AN EXAMINATION OF THE EFFECTS OF PRE-COUNSELING TREATMENT STRATEGIES ON PROSPECTIVE CLIENT SELF-EFFICACY AND READINESS FOR CHANGE IN COUNSELING

By

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AN EXAMINATION OF THE EFFECTS OF PRE-COUNSELING TREATMENT STRATEGIES ON PROSPECTIVE CLIENT SELF-EFFICACY AND READINESS FOR CHANGE IN COUNSELING

By
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Chairperson: James Archer, Jr.
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In order that clients maximize the services offered to them, it is crucial that counselors focus on methods of increasing client self-efficacy and motivation early in counseling. Thus, the purpose of this study was to document the effectiveness of three pre-counseling treatments on prospective client self-efficacy and motivation, as a function of readiness for counseling. The majority of research on self-efficacy has emerged from social-cognitive theory and contexts other than counseling. Further, much of our understanding of motivation and readiness for counseling has its genesis in substance abuse research. Studies examining both self-efficacy and motivation together are often restricted to attrition. Therefore, empirical studies that link treatments on improving prospective client self-efficacy and readiness to counseling appear warranted. Empirical research focusing on these two important clinical variables can also be
improved with greater sample sizes, participants that are randomly assigned, and more
reliable and valid measures.

Approximately 400 students were surveyed to assess willingness to discuss a
problem in counseling. After attrition, 119 students were selected from exclusionary
criteria in order to approximate real clients. Participants were randomly assigned to one
of four groups: three treatment groups--counseling role-play, a counseling video, and
counseling literature--or a fourth, no treatment control group, to examine treatment
effects on prospective subject self-efficacy and readiness for counseling, as a function of
motivation. Also, gender, treatment, counseling self-efficacy and readiness for change
were analyzed separately to determine follow-up interest in seeking counseling as a direct
result of student participation in this study.

Results were generated from five models. Results from four different 2x4
ANOVA models indicated no significant treatment interaction with gender in predicting
counseling readiness and self-efficacy. Separately, female gender significantly predicted
readiness for counseling, and self-efficacy predicted total readiness score. In the fifth
model, treatment, self-efficacy and readiness for counseling separately predicted
willingness to seek post-test counseling; gender was not significant. However, when
readiness for counseling was added, the treatment effect became non-significant in
predicting follow-up, thus demonstrating the mediating effect of readiness on treatment in
seeking post-test counseling. Limitations, implications of the study and directions for
future research were also discussed.
CHAPTER 1
INTRODUCTION

Statement of the Problem

One challenge that clinicians currently encounter is providing cost-effective counseling in a managed care environment (Lyons, 1997; Hoyt, 1995). As a result, there is a profound need for counselors to utilize resources and treatment planning as efficiently and effectively as possible. Thus, empirically driven treatments that increase prospective client self-efficacy and motivation to change (Longo, Lent and Brown, 1992; Longo, 1991) early in the counseling process appear warranted. Additionally, empirical research that informs treatment providers on how to increase client self-efficacy and motivation (Longo et al., 1992; Mennicke, 1988) is needed in order to minimize premature termination.

Theories on self-efficacy have wide application in counseling. Self-efficacy (Bandura, 1997, 1986, 1977), defined as one’s belief in one’s capability to execute a specific task or series of tasks, has been examined and applied to counseling outcome research regarding alcohol consumption (Tran, Haaga and Chambless, 1997) substance abuse (Burke, 1998; Walton, 1995), stress management (Wiedenfeld et al. 1990), positive self-concept (Harrison et al, 1997), motivation and client attrition (Longo, Lent and Brown, 1992).

The majority of counseling self-efficacy research targets substance abuse treatment contexts (DiClemente and Norcross 1992; Miller and Rollnick, 1991; Prochaska,

Since many clients in the substance abuse field are characterized by denial of their problem (Prochaska, 1992; 1986), motivation to change is also closely related to self-efficacy in the counseling literature. Traditionally, the most effective means of motivating clients was to confront them (Miller and Rollnick, 1991). Historically, Miller (1991; 1983) suggests that many treatment strategies aimed at first attacking and tearing away at a client’s defenses in order to, secondarily, rebuild and motivate the client. However, current substance abuse treatment protocols reflect more gentle and empathic (Miller, et al., 1993) methods in combination with more brief and time-limited approaches (Lyons, 1997; Hoyt, 1995). Yet one of the many challenges continuing to face clinicians is how best to motivate clients toward improvement and substantive, long-term change.

Thus, understanding a client’s motivation is a primary importance to counseling professionals. Bauman (1999) wrote that motivation is an internal state that illustrates a
client's strength, direction and persistence of goal-directed behavior. Miller and Rollnick (1991) suggest one of the central tasks of a counselor is to motivate clients by specifically helping clients achieve targeted goals and desired change, since many clients initiate counseling with limited experience and little confidence in the counseling process. As a result, motivation to change is perceived as a crucial variable so that clients do not prematurely terminate from counseling, become passive bystanders in counseling, or fail to effectively maximize the counseling services offered to them (Longo, Lent, and Brown 1992; Longo, 1991).

Need for the study

Although counseling theories and therapies (Lent et al., 1997) have produced research on the correlates and precepts of self-efficacy and motivation (Sutton, 1998; Longo, 1991) in a variety of contexts, few studies have specifically compared the effectiveness of different treatment strategies that increase a prospective client's self-efficacy and motivation for change, prior to initiating counseling. (Client self-efficacy and motivation in counseling reflects primarily the belief and desire that one can become a successful client. Client success is operationally defined as illustrating the client’s belief and motivation in the importance of attending and committing to counseling sessions, asking questions to clarify session material when needed, doing assigned homework when given, persevering in counseling during times of emotional discomfort, and not prematurely terminating, etc.)

Most of the research on self-efficacy and motivation is from other contexts. For instance, self-efficacy and medical treatment typically reflect studies on outcome satisfaction with counseling of multiple sclerosis patients (Wingerson, 2000), types of
counseling with overweight adults (Steptoe, 2000), self-efficacy and medication compliance (Brus, 1999), self-efficacy and its role in dietary adherence (Burke, 1998), self-efficacy and HIV prevention (Hume, 1999). Motivation has been researched extensively in education (Higbee, 1996; Locke and Latham, 1994) and counseling (Miller and Rollnick, 1991) but little research in counseling considers these two variables together outside of studies related to client attrition (Longo, Lent and Brown, 1992).

Additional research focuses on self-efficacy related to student achievement, but not self-efficacy and client achievement in counseling. Studies on self-efficacy implicated in academic performance include but are not limited to self-efficacy and math achievement (Luzzo, 1999; Pajares and Miller, 1994); goal setting on achievement and perception of self-efficacy in inner city children (Paslay, 1996); goal setting interventions on self-efficacy for self-regulated learning (Schwartz 1996); self-efficacy enhancing interventions on math and science, career interests (Luzzo, 1999); and the effects of high school career education on social cognitive variables (McWhirter, 1999).

Self-efficacy research also includes measurement studies. Sherman (1998) looked at the relationship between addiction and pregnancy with a measure of self-efficacy applied to pregnant women in recovery. Sherer and Maddux (1982) developed a self-efficacy scale for measurement of the construct. Larson et al. (1998) generated five empirical, research studies on the development and validation of a popular self-efficacy measure for counselors (COSE), which is helpful in predicting counselor-trainee performance.

Tinsley’s et al. (1980) counseling, brief form (EAC-B) implicates a client’s expectations of counseling with the correlates of self-efficacy (motivation) in counseling.

However, some counseling research on self-efficacy has been questioned due to
design flaws that compromise the internal validity of the studies. For instance, Lent and Maddux (1997) mention research designs on counseling-related self-efficacy that historically employ correlational, quasi-experimental designs with small sample sizes without random assignment of treatment subjects. As a result, treatment groups are non-equivalent prior to initiation of treatment. Therefore, it is nearly impossible to exclude the potentially confounding effects of other variables that may produce spurious treatment results. Lent and Maddux (1997) suggest the value in examining through experimentation different means for modifying clinically important aspects of self-efficacy.

Although the majority of both self-efficacy and motivational research emerges from contexts other than counseling, there is reason to believe that research on self-efficacy and motivation has application to counseling. Clearly, empirical research that targets client self-efficacy and motivation in counseling, with larger sample sizes, is needed. Bandura’s work and the research line generated from applications of self-efficacy to other contexts provide a broad theoretical and empirical foundation for this type of counseling research.

**Purpose of the Study**

Thus, the purpose of this research study is to increase and extend the body of theoretical and empirical knowledge of social-cognitive theory and two related variables, self-efficacy and readiness for counseling, into the counseling domain. The effectiveness of three pre-treatment strategies (counseling literature, video, role play) that may potentially increase client self-efficacy and motivation, in comparison to a no treatment, control group will be examined.

Different treatment interventions to increase self-efficacy and motivation have been
applied in a variety of research contexts. One method of increasing self-efficacy is to provide literature to clients to increase coping strategies. Hannes (1999) utilized literature as part of a psychoeducational intervention targeted at increasing efficacy coping with HIV. Telch (1985) used literature as part of a support group to enhance coping among cancer patients. Some researchers utilize literature to increase self-efficacy in regards to learning. Schunk (1994) examined the effects of goal-setting instructions on self-efficacy for self-regulated learning. Others have incorporated literature as part of building self-efficacy in developing counselors. Johnson (1989) showed how literary information is applied to increasing self-efficacy and counseling competence in prepracticum training. Hamilton (1999) applied literature to a control group to study the differences in factual content of three vignettes in comparison to an experimental group exposed to videotaped instruction.

Intervention studies designed to increase counseling self-efficacy in counselors have typically used a combination of video instruction, role-play or modeling. Larson et al. (1998) compared a fifteen-minute mock interview to a fifteen-minute counseling session on tape. Munson et al. (1986) compared the effectiveness of role playing and modeling versus modeling and visual imagery. Sutton (1998) utilized video in fostering client engagement through role manipulation. Jones (1995) studied the effectiveness of video on marital therapy. Sullivan and Mahalik (2000) used video and other counseling interventions (role-play and positive feedback) to increase career self-efficacy among women.

Additional inquiry for examining self-efficacy and motivation together is supported by counseling research and treatment approaches that illustrate the link between these

Thus, the purpose of this study emerges from the theoretical and empirical role of self-efficacy and motivation in counseling. Clearly, the theoretical literature supports the hypothesized role of self-efficacy and motivation in influencing behavioral change (Bandura, 1997; Pajares and Miller, 1994; Prochaska, 1982). In addition, the utility of applying role-play, video, and literature as pre-treatment strategies to increase self-efficacy and motivation in other contexts has been documented extensively in the research literature (Sullivan and Mahalik, 2000; Heppner, 1994). Further, the relatively high correlation between motivation to change and self-efficacy has been documented to increase understanding among counselors on how best to minimize premature termination (Longo, Lent, and Brown, 1992). Studies with larger sample sizes that attempt to increase self-efficacy and motivation to change early in the counseling process are clearly warranted in a clinical, managed care environment.
Background of the Problem

Additionally, Bandura (1997, 1986, 1977) suggests that many psychological processes are governed by self-efficacy and its related theoretical precepts of motivation, goal achievement, and outcome expectations. Self-efficacy and its precepts are embedded within larger theoretical frames, notably social-learning theory (Bandura, 1977; Miller and Dollard, 1941) and social-cognitive theory (Bandura, 1986). These theories delineate the influence of social observation and modeling on human learning, specifically examining the role of self-efficacy as one cognitive variable in the learning of new behaviors.

Counseling research on self-efficacy (Bandura, 1977) traditionally targeted the role of self-efficacy to anxiety, anxiety related disorders such as phobias (agoraphobias, snake phobias), and how they were developed and treated. Historically, avoidant behavior was explained by an anxiety drive (Freud, 1961). It was believed that autonomic arousal and its subsequent anxiety motivated individuals to specifically avoid the behavior that manifested the original impulse. However, this premise was later challenged by empirical research documenting the role of perceived efficacy in predicting outcome performance, independent of anticipatory anxiety. Williams, Dooseman and Kleinfield (1984, in Bandura, 1997, pg. 327) noted the specific role of perceived coping efficacy on agoraphobics who received treatment of guided mastery vs. exposure. Williams and Rapaport (1983, in Bandura, 1997, pg. 325) extended the influence of perceived coping on outcome by illustrating the effect of coping efficacy on coping skills when anticipatory anxiety was controlled. Thus, as a result of early research on coping and anxiety (Bandura, 1986, 1977), Bandura included emotional states in influencing self-
efficacy development. However, of the four sources that compose self-efficacy, Bandura (1997) considered one’s emotional arousal to be the least influential on efficacy development.

As a theoretical construct, self-efficacy emerges out of the larger framework of social-cognitive theory (Bandura, 1986). According to Bandura (1997), self-efficacy is composed of four sources: prior experiences, vicarious learning experiences, verbal encouragement, and emotional arousal. Experience of competency is the most powerful source of one’s self-efficacy. As a result, one’s prior experiences in performance contexts have important implications for one’s beliefs regarding self-worth and confidence in that area. For instance, in their path analysis, Pajares and Miller (1994) suggested that interventions to increase mathematical problem solving in students are implicated with math self-efficacy.

The second theoretical source that influences self-efficacy development is vicarious experience. Although this source is not as powerful as mastery experiences on self-efficacy, vicarious learning appears particularly malleable when people have limited prior experience or they underestimate their own competence abilities. Schunk (1994) illustrated that academic competency models are particularly relevant in this regard. A powerful and positive model can have lasting effects on one’s life, self-efficacy development and understanding of competence. Additionally, peer influences on modeling and social interaction have influential positive and negative consequences as well. For instance, a model’s failure has tremendous impact if the rater perceives him/herself as being inferior to the model (in Schunk, 1994, Brown and Inouye, 1978).

Third, people also develop perceived self-efficacy based upon verbal encouragement
and persuasion. Verbal encouragement reflects the power of feedback on self-esteem development and perceived competence as well (Daniels, 1997). Likewise, as positive encouragement can support and bolster self-efficacy, so can negative feedback decrease self-efficacy or perceived beliefs in one’s capability to perform in a particular context (Larson, 1998; Bandura, 1986).

The last theoretical source of self-efficacy development is emotional arousal. Such states as mood, anxiety, and fatigue can certainly influence one’s self-efficacy and its development. Since people have the capacity to alter what they think, self-efficacy beliefs have a powerful and reciprocal influence on thought patterns and subsequent emotional stimulation. Social-cognitive theory (Bandura, 1986) suggests that people anticipate the quality of their performance based upon how they feel prior to the event in question. In other words, one’s confidence in the moment is reflected in one’s prospective anxiety regarding what lies ahead. Calm emotion in anticipation of performance reflects confidence. High anxiety and arousal illustrate lowered confidence and decreased self-efficacy. Early research on self-efficacy generated studies to empirically document how to increase self-efficacy to improve coping performance, in order to lower anxiety while treating related disorders (phobias).

However, it is significant to note that the four sources of self-efficacy do not directly link to and compose self-efficacy as a construct. Yet the manner in which an individual processes, weighs, selects, and attends to the information generated from the four theoretical sources of efficacy determines the application of one’s self-efficacy toward a similar, particular task in the future.

Social-cognitive theory (1986) was an extension and further application of social-
learning theory. Bandura (1977) incorporated both interpersonal and intrapersonal variables into explanations of human learning in a variety of contexts. Further, self-efficacy was explicated as a cognitive variable within the larger construct of personal agency and social-cognitive theory (Bandura, 1986). Fundamentally, social-cognitive theory (Bandura, 1986) predicts that people behave in ways that are consistent with their belief systems. The theory suggests that behavior is more easily influenced and driven by people's beliefs about their capabilities than personal knowledge and skills alone; thus, changes in one's beliefs are a powerful predictor of the selection, initiation, persistence and maintenance of a selected behavior. Therefore, theoretically speaking, if counseling professionals wish to change the behavior of a given client, the belief system of the client about his/her ability to become a successful client must first be altered. Pajares and Miller (1994) conclude by suggesting that if counseling interventions are needed to the degree in which they change targeted behaviors, than interventions must be applied that target the belief system of the client as well.

In addition, social-cognitive theory (Bandura, 1986) describes personal agency as an extension of one's self-efficacy while including affective, cognitive, and motivational components that manifest from both interpersonal and intrapsychic sources. Personal agency is one factor that helps explain the interactional nature between one's self, one's environment and one's actions. These three contexts and their interaction with each other are collectively referred to as triadic, reciprocal causation within social-cognitive theory (1986).

Counseling has personal, behavioral, and environmental influences that interact in a recursive fashion to govern a client's personal agency as well. Yet interestingly, most of
the counseling research literature on personal agency and its determinants in behavior targets a counselor's personal agency, not the client. Larson (1998) reflects that Bandura's definition of operative efficacy would include the counselor's ability to simultaneously understand one's person, actions and environment, to achieve high levels of counseling performance. One would infer that similar skills for clients would be necessary to achieve a similar performance result. In fact, Bandura defines operative efficacy specifically as "continuously improvising multiple sub skills to manage ever changing circumstances, most of which contain ambiguous, unpredictable, and often stressful elements" (Larson, 1998 pg. 237). Similarly, a client's increased self-efficacy from personal agency determinants would improve tolerance for the inherent ambiguity, unpredictability and stress encountered for clients in counseling too.

With further delineation and expansion of the construct over the last twenty-five years, research on self-efficacy has increased. Relatedly, self-efficacy and its correlates drive outcome research in multiple and diverse areas, such as optimal health, self-efficacy and its role in dysfunctional relationships, the psychological adjustment to novelty, smoking cessation, goal achievement and student motivation in mathematics, athletic performance, and dietary adherence (Burke, 1998; Lent and Maddux, 1992). However, regarding client attributes of self-efficacy in counseling research, Larson (1998) suggests "very little attention has been given to this area within the counseling self-efficacy literature" (pg. 243).

Currently, the use of self-efficacy research has practical application and treatment implications for mental health professionals in a managed care environment. One challenge that counselors encounter is how to help clients in the recovery and adjustment
process, whether coping and recovering from addiction (Sherman, 1998), adjusting to life following relapse (Miller, 1991) or motivating toward recovery (Prochaska, 1982) in a brief format. Further, Longo, Lent and Brown (1992) mentioned the need for research examining the impact of different treatments on self-efficacy and motivation *early* in the counseling process. One suggestion is to provide simple, cost-effective interventions that illustrate how best to increase client self-efficacy and motivation. Thus, this dissertation study focuses on the treatment impact of a counseling role-play, counseling video, and counseling literature aimed at increasing prospective client self-efficacy and readiness to change for counseling. In addition, a follow-up measure will be given to examine the separate and interaction effects of treatment, gender, self-efficacy and readiness for counseling on a dichotomous variable, follow-up interest to seek counseling, as a direct result of subject participation in this study.

**Organization of the Study**

This study is organized into five chapters. Chapter 1 serves to introduce the topic and the theoretical framework, the background of the topic, the need for the study, and its purpose. Chapter 2 reviews the related literature of the topic. Chapter 3 contains the research methodology, including a description of the population and sample, the instruments used, sampling procedures, and data collection methods. Chapter 4 includes data analysis procedures and the results of the study. Chapter 5 provides a general discussion of the implications and limitations of the study with future directions for research.
General Research Questions

The following research questions will be examined in this study:

1. Will different pre-counseling interventions (role-play, video observation or counseling literature) increase prospective client self-efficacy and motivation for counseling within any of the three treatment groups compared to the fourth, no-treatment, control group?

2. Will three different pre-counseling interventions (role-play, video observation or counseling literature) produce statistically significant differences between either gender on prospective client self-efficacy and motivation, compared to a no treatment, control group?

3. Will three different pre-counseling interventions (role-play, video observation or counseling literature) produce a statistically significant interaction between gender and treatment on either of the three dependent variables, counseling self-efficacy, readiness for counseling, or desire to seek follow-up counseling as a result of subject participation in the study?

4. Will gender, treatment, self-efficacy or readiness for counseling separately produce a statistically significant association in predicting likelihood to seek follow-up counseling as a direct result of subject participation in this study?

Definition of Terms

The following terms used in this study are defined below.

Managed Care: A third-party payer system introduced into the health care arena in the early 1990's; in essence, the goal of managed care companies was to introduce themselves as an insurance negotiator between provider of clinical services and client, in
order to determine and establish the most cost-effective services for the highest quality of professional health-care service, for any given health-care market providing both medical and mental health services. (See Lyons, 1997; Hoyt, 1995.)

Motivation: In relation to counseling, motivation tends to reflect a client’s strength, direction, and persistence of any goal-directed behavior (Bauman, 1999). Certainly, one task of any counselor is to help the client motivate toward achieving targeted goals and desired change.

Self-determination theory: Deci and Ryan (1985) illustrate that the self-determination of any individual is a personal expression of will, generated internally, and directed toward the future in determining likely outcomes of any selected and initiated behavior.

Self-efficacy: This is a cognitive construct that mediates the relationship between personal knowing and doing, while reflecting one’s belief in one’s capability to execute a specific task, or series of sub-tasks related to one specific context (doing math, driving a car, becoming a successful client, reading well, etc.; see Bandura, 1997).

Social-Cognitive theory (Bandura, 1986): This theory refers to a further extension and modification of social-learning theory that postulates that self-determination, individual learning and behavioral change is a cognitive, mediating process that can result in greater personal control of one’s environment and surroundings. Self-efficacy is one cognitive variable within social-cognitive theory that helps explain how one selects, alters or modifies a behavior.
CHAPTER 2
LITERATURE REVIEW

In this chapter, research literature related to client self-efficacy and motivation for counseling will be examined. In addition, general training strategies and specific pre-counseling treatment methods designed to increase client self-efficacy and motivation that support the hypotheses of the study, will be reviewed. The purpose of this review is to integrate different lines of research literature that validate the usage of a counseling role-play, counseling video, and counseling literature as useful pre-counseling treatment strategies to increase prospective client self-efficacy and motivation to change for counseling.

Self-Efficacy

The majority of self-efficacy research targets variables on student achievement in learning. Studies in these areas include investigations of self-efficacy and math achievement (Pajares and Miller, 1994; Luzzo, 1994); the role of goal setting on achievement and perception of self-efficacy in inner city children (Paslay, 1996); self-efficacy interventions for self-regulated learning (Schwartz 1996); the effects of self-efficacy interventions on math and science, career interests (Luzzo, 1999); and the role of modeling on self-efficacy development (Schunk, 1994). McWhirter (2000) examined the effects of high school career education on self-efficacy and other social cognitive variables. Other research on self-efficacy includes the role of self-efficacy on athletic
achievement, (Stidwell, 1994), self-efficacy and its influence on organizational performance (Mitchell, 1990), and the implications of using medical videotape to increase coping self-efficacy with patients with diseases such as AIDS (Everett, 2000; Hannes, 1999) and cancer.

Although the majority of self-efficacy research has been generated in contexts other than counseling, nevertheless, counseling self-efficacy research has wide application. Self-efficacy (Bandura, 1997; 1986; 1977), defined as one’s belief in one’s capability to execute a specific task or series of tasks, has been examined and applied to counseling outcome research regarding alcohol consumption (Tran, Haaga and Chambless, 1997) substance abuse (Burke, 1998; Walton et al. 1995), stress management (Wiedenfeld et al. 1990), positive self-concept (Harrison et al., 1997), motivation and client attrition (Longo, Lent and Brown, 1992). In fact, the majority of client self-efficacy research in counseling often targets substance abuse treatment Prochaska, DiClemente and Norcross 1992; Miller and Rollnick, 1991; Prochaska and DiClemente 1986). Within this area, self-efficacy research relates to client attrition (Longo, Lent and Brown, 1992), self-efficacy and motivation to change for the client (Prochaska and DiClemente, 1986), motivation toward recovery (Heather, 1992) and relapse prevention and client resistance on client self-efficacy (Miller, 1991). In addition, group approaches that include motivational interviewing (Miller and Sanchez, 1994) aim at client, coping self-efficacy as a favorable, group outcome of substance abuse counseling.

