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**THE RELATIONSHIP OF CLIENT STAGES OF CHANGE TO
RETENTION, WORKING ALLIANCE, AND OUTCOME IN SHORT-TERM THERAPY**

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Running Head: Stages of Change and Short-Term Therapy

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Table of Contents

Abstract

Introduction

Review of the Stages of Change Scale

Studies of the Stages of Change Model on Clients with Diverse Presenting Concerns

Project Objectives and Hypotheses

Method

Participants

Therapists

Measures

Preliminary Analysis

Primary Analysis

Discussion

Table 1

The Authors

References

Abstract

This study investigated the relationship between clients' stage of change as defined by Prochaska's Transtheoretical Model and critical aspects of the process and outcome of therapy in a large sample of college-student clients. Compared to clients in the contemplation, action, and maintenance stage of change, pre-contemplators were less likely to complete more than a single session of counseling, experienced a lesser degree of overall symptom relief, and rated the working alliance less favorably. Practical applications and implications of the results as well as ideas for future research are reviewed.

The Relationship of Client Stages of Change to Retention, Working Alliance, and Outcome in Short-Term Therapy

Research has been steadily accumulating in support of the transtheoretical stages of change model of change originally proposed by Prochaska (1979) for use with clients presenting specific, behaviorally-oriented concerns in therapy. In particular, Prochaska's model appears to provide useful information for predicting client attitudes, session outcome, and dropout rates for clients presenting with targeted concerns including smoking cessation (Jaekle, Baum, Heinz-Dieter, 1999; Prochaska, 1991; Prochaska & DiClemente, 1986), dietary behaviors and weight loss (O'Connell & Velicer, 1988; Povey, Conner, Sparks, James, & Shepherd, 1999; Rossi, Rossi, Velicer, & Prochaska, 1995), bulimia nervosa (Franko, 1997), exercise behavior (Burn, Naylor, & Page, 1999; Marcus et al., 1992; Nigg & Courneya, 1998; Peterson & Aldana, 1999), sexual behaviors and practices (Grimley, Prochaska, & Prochaska, 1993) and substance abuse (Al-Otaibi, 1999).

Yet despite this evidence, the applicability of this model to clients presenting with a broad range of concerns remains in question. Originally proposed to be applicable across theories, client issues, and counseling interventions (McConaughy, DiClemente, Prochaska, & Velicer, 1983), little empirical support has been garnered for the model's applicability to general therapy. With the movement toward managed care placing an increasing emphasis on the importance of research addressing predictive factors of session outcome and the maximization of therapeutic success (Steenbarger, 1994), the importance of furthering this area of research appears clear. In order to further these research goals, the current study investigated the relationship between stage of change, as measured by McConaughy et al.'s (1983) Stages of Change Scale (SCS), and the following indices of counseling success: duration of counseling, quality of the working relationship, and degree of symptom relief in a large cross-sectional sample of college-student clients with a range of presenting concerns.

Review of the Stages of Change Scales

The Stages of Change Scales were originally validated on two samples using principle component factor analyses (McConaughy et al., 1983; McConaughy et al., 1989). Four distinct factors (stages) of client change emerged from the original work and have since served as the dominant means for measuring the model. According to Prochaska & DiClemente (1992, p. 185), these four stages of change "represent specific constellations of attitudes, intentions, and/or behaviors that are relevant to an individual's status in the process of change." Each stage is theorized to entail unique perspectives about the counseling process (McConaughy et al., 1989). Clients in the pre-contemplation stage are characterized as being resistant to initiating change or even recognizing that they have a problem needing resolution. Instead these clients may feel a need to change others or their environment and may feel coerced into entering counseling. Clients in the

contemplation stage have been conceptualized as being aware of a distressing life situation and, when initiating counseling, may be wondering whether their problems are resolvable. Clients in the action stage have likely begun working on changing and may be seeking help in implementing an action plan or strategy to aid in reaching their goals. Finally, clients in the maintenance stage have been described as having already made significant changes in their problem areas and are seeking treatment in order to consolidate their previous gains, continue their progress, and prevent a relapse into their less functional, maladaptive manners of behaving.

