AN EXAMINATION OF THERAPEUTIC CHANGE, SYMPTOMOLOGY, AND DEFENSE STYLE AS A GUIDE FOR EFFECTIVE TREATMENT PLANNING

by

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(Under the Direction of Linda F. Campbell)

ABSTRACT

The purpose of this study is to examine the usefulness of the Defense Style Questionnaire (DSQ) in treatment planning. This seeks to assist therapists in facilitating a healthier (adaptive) defense style with clients through formulation of appropriate treatment plans. The Maladaptive and Adaptive scales of the DSQ will be examined in relationship to treatment variables: the stages of change and Brief Symptom Inventory (BSI) indices. The investigator hypothesizes that if clinicians had a clear sense as to how clients cope with difficulties, along with their Stage of Change, and psychological problems, clinicians can form more tailored decisions about their clients. There were five hypotheses but only two were significant. However, there was a significant relationship between the global severity indices of the BSI and maladaptive defense scores and those with high GSI scores have higher BSI scores. Future recommendations include increasing sample size, including personality measure, and conducting a longitudinal study.

INDEX WORDS: Symptomology, Defense style questionnaire, Brief symptom inventory

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DEDICATION

Thanks to my Lord and Savior Jesus Christ, who claimed long before my birth that whatever shall be given to me, shall be, and no one can take that from me.

This dissertation is dedicated to the memory of my late Godmother, Mrs. Ernestine Butler. Thanks for always believing in me when others hesitated. You always told me that I could be anyone I wanted to be. You never laughed at my lofty dreams or hopes. You made me believe in myself more than anyone has in my entire life. I hope you are proud of who I have become.

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Finally, to my favorite brother, Colonel Timothy James Starke, my goal in life ever since I was a little girl was to be as smart and gifted as you were. I always wanted to be your little protégé and follow you around. I can proudly say I did it and I hope you are as proud of me as I

have always been of you. Though I am not a kid anymore, you are still my hero. I salute you soldier (insert salute here any time) ☺ .

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To all my African-American brothers and sisters and in the Diaspora who will travel this road presently or perhaps in the future, remember SANKOFA! Remember God is willing and always able.

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CHAPTER 1

INTRODUCTION

As clinicians we are challenged with many duties and responsibilities in treating clients. Professional standards teach psychologists to be fair, honest, reputable, and develop multicultural competencies. Evidence based treatments guide our conceptualization of clients and treatment plans. It does not take long for even the novice students to learn that clients vary in diagnoses and personality traits. Yet, it seems, that clinicians can find it difficult not to stray away from the "one size fits all" method. Evidence based treatment (EBT) models have reformed practice in psychology. According to Levant (2005), an EBT is "the integration of the best available research and clinical expertise within the context of patient characteristics, culture, values, and preferences" (p. 3). Clinicians are encouraged to take a more tailored or client focused approach that promotes the effectiveness of their therapy.

It is safe to say that clients come to therapy for a variety of reasons. Some may want change in their lives, some are not ready for change to occur in their lives, and/or some may want to learn how to deal with change. Whatever the reason, clinicians promote goals that meet clients where they are in therapy in hopes of moving them towards some measurable or attainable outcome. There are a plethora of instruments that measure the currency of client's symptoms or behaviors. The field continues to seek instruments that will help clients move to their next level of growth/change and help guide treatment planning. By doing so, clinicians will be promoting better outcomes in therapy and supporting the drive for more EBT in their practice.

The purpose of this study is to examine the usefulness of the Defense Style Questionnaire (DSQ) in treatment planning. This study may also assist therapists in facilitating a healthier (adaptive) defense style with clients through formulation of appropriate treatment plans. In addition, the Maladaptive and Adaptive scales of the DSQ will be examined in relationship to treatment variables: the stages of change and Brief Symptom Inventory (BSI) indices. The investigator hypothesizes that if clinicians have a clear sense as to how clients cope with difficulties, along with their Stage of Change, and psychological problems, they may be able to form more tailored decisions about their clients. This process all begins with knowing what defense style the client has adopted in order for change to occur.