Counseling, self-efficacy research also involves outcome studies related to counselor and supervisee, self-efficacy development (Ray, 2000; Larson, 1998; Watkins, 1997; Holloway, 1995). Studies of self-efficacy in counseling also include the examination of

Generally speaking, self-efficacy (Bandura, 1997; 1986; 1977) reflects one's belief in one's capability to perform a task or series of related tasks. Essentially, the construct of self-efficacy reflects one's perceived ability to cope and perform specific tasks in a given situation. However, Bandura (1977) wrote little about the direct role of self-efficacy in counseling. Yet he implied that self-efficacy was an important aspect of psychotherapy by suggesting, "psychological procedures serve as a means of creating and strengthening expectations of self-efficacy" (Bandura, 1977, p. 195).

According to Bandura (1997; 1986; 1977), one's self-efficacy toward a particular task is derived from four sources: one's prior experience of the specific task, event or exercise in question, vicarious learning through modeling or observation, verbal encouragement or support, and one's emotional arousal in anticipation of the task. Prior experiential learning is the most powerful influence on the development of one's self-efficacy, since previous experience powerfully shapes both positive and negative beliefs about one's ability to perform similar tasks in the future. Research studies that illustrate the strong influence of positive and negative perceptions of prior counseling experience on future development of counseling student self-efficacy are useful in order to target student beliefs about their own counseling performance.

Larson's empirical study (1998) demonstrates the strength of positive versus negative student beliefs on developing efficacy in graduate student counselors. Larson (1998)
examined the comparative value of a mock interview as a role-play, compared to a fifteen-minute counseling session on tape with sixty-seven students using hierarchical regression to predict post-test counselor self-efficacy. Interestingly, those students that perceived their counseling performance as below average after the role-play decreased their counseling self-efficacy almost by one standard deviation below the mean. In contrast, those students that perceived their role-plays as being successful scored just one-half a standard deviation above the mean. Often used as an adjunct toward increasing awareness of the counseling process, role-plays appear instrumental in enhancing self-efficacy from the vantage of performance accomplishment (Johnson, 1989). Additionally, the experiential aspects of simulating counseling interventions in a role-play context may serve to highlight what students like and dislike about their respective counseling performances. Also, this study reveals the importance of counseling faculty to remain sensitive to student beliefs about their counseling performance (Larson, 1998).

The second theoretical concept that shapes the development of self-efficacy is vicarious learning. Although not as influential on self-efficacy development as prior experiences, vicarious learning from modeling appears particularly significant when people have limited prior experience or underestimate their own competency to perform. Schunk (1994) suggests that models geared toward social or peer explanations of academic competency are particularly relevant in this regard. Peers often rate the academic performance of others relative to their own personal standards of competency. For instance, peers in school are strongly influenced by the effects of modeling, especially if the rater perceives him/herself as being similar or inferior to the model while exhibiting a strong, emotional attachment to the model (Schunk, 1994).
Interestingly, research on self-efficacy and vicarious experience has shown that modeling is not nearly as influential if the rater perceives his/her competence relative to the model as being equal or superior to the model (Brown and Inouye, 1978, in Schunk, 1994). The relevance of modeling as a source of client self-efficacy in counseling is crucial since counselors act as vicarious models for client learning (Munson, Zoernik and Stadulis, 1986). These authors found with forty-eight students that role plays and modeling together were much more effective in lowering performance anxiety in beginning counseling students when compared to a wait-listed control group (Munson, et al. 1986).

By multivariate analysis, Luzzo (1999) investigated the separate and combined aspects of performance accomplishment with modeling on career science interests of ninety-four college age students. He found that a statistically significant interaction existed between student math/science performances for students who watched videotape of other successful students decisively disclose their math/science career aspirations, compared to a student performance group that witnessed other students model indecision regarding their career aspirations. Luzzo (1999) concluded that although vicarious learning is less influential on self-efficacy development than performance accomplishments in academic contexts, both the relative contribution of vicarious learning and performance experiences is important to examine in self-efficacy research.

Clients also develop perceived self-efficacy based upon verbal encouragement and persuasion. Verbal encouragement is the third theoretical source of self-efficacy (Bandura, 1977). Social/cognitive theory (Bandura, 1986) suggests that as positive encouragement can support and bolster self-efficacy, negative persuasions decrease self-
efficacy or perceived beliefs in one's capability to perform (Daniels, 1997; Bandura, 1986). Verbal encouragement to a counseling client can be powerful in altering self-efficacy, and is offered usually through empathy (Scharf, 2000). In an ANCOVA study designed to evaluate the effectiveness of different modeling strategies on counselor self-efficacy, Daniels (1997) studied forty-five beginning counseling practicum students and concluded that prepracticum trainees that received positive feedback on counseling performance had substantially higher results on post-tests counselor self-efficacy when controlling for pretest counselor self-efficacy and post-test anxiety. Results from this study showed prepracticum students that received positive feedback demonstrated significant increases in counselor self-efficacy, compared to those who received negative feedback after controlling for variance due to pre-test performance (Daniels, 1997).

The last theoretical source of self-efficacy development is one's emotional arousal. Self-efficacy research (Bandura, 1997) suggests that states of mood, anxiety, and fatigue can influence one's self-efficacy and its development. Since people have the capacity to alter what they think, self-efficacy beliefs have a powerful and reciprocal influence on thought patterns and subsequent emotional feeling and stimulation. Self-efficacy (Bandura, 1986) research suggests that people anticipate quality of performance and competency based upon how they feel just prior to the event. In other words, one's confidence in the present reflects one's prospective anxiety regarding what one anticipates. Thus, calm emotion in anticipation of performance reflects confidence. High anxiety and arousal illustrates lowered confidence and decreased self-efficacy.

An early line of research that investigated the impact of emotional arousal on self-efficacy examined the treatments of snake phobias (Bandura, 1997). Traditional
counseling research on self-efficacy (Bandura, 1977) targeted how self-efficacy was implicated in anxiety and its related disorders, specifically phobias (agoraphobias, snake phobias). Much of the early self-efficacy research in this area attempted to understand the relationship between coping performance to anxiety and avoidant behaviors. Historically avoidant behavior was explained by an anxiety drive (Freud, 1961). Freud believed that autonomic arousal and its subsequent anxiety motivated individuals to specifically avoid the behavior that manifested the original impulse.

However, the role of anxiety on avoidant behavior and performance was later challenged by empirical research that documented that success of self-efficacy in predicting outcome performances. For instance, Williams, Dooseman and Kleinfield (1984, as cited in Bandura, 1997) noted the specific role of perceived coping efficacy on agoraphobics who received separate treatments of guided mastery and exposure in comparison to a no-treatment, control group. Both treatment groups showed significant gains in successful performance as a function of self-efficacy, compared to the control group.

Williams and Rapaport provide another example of the role of self-efficacy on coping outcomes (1983, as cited in Bandura, 1997). These authors extended the influence of perceived coping efficacy on outcome by illustrating the comparison between perceived self-efficacy and coping behaviors when anticipatory anxiety was controlled versus the effect of anxiety on coping when self-efficacy was controlled. Almost all studies by Bandura (1997) et al., in this area of research have demonstrated a positive correlation between perceived efficacy on coping performance in comparison to studies that only correlated anxiety to performance. Although early research on snake phobias
demonstrated the more primary role of prior coping experience on the development of coping efficacy, Bandura (1997, 1986, 1977) nevertheless included the role of emotional arousal in self-efficacy composition. Of the four theoretical sources of self-efficacy, Bandura (1997) considered one’s emotion to be the least impactful on self-efficacy construction and development.

Further elaboration on the composition of self-efficacy (Schunk, 1994) has also illustrated that the relationship between self-efficacy and performance-based treatments is perceptual. For instance, people who judged themselves high on self-efficacy perceive their performance resulting from a combination of effort and skill, not chance or random variation (Bandura, 1997). Specifically, how one perceives and subsequently integrates the combination of one’s prior experiences, vicarious modeling, verbal encouragement and emotional arousal is what promotes individual self-efficacy development. However, the four sources of self-efficacy do not directly compose self-efficacy as a construct. The construct’s composition is inferred from the four theoretical sources of self-efficacy that determines how one’s self-efficacy toward a particular task is perceived and applied toward future performances in any given context. For instance, one’s ability to act on stage would be inferred from multiple sources of the quality of prior acting performances, the quality of previous modeling offered in this area, the quality of verbal encouragement and support offered, and lastly, the degree to which one’s emotional arousal was controlled in order to optimize performance.

Social-cognitive theory (Bandura, 1986) suggests that one’s anticipation of outcome as either potentially positive or negative, influences outcome expectations. Outcome expectations are subsumed under social-cognitive theory (Bandura, 1986). They are
related to one's persistence or motivation with finishing a given task but are considered secondary in importance to efficacy expectations toward the initiation of a behavior. However, due to the closeness of theoretical relationship between self-efficacy and outcome expectations, operationally separating the two constructs has been challenging. Maddux and Barnes (1984) highlighted how other authors of studies have specified clearly the definition of each construct regarding outcome research. Others suggest separating the two constructs to develop measures and instruments that "reflect their theoretical differentiation and that subjects can respond to differentially" (pg. 13; in Manning and Wright, 1983, as cited in Maddux and Barnes, 1984).

Bandura (1997) established that operational changes of self-efficacy are separate from other related constructs in the literature. Further, self-efficacy alone is a powerful predictor of outcome (Longo, Lent and Brown, 1992; Longo, 1991), above and beyond that of outcome expectations. In fact, Bandura's (1997; 1986) numerous empirical analyses on the construct supports the integral role of self-efficacy expectations (Bandura, Reese and Adams, 1982) as a viable theoretical extension of self-efficacy independent of other similar constructs inherent within personal agency theory (Bandura; 1997). For instance, Bandura et al. (1982) demonstrated the role of efficacy expectations on fear arousal and coping behavior on 20 selected snake phobics. The hypothesis that fear arousal is largely a derivative of perceived coping ineffectivity and one's low expectations was generally supported by the results as subjects that tested high in blood pressure elevation tended to be less efficacious in their coping.

Bandura (1986) extended the theoretical definition and complexity of self-efficacy by suggesting that self-efficacy varies in level, strength, and generality. The level
dimension refers to the difficulty of task. For instance, some people only feel efficacious in completing very demanding tasks, others if the task is easy. The strength component to efficacy refers to the effort expended for task completion. High dimensions of effort are associated with high strength efficacy; low aspects of efficacy, low strength.

Generality of efficacy refers to the range of application of the construct, which theoretically, is specified to context. In other words, students with high reading self-efficacy do not necessarily exhibit high math self-efficacy. Thus, Bandura (1986) hypothesized that an individual’s variance in self-efficacy would be attributable to differences in levels, strength and generality with regard to specific tasks. Although some generalizability of self-efficacy to various contexts has been seen, the discriminant validity of the construct supports its task-specific, theoretical nature.

The discriminant validity of the construct (Longo, Lent and Brown 1992; Bandura, 1986) illustrates that the concept of self-efficacy is task specific regarding context, and not a global personality trait. As a result, the construct appears mutable and relative, which may account for its wide application in the research literature (Bandura; 1997). Further, the task-specific nature of self-efficacy partially accounts for why the construct contributes more to behavioral change than other theoretical precepts (Longo, Lent and Brown, 1992; Longo, 1991; Bandura, 1977) inherent within social-cognitive theory (Bandura, 1986). For instance, Longo, Lent and Brown (1992) used regression techniques to evaluate which counseling related variables are most likely to correlate with engagement to the counseling process and persistence in session, in order to understand how to minimize attrition rates in university counseling centers. Utilizing a sample size of 139 from a Midwestern university counseling center, these authors found that client self-
efficacy and motivation to change were most predictive of client persistence in counseling and most inversely associated with premature termination. Further, Longo (1991) found in his discriminant analysis that when six variables incorporated to predict client attrition were summed and weighted into a discriminant function, self-efficacy was most highly correlated with the discriminant function more than any other variable.

Other researchers have examined the stability of the construct. Although empirical research confirms Bandura’s original hypothesis on self-efficacy (1997; 1986; 1977) that reflects that the construct is malleable before firmly developed, self-efficacy tends to become more resilient and stable regarding performance once established over time. Larson (1993) noted the influence of increasing self-efficacy among beginning practicum students by charting counseling self-efficacy development over twenty-three weeks in comparison to a control group. All eight-student scores on counselor self-efficacy improved relative to subjects in the control group.

As a theoretical construct, self-efficacy emerges out of the larger framework of social-cognitive theory (Bandura, 1986). Social-cognitive theory emerged as an extension and revision of social-learning theory (Bandura, 1977; Miller and Dollard, 1941). Social learning theory emphasized the influence of different personal and cognitive variables on human learning and behavior (Bandura, 1986; Mischel, 1973; Rotter, 1954). However, Bandura (1986) further synthesized and integrated environmental and personal variables of learning into specific explanations of how cognitive pathways alter human behavior. Bandura (1986) suggested that cognitive pathways (for example, the mediating role of self-efficacy on decision making) are typically governed by self-efficacy in the selection, initiation, and persistence of a chosen behavior.
The emphasized role of self-efficacy within social-cognitive theory (Bandura, 1986) united two previously disparate, theoretical trends of behavior. Behavioral theory traditionally emphasized that behavior was solely a mechanistic outcome of reinforcement, and punishment, consequence and reward (Skinner; 1953). On the other hand, cognitive theory recognized that information alone is enough to change, mediate and modify human behavior (Beck; 1977, cited in Scharf, 2000).

However, Bandura (1997; 1986; 1977) synthesized both aspects of cognition and performance of human behavior into one unified branch of social-learning theory, by particularly emphasizing the influence of cognitive constructs on learning, and the implications of modeling on human behavior. Bandura (1986) highlighted the specific influence and impact of self-efficacy on behavioral change as one crucial cognitive variable. He later modified social-learning theory with further extension and revision into the development of his own theory, social-cognitive theory (Bandura, 1986). Most notably, self-efficacy research was applied to further advance empirical understanding of self-efficacy on performance and behavioral change, specifically in academic, athletic and health maintenance (Bandura, 1997; 1997; 1986; 1982) contexts.

Additional research that emphasized the influence of either knowledge or prior experience on behavioral change was synthesized with subsequent empirical, investigation. For instance, Schunk's (1994) research suggested that clients still persist in unwanted behavior (weight gain, smoking, drinking) despite information to the contrary that the selected behavior (prior experience) is potentially harmful to the client. Such insight led researchers to believe that more than just knowledge or the behavioral reinforcement of a habit would motivate a behavior. For it appeared that possibly another
variable was operative, linking both cognition and performance with behavioral change.

Bandura's (1997; 1986) synthesis of social-cognitive theory placed self-efficacy as a significant construct that mediates between knowledge and performance in governing the selection and initiation of behavior. Social-cognitive theory (Bandura 1997; 1986) and related research predicts that people behave in ways that are consistent with their belief systems. Thus, behavior is more easily influenced and driven by people's beliefs about their capabilities than personal knowledge and skills alone. It is predicted from social-cognitive theory (Bandura, 1997; 1986) that changes in one's beliefs are a powerful predictor of the initiation, persistence and maintenance of a selected behavior.

Social-cognitive theory (Bandura, 1986) predicts that the greater the client self-efficacy or personal belief in the benefits of counseling, the more probable a client would initiate, persist and succeed in counseling, despite obstacles and emotional distress potentially encountered during counseling. Therefore, theoretically speaking, if counseling professionals wish to change the behavior of a given client, the belief systems of the client must first be examined. Even ancillary research on self-efficacy outside of counseling has concluded with similar suggestions. In their path analysis relating self-efficacy to mathematical competency, Pajares and Miller (1994) concluded if counseling interventions are needed to the degree in which they change targeted behaviors, than interventions must be applied that target the belief system of the client as well.

Extensions of Bandura's research (1997, 1986, 1977) suggest that many psychological processes are governed by self-efficacy and its related theoretical precepts of motivational properties, goal achievement, and outcome expectations (McWhirter, 2000; Paslay, 1996; Pajares and Miller, 1994). Self-efficacy and its precepts are
embedded within larger theoretical frames, notably social-cognitive theory (Bandura, 1986) as an extension and revision of social-learning theory (Bandura, 1977). Social-cognitive theory and research (Bandura, 1986) summarize and predict the outcome role of self-efficacy as one construct, manifesting from both interpersonal and intrapersonal contexts of emotion, cognition, and biology.

Important assumptions of social-cognitive theory converge from the disparate work of multiple authors (Lent and Maddux, 1997; Bandura, 1986; Mischel 1973; Rotter, 1954) that drive current, self-efficacy research. First, it is recognized that people have the capacity for symbolization. Essentially, the ability to symbolize allows one to convert experience into internal meaning, while deciphering understanding from language; human symbolization further includes the capacity and ability for personal, self-reflection. A second assumption of social-cognitive theory is that behavior is purposeful and directed. The ability for intentional behavior is acknowledged to generate from one’s ability to symbolize and decipher meaning from action. A third assumption is that people are self-regulating; in other words, they have the capacity to direct and control their respective environments. In order to control one’s environment, social-cognitive theory postulates that individuals incorporate personal standards to guide and direct behavior. Such standards allow for goal setting and the motivation necessary to achieve goal-directed behavior. A fourth assumption is that one’s environment, one’s personality and one’s behavior converge in a mutually interacting manner to determine the initiation, persistence and completion of a selected, goal-directed behavior. From this theoretical perspective, it is assumed that clinicians understand client difficulties to arise from an insufficient ability to mobilize internal cognitive, affective, and motivational resources in
the service of interpersonal relations.

Social-cognitive research also explicitly refers to variables of cultural and social influences on individual behavior and development. For instance, specific branches of research tend to concentrate on the role of self-efficacy and women in careers (Sullivan and Mahalik, 2000; Lent, Brown and Hackett, 1994), and self-efficacy and gay and lesbian issues (Lent and Maddux, 1997). Sullivan and Mahalik (2000) investigated whether or not women engaged in a career group designated to increase career-related self-efficacy would demonstrate improvements on career decision making self-making and vocational commitment compared to a control group. Thirty-one women participated in a six-week treatment group. Those in the treatment group showed gains over those in the control group at a six-week follow up; however the results appear preliminary, as the groups were non-equivalent prior to the initiation of treatment.

Social-cultural research on women and minorities highlight the interactional components of individuals with their environment and how their interaction influences to contribute or hinder optimal, efficacious development (Bandura, 1997). Social-cognitive theory (Bandura, 1986) and research further recognizes that change occurs through a social-cultural lens. Such theoretical meaning illustrates that any interpersonal situation, whether counseling or another context (work, family, school), is influenced by individual and social forces. Thus, the potential for individual change is maximized when interpersonal and intrapersonal variables are recognized and examined. Both interpersonal and intrapersonal (Bandura, 1986) contexts and variables influence and interact in generating personal agency.

Personal agency highlights the interactive component of individual self-efficacy in
relation to one’s environment, self, and actions, and represents an extension of Bandura’s original social-learning theory (Bandura, 1977). These three aspects of personal agency operate in complex, reciprocal fashion to contribute to individual, self-efficacy development. Social-cognitive theory (Bandura, 1997; 1986) delineates personal agency as an extension of one’s self-efficacy beliefs and also includes affective (anxiety), cognitive (self-efficacy), and motivational processes (goal-directed behavior) that arise from personal, behavioral and environmental sources.

Bandura (1986) suggests that affective, cognitive and motivational processes are self-determining influences that allow for human beings to adapt to changing circumstances and complicated environments. Specifically, personal agency includes self-efficacy and its precepts (choices made, selection and initiation of behavior, effort expenditure), outcome expectations (considered anticipatory in nature), personal goals (motivational in essence), cognitive and affective processes, and lastly, self-evaluation as an index of emotional arousal. But it is the interactional and reciprocal nature between one’s self, one’s environment and one’s actions that defines personal agency.

Personal agency is an important component of counseling training (Larson 1998; Lent and Maddux 1997) and is composed of counseling related knowledge, counseling self-efficacy, outcome expectations, cognitive processing, affective processing, and self-evaluation. Research in counselor training related to personal agency illustrates how counselors’ perceptions of their training impacts the quality of their counseling experiences and overall personal, agentic development. In applying counselor training to counseling self-efficacy development (Larson, 1998), counselor educators evaluate the extent to which they are able to improve student personal agency related to clinical
Similarly, counseling has personal, behavioral, and environmental influences that interact in a recursive fashion to govern a client’s personal agency as well. Yet interestingly, most of the counseling research literature on personal agency and its determinants in behavior target a counselor’s personal agency, not that of the client. Larson (1998) reflects that Bandura’s definition of operative efficacy would include the counselor’s ability to simultaneously understand one’s person, actions and environment, to achieve high levels of counseling performance. One would infer that similar skills for clients would be necessary to achieve a similar performance result. In fact, Bandura defines operative efficacy specifically as “continuously improvising multiple sub-skills to manage ever changing circumstances, most of which contain ambiguous, unpredictable, and often stressful elements” (as cited in Larson, pg. 327). Similarly, a client’s increased self-efficacy from personal agency determinants would likely improve tolerance for the inherent ambiguity, unpredictability, and stress encountered for clients in counseling too.

Thus, applications of self-efficacy research in counseling implicate many different variables. One variable in counseling that is particularly related to self-efficacy in counseling is motivation (Bandura 1997; 1986; 1977; Longo, Lent, and Brown, 1992; Longo, 1991). Due to its relatively high correlation with self-efficacy in the research literature, motivation appears important to examine secondarily in this study. For purposes of clarity, motivation will be operationally defined in this study as reflecting client readiness for change (Prochaska 1992; 1986) and commitment toward the counseling process (Longo, Lent and Brown 1992).
Motivation

The majority of motivational research in counseling targets clients who initiate counseling with limited experience and little confidence in the counseling process. As a result, motivation to change is perceived as a crucial variable for counseling professionals to research and understand so clients do not prematurely terminate from counseling, become passive bystanders in the process, or fail to effectively maximize counseling services (Smith, Subich and Kalodner 1995; Longo, Lent, and Brown 1992; Longo, 1991; Mennicke, 1988; Jakes, 1982).


Historical understanding of motivation was rooted in personality theory. Hall and Lindzey (1970) stated that motivation has always preoccupied personality theorists as a central force in human nature and personality. Freud suggested (as cited in Greenberg and Mitchell, 1983) that the construct of motivation was originally derived from his first drive/structural model of the human mind in 1923. Strachey (1966) suggested Freud's use of the term drive originated from the German word trieb, for instinct.

Murray (1938, as cited in Hall and Lindzey, 1970) suggested that human motivation
is a derivative of one’s needs. A need to Murray (1938) was defined as a biological force in the brain that provides integration of effort with action to satisfy an urge or demand. Murray’s (1938) listing of human needs include needs for achievement, affiliation, order or organization, play, sentience, and sex.