Studies of the Stages of Change Model on Clients with Diverse Presenting Concerns

Only a few studies have addressed the applicability of the stages of change model to cases of short-term counseling across a range of clients and presenting concerns. Satterfield, Buelow, Lyddon, and Johnson (1995) showed evidence that stage of change related to client expectations for the counseling process. In this study, a sample of 88 university based outpatient clients completed the Stages of Change Scales (McConaughy et al., 1983) and the Expectations About Counseling-Brief Form (Tinseley, 1982) before beginning treatment. The results suggested that pre-contemplating clients appear to have lower expectations for counselor acceptance, genuineness, confrontation, and trustworthiness than clients who are either in the contemplation, action, or maintenance stages. In addition, they found some evidence that clients entering counseling in the contemplation and maintenance stages may expect counselors to take greater responsibility for directing the course of counseling than do clients in the pre-contemplative and action stages. Though this study provides useful information about how stage of change is related to client expectations for brief therapy across a range of concerns, it is not clear whether or in what way expectations are actually related to the process or outcomes of therapy.

Smith, Subich, and Kolodner (1995) investigated the ability of the stages of change model to predict clients' termination of therapy. In this study, 74 clients completed the Stages of Change Scales (McConaughy et al., 1989) and the Process of Change Questionnaire (Prochaska, DiClemente, Velicer, & Zwick, 1982) after their primary intake. Clients were then assigned to the category of "premature termination" or "non-premature termination" depending on whether or not they kept a second appointment. The authors found that the stage of change in which participants entered therapy was related to premature termination. All participants ($n = 9$) originally in the pre-contemplation stage terminated prematurely whereas participants in the other stages were less likely to terminate prematurely. The authors cited a small sample size and a lack of information about their clients as primary limitations to the generalizability of their results. scores would prematurely terminate from counseling and that clients with high action scores would attend a greater number of sessions and establish a more positive therapeutic alliance. Instead, premature termination from counseling was predicted by a high level of initial symptom severity

and low contemplation scores. Positive therapeutic alliance after the first session was predicted by higher contemplation scores at baseline. The authors interpreted this finding as suggesting that the Transtheoretical Model may not be directly generalizable to outpatient psychotherapy populations. In particular, the authors raised questions about the application of the model to clients who are engaging in emotional change versus more behaviorally-oriented change. Important limitations to this study included a relatively small sample size and the use of a relationship measure that has not received extensive validity or reliability support. In addition, the authors noted that the majority of clients originally asked to participate in the study declined involvement. This may have been one reason why the sample of pre-contemplators in the study was quite small.

In sum, few definitive statements can be made about the utility of the stages of change model in understanding or predicting the processes and outcomes of counseling when applied to samples of clients with a range of presenting concerns. The current study seeks to address this gap by investigating the relationship of the stages of change to several indices of the “success” of counseling: the quality of the working relationship as perceived by both clients and counselors; clients’ degree of symptom improvement; and the duration of counseling.

Project Objectives and Hypotheses

Based on Prochaska’s theory, we anticipated that clients in the pre-contemplation stage would fare least well in counseling than would clients in each of the other three stages. Specifically, we predicted that pre-contemplators would experience less symptom relief, and that both they and their therapists would rate the working alliance (WA) lower than would occur in the other groups. Finally, we predicted that pre-contemplators would be more likely to terminate counseling after only one session than participants in the other stages of change (i.e., contemplation, action, and maintenance).

Although other predictions could be advanced about how clients at different stages might progress in therapy, no other prediction seems to flow as clearly from Prochaska’s model as the hypothesis that pre-contemplators will do least well in therapy. Further, prior research has not found differences among other stages of change. So our only a priori hypothesis was that pre-contemplators would differ from the other groups. However, we used exploratory analyses to compare each of the stages with each other.

Method

Participants

The participants in this study were clients seeking counseling services from university-based counseling centers that were part of the Research Consortium of Counseling and Psychological Services in Higher Education. The Research Consortium was founded in 1990 with

the mission of collecting research data from college counseling centers nationwide. Data reported in this study were gathered in the academic semesters from 1997-1998.

As tends to happen with naturalistic studies, data are not complete on all variables; and thus, the actual number of cases in each analysis we present varies considerably. Of the participants who originally completed the testing at the outset of counseling and submitted complete demographic information, the sample included 1072 (33%) men and 2142 (67%) women. The average age was 23.38 years ($SD = 5.78$). The ethnicity breakdown of the clients was 73.3% Caucasian, 5.7% African-American, 4.1% Asian-American, .4% Native- American, 10.4% Hispanic-American, and 6.0 % Foreign-International. All clients were students and the majority (76%) were enrolled in undergraduate programs.

