & Schaefer, 1970; Smith, 1970). The present research also determined whether the alcoholic sample used herein would support the findings of other studies and demonstrate an increase in internality as a result of therapeutic intervention.

The following hypotheses were tested:

(1) Alcoholic patients who have been matched with their therapists on the internal-external locus of control variable will demonstrate a more positive therapy process than those alcoholic patients who have not been matched with their therapists on locus of control.

(2) Alcoholic patients will be more internal than normal, non-clinical subjects.

(3) Alcoholic patients will move toward greater internality following psychotherapeutic intervention.

Method

Subjects

The subjects were two male and five female M.A. level psychologists and social workers, serving both as individual and group therapists, and their 103 male and 9 female alcoholic in-patients at Chicago's Alcoholic Treatment Center (C.A.T.C.). The mean age for patients

was 39.6 for males and 40.5 for females. For therapists the mean age was 42.5 for males and 30 for females. Fifty-five percent of the patients were minority group members (Black, American Indian). Three of the female therapists were minority group members (Black).

Measures

Rotter's I-E Scale (1966) was used to measure locus of control for all subjects.

A shortened form of the Barrett-Lennard Relationship Inventory (1962) developed by Weibe and Pearce (1973) was used to measure the quality of the therapeutic relationship.

The Profile of Mood States (POMS) was used to measure client/therapist affective states throughout the course of therapy.

A brief process questionnaire developed by the researcher was used to measure client/therapist perceptions of group therapy sessions.

Procedure

The treatment program at C.A.T.C. is designed so that the alcoholic remains an in-patient for approximately six weeks. Each patient begins therapy within one week after entering the program. Therapy groups are open. Male patients are assigned to one of seven therapy groups by intake workers. An attempt is made to keep the number of members in each group equal. This is the factor which determines to what group an individual will be assigned. Women are placed in one of three mixed-sex therapy

groups led by two female and one male therapist, also with an attempt being made to keep the number of members in each of the three groups equal. Group therapy (four times weekly) and individual therapy (once per week) sessions continue throughout the patient's entire stay.

Therapists were pre-tested with the I-E Scale and three were identified as internals and four as externals. Patients were administered the I-E Scale before their first therapy session and following their sixteenth group therapy session. Both patients and therapists completed the process questionnaire immediately following every other therapy session. Finally, therapists and patients completed the POMS scale and the shortened form of the Relationship Inventory following every sixth therapy session. In this way, patients completed these two scales at least twice during the course of therapy. Each therapist was given a form to aid him/her in keeping a record of the number of sessions each patient had completed.

Therapist and patient test results were coded so that they would remain anonymous. This was explained to both patients and therapists. Each therapist selected a packet of codes prepared for this study. Each packet contained sixty slips of paper with a letter of the alphabet followed by one of the numbers from 1 through 60 (ex., A1, A2, A3 . . .). The therapist's code was the letter preceding each number. Each therapist had

patients select one of the code slips the first time he/she completed a test scale. During each patient's first testing session he/she was instructed to write his/her code, his/her admission date, and M (Male) or F (Female) at the top of the scale. The patient was instructed to write his/her code on each scale he/she completed thereafter. Each therapist was provided with a typed sheet of instructions.

Following each group test administration the therapist deposited the batch of scales in a large box provided by the researcher after indicating the number of the test administration on the top scale and binding the scales together with a paper clip. These were collected later by the researcher. Each therapist was given a form to aid him/her in keeping a record of the number of times he/she had administered each scale.

Results

Locus of control scores were converted to *t* scores for patients as a group and for therapists as a group. After the scores were converted, the mean for each group was 50. Patients and therapists having scores of 50 and above were classed as external. Patients and therapists having scores below 50 were classed as internal. A therapist and his/her patient were considered matched if they belonged to the same locus of control class. (The scores from the first administration of the scale to the patients were used for the purpose of

matching.)