Skinner’s (1953, as cited in O’Neil and Drillings, 1994) notions on motivation were illustrated in reinforcement/operant theory, thus representing a conceptual shift regarding how motivation was conceptualized in the literature. Skinner (1953) was the first behaviorist to suggest that motivation was primarily rooted in external reinforcers that influence the likelihood of repeated action or performance. Atkinson (1966, as cited in Miller, 1987) described a number of personality traits that appear primary in isolating and predicting human motivation. Such traits included confidence, belonging, feelings of independence, a concern for humanity and agreeableness. Most of these traits correlate with motivation and have been combined to establish the taxonomic, global model of the five-factor model of personality (McCrae and Costa; 1987). Such a taxonomic approach to motivation anticipates future regression research studies illustrating the role of motivation in minimizing attrition (Longo, 1992).

Connally (1980) suggested that motivation is directly linked to the personality dimension of locus of control. Locus of control models (Connally (1980), as cited in O’Neil and Drillings, 1994; Rotter; 1954) of motivation suggests that the more internalized one’s personal control over the environment, the greater the strength of motivation in pursuing a desired behavior. As a derivative of motivation, locus of control research (Connally, 1980) can inform clinical practice. For instance, counselors need to be sensitive to locus of control dynamics and their implications in order to help motivate
clients toward change. This line of research suggests that counselors should pay attention to client statements of blame, expressions of weakness or rigidity that can inform clinical assessment. Thus, the more internal the source of such client statements, the more likely a client would be motivated to change. In contrast, the more external one's locus of control, the less likely one is motivated to change (Rotter, 1954). Consequently, the counselor with a client of external expectancies of control would adopt strategies to encourage client insight and awareness of his/her expectations and how expectations motivate or retard a client's behavior. With Connally’s (1980) research, the influence of the interaction between counselor and client on motivation is highlighted. Therefore, the shift in how motivation is conceptualized from more classic to modern to post-modern theories anticipates the relative and increasing influence of the counselor and treatment strategies as instrumental to client motivation.

Since many clients in the substance abuse field are characterized by denial of their problem (Prochaska, 1992; 1986), motivation for changing such denial is closely related to self-efficacy or one's beliefs about change (Miller, 1991). Historically, the most effective means of motivating clients was to confront them (Miller, 1991). Miller (1991; 1983) suggests that many prior treatment strategies developed from research aimed at first attacking and tearing away at a client's defenses in order to secondarily, rebuild and motivate the client. However, current substance abuse research reflects gentle and empathic (Miller, 1995) treatment approaches in combination with brief, time-limited, managed care models (Lyons, 1997; Hoyt, 1995). Yet one of the many challenges continuing to face clinicians is how best to motivate clients toward substantive, long-term change.
Traditionally, the research literature suggests the examination of motivation in varied contexts reflects the dichotomy between internal and external motivation. However, more contemporary lines of research support motivation as being composed of both internal and external sources. For instance, Deci and Ryan (1985) support empirical research that operationalizes motivation as composed of both external and internal sources. In self-determination theory, (Deci and Ryan, 1985) motivation is conceptualized as an inherent factor that drives action and change, while also is influenced by external influences. In counseling, client behavior is interpreted as being motivated from within the client (internal and interpreted as a function of desire) and partially driven by counselor style and treatment choice (external) in the clinical setting. Additionally, the research of Hamert (1995) and Deci and Ryan (1985) elaborate how counselor style can impact client perception of treatment. Thus, the literature emphasizes that self-determination theory and research (Deci and Ryan, 1985) confirms the increasing influence of counselor-client interaction on motivation as rooted in both internal and external causes (Miller, 1991). The influence of the counselor-client interaction represents a significant conceptual shift in how motivation is researched.

With regards to self-determination theory (Deci and Ryan; 1985), these authors suggested that intrinsically motivated actions are self-determined and manifest in the absence of external award. An example would be reading a book; the behavior is motivated internally and is absent of external reinforcers. External motivation (Kruglanski, 1978) however is rooted in extrinsic reward and reflects a wide spectrum of human action and behavior. Previously, it was thought that external motivation was understood to manifest from external reinforcers alone, in the absence of self-
determination and internal sources.

Another construct that highlights how motivation is researched is cognitive dissonance. Festinger's (1957) research (as cited in Brehm, 1976) revealed two important themes on cognitive sources of motivation. One, that a person can entertain two mutually incompatible ideas for a brief period. Two, as a result of the dissonance generated from conflicted ideation, one is likely to modify a given behavior and the consequent thoughts around the behavior, to reduce the dissonance generated. However, Festinger (1957) did not predict that one would be successful in producing alternatives to dissonance that are interpreted as more internally satisfying. But cognitive dissonance research does suggest that an individual will be more motivated in order to reduce the generated dissonance resulting from conflicting ideation. Cognitive dissonance anticipates post-modern practices and research, as well as motivational interviewing (Miller, 1991).

The implications of the relationship between cognitive dissonance and motivational research in counseling are notable. Miller's original ideas on motivational interviewing (1983, as cited in Miller, 1991) were extended from Festinger's (1957) early line of motivation research. Miller (1983) suggested that one method of interpreting cognitive dissonance is to empirically evaluate present client functioning in contrast to ideal future functioning. Thus, construction and assessment of a cost-benefit analysis links a client's present behavior to future goals. Miller's research (1991) states that incongruity between behavior and goals can be predictive of client motivation to change. Therefore, the goal of motivational interviewing (Miller, 1991) is to motivate the client to change by amplifying or increasing the tension around the cognitive dissonance until the attachment to unwanted, present behavior is attenuated. Driving this assumption of motivational
interviewing toward client change (Miller; 1991) is the notion that inherent within us is the tendency to motivate toward problem resolution to reduce tension.

Other considerations of research on motivation have concentrated on demographics. For instance, the interaction between gender and client expectations has been studied to predict motivation. Hardin and Yanico (1983) reported significant differences in client gender regarding one’s expectations in counseling. Women scored higher in expectations to be motivated, to be open, to be genuine and immediate. Men reported higher scores for expecting advice, direction and self-disclosure to occur. However, Schaub and Tokar (1999) suggest that much of the current literature on demographical variables has revealed little consensus as to the significance of these variables in session.

Additional research on motivation relates to personal expectations. For example, Schaub and Tokar (Spring, 1999) suggest further inquiry into the examination of the relationship linking client expectations with motivation. These authors factor analyzed the five major personality variables (McCrae and Costa, 1987) and combined the traits of openness, conscientiousness, extraversion, agreeableness, and neuroticism into clusters according to how they scored on the EAC-B, Expectations about Counseling Measure (Tinsley, et al., 1980). In correlating the EAC with the five-factor model, Schaub and Tokar (1999) found significant, empirical differences to exist between personality and motivation in one cluster of factor analyzed variables.

Others have examined the theoretical role of motivation with expectations. Expectation value theory (Rotter, 1982; Atkinson, 1966) is linked with personality research and motivation (Schaub and Tokar, 1999; McCrae and Costa 1987; Tinsley, 1980). This area of research concludes that people are motivated to behave and act upon
expectations of a given outcome. For instance, one’s high, moderate or low expectations motivate a given behavior based on expectations of a desired outcome. An aspiring client with the expectations that working together and remaining motivated through couples counseling in order to save a troubled marriage would be one example.

Counseling research related to motivation also targets goal setting. Locke and Latham (1990) and Mento, Karen and Steel (1990, cited in O’Neil and Drillings, 1994) examined how personal goals require motivational potential. From these authors, much of their research drives goal setting theory, which investigates the relationship between one’s explicit goals and personal standards of motivation. One example would be to change how one communicates with a partner in order to become a better partner. This line of theoretical inquiry and research suggests for example that the relative degree of one’s prior performance or behavior (one partner suggests in couples counseling that the other partner is not sensitive when angry and the other partner agrees) in contrast to one’s current standards of becoming an improved partner actually determines future motivational state. Thus, from this model, the motivational source for behavior change is considered retrospective.

Another line of research that targets motivation in counseling emerged from attribution theory (Weiner, 1985). Attribution theory (Weiner; 1985) suggests that prior judgments of one’s performance have predictive utility in demonstration of future motivation on performance outcomes. In other words, outcomes are considered highly dependent upon how people perceive and attribute prior motivation upon future performance. Thus, similar to self-efficacy and social-cognitive theory, attribution theory suggests that former motivational precepts impact performance and achievement.
strivings, additionally contributing to the retrospective nature of motivation on the success or failure of future outcomes (Weiner, 1985).

Prochaska (1992; 1986; 1982) examined the role of motivation and readiness for change in counseling stages. Beginning with smoking cessation, Prochaska (1982) developed a transtheoretical research model to capture how clients and non-clients motivate toward action in counseling treatment to achieve goals. Currently, the model is applied to substance abuse populations as an assessment tool in determining client stage of change. In fact, the majority of Prochaska’s (1986; 1982) model provides the theoretical framework for the URICA measure, University of Rhode Island Change Assessment instrument, which will be used in this study. Prochaska’s (1986; 1982) model includes four significant stages and a fifth and sixth stage, which are quite brief.

The first stage is precontemplation. Precontemplators are clients in denial of their problem. Unwilling to identify they have a problem, these clients are very unlikely to commit to counseling. As a result, they are not ready for change and are very difficult clients.

The second stage of the model is contemplation. The defining aspect of contemplation is ambivalence. Clients in this stage are actively contemplating both reasons to change and reasons not to change a targeted behavior. Consequently, these clients are often conflicted by choice. Counselors working with clients in contemplation attempt to shift clients toward compliance of desired and positive treatment goals by overriding a contemplator’s attachment from a present behavior to a positive alternative (for example, helping the client realize the advantages of moving from drug use to abstinence).
Determination is the third stage of the model. This stage is characterized by a client’s determination to act but without a plan. Therefore working with a client in this stage involves developing a treatment agenda and corresponding interventions to help implement the chosen plan. The fourth stage is action, the stage where a client is highly motivated to change behavior and not just talk about reasons for change. At this point client change has been carefully considered, a plan generated and the application of the plan is occurring. The fifth and sixth stages are maintenance and relapse, respectively. Clients in maintenance continue the chosen prescribed course of action selected by counselor and client. The last stage of the model, relapse, reflects the circular and relative nature of this particular model while normalizing that relapse is an inherent component of recovery (Prochaska, 1992).

Prochaska’s (1986; 1982) model implicitly acknowledges and thereby normalizes that many substance abusers will relapse no matter how advanced in their treatment protocol regimen. However, instead of a client regressing toward initial stages of precontemplation and denial again, the model suggests that a given client may return to earlier stages of positive development (contemplation) and then proceed again, vacillating through various stages of change. The spiraling through stages of change gives the theory its characteristic circularity of clientele development and change.

The measurement of the various stages of change has been derived from the theoretical perspectives of Prochaska (1992; 1986). Measurement of motivation is reflected as a function of readiness for change prior to the initiation of counseling. Two such instruments measuring change in this capacity is the University of Rhode Island Change Assessment (Prochaska and DiClemente, 1992) and the Stages of Change,
Readiness and Treatment Eagerness Scale (Isenhart, 1997; Carbonari, 1996). In fact, both these instruments have confirmed the theoretical predictions of Prochaksa’s (1982) stage model of change with smoking clients. In a 1992 study with a sample size of 570, Prochaska showed that clients that remained abstinent from smoking over eighteen months were those clients most likely to be measured in maintenance and action stages of change, not precontemplation.

Another researcher that has examined the matching of treatment type to client readiness for change in counseling is DiClemente (1990). DiClemente (1990) used the URICA measure (change assessment instrument) to evaluate 224 adults entering alcohol outpatient treatment. Participant scores on the precontemplation, contemplation, action and maintenance clusters yielded very distinct scores on variables of benefits to drinking (social, mental, relational), style of drinking (gregarious or loner), consequences to drinking (loss of control, marital conflict), and concerns with drinking (seeking help, general worry). Thus, it was concluded that cluster analytic techniques designed to isolate treatment readiness within each stage of change is consistent with the theoretical and predictive power of Prochaska’s stage change model (DiClemente and Hughes, 1990).

Another stage-change treatment strategy revealed in the research literature is to provide realistic goals for brief meetings with clients at each interval of change (Prochaska, 1992). For instance, Prochaska (1992) suggests that the results of some longitudinal studies illustrate that if clients can move one stage in one month, often they are more likely to move and progress through a full treatment regimen in six months time. In fact, when looking at the empirical literature collectively on stage models applied to medical and counseling related treatment, Prochaksa (1998) maintained that over
4000 health professionals evaluated stage based, incremental treatments as very useful and helpful with a majority of clients and patients. This information contrasts to the typically quoted figure of 20% of clients that are thought of being capable of taking immediate action toward behavioral change (Prochaska, 1998).

Perceiving motivation as a function of client readiness is relatively new in the research literature. Isenhart (1997) suggests professionals traditionally perceived motivation as a dichotomous construct. Either a client was motivated to change or not. However, current research reflects theoretical considerations (Bandura, 1997; Miller, 1991; Prochaska, 1986; Deci and Ryan, 1985) that incorporate client motivation as relative, existing on a continuum, and highly contextually dependent. For instance, motivation in substance abuse populations often appears influenced by external variables of family concerns, legal pressure, and environmental demands (Prochaska, 1992). As a result, treatment staff presently considers readiness for change among a variety of dimensions. Current research on motivation reflects the understanding that motivation has multiple meaning and varies with context.

Isenhart’s (1997) research provides an example of how motivation is measured as a process of change with multiple meaning. Pretreatment readiness for change was assessed in over 100 substance-abusing males in the Navy by using a modified version of the SOCRATES scale, an acronym for stages of change readiness and treatment eagerness scale. Scores were correlated with four variables: age, education, diagnostic criteria met, and Q-F measures, or quantity and frequency of drinking. Testing for pretreatment readiness for change yielded three measures of outcome: high action scores revealed no alcohol use during one year post treatment period, high determination scores showed
affiliation with sponsor during one year post treatment period and having a sponsor at pretreatment and those scoring low on contemplation also showed having a sponsor at follow up. Isenhart (1997) concluded that a correlation existed between pretreatment readiness for change and both a decision to drink and commitment to recovery activities. However it was suggested that other factors such as poor coping, limited resources available to a client, and acute stressors can override motivation to change once drinking begins, thereby decreasing a client's commitment toward long-term change. Thus, motivation is not simply construed as either internal or external but interpreted as complex with multiple implications.

Others reflect the importance of matching a client's level of readiness for counseling with treatment selection. Annis, Schober and Kelly (1996) provided a comprehensive summary of an outpatient counseling program, that included motivational interviewing, assessment, treatment planning, preparation for counseling, and maintenance of change strategies. These treatment components converged with a client's stage of readiness to change (precontemplation, contemplation, determination, action, maintenance) in describing how individual counseling is tailored to each client. Ohlsen (1973) examined client readiness for membership in a counseling group and concluded that willingness to prepare, participate and commit to counseling is often interpreted as a sign of motivational readiness.

Counseling research on motivation also relates to therapy types. Baer, Kivilhan, and Donovan (1999) integrated skills training with motivational therapies. Historically, skills training (client motivated but without resources) and motivational therapies (AA, confrontational models) were based upon distinct premises (client in denial) and were
described without overlap. Traditionally, skills training were applied for correcting skills deficits. Motivational therapies were used for enhancing motivation in substance abuse clients. Baer et al.'s (1999) skills training (ST) research dates from the mid sixties and the work of Lazurus (1965, as cited in Miller, 1991). The central premise with ST is to improve a client’s coping skills to improve the stress of addiction. ST traditionally assumes the client is motivated to change but he/she lacks the necessary skills to change. Skills training incorporates post-modern, solution-focused (Hoyt; 1995) assumptions into treatment.

Baer’s et al. (1999) research demonstrated that the integration of skills training and motivational interviewing is possible by understanding three fundamental premises: one, that motivation for change is critical for successful treatment outcome; two, wide differences exist in all clients in the nature, degree, and application of coping skills, and three, coping skills need to be assessed in counseling, independent of motivational level for change. For instance, if a client is motivated to change but lacks the coping skills to tolerate unpleasant affect, it is assumed that a client’s chances for successful behavioral change will be decreased. Consequently, client skill and motivational level are never viewed in isolation. Thus, integrative aspects of this model could be applied to a high-risk yet potentially common situation for an alcoholic to use, and relapse, due to peer pressure. For example, peer pressure to drink and ultimately consume is considered in this context as reflecting either a lack of assertiveness (skill) and/or perceived shift in the desire to not remain abstinent (motivation). Therefore, integrating treatment options is a necessary consideration in motivating clients toward a successful, brief treatment outcome for substance abuse clients.
Motivational therapies (Miller, 1991) are rooted in motivational interviewing (MI). The primary assumption with MI is to analyze how people change and then help the client support change in their life. In MI, a client's problems persist because clients are ambivalent about making change, not because they lack the skills to do so. In essence, MI focuses on helping clients resolve ambivalence about behavioral change in order to motivate the client. By integrating aspects of skills training and motivational interviewing in clinical treatment, motivation is perceived as universal, internal, and modified by external forces (counselor style, counselor personality, and treatment approach/setting) while best elicited within a collaborative, co-constructed treatment context between clinician and client.

Regarding variance in motivation and treatment, Miller, Benefield, and Tonigan (1993) considered the empirical impact of treatment styles on client motivation. Miller et al. (1993) examined the relationship between a confrontational, aggressive style with alcoholic clients as opposed to a more empathic, non-confrontational style, characterized by reflective listening with a sample-size of forty-two. A confrontational, counseling style toward clients with drinking problems was shown to be statistically significant in predicting the likelihood of relapse twelve months after the study. Additionally, four clients that received counseling from a non-confrontational counselor remained totally abstinent one year later. Miller et al. (1993) concluded that the level of client resistance is a key component in determining whether or not a successful outcome is considered likely. However, the relatively small sample size limits the conclusion of the results of this study as preliminary rather than confirmatory.
General Training Strategies

The remainder of this literature review will highlight how general training methods are applied to a variety of educational contexts to enhance prospective client self-efficacy and motivation in counseling. A general review on training strategies will first be examined; then, the specific application of a role-play, video observation, and counseling literature as pre-counseling, treatment methods will be investigated. The terms pretreatment and training are used interchangeably to suggest any educational program or informational service designed to increase prospective client, student, employee or faculty effectiveness.

Training methods to increase coping self-efficacy and motivation for change have wide application in the medical field (Mickler, 1999; Cook, 1991). Training procedures in this area have been applied to increase assertiveness training with college students (Williams and Hall; 1988), enhance confidence in prospective college faculty (Heppner; 1994), and increase career self-efficacy for women (Sullivan and Mahalik, 2000). Other lines of inquiry regarding treatment methods that increase confidence in coping and motivation among prospective faculty and students include and HIV pretesting counseling (Gibson et al.; 1989) alcohol education programs (Chassey et al., 1988) date rape awareness (Buhrke; 1988); and college residential assistant education (Jakobsen and Krager; 1988). Another line of research that supports counseling training methods for prospective clients is reported in the attrition literature. Longo, Lent and Brown (1992), Mennicke (1988) and Tinsley (1980) all concluded that preparatory education that orients the client to the client role could potentially attenuate premature termination. For instance, studies that examine attrition in counseling often target a particular variable that
subsequently has clinical application. In their regression analysis, Longo, Lent and Brown (1992), focused on self-efficacy and motivation to predict client attrition. Their results supported the use of preparatory aides designed to reduce attrition by increasing client self-efficacy and motivation. Deane et al. (1992) suggested that even though the majority of clients attend counseling for only a few sessions, the use of preparatory aides in counseling appears warranted to foster client readiness and commitment to counseling, independent of the duration of counseling treatment.

One training method to increase counseling skills, counseling efficacy and counselor motivation toward performance is counselor modeling. Modeling can help facilitate novice counselors and prospective clients understanding of the counseling process. Baum and Gray (1992) empirically evaluated the effectiveness of an interview on counselor subjects self-modeling to aid in learning listening skills. Training groups watched an experienced counselor in action compared to a trainee attempting to demonstrate beginning listening skills. Results reflected that subjects improved on both listening skill development and feeling reflection.

Other training strategies focus on providing counseling trainees evaluative criteria prior to performance review. The function with such instructional training is to increase skill development while minimizing potential novice counselor anxiety by cueing them to prospective material ahead. Rennie and Quartaro (1983) examined the results of trainee expectations and specific instructions on counseling skill acquisition. These authors found that instructional pretreatment methods aimed at developing awareness of how counselor style can impact client listening, was effective on future skill development.

Related research to counseling training includes Lawe, Horne and Taylor’s (1983)
study that examined the effects of training on client self-exploration. Clients listened to audiotapes of potential issues and concerns that could be encountered in counseling. Subjects in both general and specific audio groups scored significantly higher than the control, no-treatment group on a client-self exploration scale. Similar studies have investigated the role of training as an adjunct to instructional models aimed at increasing verbal expression of emotion of clients seeking counseling. Shaw et al. (1985) found that different self-taught modeling, an audiotape, or workbook alone or in some combination all increased verbal communication skills of client emotion, significantly above a control group.

Others have looked at preparatory training for increasing job skills and confidence related to counseling. Elkins and Cohen (1982) evaluated the comparison of the effects of pre-job training and job experience on nonprofessional, crisis phone workers. These authors found that counselor related skills on the phone (paraphrasing, empathy, summarization, feeling reflection) improved dramatically with training in preparing the phone workers for prospective calls, although little long term gain was achieved at a five month follow up.

Another important avenue of preparatory training has served crisis counselors specifically working with victims of date rape (Burke, 1988; Thomas, 1982). Typically, volunteers who commit to working in crisis centers with this population receive instruction using film, presentations, national speakers, discussions, and individual role-plays. Participants usually show less blame of the victim after the incident than before while improving on dimensions of counseling-related, listening skills (Thomas, 1982). Burke (1988) demonstrated the effectiveness of a date rape-videotape on a college
population. Videotapes that highlight the impact of date rape on victims can serve to foster discussion, heighten awareness, and maximize prevention strategies while extending tremendous compassion to the victims and their families. Videotape in this context also furthers the need for additional planning and development of educational models for residential assistant training in college dorms across the nation.

The use of preparatory training has application in areas ancillary to crisis management. One area where training programs are offered readily is in psychiatry to increase confidence and motivation among medical staff cope in successfully managing, assaultive patients. Flannery and Penk (1999) looked at elements of preparatory crisis intervention from the vantage of critical incident stress management (CISM). Such an approach serves both prospective and current professional medical staff to help minimize and prevent assaultive behavior with this population. The CISM model has been used as a forum for further planning and development of crisis training models nationwide.

Another illustration of how training strategies can be effective is the use of HIV and AIDS pretest counseling. Pretest counseling training programs include educating counselors and clients to the etiology of AIDS and how HIV transmission occurs. A secondary purpose to pretest counseling is to minimize the probability of viral contraction. Pretest counseling also serves clients that seek and receive HIV testing to modify their anxiety about likely test results. It also provides a safe forum for discussion of diagnosis, offers professional examination of different medication and treatment options while motivating clients toward changing sexual behaviors to safer, less risky alternatives (Hicks and Rundell, 1996). Due to the lethality of the disease, HIV pretest counseling is considered a very important prospective strategy in the fight against AIDS.
Seese (1998) addressed methods to improve teaching for prospective faculty. She examined the effects of two different counseling interventions on perceptions of teaching efficacy. Seese (1998) hypothesized that both a didactic training intervention for prospective faculty and an emotional process group would exhibit a significant impact on perceived teacher efficacy. Both groups showed significant gains over a no-treatment control group.