The Significance of Monitoring Change and Cognitive Behavioral Therapy

What any clinician wants for their clients is therapeutic change. In fact, Weinberg (1984) suggests that the purpose of therapy is to assist the client in changing personality traits, not enabling the client to make a particular decision. In addition to helping the client to understand his/her feelings and perceptions, the therapist also appreciates how clients are renewing themselves. The process of change can be viewed as small steps, with proper guidance and insight, the client making new choices, then finally altering his/her own traits. Significant changes can occur in patients' defense styles in periods ranging from weeks to years (Akkerman, Carr, & Lewin, 1992; Kneepkeens & Oakley, 1996; Vaillant, 1977). Beutler, Moos, & Lane (2003) assert, "adequacy and effectiveness of individuals' cognitive coping skills are associated with entry into and participation in treatment" (p. 1152). In turn, clients' participation in treatment leads to changes in coping responses, which links to ultimate treatment outcomes (Beutler et al., 2003). Treatment outcomes support the demand for Evidence Based Treatments

(EBT). In fact, Baer (2004) states that EBT are known by a variety of names, but often have cognitive-behavioral foundations, and are demonstrated to work in brief therapy.

According to cognitive-behavioral theory, behaviors that are learned can be unlearned and change is based on cognitive processes. In fact, Meichenbaum (1977, 1996) stated that a person cannot expect behavioral change without considering the cognitive processes. Certain types of CBT (cognitive behavioral therapy) such as Cognitive Behavior Modification (CBM) (Meichenbaum, 1977, 1996) expect behavioral change to follow once an intervention is given. For a client (or any other individual) change must be viewed in terms of beliefs (core or automatic), assumptions, and strategies (Beck, 1995; Meichenbaum, 1977, 1996). Prochaska and Norcross (2003) discuss change in terms of cognitive-behavior theory as the awareness and recognition of cognitive patterns in order to understand complex adult behavior.

The Stages of Change (SOC) model has five stages: Precontemplation, contemplation, preparation, action, and maintenance (Prochaska & DiClemente, 1982; Prochaska & Norcross, 1992, 2003). The Pre-contemplation stage is characterized by the client being unaware of their problems and having no intent to change in the near future. Individuals may wish to change, but have made no commitment to action. In the Contemplation stage there is the intent on changing behavior; individuals are evaluating their options in terms of how to change. Individuals can become suspended in this stage for long periods. The Preparation stage involves both the intent and the behavior criteria for change; the client participates in small behavior changes. The action stage is one in which clients have changed their behavior, environment, or situation in order to overcome their problems. Individuals participate in activities that self-regulate and initiate behavioral change. Finally, the maintenance stage is one in which clients have made gains in maintaining this positive behavioral change. This stage is viewed as the absence of the problem,

rather than in terms of “being cured or healed” (Prochaska & DiClemente, 1982; Prochaska & Norcross, 1992, 2003).

Prochaska & Norcross (2003) included levels of change: Situational factors, maladaptive cognitions, interpersonal issues, family/systemic issues, and intrapersonal issues in the transtheorectical model. All of these are factors can affect how the clients move through the stages of change.

Change encompasses understanding individuals and their cognitive processes. Change can be analyzed by looking at these stages of change. Again, each stage is qualitatively different and may help in assessing clients as either in or between stages. Knowing the premises of each stage helps clinicians to conceptualize what is cognitively going on with clients and what behavioral changes need to occur to help them move to the next stage. The SOC can help clinicians to set goals, facilitate growth, and develop treatment planning for and with clients. By the time clients reach the maintenance stage clinicians should make sure that clients understand what different interventions such as coping strategies, cognitive restructuring, or stress inoculation, can be used to help clients become autonomous. Autonomy is important because it helps break the dependency on the therapist and helps the clients to conceptualize and perhaps prepare for those things outside of therapy. In addition, change can also be attributed to the therapeutic alliance, the therapist’s relationship with the client, and their willingness to change. Cognitive-behavioral therapists foster therapeutic alliance through activities, conscious rising, and emphasis on personal strengths (Gazda, Ginter, & Horne, 2001). Much of the Stages of Change research discusses the willingness to change as being a critical aspect of client change (Prochaska & DiClemente, 1986; Prochaska & Norcross, 1992).