Examination of the first hypothesis, that alcoholic patients matched with their therapists on the locus of control variable will demonstrate a more positive therapy process than alcoholic patients not matched with their therapists, entailed: (1) calculation of the mean scores across administration for each of the questions on the process questionnaire (for each patient); (2) calculation of the mean score across administrations (for each patient) for each of the six factors of the POMS as well as for the total mood disturbance score; and (3) calculation of the mean score across administrations (for each patient and for each therapist) for each of the four subscales and the total score on the shortened form of the Relationship Inventory. A three-way analysis of variance using locus of control match, sex of client, and sex of therapist as the independent variables was carried out for each of the mean scores obtained above. Further refinement of this analysis included repetition of each ANOVA substituting a mixed-sex group versus all male group variable for the sex of client variable.

The main effect of matching therapist and patient on the locus of control variable was not significant in any one of the 46 ANOVAs used to investigate the first hypothesis. The therapist-patient matching variable was involved in 11 significant two-way

interactions. These findings suggest that therapist-patient matching on the locus of control variable only minimally affected therapy process as measured in this study. The first hypothesis, therefore, was not supported.

Examination of the second hypothesis, that alcoholic patients will be more internal than normal, non-clinical subjects, consisted of a *t* test comparing the mean scores on the I-E Scale for this alcoholic sample (first administration) and Rotter's sample of normals (1975). A significant difference was observed, although not in the predicted direction. The sample of alcoholic subjects used in this study scored more internally on Rotter's I-E Scale than Rotter's sample of normals ($t(^{1}) = 6.08$, $p < .001$). Therefore, the second hypothesis was not supported.

Examination of the third hypothesis, that alcoholic patients will move toward greater internality following psychotherapeutic intervention, consisted of: (1) a *t* test comparing the mean scores for patients who had completed both administrations of the I-E Scale, (2) a *t* test comparing the mean scores for patients matched with their therapists on the locus of control variable, and (3) a *t* test comparing the mean scores for patients not matched with their therapists on the locus of control

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[1]Since the N for Rotter's sample was not available, it was assumed that $N > 120$.

variable. No significant differences were obtained for any of these comparisons. The third hypothesis was not supported.

Discussion

While the results indicated that therapist-patient matching on the locus of control variable was of little significance for the subjects used in the present research, this does not necessarily mean that therapist-patient matching on this variable is not effective. It may be that the way in which therapist-patient matching was carried out for statistical analysis was primarily responsible for the lack of significant results. Since therapists generally scored more internally than patients, patients tended to be considered matched with therapists who had more internal scores than they did. Therapist scores were up to 12 scale points more internal than patient scores. Although not feasible for this study, more meaningful matching might consist of pairing therapists and patients who are within three I-E Scale points of one another. This type of matching might lead to more significant findings than were obtained herein.

Contrary to expectation, this alcoholic sample scored significantly more externally than normals. These results may be explained, in part, by the fact that most of this alcoholic sample was of low socioeconomic status and/or background. In addition, fifty-five percent of the present sample were minority group members (Black and

American Indian). The literature indicates that both these factors tend to be related to more external locus of control scores (Battle & Rotter, 1963; Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966; Gurin, Gurin, Lao, & Beattie, 1969; Kagan, 1969; Lefcourt, 1966; Lefcourt & Ladwig, 1965, 1966).

The patients in this sample did not move toward greater internality following psychotherapeutic intervention as was predicted. A partial explanation for these results might be the high attrition rate for subjects. Out of the 112 patients who began the study and completed at least five psychotherapy sessions, only 48 of these completed the second administration of the I-E Scale after completing 16 therapy sessions. Those subjects who completed the 16 therapy sessions and the second administration of the locus of control scale were significantly more external than those subjects who did not (t (110) = 2.36, $p < .025$). Comparison of pre- and post-scores for this more external group yielded a non-significant increase in externality. The results may have indicated an overall significant increase in internality if the more internal group of patients had remained in therapy the full sixteen sessions.

Another contributing factor to the lack of expected results may be the type of patient sample used herein. Perhaps alcoholics of predominantly low socioeconomic status and/or background and with a majority of minority group members do not respond well to psychotherapy.