Heppner (1994) reflected the value of Bandura’s theory on self-efficacy (1997; 1986; 1977) by demonstrating the utility of feedback of teaching methods to prospective faculty in both verbal and video contexts. Graduate students in this study rated all four theoretical sources of Bandura’s self-efficacy and concluded that both performance attainment (lecture experience) and verbal persuasion were instrumental in the development of prospective teaching faculty. Heppner (1994) concluded by noting that understanding teacher self-efficacy development is one vital aspect toward advancing designs in improved, college teacher protocols.

Related to education, Luzzo et al. (1999) demonstrated the effectiveness of videotape as a treatment strategy designed to improve math and science self-efficacy in college students. The function of this study was to examine the separate and combined results of performance and vicarious learning on math and science self-efficacy development. Videotape was chosen and operationalized according to prior studies that noted the influence of video on career student development (Foss and Slaney, 1986), along with its practical aspects of short duration, ease of standardization, and relatively low cost of production.

From Bandura’s theory on self-efficacy (1997; 1986; 1977) it was hypothesized
that the combined results from students in both performance testing and video groups would show increases in career self-efficacy over that of each group separately. As a result, it was concluded from Luzzo’s et al. (1999) study that the separate influences of each theoretical component in Bandura’s self-efficacy theory warrant further empirical investigation, whether relating self-efficacy to career decision-making or counseling. Further research in this area demonstrating the effectiveness of appropriate measures designed to improve the internal validity of self-efficacy studies was also recommended.

Training strategies and interventions utilized to increase prospective self-efficacy and motivation for performance have been applied widely in other contexts. One example has been resident assistance education in college dormitories. Jakobsen and Krager (1988) noted that over the last twenty years, program manuals that identify the objectives of residential education are typically subsumed under training criteria for residence assistants. Much attention is paid prior to the first week of school, highlighting for prospective resident assistants such questions as, why do we exist, what exactly do we do, what is most important about our role as resident assistants in the dorms, and how do we accomplish our training objectives? Typically such training includes role plays, video, teaching models, and selected readings that help to anticipate life and expected behaviors residence assistants are likely to encounter in the dormitories.

Another training venue utilized to increase prospective faculty/student self-efficacy and motivation is alcohol education programs at universities. Chassey and Clifford (1988) document the alarming increase of alcohol consumption on college campuses. As a result of increased frequency of drinking on college campuses, most universities have an alcohol policy. If the policy on campus is violated, a student can be
required to attend counseling at the university-counseling center. One means of attenuating counseling-center staff workload and the concurrent need for students to attend counseling is to first have them participate in educational training programs. Such programs are designed to increase awareness about the dangers of abusing alcohol and other drugs on campus.

Workshops are developed around the premises that most students drink relatively frequently on campus and consequently, students must take responsibility for drinking behavior. Typically, training workshops on campus are divided into biweekly, 2-hour sessions for two weeks, where videos are shown, literature is distributed, and group discussions on the presenting issues occur. The goal of these programs is educational and thus preventative, in hope that violations of campus policies that could lead to legal action are averted.

**Specific Pre-Counseling Treatment Methods**

Thus far this literature review has targeted general applications of training methods designed to increase prospective client, student, or faculty coping efficacy and motivation from a variety of contexts other than counseling. The remainder of the chapter will focus on specific pre-treatment counseling methods of counseling video, role play and counseling literature that have been effective in both counselor and client development and will be subsumed and examined under sub-headings for each pre-counseling treatment method.

Pre-treatment methods for counseling and client development are typically referred to as role-induction (not to be confused with the common term, role-play) methods (Friedlander and Kaul, 1983; Childress and Gillis, 1977) or an advanced
organizer (Goldstein, Heller and Sechrest, 1966). Such methods prior to counseling help prepare clients for their role (Johnson and Baker, 1989). Numerous methods can be applied to help the client anticipate the complexities of his/her prospective, counseling experience. Such methods include but are not limited to general workshops, briefings, role-playing, person to person interviews, audiotape, counseling videotape on motivation (Sutton, 1998; Jakes, 1982) didactic instruction, counseling literature (Helibrun, 1972), films describing counseling experiences and vicarious learning models (Zwick, 1985; Heilter, 1976). One popular avenue for enhancing prospective client self-efficacy and motivation for the client role is a pre-counseling videotape (Sutton, 1998).

**Videotape in Counseling**

Jakes (1982) showed a video to twenty, female non-clients to positively effect their expectations and motivation for counseling. The video provided information regarding a non-directive, counseling style in the form of a dialogue between client and counselor. Twenty other participants viewed neutral videotape. Results indicated that the videotape did significantly alter behavioral and cognitive ways of approaching prospective interviews, but also suggested that motivation for counseling may be independent of counseling related knowledge.

Deroche (1990) investigated the role of a counseling orientation videotape on children’ attitudes and knowledge of counseling. 143 children participated in the study; 70 children observed the video. Results indicated that children who viewed the videotape developed greater knowledge and realistic expectations of the counseling process. Additionally, those children were more likely to reveal positive feelings toward counseling and counselors than the control group.
Diviak (1999) examined video as a pretreatment method with 200 former patients of a smoking cessation group to help them remain abstinent. Of those, only seventy-three agreed to participate at a three-month follow-up, but of those participants, former smokers who reviewed the video pre-treatment showed higher levels of efficacy and motivation to quit at a three month follow up when compared to the control group.

Regarding counselor self-efficacy development, D’Rozariso (1996) looked at the effect of a counseling video on relating differences in counseling style to counselor effectiveness in different cultures. Significant differences in gender response among counselor practicum students were found. This conclusion supports Bandura’s (1997) argument that self-efficacy can differ in gender with regard to how decisions are made from efficacy beliefs about performance (although specific differences in self-efficacy and gender tend to be contextual and usually related to career decision-making, Bandura 1997). Further, it is recommended that each theoretical component of self-efficacy theory (Bandura, 1997; 1986; 1977) be analyzed separately with other variables (gender) for their relative and independent contribution to outcome (Luzzo, 1996).

Sipps, Sugden and Faiver (1988) utilized video to investigate the role of counselor training level and verbal response type to efficacy and outcome expectations. As expected, with an increase in graduate training, increases in counselor self-efficacy were shown. Carter (1998) examined the relationship between different versions of videotaped training on counselor development to perceived self-efficacy. Effects of training on areas in clinical interviewing included how to ask open-ended questions, the ability to paraphrase content and reflect feelings. Interestingly, scores on self-efficacy were high on all groups, independent of video training.
Other studies incorporate video and the application of a role-play as pre-
counseling treatment methods for purposes of comparing the effectiveness of the
different formats. Larson et al. (1998) examined the effectiveness of video compared to
role-play in counseling self-efficacy development. Interestingly, it was found that the
role-play group showed significant increases in counseling self-efficacy in comparison to
the group exposed to the counseling video. The authors agreed with Bandura’s contention
that experiential aspects of performance and mastery accomplishments tend to contribute
most to self-efficacy development, above and beyond other theoretical sources (Bandura,
1997).

Strupp and Bloxom (1979) attempted to enhance motivation for counseling
among lower-class participants through a counseling video. Further, many of the
prospective counselor-client interactions in treatment centers often include videotape as a
predominant, educational format to orient clients to the counseling process (Sutton, 1998;
Jakes, 1982). Due to its low cost and ease of broad application, it is believed that one
video shown to thirty potential clients might be more cost-effective than the time
consumed by therapists individually interviewing thirty separate clients (Zwick and
Atkinson 1985).

Sutton (1998) examined the effectiveness of two different videotaped
presentations on prospective clients’ self-efficacy, expectations and anxiety. Prospective
clients were shown a videotaped presentation that included a counseling role-play and
added information about the counseling process. In this study it was hypothesized that a
significant increase in client expectations, self-efficacy, and concomitant decrease in
anxiety would occur. In general, no treatment effects were shown. However it was
recommended that future research examine related hypotheses to investigate the hypothesized role of self-efficacy on client behavioral change in counseling.

**Role-Plays**

Another useful strategy applied to increase client awareness and participation for counseling is the application of a role-play. In counseling, role-plays for prospective clients are typically thought of as a “role-induction” interview (Rabinowitz, 1997; Friedlander and Kaul, 1983). Such interviews were developed from Orne and Wender’s (1968) classic description of the anticipatory socialization interview and were initially designed to foster congruence of expectations between counselor and client. Typically role preparation procedures tend to explain and discuss the purposes of counseling while subsequently modeling appropriate interview behaviors. Such training can take the form of a structured-interview (Hoehn-Saric; 1964), a role-play format (Rabinowitz, 1997) or video (Jakes, 1982). Positive effects of role induction methods also include counselor self-efficacy development (Larson, 1998). Other studies show clients often report feeling more satisfied and confident during counseling (Hoehn-Saric, 1964) as a result of such procedures.

In a study of counselor development, Larson (1998) evaluated the comparative value of a mock interview as a role-play compared to a fifteen-minute counseling session on tape with sixty-seven students using hierarchical regression to predict post-test counselor self-efficacy. Interestingly, those students who perceived their counseling performance as below average after the role-play showed decreases in their reported counseling self-efficacy by almost one standard deviation below the mean. Larson et al. (1998) concluded that one primary reason for the training impact of role-plays on
counseling students similar in training and age may be due to more realistic appraisals of efficacy beliefs and feedback generated from peers in the role-play in contrast to feedback offered from a perceived expert in counseling (Larson, 1998; Bandura, 1997; Landis and Young, 1994).

Traditionally, it was believed that a primary reason for unsuccessful outcomes in counseling was due to poor or low client expectations of the counseling process (Tinsley, 1980; Garfield, 1978; Frank, 1968.) In an attempt to rectify such clinical concerns regarding client expectations of counseling, it was thought that efforts to concentrate learning for clients regarding the expected roles of both counselor and client might be one partial remedy at addressing this problem. Consequently, much of the early research on manipulation strategies designed at improving pre-counseling performance targeted client expectations in counseling. As a result, initial role-induction interviews were developed to help clients realistically appraise their expectations of the counseling process.

A prospective role-play reflects the assumption that contact between the counselor and client prior to the initiation of counseling helps prepare the client for the client role. Many researchers have examined the effectiveness of role-plays designed to increase client expectations of counseling, but with many of the same methodological concerns as mentioned previously. An initial instrument that records a client’s initial expectations for counseling after a precounseling interview is typically conducted in role-play studies. A follow-up measure is then given afterwards (Mac, 1973; Klepac, 1970; Galinsky, 1971; Appel, 1959).

Variations on formats of role-induction procedures include Kaiser’s (1971) lengthening of the initial interview to two sessions to determine the impact of role-play
on long-term retention of learning. Cundick (1962) and Gladstein (1969) obtained an initial finding regarding client expectations and then measured expectations again, after the counseling relationship had terminated. Post-measurement was done in order to evaluate possible effects of ending the relationship on client expectations. Other “role-induction” formats include interviews that can occur after a video has been shown, or in some combination with another treatment (written material) after an initial interview (Kemmerling, 1972).

Role-induction procedures that specifically include a role-play have been examined in a variety of counseling related, helping contexts (Alexander, 1999; Williams and Hall, 1988; Twentyman, 1979). Alexander (1999) studied the effects of a self-efficacy enhancement program on condom usage in college students. In this study it was hypothesized that an AIDS prevention model, based on the implicated role of self-efficacy in medical health (Bandura; 1997) would enhance HIV and AIDS prevention by increasing condom use. Although increases in self-efficacy were reported in the treatment group, current sexual practices were not altered.

Williams and Hall (1998) noted the influence of role-plays on assertiveness training in college students. These authors examined methods to enhance assertiveness related to peer requests that included drug use, cheating, loaning money to a friend, protesting others that cut in line, etc. In three, two-hour sessions (Williams and Hall; 1998) students observed assertive yet appropriate responses while receiving performance feedback once the imagined role-play scenario was completed. The role-play training proved beneficial to all members in the exercise subsequent to its conclusion.

Twentyman (1979) examined the influence of role-plays as a rehearsal treatment
on participant anxiety. Subjects that identified themselves as non-assertive prior to treatment were randomly assigned to two groups, one with assertiveness training and the other group without training. As expected non-assertive subjects exposed to assertiveness training exhibited more assertive behaviors and less anxiety over time than those not exposed to the role-play treatments.

Saitz, Sullivan and Samet (2000) studied the effects of role-plays related to continuing education with clinicians that screen and provide brief interventions to clients that suffer from substance abuse problems and motivation. Clinicians interviewed after the role-plays suggested that they felt more sensitive to initial screening and assessment methods designed to target client substance abuse in relation to motivation to change while asking about possible continued substance use at follow up.

The problem resolution format (Cummings, 1992) is another theoretical variation on the effects of a role-play. This format allows clients to explore through role-play a prior stimulating situation in order to contact previous thoughts and feelings about the event. In this case, being able to provide a context in which feelings and thoughts related to the original situation is important along with being able to identify and label what exactly is being thought. The ultimate goal of role-play training is to assist and further educate either the novice counseling student or client by helping them orient to their prospective role. Ideally the experiential format of the role-play allows for a gradual yet increasing ability to transfer learning from counseling/academic student to professional or one as prospective client to actual confident client in session (Friedlander and Kaul, 1983).
Further, Cummings (1992) provided a teaching model for clinical faculty instructing counseling practicum students on how best to teach and model experiential counseling, interventions. She looked at the influential yet theoretical role of both a gestalt technique and a problem resolution format. The gestalt approach (Greenberg; 1984) requires a two-chair intervention that allows students to assume the top dog and underdog roles inherent in gestalt theory (Cummings, 1992). Identified students or clients use two chairs in order to assume different parts of personality, one strong, the other weak. Such an approach, allows in theory that stronger parts of self become more conscious in order to be softened while less developed and weaker parts of one’s personality become strengthened. The goal is an eventual reordering and stabilization of personality at a higher, more integrated level of functioning.

Interestingly, some studies have compared the relative influence of a video intervention to a role-play on counselor self-efficacy, development. However, few studies have demonstrated the comparative significance of a role-play, video, and counseling literature on multiple instruments that capture both prospective, client self-efficacy and motivation to change in counseling. Munson, Zoernik and Stadulis (1986) examined the effects of a role-play and modeling, to that of modeling and visual imagery on counselor self-efficacy. Both groups showed significant results over a wait-listed control group while the two treatment groups exhibited null effects. Johnson and Seem (1989) compared beginning practicum students to advanced students on counselor self-efficacy. These authors showed improvements in self-efficacy in the beginning group but not the advanced group.

However, despite their utility in scope and application, it remains uncertain
exactly how various role-plays positively influence the client once counseling begins (Friedlander and Kaul, 1983). Certainly, role-induction procedures can experimentally manipulate client experiences, verbal encouragement, vicarious learning, and reductions in emotional arousal. The use of a role-play as one treatment strategy in this study will simulate a prospective counseling experience designed to improve prospective client self-efficacy and motivation to change while derived theoretically from self-efficacy components (Bandura, 1997; 1986; 1977).

**Counseling Literature**

Verbal interventions vary in their experimental application although they are less likely to be utilized than either a video or role-play as a pre-counseling, treatment method. The majority of verbal interventions appear as instructions, pamphlets, brochures, reading counseling vignettes, and/or narratives. Such strategies have typically been explored in the counseling literature to increase client expectations of the counseling process.

Gibson et al. (1989) noted the effectiveness of utilizing brochures in brief counseling to reduce the AIDS risk among intravenous drug users and their sexual partners. Cook et al. (1991) demonstrated the utility of literature in the form of a brochure in an osteoporosis patient education program. The literature provided was considered educational and one component of a workshop designed to help patients cope with the initial screening and prospective diagnosis of osteoporosis.

Donovan (1998) examined the relationship between potential and professional ethical violations of psychologists to client perception of counselor expertise by using a written intervention. Subjects attended simulated counseling sessions in which counselors
committed two ethical infractions that were presented as a treatment in a reading, literature group. Although participants in an active recall session showed improved performance over a control group on understanding the gravity of potential ethical violations in counseling, being able to translate subject knowledge of ethical practice into behavioral change or confrontation with therapist did not occur later at follow up.

Gordon (1982) developed a patient preparation brochure for the purpose of studying the effects of literature as a pre-psychotherapy intervention on client expectations. Few significant effects were reported. Gordon (1982) suggested one reason for lack of empirical support of the brochure was due to the lack of measurement of the severity of client problems.

Tinsley (1988) suggested that one such form of a verbal intervention requires the alteration of verbal procedures as one manipulation strategy. For instance, some investigators (Ziemelis, 1974, as cited in Tinsley, 1988) have applied a matching procedure whereby research subjects were told that they had been or not been favorably matched with a desired counselor. The function of these studies was to determine whether or not client expectations generated from such information modified existing client expectations of the counseling process. Ziemelis (1974) looked at the relationship between manipulations of client information to expectations of counselor selection by randomly assigning participants to either positive, negative, or no pre-treatment interview information. Helms (1975, as cited in Tinsley, 1988) had participants read empathy-reducing, empathy increasing or empathy neutral information regarding potential interactions of attraction and anxiety with a counselor. Non-significant results were found.
Shelton et al. (1991) examined the role of test anxiety, locus of control, and self-efficacy as predictors of treatment preference by providing two brochures to two treatment groups consisting of college students. In one group, the brochure described how counseling could help prospective clients specifically cope with anxiety. The other brochure described performance techniques (active listening, paraphrasing) in session that clients potentially find helpful. Interestingly, results indicated that subjects assigned to the performance group had higher levels of self-efficacy regarding performance in counseling and lowered anxiety, than the anxiety-focused group. One interpretation of the results can be inferred from self-efficacy theory (Bandura, 1997; 1986; 1977), as efficacy levels typically increase with interventions that relate efficacy more specifically to performance-based interventions and not just targeted emotional arousal. In fact usual correlations between efficacy beliefs and performance tend to be congruent unless indicative of more defensive dynamics that manifest from personal underlying insecurity (Bandura, 1997), often witnessed in clinical supervision (Larson, 1998; Holloway, 1995).

Despite the application of counseling literature as a valid, verbal intervention, Tinsley (1988) suggested that written documents were only successful in 4 of the 11 of the studies he reviewed (McKee and Smouse, 1983; Gill and Taylor, 1982; Falcone, 1980; Randall, 1969, as cited in Tinsley, 1988). However, he concluded that the future examination of counseling literature as an intervention in counseling studies with solid methodological designs was warranted.

**Conclusion**

In conclusion, this review of the research literature has included an examination of the empirical role of self-efficacy, motivation for counseling, general training methods,
and specific pre-treatment counseling methods designed to increase prospective client self-efficacy and motivation to change in counseling.

Support for this study includes counseling research on self-efficacy applied to contexts outside of counseling, such as academic achievement (Pajares and Miller, 1994), athletic achievement (Stidwell, 1994), and self-efficacy and medical health (Everett, 2000; Hannes, 1999). Within counseling, much of the self-efficacy research has been applied to counselor student, self-efficacy development (Larson, 1998; Daniels 1997) substance abuse treatments (Miller and Rollnick, 1991; Prochaska and DiClemente, 1986) and supervisee self-efficacy development within supervision (Ray, 2000; Daniels, 1998; Holloway, 1995). However, in counseling research, very few empirical studies have investigated treatment effects on gender, in predicting self-efficacy and readiness for counseling, independent of counselor supervision, student development, and substance abusing contexts and populations.

Further, social-cognitive theory (1986) emphasizes both the interpersonal role of individual self-efficacy and personal agency, combined with environmental variables (clinical context and clinician) that influence behavioral choice (for example, the selection, initiation, and maintenance of counseling.) Thus, counseling research on self-efficacy and motivation support treatments that capture the interpersonal nature of counseling (Bandura, 1997). The treatments in this study emerge from the theoretical components of self-efficacy and the interpersonal nature of social-cognitive theory, with secondary emphasis placed upon readiness for counseling, as a function of motivation for change.

With regards to motivation, research in this area is complicated by its broad
association with many factors: personality (McCrae and Costa, 1987), different theories (cognitive dissonance, social-cognitive; Scharf, 2000) different types of motivation (Deci and Ryan, 1985; Skinner, 1953), the relationship of motivation and client attrition to other variables (Longo, 1991); motivation and counselor interventional style (Bandura, 1997; 1986; Hamert, 1995; Miller, et al., 1993); motivation and demographics (Kunkel, 1990); motivation and duration of treatment (short vs. long term; Hoyt, 1995); and motivation and recovery (Isenhart, 1997).

The research indicates that little understanding of the empirical role of motivation in counseling has resulted from analysis of demographic variables and intake data. Thus, due to the confounding and complicated nature of motivation, many research conclusions on motivation have been inconsistent (Kunkel, 1990; Hardin, 1983). Therefore, the majority of research on motivation extends primarily into treatment domains, concentrating on motivation and substance abuse treatments (AA models to more post-modern, motivational therapies) to Prochaska’s stage model (1982), the post-modern theory and practices of Miller (1991) to specific, field research (Isenhart, 1997; Hamert, 1995; Miller, et al., 1993). Further, since much of the counseling research on motivation relates to the addictions field, the research focus has traditionally targeted how best to help treatment professionals work with low motivated, more resistant clients (Miller, 1993, Miller, 1991) solely in this context.

Additional research applications toward motivation have primarily focused on substance-abusing populations (Prochaska, 1992; 1986; Miller, 1991) and attrition (Longo, 1991) but not on the treatment impact on client motivation and client self-efficacy considered together outside of these contexts. Thus, there appears a need for
future research inquiry that empirically documents various methods to increase client self-efficacy and motivation jointly in other counseling-related contexts as well. For it appears incumbent upon counseling professionals to advance the understanding of these two variables in relation to each other to better understand their correlated nature in a variety of counseling treatment contexts. Since many clinicians practice in varied contexts, it appears warranted that counseling professionals empirically document how best to motivate and increase prospective client self-efficacy early in the counseling process, in order that clients maximize the services offered to them in all counseling related areas (Longo, Lent and Brown, 1992; Longo, 1991). Furthermore, training methods that support the usage of prospective training designed to increase coping efficacy and motivation appear needed in more general client populations since few studies on client self-efficacy in counseling and motivation together exist outside of substance abuse treatment contexts.

Even counseling treatments that isolate various components of self-efficacy alone appear justified in order to understand how the theoretical components to self-efficacy relate to each other. For instance, Luzzo (1999) concluded that although vicarious learning is less influential on self-efficacy development than performance in academic contexts, both the relative contribution of each theoretical component is important to examine in self-efficacy research in general. With regards to the need for interventions, Larson (1998) argued that constructive aspects of prospective client performance might be more readily identified from both student counselor and client in a role-play format that might not be as observable on videotape alone. Specific treatments that illustrate the empirical value of a counseling role-play on prospective client performance appear
needed as well.

Thus, the three treatments in this study (counseling role-play, video, and literature) emerge from Bandura's (1997) theoretical components that define self-efficacy (approximating performance experience with a counseling role play, including modeling, verbal encouragement and reductions in emotional arousal), a counseling video (thus isolating the modeling and vicarious learning component of self-efficacy) and a counseling literature group (isolating the verbal and cognitive aspects of self-efficacy). In studies that utilize literature as an intervention to improve client self-efficacy and motivation to change, one common suggestion offered to improve the methodology would include providing a small quiz to insure that the subjects read and process the literature provided.