Successful client change is seen when a client has reduced inappropriate or maladaptive behaviors (Beck, 1995). In many cases, the empirically supported research has described effectiveness as a decrease in symptomology. Petrocelli (2002) stated that CBT has been effective for many behavioral and emotional issues, which include depression, anxiety, social phobia, and eating disorders. In fact, Nolen-Hoeksema (1991) found that CBT is known for working with depressive individuals' dysfunctional thoughts and behaviors. They also help with preventing relapses into another depressive episode. Activity scheduling is a CBT intervention that has been found to be helpful with those individuals with depression. Daitillo and Berchir (1996) found that CBT interventions (dysfunctional thought record and progressive muscle relaxation) work with individuals to alleviate symptoms Panic Disorder with Agoraphobia. Those individuals with Obsessive-Compulsive Disorder can be helped with their dichotomous thinking (all or nothing) and guided imagery to help with obsessive ritual behaviors. *The Guide for Treatments that Work* by Nathan and Gorman (2002) contains many emotional and psychopathological disorders that have been treated by CBT and found to be efficacious, including those disorders indicated by Petrocelli (2002), and schizophrenia. Finally, in terms of change, close monitoring and continual assessment are associated with CBT (Chambliss et al., 1998; Chambliss & Ollenick, 2001). CBT manuals are more specific and detailed than some other theoretical manuals (Barlow, 2001). Thus, this empirically supported research uses of cognitive-behavioral therapy as a means for understanding change and how change occurs in therapy and treatment.

The Concept of Defense

Sigmund Freud discovered that the mind keeps painful thoughts and feelings hidden (Azibo, Jackson, & Slater, 2004; Cramer, 1991). Freud advanced the idea of defense mechanisms

protecting the ego/mind from such anxiety causing thoughts (Azibo et al., 2004; Baumeister, Dale & Sommer, 1998). In the early 1900s, Freud observed that defense mechanisms were a mental function and one of the faculties of the mind (Cramer, 1991). With the publication of his *Ego and ID* in 1923, the concept of defense was conceptualized as an important part in the relationship between instinctual drives of the id and the ego's drive for satisfying them. In 1936, Anna Freud gave an extensive study of defense mechanisms in her book, *The ego and the mechanisms of defense*. She claimed there were two motives for defense, anxiety and guilt (Cramer, 1991).

Defense mechanisms are enduring concepts. Recently, they were defined as "constructs that denote a way of functioning of the mind. There is general agreement that the purpose of the defense is to prevent other functions of the mind from being disrupted or disorganized by negative affects, such as guilt and anxiety" (Cramer, 1991, p. 3). Freud and his daughter may have conceptualized from a psychodynamic viewpoint, it is important to point out that the concept of defense as a protective measure or safeguard is embraced by clinicians who are nondynamically oriented (Pollock & Andrews, 1989; Wastell, 1999). In fact, when examining research by Valliant (1993) and Horowitz (1998), one can find that defenses may be conceptualized "cognitive processes of information control" (Erdelyi, 1985; Wastell, 1999, p. 217).

Cramer (1991) discussed several issues about defense mechanisms. One of those issues is whether defenses are pathological. Freud often used defense mechanisms to explain neurotic behavior; yet, it is not clear whether he thought these defenses were pathological (Burger, 2000). Modern theory states that defense mechanisms can be seen both as an influence that limits

growth and as an adaptive mechanism that protects and allows the person to function (Azibo et al., 2004; Bond, Gardner, Christian, & Sigal, 1983; Jackson & Azibo, 2001).