Therapists

Therapists in the study included 241 women and 132 men. The majority of the therapists saw multiple clients. The mean age of therapists was 37.60 years ($SD = 10.37$). The ethnicity division of the therapists was 73.3% Caucasian, 5.6% African-American, 3.7% Asian-American, .5% Native-American, 4.0% Hispanic-American, and 3.5% Foreign-International. Regarding educational level of the therapists, 17.8 % had attained a BA/BS, 40% had an M.A./M.S./M.S.W., 37.5% had a Ph.D./Psy.D/Ed.D, 1.8% had other types of degrees and finally, 2.7% were unknown. The therapists' years of experience ranged from 1 to 37 years ($M = 6.89$, $SD = 8.11$).

Measures

Stages of Changes Scale (SCS). The SCS is a 32-item instrument with four subscales: Pre-contemplation, Contemplation, Action, and Maintenance (McConaughy et al., 1983; Prochaska, 1984). The SCS was originally constructed by generating items based on behavioral definitions derived from Prochaska and DiClemente's (1982) theory of how change occurs. Interrater reliability and factor analyses yielded a final factor structure of four 8-item scales. Internal consistency reliabilities for subscales have ranged from .79 to .89 (McConaughy, Prochaska, & Velicer, 1983). These studies have yielded intercorrelations from -.52 for Pre-contemplation and Contemplation to .53 for Contemplation and Action. Consistent with the original theory, McConaughy et al. (1989) noted that adjacent stages are most highly correlated and that Contemplation, Action, and Maintenance "are somewhat related, but not highly redundant" (p. 496).

The SCS uses a 5-point, Likert-type response format 1 (strongly disagree) to 5 (strongly agree). Participants rate statements that describe how they feel as they initiate counseling. A total score (possible range = 8 - 40) is calculated for each subscale. Research has used this scale in different manners, both as a continuous variable using all of the subscales and categorically

(Satterfield et al., 1995; Smith et al., 1995). Participants in the present study completed the SCS immediately prior to their intake session.

We categorized participants as falling primarily into one of the four stages, an approach to analyzing the data that seemed most consistent with Prochaska's model. The procedure we used was as follows: Participants' scores on each of the four SCS scales were standardized by conversion to *z* scores. Each participant was then assigned to a category corresponding to the highest of his/her four *z*-transformed scale scores. So, for example, a participant whose transformed SCS "pre-contemplation" score was higher than his/her "contemplation," "action," or "maintenance" score was considered to be in the pre-contemplation stage.

Number of Sessions Completed. We used this as an approximate measure of investment in, and commitment to, counseling. The raw number of sessions completed was highly skewed, with approximately one third of the sample completing only one session, another third completing 2 - 3 sessions, and the remaining third or so completing anywhere from 4 to 38 sessions. In order to circumvent these distribution anomalies, we created an ordinal variable by assigning participants to one of the three groups: one session, 2-3 sessions, or 4 or more sessions completed.

The Working Alliance Inventory (Horvath & Greenberg, 1986) is a 36-item measure with three sub-scales that measure client and therapist perceptions on goals, tasks, and quality of the personal bond respectively. It has two versions: the client version assesses the quality of the alliance as perceived by the client, and the therapist version assesses the therapist's perspective as to how the client perceives the quality of the alliance. Sample items are "My counselor perceives accurately what my goals are" (Client version) and "My client and I have a common perception of her/his goals" (Therapist version). Items are scored on a 7-point scale from 1 (rarely) to 7 (always), with subscale scores ranging from 12 to 84, and total score ranging from 36 to 252.

Horvath and Greenberg (1986) reported internal consistency estimates with alphas of .93 for the client total score and .87 for the therapist total score. The internal consistencies for the therapist sub-scales were reported as alphas of .91, .88, and .93 for task, bond, and goal respectively. For the client scales the alphas of .90, .88, and .91 for task, bond and goal were reported. Validity has been established through significant correlations between WAI ratings and counseling outcome (Horvath & Greenberg, 1986), client characteristics (Kokotovic & Tracey, 1990), and therapist technical activity (Kivlighan, 1990). Tracey and Kokotovic (1989) conducted confirmatory factor analysis and found support for a three-dimensional structure that corresponds to the three sub-scales. Correlations between the subscales are typically quite high, and this was true in the present dataset, as well. For the client-rated scales, all correlations between subscales were above .73, and for the therapist-rated scales, all correlations were above .66. Hence, we used only total WAI scores in the analyses reported here. Cronbach's alpha was .95 for both the client-rated and therapist-rated WAI.