Additional suggestions in the research literature that justify the need for this study include how prior research by Prochaska (1992; 1986) and Festinger (1957) have demonstrated the role of motivation in reducing cognitive dissonance that can accompany problem severity. One suggestion in capturing problem severity is to include a measure of client motivation that implies client willingness and readiness to disclose current behaviors as problematic in counseling. Such a measure will be included in this study, the URICA change assessment instrument. However, although treatment applications involving literature as a function of a verbal/cognitive intervention have been documented outside of counseling, the exact role of how literature may translate into client action or positive behavioral change remains ambiguous and is suggested for further exploration and empirical study (Tinsley, 1988). This study attempts to partially address this concern by presenting a brief quiz to each participant in the counseling,
literature treatment group. It is expected that each participant will answer the quiz, after he/she reads the brochure, counseling scenarios, and counseling narrative that are presented in each respective packet.

Another measurement concern to be addressed in this study is illustrated in Sullivan and Mahalik’s (2000) empirical study examining the effectiveness of increasing career self-efficacy for women. Due to the non-equivalency of treatment groups from failure to randomly assign participants prior to initiation of treatment, treatment effects were considered highly preliminary. Mennicke’s (1998) review of the counseling research literature on attrition as it relates partially to motivation demonstrated that many studies regarding attrition and lack of client motivation area are beset by problems with internal validity, small sample sizes and measurement issues as well. Future research that targets variables associated with attrition, such as self-efficacy and motivation to change, with improvements in research design is recommended in the research literature.

Separating training effects from client motivation has been another concern in the empirical literature. Duckro (1979) and LaTorre (1977) noted this specific confounding influence was generally due to poor reliability of measurement. Thus, reliable measurement of very specific, theoretical variables in counseling (self-efficacy and motivation) is one partial remedy toward correcting the design issues previously noted in the literature. Surprisingly, despite the application of training programs for increasing self-efficacy and motivation among counseling students and clients in multiple contexts, research in areas of general training and pre-treatment counseling methods have been criticized for having many design issues and concerns regarding internal validity. In their systematic review of the literature, Tinsley, Bowman and Ray (1988) noted that
approximately 75% of the training application studies failed to demonstrate adequate internal validity. Added methodology concerns with training methods include empirical studies that fail to incorporate relevant theoretical variables that can influence preparatory effects. For instance, Deane (1992) showed that further preparatory influences from training can be mediated by anxiety alone and that related variables need to be accounted for in empirical studies of preparatory programs and studies.

Other measurement issues in this area include the potential for confounding variables that obscure conclusions about treatment effects. Counseling research illustrating pre-counseling orientation is rich with articles that cite the complexity of human interaction and the multitude of confounding and situational factors to even an initial, preassessment interview (Larson, 1998; Deane, 1992; Tinsley, 1980). Future research studies are justified in relating how specific pre-treatment counseling methods can be applied to increase prospective self-efficacy and motivation for change in counseling clients, without the previous measurement issues mentioned.
CHAPTER 3
METHODOLOGY

Statement of Purpose

The purpose of this study was to assess the experimental influence of a role play, a counseling video, and counseling literature on prospective clients' self-efficacy and readiness for change as a function of motivation for counseling. In this chapter, the research hypotheses, relevant variables, population, sampling procedures, data collection, and data analytic procedures are described. Additionally, the instrumentation and the study's limitations are discussed.

Hypotheses

The following null hypotheses were investigated in this study:

Ho1: There is no statistically significant association between the role play, treatment group, (group 1) and the no-treatment control group, (group 4) on either the CSEBS, client self-efficacy, behavior scale measure, and/or the URICA, University of Rhode Island, change assessment instrument.

Ho2: There is no statistically significant association between the video, treatment group, (group 2) and the no-treatment control group, (group 4) on either the CSEBS, client self-efficacy, behavior scale measure, and/or the URICA, University of Rhode Island, change assessment instrument.

Ho3: There is no statistically significant association between the counseling literature group, (group 3) and the no-treatment control group, (group 4) on either the
CSEBS, client self-efficacy, behavior scale measure, and/or the URICA, University of Rhode Island, change assessment instrument.

Ho4: There is no statistically significant association between the role play, treatment group, (group 1) and the video, treatment group, (group 2) on either the CSEBS, client self-efficacy, behavior scale measure, and/or the URICA, University of Rhode Island, change assessment instrument.

Ho5: There is no statistically significant association between the role play, treatment group, (group 1) and the counseling literature group, (group 3) on either the CSEBS, client self-efficacy, behavior scale measure, and/or the URICA, University of Rhode Island, change assessment instrument.

Ho6: There is no statistically significant association between the video treatment group (group 2), and the counseling literature group (group 3), on either the CSEBS, client self-efficacy, behavior scale measure, and/or the URICA, University of Rhode Island, change assessment instrument.

Ho7: There is no statistically significant interaction between gender and treatment type (group 1, group 2, group 3, group 4) on either the CSEBS, client self-efficacy, behavior scale measure, and/or the URICA, University of Rhode Island, change assessment instrument.

Ho8: There is no statistically significant association between genders on either the CSEBS, client self-efficacy behavior scale, and/or the URICA, University of Rhode Island, change assessment instrument.
Delineation of Relevant Variables

Dependent Variables

The first two measures, the CSEBS, client self-efficacy behavior scale, and the URICA, University of Rhode Island change assessment instrument, were utilized to calculate prospective client self-efficacy and secondarily, prospective client readiness for change in counseling. The CSEBS score, or client self-efficacy behavior scale score is calculated by summing the 20 items responses collectively into one score. The URICA score, is composed from 4 subscales, measuring precontemplation, contemplation, action and maintenance (see Prochaska, 1986), thus yielding a 32 item self-report score that is used to assess and analyze readiness for change at entrance to counseling treatment. A third dependent, dichotomous variable was also incorporated into the study to measure follow-up interest in seeking counseling as a result of subject participation in this dissertation study. Gender, treatment, self-efficacy, and readiness for counseling were evaluated separately. The interaction between gender and treatment was also examined.

Independent Variables

Gender and treatment were the two independent variables in the study. Student volunteers were randomly assigned to four, treatment groups. Treatment one consisted of volunteer participants experiencing an individual, scripted, counselor-client role-play with students in the prospective, client role and a trained graduate student, in the counselor role. Treatment two participants observed a simulated counseling session on video, role-played by a trained graduate student counselor and a trained graduate student client. Participants in the third treatment group read counseling literature. Treatment three composed of three case studies of simulated yet likely scenarios potentially encountered
in counseling and a brochure identifying how counseling could potentially be helpful to a college population. To insure that participants read and process the literature, they were asked to complete a simple quiz on the material. Assigned subjects in group 4 (no-treatment control group) read part of a chapter from a general, counseling theories book.

Gender

Male and female scores from the CSEBS and URICA measures were assessed to determine if a statistically significant interaction exists between gender and treatment type or if gender alone separately reflected statistical significance on either dependent variable.

Population

The research population consisted of the undergraduate, college student body at the University of Florida. Research participants were selected from four undergraduate courses in the college of education. Approximately 400 potential participants were surveyed. Participants in the study were contacted by email and phone and then randomly assigned to one of four groups.

Sampling Procedure

The research sample was composed from four undergraduate courses in the College of Education: drug and alcohol awareness, stress management, interpersonal communication, and career development. A graduate student instructor taught each course from the department of counselor education. Instructors offered extra credit to students willing to participate in the study; students were informed of this option prior to the sampling procedure.

Students from each of the four classes mentioned above were first given a consent
sheet that informed participants of the potential risks and benefits of participation. An emphasis was placed on the confidentiality of the study and that participants had no obligation to participate. The informed consent form is provided as appendix A. Extra credit was given to participants at the discretion of the course instructor. In order to facilitate participation, different times for administration of the treatments were proposed. Subsequently, all students were given a short survey, asking them to identify whether or not they have an interest in participating in a research study regarding their attitudes toward counseling. The survey was composed of a five-point, likert scale, indicating subject willingness to seek counseling (one indicating little interest for counseling; three indicating a moderate interest for counseling; and five revealing a high or strong interest to seek counseling). The rationale for using the likert scale on the survey was to generate exclusionary criteria to approximate "real" clients in order to enhance the external validity of the study. Students who indicated a moderate to strong desire to seek counseling (by selecting three or higher on the likert scale) reflected the total group of students in the study.

Participating students in the study were contacted by phone or email regarding the physical location and times of the experiment. Those participants selected were then informed that they were randomly assigned to different groups in the study. One group required students to role-play a written, standardized counseling format, between counselor and prospective client (treatment group 1). Other participants were randomly assigned to group 2 (video observation), group 3 (reading counseling literature), and group 4 (a no-treatment control group).
Experimental Procedures

Experimental procedures were applied to all four groups. Group 1 consisted of assigned group participants that role-played a likely scenario that clients could encounter in counseling. Assigned participants in group 1 arrived at predetermined times in the counselor education department. Upon arrival, each participant in group 1 was greeted by a graduate student, trained counselor and was given a packet. The packet contained the following: instructions on how to do a role play, a role-play script illustrating the acting content of a prospective counseling client, and two measures that were completed after the role play was finished. The purpose of the role-play instructions were to help each prospective student become more comfortable and knowledgeable with their assigned, role-play task, since it was understood that not all students would be familiar with a role-play exercise.

Next, each participant in group one read the standardized script of a role-play provided in their packet. Once finished reading the script, each participant simulated a real, counseling session with the counselor, a trained, graduate student. The role-play lasted no longer than 10-15 minutes in length. A script of the role-play enacted by each subject in group one is provided as appendix B. Upon completion of the role-play, each participant in group one completed both measures provided in each packet.

Participants in group 2 met in the counselor education department at a predetermined location and time. Group 2 consisted of assigned participants that observed a counseling session on video. Upon arrival, each participant in group 2 was presented with a packet of two measures that were completed after treatment. Each participant was exposed to a video presentation of a counseling scenario that was role-
played by two counselor education graduate students. The video lasted approximately 10-15 minutes in length. Upon completion of the video observation, each subject in group 2 completed the two measures provided in each packet. A script of the video is provided as an appendix C to this study.

Participants in assigned group 3 also met at a predetermined location and time in the counselor education department. Each student was given a packet with two measures to be completed at the end of the experiment. Assigned participants to group 3 were asked to read the counseling literature that was provided as a treatment; three counseling scenarios were detailed in the literature, as well as a brochure, describing the basic process and benefits to being a counseling client. Students in this group were asked to complete a simple quiz consisting of five questions; the purpose of the quiz was to insure that each subject reads the literature. The scenarios, the brochure, and the quiz are detailed as appendices D, E, and F respectively. It took no longer than 30 minutes for students to read the literature provided. Instructions were given in each packet, detailing the steps of the paperwork to be completed. Participants in group consisted of a no-treatment, control group. Each participant in group 4 was provided with a packet consisting of a generic reading exercise and two measures. The no-treatment control exercise consisted of students reading five pages from R.S. Sharf, Theories of Counseling, 2000.

After completing both measures, participants then filled out a third measure reflecting subject interest to seek follow-up counseling as a result of participation in this study.
Data Collection Procedures

Data collection consisted of participants being randomly assigned to one of four-treatment groups. Upon arriving at the assigned experimental location, each participant received a packet with a code number on the upper right of the packet. The code number of each packet served to identify each packet individually for purposes of data analysis while protecting the confidentiality of each participant. Each packet consisted of a consent form and two measures, the CSEBS, client self-efficacy behavior for counseling, and the URICA, readiness for change instrument and a follow-up survey, to determine interest in seeking follow-up counseling after treatment. The survey was a brief, ancillary measure asking participants to rate whether or not they had an interest in seeking counseling as a result of their participation in this study. Follow-up interest was the third dependent variable in this study.

If subjects marked yes to having a desire to seek counseling as result of their participation in this study, participants were then asked to quantify on a likert continuous scale, from 1-5, their degree of interest in seeking counseling within the next year. The rationale of the follow-up measure was to provide the researcher with additional data by showing derivatives of any potential, longitudinal impact of the treatments. Since long-term follow up of the research subjects on their prospective client self-efficacy and readiness for change could not be monitored, it was thought that a brief measure capturing any likely longitudinal effects between an additional third dependent variable in analogue form, would strengthen the study in its final analysis.
**Instrumentation**

The CSEBS or client self-efficacy behavior scale measure (Longo; 1991) was developed to assess a client's self-efficacy for counseling related tasks. In this study the CSEBS was given to assess a prospective client's self-efficacy for counseling, or one's belief in his/her capability that he/she can become a successful client. The CSEBS is a 20 item, self-report instrument that can be either administered individually or in a group format. The alpha-coefficient (.91) of the measure (Longo, 1991) illustrates the instrument's high reliability or internal consistency of measurement. Further, the high alpha suggests that the measure is relatively stable and that participants remain uniform regarding the measurement of client self-efficacy.

With regard to the measure's construct validity, the CSEBS was utilized to measure client self-efficacy as one social-cognitive variable in the prediction of counseling attrition (Longo, Lent, and Brown, 1992; Longo, 1991). In both studies a discriminant analysis of variables related to counseling attrition was performed in order to assess the structure coefficient of each variable measured. Six variables from gender to motivation were summed and weighted to yield one variable, calculated as a discriminant function. The discriminant function was statistically significant in predicting counseling attrition between groups that had high attrition rates compared to low attrition rates. Interestingly, the discriminant function in each study was most highly correlated ($r = .91$, table 3; pg.451, Longo, Lent and Brown, 1992; $r = .95$, Longo, 1991) with self-efficacy as measured by the CSEBS. Thus it can be argued that this high bivariate correlation between the discriminant function and the CSEBS measure in the two studies above provides additional credibility to the construct validity of the CSEBS instrument used in
this dissertation study.

To further strengthen the construct validity of the CSEBS measure, three experts in self-efficacy and counseling research independently evaluated the instrument; all three independently agreed that the measure’s construct validity warranted its usage for future research purposes. The experts consisted of Dr. Bob Lent, currently at the University of Maryland. Dr. Lent is considered a national expert on counseling applications of self-efficacy and social cognitive theory. Dr. Lent formerly served as the chairperson for Danielle Longo, who initially developed the CSEBS measure in his dissertation in 1991, at Michigan State. Dr. Lent approved the CSEBS measure for dissertation research purposes. The second expert contacted was Dr. John Lyons, currently the director of social science research and policy at Northwestern University. Dr. Lyons currently teaches research and statistics in the counseling/psychology department at Northwestern and is considered a national expert in statistics and research governing clinical outcomes of managed care practices and public policy. Dr. Lyons has much expertise in the field of self-efficacy and its role in counseling-related research. Lastly, Dr. Frank Pajares at Emory University reviewed and approved the CSEBS measure for dissertation purposes. Dr. Pajares is a distinguished professor and national expert on self-efficacy and its role in social science and academic research. He has numerous, national publications on self-efficacy.

The original University of Rhode Island Change Assessment Scale (McConnaughy, DiClemente, Prochaska, and Velicer; 1989) consisted of a 24 and 32 item, self-report scale that assessed an individual’s readiness for change prior to entering counseling. The 32-item URICA scale was utilized in this dissertation study. Items on the
measure were developed for potential modification of any identified problem behavior. The instrument can be administered individually or in a group format. The URICA utilizes a 5-point likert-scale format in which subjects assess the degree to which they agree or disagree with the presented items.

Regarding the construct validity of the instrument, four item subscales measure stages of change in the counseling process: precontemplation, contemplation, action and maintenance. A total of seven item scores for each subscale, with each item score ranging from one to five, are added and then divided by seven to obtain a mean for each readiness subscale. Contemplation, action, and maintenance subscale mean scores are then added cumulatively to yield one score. The precontemplation subscale mean score is then subtracted from the three subscale combined mean scores of the contemplation, action and maintenance scales (C+A+M-P) to yield a secondary score to assess readiness for change at entrance to counseling.

Initial psychometric properties of the instrument encouraged the utility of the measure with a wide range of alcohol, dependent individuals. As Carbonari et al. (1996), states, "further research supported a second-order readiness factor and also validated a single continuous readiness scale constructed by combining subscale scores" (Pg. 2). As a result, one combined 24-item measure was also constructed, composed of two comparable 12-item readiness measures, ALCREADI-A, and the ALCREADI-B. These two separate forms were combined into the 24-item URICA measure, known as ALCREADI-AB, a cousin of the 32-item measure. For each 12-item version of measure A and measure B, confirmatory factor analysis was conducted to fit the model with the four manifest stage variables (precontemplation, contemplation, maintenance, action) into
a single factor of readiness for change. Each form of the measure is then correlated with that factor to interpret the goodness of fit of the model with the theoretical model (Carbonari et al., 1996).

The authors suggest that a very good fit is indicated for each scale with the model proposed (ALCREADI-A, CFI = .960, GFI = .984; ALCREADI-B, CFI = .945, GFI = .981). The CFI or confirmatory fit index, provides a statistic that adjusts for the normed fit index (NFI), comparing the model fit to that of another model with the same data, presuming independence of measured variables. A range of .9-.95 specifies a good fit. The GFI or goodness of fit index, compares the model’s data with that expected of a theoretical model; further the GFI compares the ability of the model to reproduce the variance-covariance matrix (generally speaking, the magnitude of strength and direction between two measures) to no model at all. The correlations of the two separate versions, A and B, of the URICA with the 32 item full measure lend further credibility to the construct validity of the 24 item measure  (A-B, r = .84; A-AB, r = .96; B-AB, r = .96).

The obtained alpha coefficients for each split half measure of the URICA, respectively measured at (.8), and (.78), and the full measure, of (.89), suggest the reliability of the instrument is relatively stable. The alpha coefficient for each subscale documents the instrument’s consistency as well; (.74) for the precontemplation scale, (.79) for contemplation, (.815) for action, and (.738) for the maintenance stage (Carbonari et al., 1996).

**Data Analytic Procedures**

A 2 x 4 ANOVA factorial design was applied to three separate models in order to examine between variance between the two independent variables and the two dependent
variables. The first ANOVA model examined two independent variables, treatment type (group 1, 2, 3, or 4) and gender, and their interaction, in predicting the first dependent variable, total self-efficacy score for counseling. The second ANOVA model evaluated treatment groups 1, 2, 3, and control group 4 and gender, and their interaction, in predicting the second dependent variable, prospective client readiness for counseling. Additionally, in the first two ANOVA models, the statistical main effects were examined at the marginal means of the independent variable without the interaction term included. The third ANOVA model examined the interaction effects of gender on treatment group (1, 2, 3, 4) and gender and treatment separately in predicting willingness to follow-up with counseling. The third model also investigated self-efficacy and readiness for counseling separately in predicting follow-up to counseling. A chi-squared analysis and a logistical regression analysis was performed in order to assess the statistical significance of the variables in predicting post-treatment interest in counseling as a direct result of subject participation in this study.

Since Bandura (1997) cites the mediation role of self-efficacy on gender, prior performance, and anxiety (Miller and Pajares, 1994), a pathway analysis examined whether or not self-efficacy revealed a statistically significant mediation effect on treatment type and gender in predicting prospective client readiness as a function of motivation for counseling. Path analyses by correlating treatment type to self-efficacy and then self-efficacy with motivation, in comparison to correlations of gender with self-efficacy and self-efficacy to motivation were also examined to illustrate possible mediation pathway effects of self-efficacy on the variables studied. The mediational role of self-efficacy on the interaction between treatment type and gender in predicating client
readiness was additionally analyzed as well.

**Limitations of Study**

This dissertation is an analogue study. As a result, it is limited in its external validity (Heppner, 1989). Although those that volunteered for participation in the study (majority being Caucasian, female, 18-22 age range) were randomly assigned to treatment groups, the results of the study must be weighed against the relatively narrow definition of a college-age population. Consequently, the reader’s ability to apply the results to the general population is limited. Further, the fact that student participants were identified as prospective clients and not “real” clients reduces extrapolation and external validity of the results to a true “client”-based population. However, the advantages of analogue research are well known. By doing research in laboratory university settings, the internal validity of the study is usually enhanced and tightened between the independent and dependent variables due to greater experimental control over subjects and levels of independent variables (Heppner, 1989). Another advantage to analogue research is that the researcher is not overly concerned nor burdened with conflicts of interest and confidentiality that can exist between the goals of the client and clinician (Kazdin, 1978). Third, analogue research typically does not have the issues with client attrition that often can plague research in clinical settings (Mennicke et al., 1988).

In addition, although the reliability and validity of the URICA measures is relatively high, the original version was normalized against a substance abusing population, quite different from the sample in this study. Although the authors of the URICA suggest that the instrument is reliable and valid for measuring readiness for change of any problem
behavior, perhaps the results from this study are interpretable as more preliminary rather than confirmatory of the measure’s reliability and validity when administered in contexts outside of a substance-abusing population. Finally, the CSEBS or the client self-efficacy behavior scale was a novel measure and has only been used in three prior studies (Sutton, 1998; Longo, Lent and Brown, 1992; Longo, 1991).
CHAPTER 4
DATA ANALYSIS AND RESULTS

Summary and Chapter Overview

The purpose of this study was to assess through empirical investigation the relative influence of a counseling role-play, a counseling video, and counseling literature on prospective clients' self-efficacy and secondarily, readiness for change. Four different ANOVA models were applied to analyze the data relevant to the eight hypotheses of the study. The first ANOVA model analyzed the treatment interaction with gender in predicting counseling self-efficacy and is applied to the first seven hypotheses of the study. The second ANOVA model analyzed the effects of gender and treatment separately on self-efficacy for counseling and corresponds to the first six hypotheses and hypothesis eight of the study. The third ANOVA model evaluated the treatment effects on gender in predicting readiness for counseling and corresponds to the first seven hypotheses. The fourth ANOVA model examined the separate effects of treatment and gender in predicting counseling readiness and corresponds to hypotheses one through six, and hypothesis eight. Lastly, the fifth model of the study combined a chi-squared analysis and a logistical regression procedure to detect statistical significance of either gender, treatment, counseling readiness or self-efficacy in predicting post-test, follow-up interest to seek counseling.

Data Collection and Response Rates

During the summer B term, 2002, approximately 400 students from seven different
undergraduate courses in the college of Education were sampled for this study. Of those students sampled, all students were given a likert scale continuum (1-5) whereby prospective subjects indicated their willingness to discuss a personal problem of any nature in counseling. The rationale behind the use of the continuous scale was to approximate real clients for the study as much as possible in order to enhance the external validity of the results. Of those 400 students sampled, 185 students or 46% indicated a three or higher on the survey and were selected for the study. After attrition, 120 students actually participated and were then randomly assigned to one of four groups. Of those 120 students, 64 were female (53%) and 56 or (47%) were male. However, one subject within the data set produced extreme values on both the motivation readiness score and self-efficacy score and was deleted from the analysis to minimize possible confounding effects of an outlier data point. As a result of that deletion, officially 119 subjects composed N or the sample size. 55 males participated in the study with 14 in the role-play group, 14 in the video group, 14 in the literature group and 13 in the control group. 64 females participated in the study with 16 in the role-play group, 16 in the video group, 16 in the video group and 16 in the control group. Results below in table 1 list the mean self-efficacy scores for male and female participants in all four groups.
Table 1
Descriptive Statistics for Gender and Treatment with Counseling Self-Efficacy as the Dependent Variable

<table>
<thead>
<tr>
<th>Gender</th>
<th>Role Play</th>
<th>Video</th>
<th>Literature</th>
<th>Control</th>
<th>Grand SE Score</th>
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</thead>
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<tr>
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<td>27.25</td>
<td>20.75</td>
<td>20.43</td>
</tr>
<tr>
<td>Female</td>
<td>M</td>
<td>127.62</td>
<td>134.56</td>
<td>122.00</td>
<td>135.37</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>9.61</td>
<td>25.99</td>
<td>9.03</td>
<td>22.59</td>
</tr>
</tbody>
</table>

Results below in table 2 provide the mean scores for gender and each treatment group with counseling readiness score as the dependent variable.