A second concept is that defense mechanisms follow a developmental pattern. For example, in developmental terms there are steps taken from the maladaptive action patterns through the image distorting defenses on to the adaptive defenses. Thus, defenses can be placed in a hierarchy of maturity that relates to a person's complete adaptation to the world (Bond et al., 1983; Jackson & Azibo, 2001). Developmentally, research shows that children use more immature defenses, adolescents use defenses intermediate between immature and mature, and more mature defense mechanisms are used by adults (Burger, 2000). This is consistent with the maladaptive-to-adaptive developmental pattern just cited.

Measuring defense mechanisms is an important process. This pursuit has plagued researchers for many decades (Wastell, 1999). Since these mechanisms work at a level below consciousness, investigators must use less direct methods to assess them. There are techniques for projective tests (Cramer, 1991) including several questionnaires (Davidson & MacGregor, 1998). According to Wastell (1999), work by Bond and his colleagues (Bond et al., 1983; Bond, 1986) with the DSQ has proven to be the most useful in examining defenses in both clinical and normal populations. The DSQ attempts to measure "defense styles" or "defensive behavior," instead of the latent unconscious defense mechanisms themselves. Defense styles are conscious defenses, a person's style of dealing with conflict (Bond & Wesley, 1996). Defensive behavior refers to behavior that decreases threat to that person (Davidson & MacGregor, 1998). There are a variety of ways in which researchers define defense style. Some use the terms defense mechanism, coping, coping style, or even resiliency.

According to Bond & Wesley (1996) a defense style is characterized by how individuals respond to different situations that are caused by conflict and stress. The DSM-IV-TR (2000) defines defense mechanisms as "automatic psychological processes that protect the individual against anxiety and from the awareness of internal or external dangers or stressors" (p. 807). Lazarus & Folkman (1984) defined coping as behavioral and cognitive efforts to help manage taxing external or internal demands that exceed individuals' resources. Folkman, Lazarus, Pimpley, & Novacek (1987) also defined coping as thoughts and acts that a person may use to manage stressful transactions. A coping style can be defined as an "adaptive response to ongoing stress" (Hersoug, Sexton, & Hoglend, 2002, p. 541). Beutler et al. (2003) discuses coping styles as observable individual stress thought to be manifested "with some degree of regularity and predictability and they are thought to distinguish one individual from another when distress is evoked" (p. 1157). Similarly to Bond and Wesley's (1996) adaptive defenses, Hersoug et al. (2002) discuss adaptive coping styles. According to the Blechman (2000), resilience is the "ability to survive a stressor (or risk factor) and to avoid two or more adverse life outcomes to which the majority of normative survivors of this stressor succumb" (p. 537).

However, from different theoretical models, these constructs have several similarities. Each defines an act, thought or behavior that helps a person manage stressful events. Many concepts within research appear to overlap and give examples of similar kinds of events in which each definition would be used. Examples include coping with a natural disaster and developing positive coping styles when dealing with grief. All mention that the terms involve some type of adaptation or change to the event in order to survive or endure the stressful event. How people approach or survive the stressful event is discussed in terms of being maladaptive (immature/unhealthy) and adaptive (mature/healthy) ways. Thus, it is the clinician who works

with their client's defense styles to help move (treatment plan) their maladaptive defense style to a more adaptive defense style (viewed as a client's therapeutic change).