Participants in the current study and their therapists completed the WAI immediately prior to the fourth session. Because the majority of the sample completed fewer than four sessions, analyses of WAI scores were based on about a fifth as many cases as were analyses of duration of counseling, and about a third as many cases as were analyses of OQ45.

The Outcome Questionnaire 45 (OQ45) was developed by Lambert, Lunnen, Umphress, Hansen, and Burlingame (1994) and is a measure of subjective distress. The 45 items are presented in a 5-point Likert (0-4) scale and summed to yield a total measure of distress. Three sub-scales measure symptom distress, social-role functioning, and interpersonal relationships but these tend to be fairly highly correlated and are not used in the present analyses (all subscales are correlated at least .74 with the total score in the present data). A high total score suggests that the participant is reporting a large number of symptoms of distress, difficulties in interpersonal relationships, social role functioning, and the overall quality of life. A sample question reads, "I feel hopeless about the future." Typically, a cutoff score of 63 is used to distinguish a clinical from a non-clinical population (Kadera, Lambert & Andrews 1996). Kadera, Lambert and Andrews (1996) report an internal consistency of .93 and a test-retest reliability of .84, and concurrent validity with similar instruments in some studies range from .53 to .88. Our analyses of the present data yielded a coefficient alpha of .94 for the total OQ45 score.

Participants in the current study completed the first OQ45 just prior to their intake session and completed the OQ45 again just prior to each session. Hence, the last OQ45 was administered just prior to each participant's final session. For purposes of the analyses reported here, a change score was created by subtracting the intake OQ45 score from the last OQ45 score reported for each client. This difference score is referred to below as OQ45 change. Results

Preliminary Analyses

One question that was important to resolve was whether any of the demographic variables identified in the sample were systematically related to stage of change. We used analysis of variance to compare the mean ages of participants in each of the stages of change. This analysis revealed significant age differences as a function of stage of change, $F(3, 2967) = 7.13, p < .001$. Follow-up comparisons using Tukey's HSD technique revealed that both pre-contemplators ($M = 23.10$; $SD = 5.75$) and contemplators ($M = 22.72$; $SD = 4.97$) were significantly younger than those in the action ($M = 24.11$; $SD = 6.33$) stage. This finding seems consistent with the stage of change model in that a person's self-awareness and willingness to confront personal problems might be expected to increase with age and experience. However, it also suggests the importance of controlling for age when examining the effects of stage of change.

We examined the association between ethnicity and stage of change, and the association between gender and stage of change in separate chi square analyses. American Indians were excluded from the test of association between ethnicity and stage of change because of their small

number in the sample. No significant association was found. However, a significant association was found between gender and stage of change ($X^2 = 38.49$, $p < .001$). Men appeared to differ from women primarily in the likelihood of their falling into the pre-contemplation stage. In order to test this possibility, a follow-up chi square was performed, comparing the association of gender with membership in the pre-contemplation stage versus all of the other three stages combined. This association was highly significant ($X^2 = 37.32$, $p < .001$). This finding indicates the importance of including gender and its interaction with stage of change in analyses addressing the hypotheses of the study.

Primary Analyses

Relationship between Stage of Change and Duration of Counseling. The relationship between clients' stage of change and the duration of counseling was examined with a chi square test of association between the four stage of change levels and the three number-of-session categories (one session, 2-3 sessions, and 4 or more sessions). This analysis revealed a significant association, $X^2 = 12.87$, $p < .001$, between these two variables. Examination of the contingency tables (see Table 1) suggests that the major association was between membership in the pre-contemplation stage and having had only one session of counseling. So we probed this association by dividing clients into categories to create a 2 X 2 contingency table: pre-contemplation versus "other" (contemplation, action, and maintenance stages combined), and one session versus more than one session. The resulting chi square was significant, $X^2 = 8.48$, $p < .005$.