Table 2
Descriptive Statistics for Gender and Treatment Group with Counseling Readiness Score as the Dependent Variable

<table>
<thead>
<tr>
<th>Gender</th>
<th>Role Play</th>
<th>Video</th>
<th>Literature</th>
<th>Control</th>
<th>Grand RScore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>M</td>
<td>7.79</td>
<td>8.56</td>
<td>8.49</td>
<td>8.03</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>2.78</td>
<td>1.44</td>
<td>1.65</td>
<td>2.33</td>
</tr>
<tr>
<td>Female</td>
<td>M</td>
<td>9.61</td>
<td>9.15</td>
<td>9.03</td>
<td>8.99</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>1.08</td>
<td>1.48</td>
<td>2.31</td>
<td>1.98</td>
</tr>
</tbody>
</table>

Reliability Estimates for the CSEBS and URICA

Cronbach’s alpha was applied to both instruments in order to assess the reliabilities of each measure. Coefficient values range from 0 to 1, with 1 being a perfectly uniform and consistent instrument. The value obtained for the CSEBS or client self-efficacy behavior score (Longo, 1991) in this study was .92 and is similar to other reliability
findings previously reported (Sutton 1998; Longo et al., 1992). This finding indicates that approximately 92% of the total score variance from this measure is due to true score variance and not random variance or measurement error. The Cronbach’s alpha value achieved for the URICA was .78 and is similar to other reliability estimates derived from substance abuse populations (Carbonari et al., 1996). This figure indicates that 78% of the total score variance is attributable to true score variance and not random variance or measurement error.

**Analysis Procedures**

Data was analyzed for this study through the use of the SAS General Linear Model (GLM) and SPSS. Four separate ANOVA models and a fifth logistic regression/chi-squared model were run in order to test the specific eight hypotheses of the study. All models are listed on the following page, in table 3. The first model designated the total self-efficacy score as the dependent variable, with gender and treatment by group (1, 2, 3) and their interaction, as separate input variables. The second model designated the total self-efficacy score as the output variable. Gender and treatment were analyzed separately as main effects. The third model reflected the total readiness score as the dependent, output variable. The treatment interaction with gender and self-efficacy were entered separately as independent, input variables. In the fourth model, gender, treatment group, and self-efficacy were entered separately as input variables and the readiness variable was the output, dependent variable. The fifth model examined the influence of gender, treatment, and their interaction, along with self-efficacy and desire to seek post-test counseling, through the use of a chi-squared analysis and logistic regression procedure.
For purposes of assessing statistical significance, the type I error rate of .05 was designated. A decision to accept or reject the specific null hypotheses was based on this predetermined significance level. Source data are rounded to the nearest ten-thousandth. The specific variables for the four ANOVA models and the fifth, chi-squared, logistic regression follow-up model are designated in table 3.

Model 1

Results in table 4 illustrate the non-significant effect of gender on counseling self-efficacy, $F(1, 118) = .253, p > .05$, with the significance value at .616; results also indicate the non-significant treatment effect on counseling self-efficacy, $F(3, 118) = .030, p > .05$ with the significance value at .993. Additional results reveal the non-significant effect of the GT interaction on counseling self-efficacy, $F(3, 118) = 1.45, p > .05$ with the significance value at .230. Thus, the results support the first seven null-hypotheses, since no significant differences were found for the treatment by gender interaction, (GT), or treatment separately, for total self-efficacy score as the dependent variable.
Table 3
Variables Included in ANOVA models 1, 2, 3, 4

<table>
<thead>
<tr>
<th>ANOVA MODEL 1</th>
<th>ANOVA MODEL 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Variables</td>
<td>Input Variables</td>
</tr>
<tr>
<td>Gender</td>
<td>Gender</td>
</tr>
<tr>
<td>Treatment</td>
<td>Treatment</td>
</tr>
<tr>
<td>Role Play</td>
<td>Role Play</td>
</tr>
<tr>
<td>Video</td>
<td>Video</td>
</tr>
<tr>
<td>Literature</td>
<td>Literature</td>
</tr>
<tr>
<td>Gender * Treatment Interaction</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output Variable Model 1</th>
<th>Output Variable Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Self-Efficacy Score</td>
<td>Total Self-Efficacy Score</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANOVA MODEL 3</th>
<th>ANOVA MODEL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Variables</td>
<td>Input Variables</td>
</tr>
<tr>
<td>Gender</td>
<td>Gender</td>
</tr>
<tr>
<td>Treatment</td>
<td>Treatment</td>
</tr>
<tr>
<td>Role Play</td>
<td>Role Play</td>
</tr>
<tr>
<td>Video</td>
<td>Video</td>
</tr>
<tr>
<td>Literature</td>
<td>Literature</td>
</tr>
<tr>
<td>Gender * Treatment Interaction</td>
<td></td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>Self-Efficacy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output Variable Model 3</th>
<th>Output Variable Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readiness Score</td>
<td>Readiness Score</td>
</tr>
</tbody>
</table>

LOGISTICAL REGRESSION/ CHI-SQUARED ANALYSIS
MODEL 5
Input Variables

<table>
<thead>
<tr>
<th>Gender</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Play</td>
<td></td>
</tr>
<tr>
<td>Video</td>
<td></td>
</tr>
<tr>
<td>Literature</td>
<td></td>
</tr>
<tr>
<td>Gender*Treatment Interaction</td>
<td></td>
</tr>
<tr>
<td>Total Self-Efficacy score</td>
<td></td>
</tr>
<tr>
<td>Total Counseling Readiness Score</td>
<td></td>
</tr>
<tr>
<td>Output Variable Model 5</td>
<td></td>
</tr>
<tr>
<td>Follow up interest to seek counseling</td>
<td></td>
</tr>
</tbody>
</table>
Table 4

A 2x4 Analysis of Variance for Gender (G) and Treatment (T) Interaction, Between Subjects Model with Counseling Self-Efficacy as the Dependent Variable

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (G)</td>
<td>1</td>
<td>(165.097)</td>
<td>.253</td>
</tr>
<tr>
<td>Treatment (T)</td>
<td>3</td>
<td>(58.379)</td>
<td>.030</td>
</tr>
<tr>
<td>GT Interaction (GT)</td>
<td>3</td>
<td>(2855.173)</td>
<td>1.458</td>
</tr>
<tr>
<td>Error</td>
<td>111</td>
<td>(72463.954)</td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>118</td>
<td>(75598.639)</td>
<td></td>
</tr>
</tbody>
</table>

Note. Values enclosed in parentheses represent mean square error terms. *p > .05 not significant.

Model 2

Results below in table 5 illustrate the non-significance of the 2x4 ANOVA omnibus model without the interaction term, of the dependent variables entered in predicting counseling self-efficacy, \( F(4, 118) = .106, p > .05 \), with the significance level = .980. Such non-significance of results supports all eight, null hypotheses of the study.

Table 5

A 2x4 ANOVA Without the Interaction with Total Self-Efficacy Score as the Dependent Variable

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>279.511</td>
<td>4</td>
<td>69.878</td>
<td>.106</td>
<td>.980</td>
</tr>
<tr>
<td>Residual</td>
<td>75319.127</td>
<td>114</td>
<td>660.694</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>75598.639</td>
<td>118</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Predictors: (Constant), LIT, GENDER, VIDEO, ROLE, p > .05; non-significant

Model 3

Results below in table 6 reflect the significance of the 2x4 ANOVA, omnibus
model without the interaction term on counseling readiness, $F(8, 118) = 2.84, p < .05$, with the significance level = .007.

Table 6
A 2x4 ANOVA with the Interaction Term with Total Counseling Readiness Score as the Dependent Variable

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>78.025</td>
<td>8</td>
<td>9.753</td>
<td>2.844</td>
<td>.007*</td>
</tr>
<tr>
<td>Residual</td>
<td>377.223</td>
<td>110</td>
<td>3.429</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>455.249</td>
<td>118</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p <.05.

Model 4

Results from the 2x4 ANOVA in table 7 below illustrate the significant effect of gender on counseling readiness, $F(1, 118) = 7.48, *p < .05$. Results demonstrate the non-significance of treatment on counseling readiness, $F(3, 118) = .166, p >.05$ and the non-significant interaction between gender and treatment (GT) on counseling readiness, $F(3, 118) = .702, p >.05$.

Table 7
2x4 ANOVA with the Interaction Term with Total Counseling Readiness Score as the Dependent Variable

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (G)</td>
<td>28.159</td>
<td>1</td>
<td>28.159</td>
<td>7.485</td>
<td>.007*</td>
</tr>
<tr>
<td>Treat (T)</td>
<td>1.869</td>
<td>3</td>
<td>.623</td>
<td>.166</td>
<td>.919</td>
</tr>
<tr>
<td>Gender*Treat (GT)</td>
<td>7.921</td>
<td>3</td>
<td>2.640</td>
<td>.702</td>
<td>.553</td>
</tr>
<tr>
<td>Error</td>
<td>417.592</td>
<td>111</td>
<td>3.762</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>455.249</td>
<td>118</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p sig. at <.05.
Marginal mean differences for gender in predicting total counseling readiness score are seen below in table eight. All other comparisons are non-significant.

Table 8
Marginal Means for Gender with Total Counseling Readiness Score as the Dependent Variable

<table>
<thead>
<tr>
<th>Gender</th>
<th>Readiness Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>8.22</td>
</tr>
<tr>
<td>Females</td>
<td>9.20</td>
</tr>
</tbody>
</table>

Model 3

Results from the ANOVA omnibus model in table 9 below indicate significance of the model, $F(5, 118) = 4.029$, *$p < .05$, at .002, when self-efficacy is entered as an independent variable in predicting counseling readiness.

Table 9
2x4 ANOVA Model with Self-Efficacy as the Independent Variable and Counseling Readiness as the Dependent Variable, without the Interaction Term

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Squares</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>68.87</td>
<td>5</td>
<td>13.775</td>
<td>4.029</td>
<td>.002 *</td>
</tr>
<tr>
<td>Residual</td>
<td>368.372</td>
<td>113</td>
<td>3.419</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>455.249</td>
<td>118</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*$p < .05$.

Predictors: Gender, Role-Play, Video, Literature, and Self-Efficacy

Model 4

Results below from table 10 illustrate the separate and significant t values for gender and self-efficacy in predicting counseling readiness, with the t statistic for gender significant, $t(1, 118) = 2.716$, $p < .05$ at .008; and the t statistic for self-efficacy...
significant, t (1, 118) = 3.383, p < .05 at .001. The fact that gender is significant rejects the eighth null hypothesis of the study, since there is a statistically significant association between gender and total readiness for counseling score.

Table 10
2x4 ANOVA Model without the Interaction Term, with Self-Efficacy Score as the Independent Variable, and Counseling Readiness as the Dependent Variable

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>5.085</td>
<td>.952</td>
<td>5.341</td>
<td>.000</td>
</tr>
<tr>
<td>Gender</td>
<td>.340</td>
<td>.236</td>
<td>.2716</td>
<td>.008*</td>
</tr>
<tr>
<td>Role Play</td>
<td>.924</td>
<td>.482</td>
<td>.061</td>
<td>.569</td>
</tr>
<tr>
<td>Video</td>
<td>.274</td>
<td>.482</td>
<td>.076</td>
<td>.714</td>
</tr>
<tr>
<td>Literature</td>
<td>.344</td>
<td>.482</td>
<td>.063</td>
<td>.586</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>.283</td>
<td>.007</td>
<td>.294</td>
<td>3.383</td>
</tr>
</tbody>
</table>

* p < .05.

Model 5

Frequency results below in table 11 illustrate greater differences between those subjects who indicated yes to no in seeking follow-up counseling in all three-treatment groups in comparison to the no-treatment, control group.

Table 11
Frequency results for follow up treatment by group

<table>
<thead>
<tr>
<th>Follow Up</th>
<th>Treatment Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Role Play</td>
</tr>
<tr>
<td>N</td>
<td>5</td>
</tr>
<tr>
<td>Y</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>
Model 5

The descriptive data in table 12 below supports the fourth general research question of the study, from chapter one, on whether or not gender, treatment, self-efficacy or readiness for counseling separately produce a statistically significant association in predicting likelihood to seek follow-up counseling. For example, group mean differences in readiness score are illustrated. A t test was also performed in order to determine significance between the two groups seeking follow-up counseling. The reported t value was significant, with t (117) = 6.85, a reported significance value of .0001, and p significant, less than < .05.

Table 12
Results Illustrating Mean Differences for R Score between Yes and No Group to Follow-Up Treatment with Counseling

<table>
<thead>
<tr>
<th>Variable</th>
<th>Follow Up</th>
<th>N</th>
<th>Lower CL Mean</th>
<th>Upper CL Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>R Score</td>
<td>N</td>
<td>33</td>
<td>6.38</td>
<td>7.05</td>
</tr>
<tr>
<td>R Score</td>
<td>Y</td>
<td>86</td>
<td>9.05</td>
<td>9.39</td>
</tr>
<tr>
<td>R Score</td>
<td>Diff (1-2)</td>
<td></td>
<td>-3.01</td>
<td>-2.33</td>
</tr>
</tbody>
</table>

Model 5

Summary results below in table 13, model 5, indicate significant differences between all three treatment groups and the control group in willingness to seek post-test, counseling follow-up, with $\chi^2 = .036$, $p < .05$, and the likelihood ratio (LR) = .036, $p <$
The likelihood ratio is similar to the F statistic and applied when the dependent or outcome variable is dichotomous. The fourth general question of the study, regarding whether or not any of the variables, gender, treatment, counseling readiness, or self-efficacy, predicts desire to seek follow-up counseling, is supported by the results on the next page in table 13.

Table 13
Summary Results of Chi-Squared Tests Predicting Likelihood to Follow-Up Treatment into Counseling

<table>
<thead>
<tr>
<th>CHI-SQUARE TESTS</th>
<th>VALUE</th>
<th>DF</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>8.519</td>
<td>3</td>
<td>.036*</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>8.120</td>
<td>3</td>
<td>.044*</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>119</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p <.05.

Model 5

Results in table 14 below illustrate the significance of treatment (T) in predicting desire to seek follow-up counseling, (T) for \( \chi^2 = 8.46 \), and \( p < .05, .0373 \). Gender (G) and the gender by treatment interaction (GT) are non-significant in predicting desire to seek counseling follow-up.

Table 14
Interaction, Logistic Regression Model with Gender and Treatment Type Predicting Desire to Follow-Up

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>( \chi^2 )</th>
<th>( Pr &gt; \chi^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (G)</td>
<td>1</td>
<td>0.49</td>
<td>0.4860</td>
</tr>
<tr>
<td>Treat (T)</td>
<td>3</td>
<td>8.46</td>
<td>0.0373*</td>
</tr>
<tr>
<td>Gender*Treat (GT)</td>
<td>3</td>
<td>1.58</td>
<td>0.6631</td>
</tr>
</tbody>
</table>

* p sig. at < .05
Model 5

Results from table 15 below illustrate the significance of both the treatment effect on all three treatment groups, (1, 2, 3) and total counseling self-efficacy score on likelihood to seek counseling, as a direct result of participation in this research study.

Treatment was significant with $\chi^2 (3) = 9.56, p < .05$. Total Counseling Self-Efficacy was significant with $\chi^2 (1) = 6.97, p < .05$. The gender by treatment interaction (GT) was not significant. Treatment remains significant in predicting follow-up when self-efficacy is added to the model, which is consistent with the lack of mediation by self-efficacy on treatment.

Table 15
Interaction Model with Self-Efficacy Predicting Follow-Up

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>$\chi^2$</th>
<th>Pr $&gt;\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (G)</td>
<td>1</td>
<td>0.42</td>
<td>0.5175</td>
</tr>
<tr>
<td>Treat (T)</td>
<td>3</td>
<td>9.56</td>
<td>0.0227*</td>
</tr>
<tr>
<td>Gender*Treat (GT)</td>
<td>3</td>
<td>1.29</td>
<td>0.7305</td>
</tr>
<tr>
<td>Self-Efficacy Total</td>
<td>1</td>
<td>6.97</td>
<td>0.0083*</td>
</tr>
</tbody>
</table>

* $p < .05$.

Model 5

Results from table 16 below indicate the significance of the three treatments compared to the control group, group 4, on desire to seek post-test, follow-up counseling.

The counseling role-play was significant at $\chi^2 = 6.35, p < .05$. The video treatment was significant in predicting follow-up at $\chi^2 = 3.93, p < .05$, and the literature treatment was significant at $\chi^2 = 3.93, p < .05$. 
Table 16
Interaction Model with Treatment Group (1, 2, 3) Predicting Post-Test Follow-Up

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Df</th>
<th>$\chi^2$</th>
<th>Pr &gt; $\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Role Play</td>
<td>1</td>
<td>6.35</td>
<td>0.0117*</td>
</tr>
<tr>
<td>2 Video</td>
<td>1</td>
<td>3.93</td>
<td>0.0474*</td>
</tr>
<tr>
<td>3 Literature</td>
<td>1</td>
<td>3.93</td>
<td>0.0474*</td>
</tr>
</tbody>
</table>

* p < .05.

Model 5

Results below in table 17 illustrate the significance of counseling readiness on treatment and post-test, follow-up, with R score significant at $\chi^2 = 36.18$, p < .05.

Gender (G), treatment (T), and the gender by treatment interaction (GT) remain non-significant when counseling readiness score is added to the model.

Table 17
Interaction Model with Counseling Readiness Predicting Follow-Up

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>$\chi^2$</th>
<th>Pr &gt; $\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (G)</td>
<td>1</td>
<td>1.02</td>
<td>0.3134</td>
</tr>
<tr>
<td>Treat (T)</td>
<td>3</td>
<td>6.97</td>
<td>0.0729</td>
</tr>
<tr>
<td>Gender*Treat (GT)</td>
<td>3</td>
<td>1.35</td>
<td>0.7180</td>
</tr>
<tr>
<td>R Score</td>
<td>1</td>
<td>36.18</td>
<td>0.0001*</td>
</tr>
</tbody>
</table>

* p < .05.

Results of Hypotheses Tests

Four different ANOVA Hypotheses tests hypotheses 1, 2, 3, 4, 5, 6, 7, and 8. The first model tested all 8 hypotheses, with gender, treatment, and their interaction entered as separate independent variables. Total self-efficacy was the dependent variable in ANOVA model one. The overall omnibus model was not significant in the first model, with F (7, 118), p > .05, significance level = .684. The second model tested the first seven hypotheses, with gender and treatment as the independent variables. Total self-efficacy
was the dependent variable. The overall omnibus model was not significant at F (4, 114), p > .05, with the significance level = .980. The statistical main effects for gender, role-play, video, and literature were not significant.

From table 10, the third model-tested hypothesis seven, by examining the interaction between gender and treatment, with self-efficacy as an independent variable in predicting prospective counseling readiness score. The overall model was significant at p < .05, = .007. The main effect for gender in the interaction model was significant at p < .05 = .007; the main effect for self-efficacy in the interaction model was significant with p < .05, = .001.

In the fourth ANOVA model without the interaction term included, hypotheses 1, 2, 3, 4, 5, 6, and 8 were examined with gender, treatment, and self-efficacy entered separately as independent variables; counseling readiness was the dependent variable. The overall model was significant at p < .05, with p = .002. Gender was significant as a statistical main effect at p < .05, p = .008; self-efficacy was a significant main effect at p < .05, p = .001. Follow up tests were also calculated to determine group differences between those who indicated yes to no to seek counseling within a year of the study as a result of their participation. The chi-squared value was significant at p < .05, with the p value = .036. The likelihood ratio was also significant, p = .004. Finally, from table 15, the follow up readiness, mean scores were also substantially higher than those mean scores of subjects that indicated no to follow up; lower mean scores in the no to follow-up group were 6.38, compared to those in the yes group of 9.05.

The following is a summary of hypotheses test results:

Hypothesis 1: There are no mean differences between the group 1 treatment
group, role play, and group 4, the no-treatment control group, for either self-efficacy or readiness for counseling. ANOVA models 1, 2, 3, and 4 tested this hypothesis and the results did not present statistical evidence to reject the null hypothesis.

Hypothesis 2: There are no mean differences between the group 2 treatment group, video, and group 4, the control group for either self-efficacy or counseling readiness. ANOVA models 1, 2, 3, and 4 tested this hypothesis and the results did not present statistical evidence to reject the null hypothesis.

Hypothesis 3: There are no mean differences between the group 3 treatment group, counseling literature group, and group 4 for either self-efficacy or counseling readiness. ANOVA models 1, 2, 3, and 4 tested this hypothesis and the results did not present statistical evidence to reject the null hypothesis.

Hypothesis 4: There are no mean differences between group 1, role-play, and group 2, video, for either self-efficacy or counseling readiness. ANOVA models 1, 2, 3, and 4 tested this hypothesis and the results did not present statistical evidence to reject the null hypothesis.

Hypothesis 5: There are no mean differences between group 1, role-play, and group 3, literature, for either self-efficacy or counseling readiness. ANOVA models 1, 2, 3, and 4 tested this hypothesis and the results did not present statistical evidence to reject the null hypothesis.

Hypothesis 6: There are no mean differences between group 2, video, and group 3, literature for either self-efficacy or counseling readiness. All four ANOVA models tested this hypothesis and the results did not present statistical evidence to reject the null hypothesis.
Hypothesis 7: There is no statistically significant interaction between gender and any of the treatment groups on either of the dependent variables. ANOVA model 1 tested this hypothesis. Gender was not significant in predicting self-efficacy, thus the null hypothesis was not rejected. However, ANOVA model 3 and ANOVA model 4 also tested this hypothesis, with gender significant in predicting counseling readiness in the omnibus, ANOVA model 3, at p = .007. Also gender was significant at p = .008 in ANOVA model 4, when including self-efficacy as an independent variable and counseling readiness as the dependent variable.

Hypothesis 8: There is no association between gender and treatment type separately, on either self-efficacy or counseling readiness. ANOVA model 4 tested this hypothesis and results present statistical evidence that the null hypothesis was rejected. In other words, female gender was significant when separately predicting counseling readiness, with a p value = .008, significant, at p < .05.

Summary

Since there was not an interaction between treatment and gender, the treatment effect did not vary as a function of gender in predicting either prospective counseling self-efficacy or counseling readiness. However, gender and self-efficacy predicted counseling readiness separately and this appears consistent with Sullivan and Mahalik (2000), Bandura (1997), Hardin and Yanico (1983) and Tinsley (1980). However, since the interaction between treatment and gender was not significant in this study, tables listing the marginal means only for gender were provided. Since added marginal means were not significant, additional pair wise comparisons were not made.