Treatment Planning and Outcome

There is a great demand for mental health services in the treatment of anxiety, depression, obsessive-compulsive disorder, and other psychological conditions. According to the American Psychological Association (2006), more than 44 million Americans suffer from a mental health disorder. With demand comes the need for resources, research, and funds to help facilitate availability of those services. Psychotherapy is one of those resources. Roberts (1997) defines psychotherapy as a "method to understand why individuals react as they do and what influences their response to life's challenges" (p. 1). Therapy provides a setting where clients can be honest with themselves, provides a means to learn new skills, clarify and identify their emotions, and learn adaptation (Roberts). "The therapist has an expertise in the methods of change and understanding of human functioning" (Frank, 1963; Roberts, 1997, p. 2). Thus, trained psychotherapists are needed to provide those who suffer from anxiety and depression with a safe place to receive treatment, provide options for better lives without anxiety or depression, and to help those clients move on and maintain their healthier way of life. To maintain a healthy lifestyle means being able to cope with the everyday challenges in life. Thus, psychotherapy is a resource in which clients can set goals for treatment, can learn strategies that can be used to better their lives, can begin plans for treatment, along with getting the support they need to maintain their new way of living and coping. It is also important to assert that clients not only need psychotherapy, but they need psychotherapy that works and to know that it is working for them. There is a strong relationship between client's treatment outcomes and coping skills (Beutler et al., 2003). According to Beutler et al. (2003) the strongest foci in cognitive-

behavioral treatment approaches is the idea of structured attempts to instruct clients on developing new coping skills. These changes in coping skills are vital to “proximal outcome of treatment” and they further indicate that individuals who use “new, more effective coping skills” in their lives will begin to experience improved “functioning and outcome” (p. 1153).

Outcome is defined as “the extent to which a client’s health status can be attributed to an intervention by a health professional or service” (Andrews, Peters & Tessen, 1994; Wong, Harris, Cotton, & Edwards 2006). CBT has been a leading treatment method among the empirically supported treatments (Chambless & Ollenick, 2001; Newnham & Page, 2007). Traditionally, outcome measures are administered at intake and after termination. This allows the therapist to monitor improvements in functioning and symptom relief in clients (Steenbarger & Smith, 1996). According to Steenbarger & Smith (1996) “quality assessment can become an ongoing, programmatic aspect of service delivery” (p. 75). The questions or issues asked by outcome assessment include “Did the client really change as a result of therapy?” and “How much did the client change?” These researchers also indicate that there are two domains that are frequently sampled in outcome measurements that include client functional status and symptomalogy. Functional status “refers to the degree to which a client’s day to day functioning is impaired by presenting the problems” (p. 146). Symptomology measurements require “scales assessing symptomology ratings of the frequency or intensity of specific presenting complaints” (p. 147). Newnham and Page (2007) expand this list by including global assessment functioning, past therapy experiences, and treatment expectations. Further, CBT has been found to be successful in a variety of mental health disorders when compared with appropriate comparison groups in this type of format (Nathan & Gorman, 2002; Newnham & Page, 2007). The assessment of client outcomes is becoming an increasingly necessary part of mental health

services. This demand reflects the importance of demonstrating the effectiveness of services to relevant stakeholders (Andrews et al., 1994; Callay & Hallebone, 2001; Wong et al., 2006). The most relevant stakeholder is of course the client.

Through cognitive therapy, clients can learn to understand how their thoughts can contribute to anxiety, and how to change thought patterns to reduce anxiety and occurrence of anxiety disorder symptoms. Likewise, with depression the therapist can help explore behavioral patterns and learned thoughts that can contribute to depression. Therapists can help clients to identify negative or distorted thinking patterns that can contribute to feelings of hopelessness, helplessness and depression. For example, some depressed individuals practice all or none thinking (Beck, 1995). All of these methods allow the clinician to formulize a treatment plan that is more individualized for clients in that all clients' thoughts are not the same. In fact, according to Newnham and Page (2007) "not all clients benefit from treatment and traditional pre- versus post- approaches to outcome assessment are limited to their ability to modify practice for a particular client in real time" (p. 1). Thus, each client experiences with different approaches do not constitute change. These have been found to be two empirical weaknesses that have prompted recent ameliorations in outcome assessments (Newnham & Page).