Relationship between Stage of Change and Working Alliance. The relationship between clients' stage of change and the working alliance (WA) as rated by clients and by therapists was examined in separate analyses of variance, each with gender and stage of change as independent variables and age as covariate. The hypothesized difference between pre-contemplators and clients in the other Stages of Change was tested with an a priori contrast that compared pre-contemplators with the other three groups combined. Since WA ratings were only available for clients who completed at least four sessions of counseling (roughly one third of the total sample), the analyses on WA were based on fewer cases than were the other analyses (see Table 1). For the analysis of client-rated WA, significant main effects were found for both gender, $F(1, 442) = 6.06$, $p < .02$, and stage of change, $F(3, 442) = 5.50$, $p < .002$. Women clients rated the WA more positively than did men. The a priori stage of change contrast was significant, $t(442) = 2.34$, $p < .02$, indicating that, as hypothesized, clients in the pre-contemplation stage rated the WA lower than did clients in the other stages, combined. Post hoc comparisons between all pairs of stage of change groups revealed significant differences between clients in the pre-contemplation as compared to those in the action and maintenance stages, and between clients in the contemplation stage versus those in the action and maintenance stages. Means are reported in Table 1.

The parallel analysis on therapist-rated WA yielded no significant effects, and the a priori contrast was also not significant.

Relationship between Stage of Change and Degree of Symptom Relief. The hypothesized relationship between clients' stage of change and the degree of symptom relief they experienced during counseling was examined using analysis of variance. The difference between OQ45 score at intake and just prior to the final session (OQ45_{change} as described above) of counseling was the dependent variable in these analyses. In addition to stage of change, participants' gender was added as an independent variable to control for the effect of this variable as well as to check for any interactions between stage of change and gender. Age was entered as a covariate. The hypothesized difference between pre-contemplators and clients in the other Stages of Change was tested with an a priori contrast that compared pre-contemplators with the other three groups, combined. Main effects of both stage of change, $F(3, 1384) = 12.16, p < .001$, and gender $F(1, 1384) = 5.62, p < .02$, were significant. The interaction of gender and stage of change was not significant. The gender main effect was due to the greater degree of symptom relief reported by women as compared to men. The a priori stages of change contrast was significant, $t(1384) = 5.63, p < .001$, indicating that, as hypothesized, pre-contemplating clients experienced less symptom relief than did clients in the other groups combined.

The effect was explored further using Tukey's *HSD* method to examine all possible pairs. Although the difference between pre-contemplators and each of the other three groups was statistically significant, even using the more conservative Tukey test, no other comparisons were significant. Mean OQ45 scores (first, last, and difference scores), are reported in Table 1.

Discussion

The purpose of this research was to assess the relationship of Prochaska's transtheoretical model describing client's readiness for change with indices of the process and outcome of short-term therapy in a large sample of college student help-seekers. Our results provide convincing support of the utility of this model in differentiating clients who are at the pre-contemplation stage of change compared to other stages at the onset of counseling. Compared to clients in the contemplation, action, and maintenance stages of change, pre-contemplators were less likely to complete more than a single session of counseling, experienced a smaller degree of overall symptom relief, and rated the working alliance less favorably. However, the present results do not support the validity of the model in making distinctions among the contemplation, action, and maintenance stages of change, and raise doubt about the validity of these distinctions as applied to clients in brief therapy for a range of presenting concerns.

The present results are consistent with prior research demonstrating a relationship of the pre-contemplation stage of change with expectations about counseling (Satterfield et al., 1995) and

with premature termination (McConaughy et al., 1984; Smith et al., 1995). Though the present results are somewhat inconsistent with Derisley and Shirley's (2000) failure to find effects associated with pre-contemplation scores, the small number of participants with high pre-contemplation scores in the latter study likely affected their results.

Perhaps the most striking finding that emerged in our results is the difference between pre-contemplators and clients in the other stages across such a diverse array of process and outcome measures as duration of counseling, working alliance, and symptom reduction, and despite fluctuations in the number of cases in each analysis. Consistent with the theoretical perspective outlined by McConaughy et al. (1989), this study provides evidence that clients in the pre-contemplation stage seem to have a number of significant challenges that impede the progress of therapy. These clients evaluate more negatively the extent of agreement on the goals and tasks of therapy as well as the genuine bond they have with their therapists than clients at the other stages of change (i.e. contemplation, action, and maintenance). Perhaps as a result of this lowered working alliance, these clients have fewer sessions and benefit less from therapy than other clients.