However, one interesting finding was the significance of self-efficacy on
counseling readiness. When self-efficacy was entered in the third and fourth ANOVA models as a separate independent variable, self-efficacy was significant in predicting counseling readiness. This finding is not surprising, since those participants with strong efficacy beliefs that counseling can help, would be more ready to motivate toward change of targeted, desired outcomes in counseling (Longo, Lent, and Brown, 1992; Longo, 1991). However, the partial correlation between self-efficacy and readiness, controlling for the effects of gender and treatment was somewhat lower than expected. This correlation was calculated at .30 and is lower than other correlations reported between these two variables (Longo, Lent and Brown, 1992; Longo, 1991). One possible explanation for this finding is that there may have been an indirect selection effect of willingness on readiness for counseling that was generated from the exclusionary criteria of the survey given to students prior to entering the study. By only selecting clients moderately high to high on willingness to discuss a personal problem of any nature in counseling, those not moderately high were excluded from the sample. Thus, by restricting the range of those prospective clients’ sampled on willingness to enter counseling, perhaps attenuation of the correlation between self-efficacy and readiness for counseling was indirectly produced.

With regard to follow-up procedures, there was no statistically significant interaction between gender and treatment on post-test counseling, nor was gender significant in separately predicting likelihood to follow-up. Further, chi-squared and logistical regression analyses from model 5 provided evidence that each of the three treatments, along with self-efficacy and readiness significantly influenced post-test, follow-up desire to seek counseling, when evaluated separately. However, although self-
efficacy remained significant in predicting follow-up when counseling readiness was added to model 5, the treatment effect became non-significant when readiness was added, thereby demonstrating the mediating effect of readiness or motivation for counseling on treatment, in seeking follow-up counseling.
CHAPTER 5
DISCUSSION

In this study, the researcher examined the effects of three different treatment methods on prospective client self-efficacy and readiness for counseling. The researcher sought to extend the line of social-cognitive theory (Bandura, 1986), specifically counseling self-efficacy, into counseling. A secondary goal of the study was to empirically test treatments designed to improve a client’s readiness for counseling, prior to initiating counseling. A third goal was to determine the impact of any of the variables, gender, treatment, readiness, and self-efficacy, on willingness to seek follow-treatment in counseling as a result of subject participation in the study. In this chapter, a summary of the study, a discussion of the results, the implications of the study for theory, research and clinical practice, the study’s limitations, and recommendations for future research will be presented.

Summary

This empirical study applied social-cognitive theory and related constructs of self-efficacy and motivation into the counseling domain. Client self-efficacy was operationally defined as the belief that counseling can help the prospective client successfully manage and persist through the counseling process, despite potential hardship or emotional pain that can be encountered in counseling (Longo, Lent and Brown, 1992). Prospective client readiness for counseling was defined as a prospective client having the motivation or desire to enter into counseling, ready to identify any
problem-behavior and being able to work toward resolution of the identified issue so that behavioral change may occur (Carbonari, 1990; McConnaughy et al., 1989).

Three different counseling treatments were created from the four theoretical components of self-efficacy: experiential learning, modeling, verbal feedback and emotional arousal. The first treatment group was subject to a counseling role-play in order to promote a positive, prospective experience of the counseling relationship. A role-play was designed to capture the experiential and affective components of counseling for prospective clients. The second treatment consisted of a counseling video, reflecting the vicarious, modeling aspect of self-efficacy. A counseling literature intervention captured the verbal and cognitive elements inherent to self-efficacy and social-cognitive theory (Bandura, 1986). All three treatments were compared and contrasted to a fourth, no treatment, control group. 119 randomly assigned participants composed the sample size.

Discussion of Results

The first general question of this study examined differences among any of the three treatment groups on the CSEBS and URICA, independent of gender, in comparison to a fourth, no treatment, control group. The CSEBS was created to capture a client’s self-efficacy for counseling. The URICA or change assessment instrument was designed to assess a prospective client’s readiness for change prior to entering into a pre-counseling treatment group.

The first null hypothesis specifically examined the relationship between treatment group 1 (counseling role-play) and group 4 (control). No significant treatment effect was found for either measure. One interpretation of this result is since self-efficacy is relatively stable once established, perhaps the treatment effect was not potent enough to
modify the counseling self-efficacy of prospective clients. Another possibility is that subjects were not exposed to the treatment long enough to modify pre-existing efficacy beliefs (Bandura, 1997). Thus, given the time constraints of each treatment, the challenge and difficulty of modifying efficacy beliefs once formed appears supported. In addition, due to the relatively strict exclusionary criteria for entrance into the study, it is possible that efficacy and readiness for counseling were already high, thus less likely to reveal a treatment effect beyond the control group. Regarding self-efficacy specifically, since the construct is composed of different theoretical components, one could argue that the construction of three treatments from each separate theoretical component (experience in the role-play, vicarious learning and modeling in the video, and feedback in the literature treatment) did not significantly increase self-efficacy as a whole. One explanation is that treatments designed to improve self-efficacy need to account for all of its theoretical components simultaneously. Dividing the construct into its separate components and then testing each component to others appears relatively non-significant with regard to statistical power.

Since no significant treatment effects were found between any of the three treatment groups, all results from this section of the data analysis support the eight null hypotheses of the study. It is concluded that due to the incorporation of relatively strict exclusionary criteria to approximate real clients to enhance the external validity of the study, the probability of detecting treatment effects were minimized.

Gender results were mixed for both dependent variables. Interestingly, with regard to general question two and hypothesis seven, there was no significant treatment by gender interaction in either the first or third ANOVA models on either dependent
variable, prospective counseling self-efficacy or readiness for change. Thus it is concluded that gender had no significant effect on treatment. However, regarding hypothesis eight, there was a significant effect for female gender in predicting higher readiness scores, without the treatment interaction.

The significance of female gender on readiness was expected. Longo (1991) reported the significance of gender on motivation in predicting client attrition. Hardin and Yanico (1983) and Tinsley (1980) showed how client expectations and gender are linked to motivation. Perhaps the effects of socialization on women render them more likely to disclose the need to seek help over men in counseling and other relational, help-seeking contexts.

Similar to motivation, results of gender on self-efficacy have also been inconsistent. Sullivan and Mahalik (2000) showed the significance of female gender and efficacy on career development in women. Pajares and Miller (1994) demonstrated greater gender differences in efficacy relating math performance to men. Hackett and Betz (1992) showed gender differences in career choice among women. However, the non-significance of gender in predicting self-efficacy has also been documented (Schaub and Tokar, 1999; Longo, Lent and Brown, 1992). Thus, results from this study suggest that the variance of gender results must not be considered independently from contextual influences and related variables that govern the construction and design of any study.

The third and fourth ANOVA models examined the independent variables in predicting readiness, both with and without the interaction term between gender and treatment. Self-efficacy was also entered as a third independent variable to determine significance in predicting counseling readiness, (p = .001 and < .05, t (1, 118) = 3.383).
Certainly this finding is expected, since participants believing that counseling can help them would be more motivated and ready to seek counseling prior to treatment. In addition, the partial correlation calculated between counseling self-efficacy and readiness, controlling for the effects of gender and treatment was calculated at .30. This correlation of .30 demonstrates the moderate to low strength of relationship between self-efficacy and readiness in this study. One interpretation of this result is that since treatment and gender were non-significant in their interaction in predicting prospective counseling readiness, then controlling for the effects of gender and treatment did little to strengthen the correlated relationship between self-efficacy and readiness. Another possibility is that the URICA instrument is designed to tap client readiness for change prior to counseling. In this study, it was used to evaluate readiness for pre-counseling treatment not actual counseling treatment. Since the instrument was constructed for clinical settings and not with prospective clients, perhaps this explains the lower than expected correlation between readiness and efficacy.

The fifth model utilized a logistical regression and chi-squared procedure to evaluate the influence of gender, treatment, self-efficacy and readiness in predicting follow-up. After completing the treatments, all participants in the four groups were surveyed and asked to rate whether or not they would seek counseling due to their participation in the study. Thus, the fourth general question of the study asked whether any of the variables of the study, gender, treatment, self-efficacy or readiness for counseling, would significantly predict follow-up counseling. Gender was the only variable not significant in predicting follow-up.

86 out of 119 or (72%) said yes to having a desire to seek follow-up counseling.
However, neither gender nor the interaction between treatment and gender were significant in prediction of follow-up. Yet treatment alone was significant on those likely to seek follow-up counseling, with p< .05, p = .0373. One interpretation is that any of the treatments had some impact on prospective clients’ desire to seek follow-up counseling as a result of their participation in the study, beyond the control group and independent of gender. Such results would support the prior contention that gender tends to produce mixed results in different studies. In addition, it appears that any of the three treatments when applied to prospective clients already moderately high in readiness and efficacy had a significant effect in predicting likelihood to seek post-test counseling.

Each of the treatment groups were significant, with treatment group 1, role play, the most significant of any of the three treatments, p< .05, p = .0117. Treatment group 2 (video) was significant in predicting follow-up desire for counseling treatment, with p< .05, p = .0474. Treatment group three (counseling literature) was significant, with p < .05, p= .0474. One possibility is that the role-play treatment simulates the experiential and affective components of the counseling relationship more directly than the video or literature treatment, although those treatments as well were significant and equal in their treatment effect, beyond the control group.

Readiness for counseling also was significant regarding follow-up, with readiness score, p<. 05, .0001. Readiness for counseling mediated the treatment effect on follow-up, rendering treatment non-significant. When readiness score for counseling was entered into the fifth model, treatment became non-significant, with p >.05, p = .0729. One interpretation is that high scores on readiness or motivation for prospective clients entering pre-counseling treatments may override the impact of treatment in predicting
desire to seek follow-up counseling, once the pre-counseling intervention has been selected. In other words, perhaps the statistics demonstrate the relative impact of readiness for pre-counseling as much as readiness for counseling. For instance, if scores are moderately high when beginning treatment, than higher readiness scores in comparison to lower scores controls for the effects of any significance or differences between treatment in predicting desire to seek follow-up counseling, beyond the control group.

**Theoretical Implications of the Study**

The significance of theoretical stages of change models (Prochaska, 1992; Carbonari, 1990) incorporating counseling readiness as an independent variable in predicting likelihood to seek follow-up treatment is consistent with other longitudinal studies in this domain (Isenhart, 1997; DiClemente, 1990). Specifically, the transtheoretical stages of change model postulated by Prochaska (1992) suggests that clients in more advanced stages of readiness are more likely to persist with treatment goals and follow-up care once treatment is completed. Likewise, results from this study remain consistent with Prochaska’s (1992) conclusion that clients in more advanced stages of change are more likely to achieve counseling goals and seek follow-up care once counseling is completed. Such a conclusion is also consistent with the exclusionary criteria utilized in this study since more motivated students were used to begin the study. Thus the implication is that the majority of those students would be more likely to seek follow-up care. Further, Isenhart’s (1997) regression models predicting AA sponsorship following treatment illustrates how client stages to change are congruent with behavioral phases to change. For example, clients in maintenance and action phases of change are more likely to seek post-treatment than clients in denial or ambivalent stages of
precontemplation or contemplation, respectively.

Interestingly, when total counseling readiness score was entered into the fifth model to analyze the treatment effects on follow-up, the treatment effect became non-significant. The mediating effect of readiness on treatment and not self-efficacy on treatment contrasts with social-cognitive theory. Social-cognitive theory predicts that self-efficacy mediates the effects of motivation and related constructs on performance outcomes (Bandura, 1997; Pajares and Miller, 1994). However in this study, self-efficacy remained significant in predicting likelihood to seek follow-up counseling when total counseling readiness score was added to the fifth model. This finding illustrates the lack of mediation of efficacy on readiness in predicting follow-up.

Another theoretical implication of this study involves path analysis research. Most path analysis research on efficacy and motivation has been done in academic contexts outside of counseling (Bandura, 1997; Miller and Pajares, 1994). One suggestion for future research would be to replicate this study doing a path analysis between efficacy and readiness in predicting follow-up, specifically examining the theoretical role of how efficacy mediates the effects of gender, treatment and readiness in counseling. Further, distinguishing performance motivation in counseling, separate from other contexts might be helpful in illuminating specifically how social-cognitive constructs contribute to direct and indirect mediating pathways on clinical outcomes. Such research could be a promising avenue toward empirical validation of the theoretical pathways of these two variables in counseling. Lastly, as mentioned in chapter one, most of the research on self-efficacy and motivation relates to attrition in substance-abusing populations. This study empirically validates and illuminates the specific role of social-cognitive theory and its
related constructs, specifically self-efficacy and readiness for counseling as a function of motivation, for application into the counseling domain in predicting follow-up in a non-clinical population.

**Clinical Implications of the Study**

This study has two primary clinical implications regarding client readiness and self-efficacy for counseling. First, with regard to readiness, the fact that readiness scores mediated the effects of pre-counseling treatment on desire to seek follow-up counseling suggests that treatment selection during counseling becomes relatively independent of client desire to seek follow-up care. Related to self-efficacy, results also confirm Bandura’s (1997) writings, as the construct appears clinically stable and uniform once established. Thus, the clinical implication is if clients have positive efficacy beliefs and are high in readiness to begin pre-counseling treatment, then those beliefs and high readiness will remain consistent into follow-up care. Therefore, it appears imperative that counselors assess for client strength of readiness and efficacy beliefs as early as possible in the counseling relationship in order to determine if and how clients will initiate, engage, and persist with counseling and follow-up care.

The second clinical implication of this study directly relates to treatment. Of the three treatments, the role-play treatment had the greatest impact on desire to seek follow-up care. The video and literature group were equal but secondary in their respective significance in predicting follow-up. Such results are consistent with results from other studies. For instance, Larson (1998) evaluated the influence of a counseling role-play on practicum students in comparison to those who watched video. Participants in the role-play groups increased their counseling self-efficacy scores by almost one-half of one
standard deviation compared to the video group. Further, Bandura considered personal and prior experience (1997) to be the most influential source of self-efficacy development, above and beyond other theoretical components of efficacy. Considering the effectiveness of role-plays at simulating the positive and experiential benefits of counseling while increasing participant self-efficacy in a variety of helping related contexts (Alexander, 1999; Larson, 1998; Williams and Hall, 1988; Twentyman, 1979), the significant finding of the role-play treatment on willingness to seek follow-up counseling was expected. In addition, it is possible that the positive and experiential impact of counseling from one counseling session or involuntary counseling appears more likely to generate a positive follow-up response than either the vicarious component of video or the cognitive influence of literature on prospective clients. However, any of the three treatments were significant above and beyond the control group. The fact that the video and literature treatment groups were equally significant on students likely to seek follow-up counseling demonstrates the relative worth of either intervention. Thus even the use of simple videos or brochures to educate prospective clients to the counseling process appears helpful in the initial and earliest stages of counseling.

Another clinical implication of this study to emerge from the analysis was that creating treatments that isolate the various components of self-efficacy may be misguided and may indeed have contributed to the non-significance of the treatments on both dependent variables. By dividing the construct into its separate components, perhaps something in the translation is lost when converting each component of efficacy into one separate treatment. In other words, the whole of the construct appears greater than the sum of its parts and perhaps future treatments in studies need to reflect this possibility.
However, there appear two remedies for this situation. One possibility is to redesign the three treatments used in this study into one treatment, combining all elements of the construct and thus investigating only two groups, one treatment and one control group. Or secondarily, one could recreate the study as it is, but include an additional treatment group and then compare and contrast results from other treatments restricted to one isolated component of the construct to one treatment group that combined all parts of the construct. Thus, from this modification in design, there would be four treatments, not three. One treatment would isolate the experiential component of efficacy and be compared with another treatment with the modeling component and to another treatment with the feedback aspect of efficacy included. The fourth treatment would combine all four factors of the construct. All four-treatment groups could then be compared to a fifth, no treatment control group.

However, the critical implication of this study is that clinical assessment of prospective client efficacy and readiness would appear more important to a favorable counseling outcome than specific choice of intervention applied during counseling. Again, one possibility is that the relatively strict exclusionary criteria in this study helped to funnel prospective clients into this study that were already moderately high in levels of efficacy and readiness. Thus, in the final analysis, results from this study suggest that if clients are motivated to begin counseling and possess moderately high efficacy beliefs, than treatment selection or intervention appears relatively independent of outcome.

Limitations of the Study

This dissertation is an analogue study. As a result it is limited in its external validity (Heppner, 1989). Although those that volunteered for participation in the study
were randomly assigned to treatment, the results must be weighed against the relatively narrow definition of a college-age population, considering variables of age, gender, and race. Consequently, the reader's ability to apply the results to the general population is limited. Further, the fact that student participants were identified as prospective clients and not actually "real" clients reduces extrapolation and external validity of the results to a true, "client" population. Yet the use of the initial survey to approximate "real" clients attempted to compensate for this phenomenon.

Another concern that might limit this study concerns the student population sampled. For instance, the reader may wonder if this study specifically generalizes to the clinical field from the analogue situation that was investigated. However, it is argued that the majority of students taking classes from personal growth and counseling related fields from which they were sampled helped to approximate a true client population while simulating the variance in prospective client response to each of the three, separate treatment groups.

The advantages of analogue research are well documented. By doing research in laboratory university settings, the internal validity of the study is usually enhanced and tightened between the independent and dependent variables due to greater experimental control over subjects and levels of independent variables (Heppner, 1989). Another advantage to analogue research is that the researcher is not overly concerned with conflicts of interest and confidentiality that can exist between client and clinical researcher (Kazdin, 1978). Third, analogue research typically does not have the issues with client attrition that can often plague research in clinical settings (Mennicke et al., 1988).
A final limitation of the study is that although the reliability and validity of the URICA measure is relatively high, the original version of the instrument was normalized against a substance abusing population, quite different from the sample in this study. Although the authors of the URICA suggested that the instrument is reliable and valid for measuring readiness for change of any problem behavior, perhaps the results from this study are interpretable as preliminary rather than confirmatory of the measure's reliability and validity when administered in contexts outside of substance abusing populations. In addition, since the URICA emerged from transtheoretical perspective there may be some questions regarding translating measurement of a circular model to that of linear research and analysis. For instance, the means of the URICA were calculated by adding the contemplation, action and maintenance scales and then subtracting the precontemplation mean to obtain a mean readiness score for each prospective client. Such a process to determine an overall readiness score would appear linear and not circular, raising questions about the translation of circular models into linear, research methodologies. Rest et al. (1999) has helped to clarify the link between doing research with stage models to that of linear problem-solving models. Rest et al. (1999) has empirically investigated the structure and development of morality to help clarify this link between stage model research to linear modeling methods.

Another limitation of the study is that the CSEBS, or the client self-efficacy behavior scale was a novel measure and has only been used in three prior studies (Sutton, 1998; Longo, Lent and Brown, 1992; Longo, 1991). Future studies utilizing both instruments would only enhance its statistical reliability and validity. Lastly this study appears limited in its sample size and design.
Research Implications

Implications for future research in this area illustrate the need for similar studies with greater sample sizes, different models, and modifications in design. For example, the use of a pre-test incorporated as the covariate into an ANCOVA model would increase statistical power beyond an ANOVA model by enhancing detection of significance between treatments and gender in the prediction of dependent variables.

Daniels (1997) empirical study illustrates the increase in power provided by an ANCOVA model to detect similar treatment effects, with a sample size of only forty-five. In that study, prepracticum counseling students were randomly assigned to two counseling, role-play groups. After performing the role-play, one group was given positive feedback regarding their performance; the second group was given negative feedback about their performance. With three covariates controlling for pretest anxiety, self-evaluation, and counseling self-efficacy, counseling students from the first group that received positive feedback on performance demonstrated much higher scores on post-test counseling self-efficacy scores. Not only do these results demonstrate the influence of feedback on self-efficacy but this study also reveals how much more statistical power is provided to detect treatment effects with an ANCOVA model.

Future Recommendations for Research

Research directions from this study are twofold. One, future replication of this study is warranted with greater sample size and data analysis incorporated into an ANCOVA model. Such a model could incorporate pretest results as a grand mean on the covariate between all treatments groups and the control group. Incorporation of the covariate controls for both individual and group differences prior to treatment while also
highlighting increased estimation of differences in treatment effects. In addition, due to more precise estimation of treatment effects in an ANCOVA model, the overall power to detect statistical significance among dependent variables could be improved due to a reduction in the standard error of estimate. Additional correlations provided by an ANCOVA model between pretest and posttest performance would be useful to examine as well. Thus future replication of this study might include a pretest measure of both readiness and efficacy as two covariates in lieu of a survey that incorporates relatively strict exclusionary criteria.

However, a survey utilized for exclusionary criteria purposes could still be used as a future covariate in a related ANCOVA study. Plus, using a survey to approximate client interest on social-cognitive variables of efficacy and motivation increases the external validity of the study to the general population. But the use of a survey needs to be carefully weighted against the value of detecting treatment effects. By not using relatively strict exclusionary criteria, future analogue studies in this area could also incorporate students from non-clinical populations with greater numbers of participants lower in readiness and efficacy. Such participants might be more likely to illustrate treatment effects designed to increase readiness and efficacy for counseling. One remedy to this problem would be to examine the inter-item correlations from the CSEBS and/or URICA and embed those items structurally into a pretest and then use the pretest as a covariate, one for each variable studied. Such embedded language into a pretest survey might disguise potential reactive effects to treatment that can be generated from a pretest.

The second important implication for future research from this study is that most
path analysis research has been done outside of counseling. Future path analyses examining the mediating role of efficacy on readiness for counseling prior to initiating treatment would be helpful in clarifying direct and indirect relationships between social-cognitive variables during the assessment phase of counseling. Such studies would also help to clarify theoretical distinctions and measurement issues between readiness and motivation for counseling in general counseling populations apart from substance abusing populations and studies specifically related to attrition.

In conclusion, this analogue, empirical study illustrates the crucial need for counseling professionals to pay particular attention to efficacy beliefs about counseling and client readiness to change early in their clinical assessment of client potential and aptitude for counseling success. Specifically this study empirically validates and further extends the importance of social-cognitive theory and its related variables, self-efficacy and motivation, as a derivative of readiness for change among prospective clients seeking counseling.
APPENDIX A
INFORMED CONSENT

Dear Student:

I am a doctoral student in counselor education at the University of Florida. My supervisor of this research project is James Archer, Jr. Ph.D., professor in the counselor education department. I am conducting a research study to examine student attitudes toward counseling.

Participation in this research project involves the completion of two measures/questionnaires. You do not have to answer any question you do not wish to answer. Your total participation should last about one hour. Any inquiries regarding this study should be directed to the phone number and address of the principal investigator below, the research supervisor or the UFIRB, University of Florida, Institutional Review Board.

As part of this study, you may be asked to act in a counseling scenario, watch a counseling video, or read literature on counseling. You also may be asked to complete a short quiz to ensure that you read and understood the material.

To protect your confidentiality, a code number will be used to identify participants. The names of participants will not be used in any fashion. There will be no monetary compensation for participation in this study. There are no physical risks involved in this research. Benefits may include extra credit at no more than 2% of your total grade, to be offered at the discretion of your instructor. Participation in the counseling scenario, the viewing of the video or reading counseling literature may provide a minimal level of anxiety and emotional discomfort.

Student counseling services can be provided by contacting the University Counseling Center at 392-1575. If you have any questions about this research, please contact me at (352) 337-2971 or my research supervisor, Dr. Jim Archer at (352) 392-0731, ext. 231; the address for both the principle investigator and the research supervisor is 1215 Norman Hall; Box 117046; University of Florida, Gainesville, Florida; 32611. Questions or concerns about your rights pertaining to this study should be directed to the UFIRB office, University of Florida, Box 112250, Gainesville, Florida, 32611, (352) 392-0433.

My signature below indicates that:

1. The nature and purpose of this research has been explained and that I have been given the opportunity to ask any questions regarding my participation.
2. I understand that this investigation is used for educational purposes, which may include publication; your identity will be kept confidential to the extent provided by law.
3. I understand that participation in this research study is voluntary and that I may withdraw my consent at any time or discontinue participation in this study without consequence.
4. I understand that I will receive a copy of this informed consent form.