From a cognitive-behavioral perspective, treatment planning is composed of measurable goals towards a healthier mental state set collaboratively between the client and clinician. It is a blueprint that guides your thinking of the diagnosis and interventions. Goal setting is an important part of cognitive-behavioral therapy (Beck, 1995). "The cognitive therapist helps clients to become aware of, logically examine, and empirically test their automatic thoughts" (Greenburg, 1987, p. 40). In fact, according to Bond (2004), several studies have found that therapists' interventions are tailored to patient's symptoms.

According to Bond (2004), defense styles become adaptive with improvement. Intermediate defenses tend to be stable or trait-like over time. Sometimes defenses are predictive of the quality of the therapeutic alliance. Researchers Muris & Merckelback found that “an immature defense style can be related to negative outcome in behavioral therapy” (as cited Bond, 2004, p. 269). Bond (2004) also indicated that a study conducted by Foreman and Marmar (1985) found that “addressing defenses in therapy led to improved alliance and outcome” (p. 277). Although it is assumed that specific assessments of defenses can be useful in treatment planning, there are no studies to support this hypothesis. Bond (2004) reviewed studies that found that, adaptive defense styles correlated with mental health and that some diagnoses are correlated with specific defense patterns. Most of these studies also indicated that the more severe the psychopathology the more correlated they were with maladaptive and less adaptive defenses.

Counseling Psychology has a long history of research in the area of psychotherapy process and outcome (e.g., Ahn & Wampold, 2001). Counseling Psychology as a discipline advocates for strength-based interventions (Brown & Lent, 2008). Evidence based practice, client variables, outcome therapy, and the effectiveness of treatment planning are representative of contemporary changes in psychotherapy practice. Counseling psychology trains those within the field to be social advocates on behalf of their clients, which includes researching those variables that may assist in effective therapy. Effective therapy consists of the ability of the client to change/modify unhealthy behaviors and gain skills to obtain healthier orientations of life (Norcross et al., 2000).

Hypotheses

In response to a needed element of assessment of defensive style, this study investigates the relationship of defense styles to other variables and the impact on treatment. Therefore, the following hypotheses were developed:

1. Those individuals with high maladaptive defense style scores will have high Global Severity Index scores on the Brief Symptom Inventory.
2. Those individuals who have high maladaptive defense style scores will be in the pre-contemplative stage of change.
3. Those individuals who have high adaptive defense style scores will be in the action or maintenance stage of change.
4. There is a negative relationship between adaptive defense style scores and readiness for change scores.
5. Those individuals with high to moderate scores on the Brief Symptom Inventory scales will have a positive relationship with maladaptive defense style scores.

CHAPTER 2

LITERATURE REVIEW

Defensive Functioning and Psychological Symptoms

Defensive behaviors are important to human functioning. Defenses are ordered in a hierarchy ranging from mature/adaptive defenses (sublimination, humor) to immature/ maladaptive defenses (dissociation, passive-aggression) that serve as protective agents in the beginning, but later become destructive to themselves and others (Valliant, 1977, 1993, 1997). For example, anxiety symptoms such as neuroses or psychoses emerge when defenses fail (Roberts, 1997). Maladaptive defense responses can be viewed as those that "severely inhibit adaptive responding and cause harm to self or others" (Valliant, 1997, p. 24). Adaptive responses can be seen as those that "reduce stimulation, but can be helpful to self and others (Valliant, 1997, p. 25). This includes adaptive coping skills. Beck, Rush, Shaw, and Emery (1979) in an earlier work examined this concept based on what he termed mature and primitive thinking. This concept is illustrated in Table 1. Mature being viewed as ways of thinking of the self, the world, and the future that leads to cognitive, emotional, and behavioral success in life. Primitive thinking is considered as non-dimensional and global thinking. When a client relies too heavily on perhaps one or two defense mechanisms, psychopathology may result, especially when defenses used are primitive (Roberts, 1997). This concept supports the cognitive therapy's premise that psychological symptoms can arise from maladaptive thought patterns (Roberts).