Finally, it may be that the therapeutic community at Chicago's Alcoholic Treatment Center, which is quite directive and structured, is not conducive to increasing internality and independent behavior and/or thinking.

Therapist sex was found to be the most meaningful independent variable under examination in the present study. Female therapists tended to perceive themselves as offering a higher level of therapeutic conditions than male therapists. Patients tended to perceive female therapists as offering greater unconditionality of regard than male therapists.

Post hoc analysis revealed that therapists and patients differed significantly in their perceptions of the level of therapeutic conditions offered by the therapists. Therapists tended to rate themselves higher than did patients. Also, contrary to what the literature suggests, external patients in this study did not report significant greater mood disturbance than internal patients.

Reference Notes

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Appendices

Appendix A

For each number there are two statements, a. and b. Read both statements and then circle the letter of the statement (either a. or b.) you agree with. If you agree with both choose the one that you agree with more. If you don't agree with either try to choose the one that is less disagreeable.

When you have completed each test, please check over your answers to be sure that you did not skip any questions.

1. a. Children get into trouble because their parents punish them too much.

   b. The trouble with most children nowadays is that their parents are too easy with them.

2. a. Many of the unhappy things in people's lives are partly due to bad luck.

   b. People's misfortunes result from the mistakes they make.

3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.

   b. There will always be wars, no matter how hard people try to prevent them.

4. a. In the long run people get the respect they deserve in this world.

   b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5. a. The idea that teachers are unfair to students is nonsense.

   b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6. a. Without the right breaks one cannot be an effective leader.

   b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7. a. No matter how hard you try, some people just don't like you.

   b. People who can't get others to like them don't understand how to get along with others.

8. a. Heredity plays the major role in determining one's personality.

   b. It is one's experiences in life which determine what they're like.

9. a. I have often found that what is going to happen will happen.

   b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10. a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.

    b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.

    b. Getting a good job depends mainly on being in the right place at the right time.

12. a. The average citizen can have an influence in government decisions.

    b. This world is run by the few people in power, and there is not much the little guy can do about it.

13. a. When I make plans, I am almost certain that I can make them work.

    b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14. a. There are certain people who are just no good.

    b. There is some good in everybody.

15. a. In my case getting what I want has little or nothing to do with luck.

    b. Many times we might as well decide what to do by flipping a coin.

16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.

    b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.

17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.

    b. By taking an active part in political and social affairs the people can control world events.

18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.

    b. There really is no such thing as "luck".

19. a. One should always be willing to admit mistakes.

    b. It is usually best to cover up one's mistakes.

20. a. It is hard to know whether or not a person really likes you.

    b. How many friends you have depends upon how nice a person you are.

21. a. In the long run the bad things that happen to us are balanced by the good ones.

    b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22. a. With enough effort we can wipe out political corruption.

    b. It is difficult for people to have much control over the things politicians do in office.

23. a. Sometimes I can't understand how teachers arrive at the grades they give.

    b. There is a direct connection between how hard I study and the grades I get.

24. a. A good leader expects people to decide for themselves what they should do.

    b. A good leader makes it clear to everybody what their jobs are.

25. a. Many times I feel that I have little influence over things that happen to me.

    b. It is impossible for me to believe that chance or luck plays an important role in my life.

26. a. People are lonely because they don't try to be friendly.

    b. There's not much use in trying too hard to please people, if they like you, they like you.

27. a. There is too much emphasis on athletics in high school.

    b. Team sports are an excellent way to build character.

28. a. What happens to me is my own doing.

    b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29. a. Most of the time I can't understand why politicians behave the way they do.

    b. In the long run the people are responsible for bad government on a national as well as on a local level.

Appendix B

(Please do not write your name on this form. It will be coded anonymously and your answers used for research purposes only.)

Below are listed a variety of ways that one person could feel or behave in relation to another person. Please consider each statement with respect to whether you think it is true or not true in your present relationship with your therapist. Mark each statement in the left margin according to how strongly you feel it is true or not true. Please mark every one. Write in +1, +2, +3; or -1, -2, -3 to stand for the following answers:

+1: I feel that it is probably true, or more true than untrue.