Signed: ___________________________ Date: ___________________________
APPENDIX B
ROLE-PLAY SCRIPT

You are 20 years old. You are an only child. You live with two friends in a small apartment off campus. You are aware that your mother and father have a stormy relationship; when you visit them you notice that their arguments appear to have increased in frequency. There seems to be more yelling in the house. You care deeply for both of them and feel increasingly pressured to take sides in their arguments.

Lately, your father has been drinking more. Since your father left the house one week ago in a fit of anger, you have not seen him since. You are increasingly concerned about the welfare of your mother and how you may have to cope without your father’s income if he leaves the family permanently.

Since your father left, you notice your mother appears more controlling; she appears to discourage your independence. She desires that you visit her more often. You also notice that you and your mother appear to fight more too; and the more you fight, the more you wish to stay away from her. You simply wish that your dad would return home and that he and your mom would make up.

Your only real confidant in your family is your grandmother, your father’s mother who lives in an apartment down the street from you. She however, has terminal cancer, and only has a few months to live. You wish to spend more time with her yet feel angry over how she appears to tease her son, your father, about his drinking. Although you do not miss your father’s yelling, you do wish he were around more. You feel obligated to defend him. Your conflict is extended between desiring to spend more time with your grandmother (after all she is deteriorating and you are scared to lose her), yet you also yearn for more independence and autonomy in college, away from your family and its pain.

Noting that your grades have begun to slip, while your friends report that you seem “distant” and “upset”, your increasingly troubled and confused emotional state leaves you wondering what options you have. A friend recommends that you see a counselor and share your concerns with her. Feeling alone and stressed, you agree with your friend to see a counselor.
APPENDIX C
VIDEO SCRIPT OF ROLE PLAY

Hello; thank you for participating in this research study; the purpose of this video presentation is to provide you with some general information regarding what counseling involves, what it can provide to you as a potential client, and how it can empower you to better manage and improve personal areas of your life.

You will witness two counseling sessions in the video; the first session will introduce you to the client and counselor and to the client’s identified issues. The second video segment will capture counseling in the third session, focusing on counseling methods to help the client improve their current life situation. The video will last approximately 10-15 minutes in length. You have been advised that you may experience a minimal or mild amount of emotional discomfort when watching the video. The role-play of the counselor will include highly skilled listening, empathy, and general support of the client situation.

Observed on Video

You are 20 years old. You are an only child. You live with two friends in a small apartment off campus. You are aware that your mother and father have a stormy relationship; when you visit them you notice that their arguments appear to have increased in frequency. There seems to be more yelling in the house. You care deeply for both of them and feel increasingly pressured to take sides in their arguments.

Lately, your father has been drinking more. Since your father left the house one week ago in a fit of anger, you have not seen him since. You are increasingly concerned about the welfare of your mother and how you may have to cope without your father’s income if he leaves the family permanently.

Since your father left, you notice your mother appears more controlling; she appears to discourage your independence. She desires that you visit her more often. You also notice that you and your mother appear to fight more too; and the more you fight, the more you wish to stay away from her. You simply wish that your dad would return home and that he and your mom would make up.

Your only real confidant in your family is your grandmother, your father’s mother who lives in an apartment down the street from you. She however, has terminal cancer, and only has a few months to live. You wish to spend more time with her yet feel angry over how she appears to tease her son, your father, about his drinking. Although you do not
miss your father's yelling, you do wish he were around more. You feel obligated to
defend him. Your conflict is extended between desiring to spend more time with your
grandmother (after all she is deteriorating and you are scared to lose her), yet you also
yearn for more independence and autonomy in college, away from your family and its
pain.

Noting that your grades have begun to slip, while your friends report that you seem
"distant" and "upset", your increasingly troubled and confused emotional state leaves you
wondering what options you have. A friend recommends that you see a counselor and
share your concerns with her. Feeling alone and stressed, you agree with your friend to
see a counselor.
APPENDIX D
COUNSELING LITERATURE

Essentially, counseling helps people cope and handle problems of an emotional and stressful nature. People tend to have a general ideal of what areas of their lives they would like to improve, but they may have difficulty knowing how to make that positive, first step in resolving emotional problems that tend to leave people feeling stuck.

The counseling experience can help you develop new learning and new self-awareness while helping you build an increased understanding of your specific strengths and weaknesses.

Counseling is a professional relationship between a professional counselor and a client. The hallmark of a counseling relationship is the confidentiality shared between counselor and client. This allows clients to freely and openly express themselves in a safe manner. Confidentiality also expands the lines of communication where previous shame or embarrassment may have existed for the client. Such genuine, honest, open communication between counselor and a client helps to build trust, the cornerstone of any relationship, personal or professional.

The counselor/client relationship differs in important ways from that of a doctor/patient relationship. In counseling, the counselor serves more as a skilled listener, rather than advisor. Further, it is normal to have doubts about the effectiveness of the counseling process. However, the client should attend more than one session and discuss his/her concerns with the counselor before deciding whether or not to continue in counseling.

Progress in counseling is not always consistent, nor does progress tend to occur right away. Counseling can be a lot of hard work and entails often working through stressful emotional material. Thus, clients may continue to experience difficult periods during counseling. However, this does not mean the counseling process is not working. To make positive, long-lasting changes, one should plan and commit to attending more than one session. Most clients who commit to and actively participate in counseling find that counseling can help them feel less stressed while leaving them feeling empowered to set and achieve positive, personal goals.
Jim is 20 year-old, junior, at the university. He was referred to the counseling center by the dean of the college for two mandatory counseling sessions; he reported that he had consumed 12 beers over a four-hour period. To Jim, this amount of alcohol did not seem like much to consume. After all, he was used to drinking that much on an empty stomach. However, last Saturday evening, after some commotion in the residence hall, the residence assistant was notified. Upon arriving at the scene to investigate, the resident assistant saw Jim vomiting over the stairwell in the fire escape. The residence assistant notified Jim that he would be written up for abusing the college alcohol policy and that he would have to attend counseling for two sessions.

Jim was anxious during his initial meeting in counseling. He appeared quite mystified about the nature of counseling and how specifically it could help him cope with this embarrassing incident. Although Jim felt ashamed and frustrated that he drank so much that it led to his vomiting, Jim was also blamed the residence assistant. Jim felt that the resident assistant was too quick and judgmental in writing him up, while violating his right to privacy.

Counseling involved providing a safe forum for Jim to express his thoughts and feelings over the incident; Jim’s counselor and he also explored the relationship between choice and consequence, freedom and responsibility. The counselor was able to help Jim understand that part of becoming an adult is accepting and owning one’s responsibility for one’s behavior. Counseling also explored the social context in which his drinking had occurred, in order that Jim might understand how peer influences may have contributed to his over consumption of alcohol. In the final analysis, after two sessions, Jim assured his counselor that the event was an isolated one, and that it would not occur again. Counseling appeared to help provide Jim some insight into his behavior, and that he would not want to do anything reckless that could potentially jeopardize his bright future at the university.

Karen is an 18 year-old freshman at the university; she is an only child. She presented at the university-counseling center, with symptoms of depression. She reported having difficulties concentrating on her schoolwork, has had trouble making new friends, has problems sleeping, and has little appetite. She stated her hurt and concern over her parents impending divorce. She is angry that her parents are making her feel this way yet she does not feel safe in telling either one of them exactly how she feels. Karen feels very alone and confused.

Counseling involved getting Karen to explore her thoughts and feelings over her parents divorce and how such feelings may contribute to her current feelings of depression. Being able to discuss such intimate, emotional material in a safe, non-judgmental forum has allowed Karen to slowly open herself in session by trusting an authority figure. Developing trust has allowed Karen to become more comfortable with
her ability to talk confidently about her parents and her feelings for them. As a result of being more open, Karen feels more comfortable and free being herself with others. After eight weeks of counseling, she has been able to meet more friends, and consequently feels less isolated. She also feels less dependent upon her parents for them to express and validate her own feelings. Karen’s symptoms of depression have appeared to lessen in severity. In counseling, Karen is learning to emotionally care for herself for the first time in her life. She is beginning to understand that her parent’s relationship is not a personal reflection of herself. Counseling has left Karen feeling truly liberated and understood for the first time in her life.

Nicole had just been unexpectedly dumped into a crisis. Her partner of four years at college just left her. Since her father was a professor in the counseling department, he recommended that Nicole go see a counselor. Nicole alternated between crying and rage over the situation. One minute she wanted him back, the next she wanted to pull his hair out. “How could my partner do this”, she thought. After four weeks, she thought she would give counseling a try; after all, what did she have to lose. She even had a close friend recommend counseling too.

When the counselor asked Nicole what her goals were for the first few counseling sessions, Nicole responded angrily that she simply wanted her old life back, her friends, her confidence as a student, her ability to concentrate on gymnastics but without the pain. She was ready and committed to move on with her life. By focusing on positive solutions in counseling, Nicole was able to simultaneously grieve the loss of her old relationship while working toward her promising future. Her counselor was able to help Nicole realize that she had choices: choices to move on, choices to hang out with her friends, choices to start over. Over time, in counseling, Nicole was able to realize that she was fine just the way she was. She was truly ok with just being herself; she had never known this feeling outside of a serious relationship. Nicole was able to empower herself over her new found sense of autonomy; counseling had definitely helped her become more confident and hopeful regarding her future.
APPENDIX E
COUNSELING BROCHURE

As part of research group #3, assigned participants will be asked to read various components of counseling literature. One aspect of the literature provided in the study is a brochure summarizing the counseling process for clients.

The brochure includes how counseling can help one identify signs of stress, including feeling overly anxious, being nervous, not being able to concentrate, getting sick more than often, having trouble concentrating, feeling depressed or overwhelmed.

The brochure then goes on to mention how counseling can help one manage stress levels, while identifying that some stress is actually good to keep us motivated. However, it is also mentioned that too much stress can leave us feeling hurried, rushed, anxious, tired or even ill.

Further, the brochure suggests how counseling can further aid one in understanding the roots of stress: feeling too busy, daily pressures of work/school, social problems, struggles with personal identity, sexual concerns, financial problems, etc.

It is also illustrated how counseling can help one identify what one can control and what one cannot, like one’s parents getting a divorce. The brochure stresses the commitment needed to succeed in counseling, by highlighting that most clients who commit to and actively participate in counseling find that the counseling relationship can help them feel less stressed and troubled, while empowering them to set and achieve personal, and positive goals.

Finally, three important points of the counseling process are identified as well: first, various aspects of the professional relationship between counselor and client are covered; second, how it is normal for clients to have doubts about the counseling process, and third, how progress for clients is not always steady nor does progress occur right away.
Title: 10 Steps on How Counseling can help you cope with the stress of being in college

1. Counseling can help you manage and cope with your stress levels.
   - Some stress is actually good; it helps you stay motivated and focused
   - But too much stress can leave you feeling tense, hurried, anxious and tired.
   - Sometimes, people try to cope with stress that make it worse, like using alcohol, tobacco, or other drugs,

2. Counseling can help you identify what stresses you out. Some things that cause stress are:
   - Feeling too busy
   - Not having the time to get what you need done
   - Coping with the daily pressures of work and school
   - Problems with family
   - Conflict with friends, boyfriend, girlfriend, partners
   - Struggles with personal identity, fitting in
   - Sexual, ethnic, racial concerns, issues, identity
   - Financial problems

3. Counseling can help you recognize the signs of stress, which include:
   - Feeling anxious
   - Not being able to concentrate
   - Forgetting important things
   - Getting sick more than usual
   - Using alcohol, or other drugs
   - Feeling depressed or overwhelmed

4. Counseling can help you identify what you can control and what you cannot
   - Some things that cause stress are easy to change; for instance, if you tend to forget your homework, you can make yourself a reminder to put it in your backpack the night before
   - Of course, you cannot always change things like getting the flu, having a cold, preventing your parents from getting a divorce, but counseling can help you manage and cope through stressful times.

5. Counseling is a learning process; the goal is to help any client cope and manage their problems more effectively.
6. The relationship between counselor and client differs in important ways from that of doctor and patient or social friendships. In counseling, the counselor tends to act more like a skilled listener, rather than give advice. In addition, counseling helps you prioritize what you want to do with your life, while empowering you from choice in how to manage and handle your problems.

7. It may take some time to get used to counseling. It is normal at times to have doubts about the counseling process; however, one should stay in counseling a few times and discuss these concerns with their counselor before making a decision to not attend.

8. Clients may experience difficult periods while counseling; clients may be tempted to skip their appointments. To make positive, long-lasting changes, one should continue to attend even when things are difficult.

9. Progress in counseling does not always occur right away, nor is progress often steady.

10. Most clients who commit to counseling for a few sessions and are willing to actively participate find that counseling can help them feel less stressed and troubled while empowering them to pursue personal goals in their life.

In a 1994, national consumer reports survey, over 4000 adults who had sought professional counseling the previous year, were surveyed about their attitudes toward counseling. 54% said that counseling helped significantly with the management of personal issues in their life, while an additional 33% said that counseling helped them to some extent. (Consumer Reports, November 1995)
APPENDIX F
COUNSELING QUIZ

Treatment group #3; Counseling Literature

1.) From the brochure, please list four signs of stress below.

2.) Counseling helps you identify what you can control in your life by helping you do what?

3.) How is the counseling relationship different from that of the doctor/patient relationship?

4.) From the three case studies you read, how did counseling help Jim?

5.) Over time, Karen felt safe to openly discuss emotional material in counseling; feeling safe in session with her counselor gave Karen the ability to do what?
APPENDIX G
SURVEY

Please circle your gender: male or female

For the following statement below, circle the number on the 5-point scale that best reflects how likely you would be to seek counseling if you had a personal problem of any nature.

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Please list name, e-mail address, home phone number, and check all times you are available to meet for the study.

Name: _____________________________________________

E-Mail: ________________________________________

Home Phone: ____________________________________

The study will be conducted in Norman Hall. Further information regarding the specific location in Norman Hall and the time of the study will be provided to you in the near future by E-mail or phone.
APPENDIX H
IRB FORM

1. TITLE OF PROTOCOL: An Examination of Pre-treatment Strategies on Prospective Client Self-Efficacy and Readiness for Change in Counseling.

2. PRINCIPAL INVESTIGATOR:
David K. Cox, Ph.D. candidate; 5517 SW 69th Terrace; Gainesville, Florida; (352) 337-2971 home; (352) 372-0294 office; (352) 339-7776 pager; (352) 377-8714 fax

3. SUPERVISOR: (If PI is student)
James Archer, Jr. Ph.D.; Professor; Department of Counselor Education, College of Education, 1215 Norman Hall; Gainesville, Florida; (352) 392-0731; iarcher@coe15.ufl.edu

4. DATES OF PROPOSED PROTOCOL: April 1, 2002 to March 31, 2003

5. SOURCES OF FUNDING FOR THE PROTOCOL: No external funding.

6. SCIENTIFIC PURPOSE OF THE INVESTIGATION:
The purpose of the study is to determine if different pre-treatment strategies in counseling (role-play, video observation, counseling literature) statistically influence a prospective client's self-efficacy and readiness for change in counseling, compared to a no-treatment, control group.

7. DESCRIBE THE RESEARCH METHODOLOGY IN NON-TECHNICAL LANGUAGE

Participants will be randomly assigned and asked to participate in one of four treatment groups: role-play, video observation, counseling literature, or a no-treatment, control group. All participants will engage in either an individual, treatment format (role play) or a group treatment (video observation, counseling literature, or no-treatment control group). After treatment, all participants will be asked to fill out two measures. One measure is the client self-efficacy behavior scale for counseling (CSEBS); the other measure is the University of Rhode Island change assessment instrument, (URICA), measuring a prospective client's readiness and motivation for counseling.

Participants will also be asked to fill out an informed consent form and a short survey prior to the initiation of treatments. If selected for the study, each student will complete the treatments and 2 measures, which should take approximately one hour. Each participant may receive extra-credit compensation for no more than 2% of the total grade, but the offering of extra-credit is under the control of the each individual instructor's discretion.

The names of the participants will be kept confidential; participants will be given a code number to protect individual anonymity; that number will be on the upper right hand corner of each respective, individual packet.
8. POTENTIAL BENEFITS AND ANTICIPATED RISK: (If risk of physical, psychological or economic harm may be involved, describe the steps taken to protect the participant.)

The protocol involves no more than a minimal risk to the participant. Specifically, the risks involved in this study are no greater than those ordinarily encountered in daily life or during the routine performance of physical or psychological examinations or tests.

9. DESCRIBE HOW PARTICIPANT (S) WILL BE RECRUITED, THE NUMBER AND AGE OF THE PARTICIPANTS, AND PROPOSED COMPENSATION (if any):

Students will be surveyed from four classes in the College of Education: drug and alcohol awareness, career development, stress management, and interpersonal communication. They will be asked if they have an interest participating in a research study exploring their general attitudes toward counseling. If an interest is indicated, those students will then be surveyed to determine their current willingness to seek counseling. If a moderate to strong interest in seeking counseling is indicated, those participants will be selected to participate in the study. The approximate age of the participants will range from 18-22 years of age. Proposed compensation may include extra-credit for each participant; however this is up to the discretion of each individual course instructor.

10. DESCRIBE THE INFORMED CONSENT PROCESS. INCLUDE A COPY OF THE INFORMED CONSENT DOCUMENT.

Informed consent allows for research participants to freely and consciously choose to participate in a research study while fully satisfied that there is minimal risk to the research protocol and knowing that the confidentiality of each participant is guaranteed.

Principal Investigator: David Cox
Principal Investigator’s signature and date:

Research Supervisor/Committee Chairperson: Dr. James Archer, Jr.; Ph.D.; Professor
Research Supervisor/Committee Chairperson’s signature and date:

I approve this protocol for submission to the UFIRB:

Department Chair: Dr. Harry Daniels; Ph.D.; Professor

Department Chair signature and date:
APPENDIX I
ROLE-PLAY INSTRUCTIONS

Role-playing is an educational activity in which students assume the role of another person and act out that specific role. Role-plays are designed to promote empathy and understanding of others. Specifically, you will have the unique experience of acting out a client role in counseling to further your understanding of what it might be like to be a counseling client, seeking the benefits of counseling. Recall, you are seeking counseling to help you process and resolve the personal issues mentioned in your current life story.

It is important to act out your counseling client role in a manner that makes you feel the most comfortable while being as realistic as possible. Remember, there are no right or wrong answers; just try to get into a free space in which you feel somewhat comfortable playing out the role of the person in the scenario. What part of the story do you connect with the most? For instance, what is it like for you to be 20 years old? If so, do you wish you were older or younger than 20? Or what part of the story do you identify with the most? Your grandmother, your father, mother, or your friends? Try to identify the part of the story that you connect with the most, and act out that part, exploring ways counseling could help you in this area of your life.

Simply try to get into the experience of this individual from the role-play script provided. Try to relax and look at this as a learning experience; be imaginative, play with the role. Think and feel how you might act if you were actually that person, in that situation, seeking counseling today. Thank you for your participation in this study.
APPENDIX J
FOLLOW-UP SURVEY TO SEEK COUNSELING

* Please fill out this measure AFTER completing **

** the other two instruments **

Circle your gender: male female

As a result of your participation in this counseling research study, would you have an interest in seeking counseling within the next year?

Circle: yes no

If you circled yes to the above question, please indicate below your degree of interest in seeking counseling within the next year:

1 2 3 4 5
little some moderate likely very

THANK YOU FOR YOUR PARTICIPATION!
APPENDIX K
URICA MEASURE

Counseling can help solve personal problems. Each statement below describes how a person might feel when starting counseling and/or approaching problems in their lives. Please indicate the extent to which you tend to agree or disagree with each statement below. In each case, make your choice in terms of how you feel right now, not what you felt in the past or would like to feel. For all the statements below that refer to your "problem", answer in terms of a problem or personal issue you might be willing to discuss in counseling.

Please Circle Your Gender: Male Female

There are FIVE possible responses to each of the items in the questionnaire:
1 - Strongly Disagree (SD)
2 - Disagree (D)
3 - Undecided (U)
4 - Agree (A)
5 - Strongly Agree (SA)

Circle the number that best describes how much you agree or disagree with each statement:

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16. I'm not following through with what I had already changed as well as I had hoped, and I'm here to prevent a relapse of the problem.................................................. 1 2 3 4 5
17. Even though I'm not always successful in changing, I'm at least working on my problem.............. 1 2 3 4 5
18. I thought once I had resolved the problem I would be free of it, but sometimes I still find myself struggling with it.............................................................. 1 2 3 4 5
19. I wish I had more ideas on how to solve my problem.............................................................. 1 2 3 4 5
20. I have started working on my problem but I would like help.................................................. 1 2 3 4 5
21. Maybe counseling will be able to help me..................................................................................... 1 2 3 4 5
22. I may need a boost right now to help me maintain the changes I've already made.................. 1 2 3 4 5
23. I may be part of the problem, but I don't really think I am........................................................ 1 2 3 4 5
24. I hope that someone here will have some good advice for me................................................. 1 2 3 4 5
25. Anyone can talk about changing; I'm actually doing something about it..................................... 1 2 3 4 5
26. All this talk about psychology is boring. Why can't people just forget about their problems?...... 1 2 3 4 5
27. I'm here to prevent myself from having a relapse of my problem............................................... 1 2 3 4 5
28. It is frustrating, but I feel I might be having a recurrence of a problem I thought I had resolved............................................................................................................. 1 2 3 4 5
29. I have worries but so does the next guy. Why spend time talking about them?.......................... 1 2 3 4 5
30. I am actively working on my problem...................................................................................... 1 2 3 4 5
31. I would rather cope with my faults than try to change them.................................................... 1 2 3 4 5
32. After all I had done to try and change my problem, every now and again it comes back to haunt me.................................................................................................................. 1 2 3 4 5
REFERENCES


BIOGRAPHICAL SKETCH

David K. Cox was born on December 13, 1966, in Lawrence, Kansas. After graduating from high school in Seattle, in June 1984, David then attended Whitman College, in Walla Walla, Washington, where he studied history. After graduating in May 1988, with a Bachelor of Arts degree in history, David returned to Seattle. After six years of extended undergraduate education in the physical and social sciences at Seattle University and the University of Washington, David applied to graduate school in psychology. He attended Antioch University-Seattle for two quarters, before transferring to Northwestern University in Evanston, Illinois. David graduated with a Masters of Arts degree in counseling psychology from Northwestern University in June 1999. That fall, he began the doctoral program in counselor education at the University of Florida, in Gainesville, Florida. He completed his Specialist in Education degree in December 2000, while studying toward the doctoral degree.

Although a national board certified counselor, David is currently working toward clinical licensure; once licensed, he plans to work in private practice, specializing in a variety of issues: men’s needs, leadership, how best to increase professional performance, and how to cope with loss. David has a very special interest in examining the interface between spirituality, philosophy, and psychology. David markets himself as a personal trainer for the mind. His hobbies include golf, chess, exercise, eastern philosophy, skiing and traveling.
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

James Archer, Jr.
Professor of Counselor Education

M. Harry Daniels
Professor of Counselor Education

David M. Miller
Professor of Educational Psychology
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

\[Signature\]
Marshall Knudson
Adjunct Assistant Professor
of Counselor Education

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December 2002

\[Signature\]
Dean, College of Education

\[Signature\]
Dean, Graduate School