Bond & Wesley (1996) and Emery (1999) agree that people approach their life problems in maladaptive and adaptive ways. Emery (1999) compared adaptive and maladaptive strategies

Table 1

Beck's "Primitive Thinking" vs. "Mature Thinking"

Type of Thinking	Characteristic	Example
Primitive	Nondimensional and global	I am a total failure
Mature	multidimensional and specific	I make mistakes sometimes, but otherwise I can be very intelligent
Primitive	absolutistic and moralistic	I am a despicable coward
Mature	relativistic and nonjudgmental	I am most fearful than most people know
Primitive	invariant:	I am hopeless
Mature	Variable	There may be some way…
Primitive	enters into "character diagnosis":	I am weak
Mature	examines behaviors - behavior diagnosis	I am behaving like a weak person right now
Primitive	irreversible and sees things as immutable	Nothing can be done about this
Mature	reversible, flexible and ameliorative	I can develop ways to solve this

Note. Adapted from Beck, Rush, Shaw, & Emery (1979) p. 14.

within 111 people with mood and anxiety disorders. Respondents completed the Defense Style Questionnaire (measure defense), Rotter IE Scales (measure locus of control), Belonging-Social Interest (BSI) scale of the BASIS-A. Emery (1999) conducted correlations among the socio-demographic groups. The results indicated a positive relationship between adaptive strategies of mature defenses and internal control. In addition, mature defenses positively correlated with

social interest in males, but not females. The BSI did not correlate with locus of control or defenses and there was no relationship between intermediate or immature defense factors and locus of control. There was also no significant overlap between adaptive strategies. These results suggested that this study provided a unique interpretation about each participants approaches to life, rather than indicating different expressions of the same underlying strategies (Emery, 1999). Although coping strategies are considered distinct from defenses, they can be influenced by adaptive defense mechanisms (Emery). As indicated earlier coping/defense styles/strategies appear to have this meditation or trade-off between internal demands and external conflicts (Hersoug et al., 2002).

Watson's (2002) study investigated the relationship between specific defense styles and symptom-related responses on BSI. There were 422 university students who participated in the study. All were administered the DSQ-40 and the BSI. The results indicated immature defenses were major predictors of symptom patterns. Projection, displacement, autistic fantasy, somatization, and acting out were strongest predictors of psychopathology. Projection was a major predictor for psychopathology in males and displacement in females (Watson, 2002).

Bond (2004) found studies that have indicated that those with maladaptive defenses do move toward greater usage of adaptive defenses "within a time frame as short as a week" (p. 264). Additional studies examined defense style usage and anxiety disorder. Their results indicated that patients use immature and neurotic defenses more than non-patients. There was an increase in adaptive style usage with improvement of symptoms in OCD patients (Bond).

Chun-Yun & Ying (2005) conducted a study in China to explore defense mechanism usage of patients with OCD. The authors also wanted to examine the changes in defense mechanism usage after treatment. There were 26 OCD patients and 26 non-diagnosed

participants administered the DSQ and Yale-Brown Obsessive-Compulsive Scale (YBOCS) before and after 10-week sessions. The results indicated that the immature defenses were significantly higher in OCD patients than in other patients. The mature defenses were significantly lower in OCD patients than in un-diagnosed patients. The scores of immature defenses were significantly lower than before and the mature defense usage was significantly higher than before after the 10-week psychotherapy sessions. This study concluded that OCD patients often use immature defenses and after psychotherapy can begin to use more adaptive defenses.

Lin, Hu, and Hu (2002) also conducted a study in China to explore psychological defense mechanism usage and related factors in OCD patients. Sixty patients diagnosed with OCD and 60 normal patients completed the DSQ, Egna Minnen Barndorn Uppfostran (EMBU), and the Eyesnck Personality Questionnaire (EPQ). They found that neurotic defenses and immature defenses were significantly higher in OCD patients.