+2: I feel it is true.

+3: I strongly feel that it is true.

-1: I feel that it is probably untrue, or more untrue than true.

-2: I feel it is not true.

-3: I strongly feel that it is not true.

_____1. He/she respects me.
_____2. He/she pretends that he/she likes me or understands me more than he/she really does.
_____3. He/she understands my words but not the way I feel.
_____4. He/she is interested in knowing what my experiences mean to me.
_____5. He/she is disturbed whenever I talk about or ask about certain things.
_____6. He/she likes seeing me.
_____7. He/she behaves just the way he/she is, in our relationship.
_____8. He/she appreciates me.
_____9. I do not think that he/she hides anything from himself/herself that he/she feels with me.
____10. If I feel negatively toward him/her, he/she responds negatively to me.
____11. He/she cares about me.
____12. His/her own attitudes toward some of the things I say, or do, stop him/her from really understanding me.
____13. I feel that I can trust him/her to be honest with me.
____14. Sometimes he/she is warmly responsive to me, at other times cold or disapproving.
____15. He/she is interested in me.
____16. He/she appreciates what my experiences feel like to me.
____17. Depending on his/her mood, he/she sometimes responds to me with quite a lot more warmth and interest than he/she does at other times.
____18. He/she does not really care what happens to me.
____19. He/she does not realize how strongly I feel about some of the things we discuss.
____20. There are times when I feel that his/her outward response is quite different from his/her inner reaction to me.

____21. His/her general feeling toward me varies considerably.
____22. He/she seems to really value me.
____23. I don't think that he/she is being honest with himself/herself about the way he/she feels toward me.
____24. I feel that he/she is being genuine with me.
____25. Sometimes he/she responds quite positively to me, at other times he/she seems indifferent.
____26. Sometimes he/she is not at all comfortable but we go on, outwardly ignoring it.
____27. He/she feels deep affection for me.
____28. He/she usually understands all of what I say to him/her.
____29. He/she does not try to mislead me about his/her own thoughts and feelings.
____30. He/she regards me as a disagreeable person.
____31. At times he/she feels contempt for me.
____32. When I do not say what I mean at all clearly he/she still understands me.

Appendix C

(Please do not write your name on this form. It will be coded anonymously and your answers used for research purposes only.)

Below are listed a variety of ways that one person could feel or behave in relation to another person. Please consider each statement with respect to whether you think it is true or not true in your present relationship with your patient. Mark each statement in the left margin according to how stronly you feel it is true or not true. Please mark every one. Write in +1, +2, +3; or -1, -2, -3 to stand for the following answers:

+1: I feel that it is probably true, or more true than untrue.

+2: I feel it is true.

+3: I strongly feel that it is true.

-1: I feel that it is probably untrue, or more untrue than true.

-2: I feel it is not true.

-3: I strongly feel that it is not true.

_____1. I respect him/her.
_____2. I pretend that I like him/her or understand him/her more than I really do.
_____3. I understand his/her words but not the way he/she feels.
_____4. I am interested in knowing what his/her experiences mean to him/her.
_____5. I am disturbed whenever he/she talks about or asks about certain things.
_____6. I like seeing him/her.
_____7. I behave just the way that I am, in our relationship.
_____8. I appreciate him/her.
_____9. He/she does not think that I hide anything from myself that I feel with him/her.
____10. If he/she feels negatively toward me I respond negatively to him/her.
____11. I care about him/her.
____12. My own attitudes toward some of the things he/she says or does stop me from really understanding him/her.
____13. He/she feels that he/she can trust me to be honest with him/her.
____14. Sometimes I am warmly responsive to him/her, at other times cold or disapproving.
____15. I am interested in him/her.
____16. I appreciate what his/her experiences feel like to him/her.
____17. Depending on my mood, I sometimes respond to him/her with quite a lot more warmth and interest than I do at other times.
____18. I do not really care what happens to him/her.
____19. I do not realize how strongly he/she feels about some of the things we discuss.
____20. There are times when he/she feels that my outward response is quite different from my inner reaction to him/her.