The only index of counseling success that did not yield a significant difference between pre-contemplators and clients in other stages of the model was therapist-rated working alliance. Importantly, this particular index is the only one not obtained directly from clients. Its failure to show the predicted effect may reflect a relative insensitivity on the part of therapists to the lesser therapeutic engagement of clients in the pre-contemplation stage. Alternatively, it may be that therapists registered their clients' lack of readiness for change but assigned this minimal weight in their assessments of the therapeutic alliance. Either way, this pattern of findings suggests that therapists may be unaware of such client concerns or may pay insufficient attention to the likelihood that these concerns will disrupt therapy.

Along with the support that these findings yield for the usefulness of distinguishing clients in the pre-contemplation versus other stages of change, a caveat must be noted. The current study offers little support for the validity of the distinctions among the contemplation, action, and maintenance stages. Within the present study, post hoc analyses of client-rated working alliance (WA) showed that contemplators behaved similarly to pre-contemplators. They, like pre-contemplators, rated the WA less positively than did those in the action or maintenance stages. No other differences among clients in the contemplation, action, and maintenance stages were found across any of the process and outcome measures used here. Given the relative power of the present analyses (due to the large sample size), and given the consistency and robustness of the differences between clients in the pre-contemplation versus the other stages of change, the absence of differences among the other stages is noteworthy. Further, it mirrors the relative absence of differences among these latter three stages of change in the few prior studies of therapy for general concerns.

Several possible clinical implications of using the Stages of Change Scale (McConaughy et al, 1983) at the onset of counseling can be outlined. If therapists can use this measure to identify clients in the pre-contemplation stage, this information could prove useful in the beginning phases of counseling. For example, therapists may be able to intervene by discussing a client's ambivalence to either being in therapy or to working on their problem. Such efforts may be useful in extending the client's length of stay in therapy and improve perceptions of the working alliance. Considering that research has consistently linked working alliance data to therapeutic outcome (Horvath & Symonds, 1991; Lambert & Bergin, 1983; Orlinsky & Howard, 1986), such early interventions aimed at improving the working alliance would likely have a beneficial impact on the overall level of symptom improvement reported at the conclusion of counseling.

In addition, it may be that a greater percentage of clients in the pre-contemplation stage have been pressured by others (e.g., friends, family, etc) or mandated to seek counseling. If this is the case, it would seem critical to directly explore their resistance to the process, including any possible anger the client may express toward the person who encouraged or mandated them to seek counseling. Secondly, clinicians, upon identifying clients who are in the pre-contemplation stages of change, may want to set progression toward a more facilitative stage of change as a preliminary goal of therapy. If therapists could discuss the client's inability to either recognize the presence of a concern or their resistance toward working on their problem, this may serve the purpose of strengthening the working alliance and enable the client to trust more in the process of counseling and the therapists endeavors. Finally, it should be noted that clients who are classified as pre-contemplators may possess lower levels of social and cognitive skills that form the foundations of successful therapy. As Rude (1986) and Rude and Rehm (1991) showed, clients with good interpersonal and cognitive self-management skills fared better across various forms of therapy for depression. It is not unreasonable to suppose that skill level differs as a function of clients' stage of change and might constitute the active mechanism of change. Further research to document the correlates of stage of change would therefore be desirable.

As mentioned earlier, therapists' ratings of the working alliance did not reflect any significant concerns in terms of the agreement in the tasks, goals, and evaluations of the therapeutic relationship among their pre-contemplating clients. It is reasonable to hope that providing therapists with clients' stage of change status may increase sensitivity to aspects of the working alliance where differences in perceptions (i.e. between therapist and client) exist. Of course, successful work with clients in the pre-contemplation stage may require more than therapist awareness of clients' stage of change. Little is known about how much can be done to increase such individuals' motivation and engagement in the therapy process. For example, in addition to having this information, therapists may need to engage their own countertransferential reactions toward working with clients who lack self-insight and possess ambivalence about the counseling process.

Several additional areas of research are worthy of consideration. For one, researchers and clinicians alike need a better understanding of what specific obstacles surface in therapy that seem to hinder progress for clients in the pre-contemplation stage. Specifically, it would be helpful to know more about the specific viewpoints, counseling needs, and presenting concerns of pre-contemplation clients. Qualitative methodologies seem particularly likely to be helpful in this endeavor. The vivid, dense, and full descriptions (Eissner, 1991; Hill, Thompson, & Williams, 1997; Polkinghorne, 1994) that can be produced by qualitative investigations may alert us to unanticipated aspects of the pre-contemplating client's mind set, assumptions, and behaviors that prove to be important.