____21. My general feeling toward him/her varies considerably.
____22. I seem to really value him/her.
____23. He/she doesn't think that I am being honest with myself about the way I feel toward him/her.
____24. He/she feels that I am being genuine with him/her.
____25. Sometimes I respond quite positively to him/her, at other times I seem indifferent.
____26. Sometimes I am not at all comfortable but we go on, outwardly ignoring it.
____27. I feel deep affection for him/her.
____28. I usually understand all of what he/she says to me.
____29. I do not try to mislead him/her about my own thoughts or feelings.
____30. I regard him/her as a disagreeable person.
____31. At times I feel contempt for him/her.
____32. When he/she does not say what he/she means clearly, I still understand him/her.

Appendix D

NAME _____ DATE _____

IDENTIFICATION

Below is a list of words that describe feelings people have. Please read each one carefully. Then fill in ONE space under the answer to the right which best describes HOW YOU HAVE BEEN FEELING DURING THE PAST WEEK INCLUDING TODAY.

The numbers refer to these phrases.
0 = Not at all
1 = A little
2 = Moderately
3 = Quite a bit
4 = Extremely

	0 NOT AT ALL	1 A LITTLE	2 MODERATELY	3 QUITE A BIT	4 EXTREMELY
1. Friendly	0	1	2	3	4
2. Tense	0	1	2	3	4
3. Angry	0	1	2	3	4
4. Worn out	0	1	2	3	4
5. Unhappy	0	1	2	3	4
6. Clear-headed	0	1	2	3	4
7. Lively	0	1	2	3	4
8. Confused	0	1	2	3	4
9. Sorry for things done	0	1	2	3	4
10. Shaky	0	1	2	3	4
11. Listless	0	1	2	3	4
12. Peeved	0	1	2	3	4
13. Considerate	0	1	2	3	4
14. Sad	0	1	2	3	4
15. Active	0	1	2	3	4
16. On edge	0	1	2	3	4
17. Grouchy	0	1	2	3	4
18. Blue	0	1	2	3	4
19. Energetic	0	1	2	3	4
20. Panicky	0	1	2	3	4
21. Hopeless	0	1	2	3	4
22. Relaxed	0	1	2	3	4
23. Unworthy	0	1	2	3	4
24. Spiteful	0	1	2	3	4
25. Sympathetic	0	1	2	3	4
26. Uneasy	0	1	2	3	4
27. Restless	0	1	2	3	4
28. Unable to concentrate	0	1	2	3	4
29. Fatigued	0	1	2	3	4
30. Helpful	0	1	2	3	4
31. Annoyed	0	1	2	3	4
32. Discouraged	0	1	2	3	4
33. Resentful	0	1	2	3	4
34. Nervous	0	1	2	3	4
35. Lonely	0	1	2	3	4
36. Miserable	0	1	2	3	4
37. Muddled	0	1	2	3	4
38. Cheerful	0	1	2	3	4
39. Bitter	0	1	2	3	4
40. Exhausted	0	1	2	3	4
41. Anxious	0	1	2	3	4
42. Ready to fight	0	1	2	3	4
43. Good natured	0	1	2	3	4
44. Gloomy	0	1	2	3	4
45. Desperate	0	1	2	3	4
46. Sluggish	0	1	2	3	4
47. Rebellious	0	1	2	3	4
48. Helpless	0	1	2	3	4
49. Weary	0	1	2	3	4
50. Bewildered	0	1	2	3	4
51. Alert	0	1	2	3	4
52. Deceived	0	1	2	3	4
53. Furious	0	1	2	3	4
54. Efficient	0	1	2	3	4
55. Trusting	0	1	2	3	4
56. Full of pep	0	1	2	3	4
57. Bad-tempered	0	1	2	3	4
58. Worthless	0	1	2	3	4
59. Forgetful	0	1	2	3	4
60. Carefree	0	1	2	3	4
61. Terrified	0	1	2	3	4
62. Guilty	0	1	2	3	4
63. Vigorous	0	1	2	3	4
64. Uncertain about things	0	1	2	3	4
65. Bushed	0	1	2	3	4

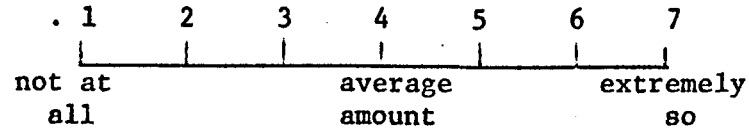
MAKE SURE YOU HAVE ANSWERED EVERY ITEM.

T
D
A
V
F
C

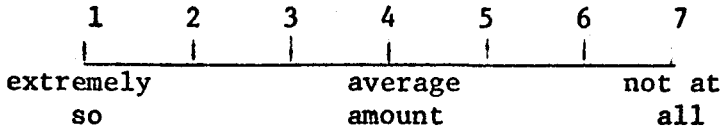
Appendix E

Each of the statements below is concerned with the group session you just completed. Please read them carefully. For each statement circle the number on the scale which best indicates how you viewed today's session. Note: Do not circle the same number for all the statements.

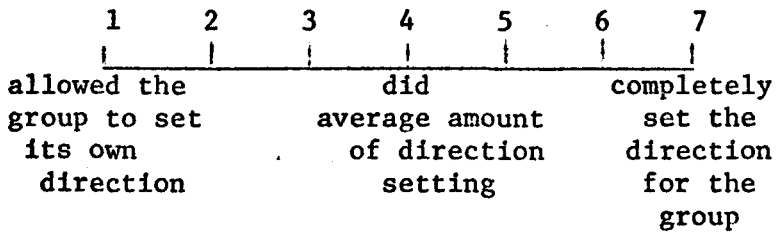
1. Group members were involved in the session.



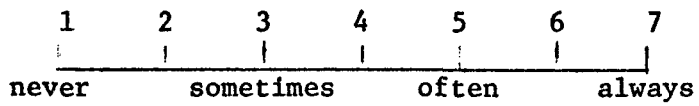
2. Group members were positively influenced by the session.



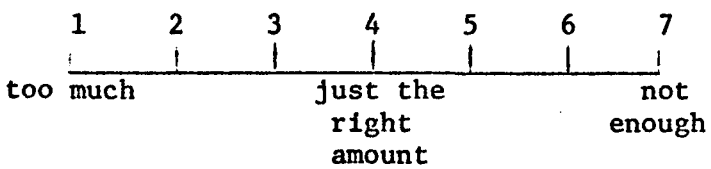
3. During the session the counselor--



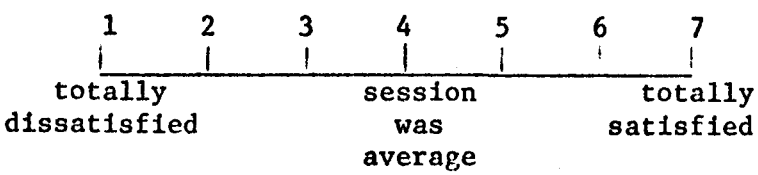
4. The counselor was in charge of the group whether or not he was talking.



5. In general, how much advice did the counselor offer?



6. How satisfied were you with the seesion?



Appendix F

APPENDIX F

GROUP SESSIONS

Patient Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Appendix G

NUMBER OF TIMES ADMINISTERED

SCALE																			
2 --	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
3 --	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4 --	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

APPROVAL SHEET

The dissertation submitted by Carol Dubnicki has been read and approved by the following Committee.

Dr. Frank J. Kobler, Director
Professor, Psychology, Loyola

Dr. Thomas P. Petzel, Acting Director
Associate Professor, Psychology, Loyola

Dr. James E. Johnson
Associate Professor, Psychology, Loyola

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necesssary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

5/6/77
Date

Thomas P. Petzel
Acting Director's Signature