In addition to open-ended investigations, it makes sense for future studies to be guided by Prochaska's descriptions of the pre-contemplator as tending to attribute problems to external sources, tending to avoid taking responsibility for personal change, and feeling little personal influence over many aspects of his/her life. In addition, researchers may want to investigate the impact of pre-therapy training in influencing clients' stage of change and success in therapy. Several studies have shown that clients who received pre-therapy training had more realistic expectations of therapy, better attendance, and overall better understanding of the therapeutic process than those who did not receive training (Bonner & Everett, 1986; Coleman & Kaplan, 1990; Deane, Spicer, & Leathem, 1992). It seems likely that such interventions could modify readiness to change as well. Efforts to test the utility of pre-therapy training on clients with high pre-contemplation scores may benefit from integrating discussions of the stages of change model into the training framework. If training could move clients out of the pre-contemplation stage and if this, in turn, could be shown to enhance success in therapy, then enormous practical benefits could be gained.

There are several noteworthy limitations of this study. First, although the sample size is quite large for a counseling study, this sample consisted of predominantly Euro-American, traditionally aged college students. Thus, the findings may not be applicable to other groups. Second, because a significant portion of our sample only completed one or two sessions of therapy and subsequently did not complete the working alliance ratings we do not know to what extent evaluations of the working alliance influenced decisions to seek therapy or how these participants would have evaluated the alliance. Third, some cautiousness about our conclusions must be exercised due to the exclusive reliance upon self-report measures. Although reliance upon self-report is characteristic of therapy process and outcome research, it must be borne in mind that self-report biases may have influenced the results. It is also important to note that the very short duration of therapy that was typical in this sample (approximately 66% of the sample attended three or fewer sessions) limits the generalizability of findings to short-term therapy contexts. Finally, interpretation of these results is limited by the fact that little information is available on correlates of

clients' stage of change. It might be the case, for example, clients who are classified as pre-contemplators are less likely to possess basic skills on which therapy is based.

Strengths of the present study include its large size, its inclusion of a range of therapy process and outcome measures, and the use of data from actual counseling interactions. The size of this investigation made it feasible to test Prochaska's model by forming discrete stage categories, a procedure that reduces the power of analysis to the point that it is not feasible without a very large sample size. The main benefit of this procedure is simply that it is more faithful to the notion of client stages posed by the transtheoretical model.

Conclusions

These data partially support Prochaska's stage framework as applied to a broad range of clients and presenting concerns. The findings also carry important clinical and research implications. The fact that duration of counseling, client ratings of working alliance, and symptom relief were all predicted by whether clients were in the pre-contemplation versus one of the "later" stages strongly suggests the importance of therapist attention to client stage of change. The fact that clients' stage of change did not predict therapist ratings of the working alliance offers a clue as to at least one of the origins of the problem: Therapists appeared either not to discern their clients' stage of change or to pay sufficient attention to this information.

Finally, these results point out several areas in which future research efforts are likely to be particularly productive. Research aimed at developing a fuller understanding of the client attitudes and behaviors associated with the pre-contemplation as compared to the "later" stages seems especially fruitful. Further, research is needed to determine what therapeutic approaches might mitigate these problematic client attitudes and help clients in this stage gain greater benefits from counseling interventions.

Table 1

Means and standard deviations on indices of therapy success by each of the four stages of change for total sample

	Pre-contemplation			Contemplation			Action			Maintenance		
	<u>M</u>	<u>SD</u>	<u>N</u>	<u>M</u>	<u>SD</u>	<u>N</u>	<u>M</u>	<u>SD</u>	<u>N</u>	<u>M</u>	<u>SD</u>	<u>N</u>
Client Distress												
1 st OQ 45	68.42	23.81	481	78.69	24.87	324	63.34	23.60	308	78.35	23.86	305
Last OQ 45	61.40	23.96	481	62.21	25.03	324	52.68	23.90	308	63.57	24.04	305
OQ45 Change	-7.01	20.03	481	-16.49	21.84	324	-10.66	19.69	308	-14.78	21.91	305
Working Alliance												
Client	207.84	25.19	146	210.72	25.69	109	216.19	25.75	106	218.24	23.33	100
Therapist	201.57	22.52	108	200.19	19.98	84	202.04	22.25	81	202.07	18.12	83
Follow-Up Satisfaction	57.86	7.60	127	59.56	8.60	87	60.27	7.94	110	60.37	8.13	82

Note. Negative scores reflect improvement on OQ45 change index.

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