In Beutler et al. (2003), the authors described the Franken, Hendriks, Haffmans, and Van der Meer (2001) study which indicated clients with substance abuse disorders who were administered three months of cognitive-behavioral treatment increased using an approach strategy like for example seeking comfort or help, decreased palliative and passive reactions (avoidance strategies like rumination). There is a robust connection between coping skills and psychological symptoms looked at in the study. These symptoms included depression, anxiety, and substance abuse (p. 1153).

There is a considerable amount of evidence that depressed clients have deficits in both their coping skills and coping styles. Both Alford and Gerrity (1995) and Sahin, Ulusoy, and Sahin (1993) examined and found a relationship between coping styles and depression (Beutler

et al., 2003). Coping behaviors in depressed persons indicate a tendency to rely "less on problem solving and more on emotional discharge, wishful thinking, and avoidance than nondepressed persons" (Beutler et al., 2003, p. 1156; Cronkite, Moos, Twohey, Cohen, & Swindle, 1998). Kneepkens and Oakley (1996) conducted a study to determine if the defense style of hospitalized depressed adults improved over the course of treatment. There were 31 participants (24 women, 7 men) who were diagnosed with major depression. They completed the short form DSQ-40 and the Center for Epistemiologic Studies-Depression Scale within 48 hours after admission and 24 hours after discharge. Results indicated significantly higher discharge mature ratings, significantly lower discharge immature ratings, and stable neurotic ratings. The authors concluded that for some depressed women and men "improvement in defense styles can occur within days after initiation of standard inpatient treatment" (Kneepkens & Oakley, 1996, p. 358).

Client Focused Treatment and the Therapeutic Alliance

Client focused treatment involves considering the needs, wants, goals of the clients in conceptualization and treatment. Client focused treatment is pertinent when establishing a therapeutic alliance, in that the client has to trust the therapist in developing coping strategies, treatments, etc., that may work for them in therapy. It also involves what Howes and Parrot (1991) states as a part of cognitive therapy "to identify the unique cognitive content characteristics displayed by individuals with specific disorders" (p. 27). In psychotherapy, conceptualization is known as the process of understanding and formulating a client's problems with a specific framework (Howes & Parrot). The hope is that with pretreatment assessment clinicians can select individualized interventions based on data gathered by the assessment of the client's problems. Conceptualization helps clinicians looks at this data in terms of relationship, causality, and other variables that could affect the interventions chosen by the clinician.

Therefore, conceptualization at its core assists in linking clinical assessment data and individualized interventions (Haynes, Leisen, & Blaine, 1997). From a cognitive perspective, this process is a necessary part of therapy, which precedes any implementation of any therapeutic techniques.

Weinberg (1984) said it best when he stated, “few clients come with a clear sense of purpose” (p. 113). It is the duty of the therapist to assist patients in sustaining their purpose in therapy. Goals in therapy are viewed as the ability to attain qualities. Whatever qualities clients want to attain or obtain are personalized to their own needs. As a therapist, it is important to serve those needs as they see them. In addition, it is additionally important to work together, collaborate and form a strong therapeutic alliance/relationship.

Weinberg (1984) defines therapeutic alliance as simply the “therapist and patient work together in harmony” (p. 130). This idea of collaboration is essential to cognitive-behavioral therapy (Beck, 1995). The alliance that clients and therapists have is “directed toward helping the patient recognize and feel what is awry and help them make necessary changes” to their lives (Weinburg, p.130). Together they clarify what must happen for change and how can the client make those changes that need to occur. Roberts (1997) agrees that at the core of psychotherapy is this “interpersonal collaboration, a relationship designed to relieve distress and promote optimal development” (p. 1). The therapeutic alliance is utilized by the therapist throughout therapy.

Hersoug et al.(2002) conducted a study that explored whether defenses changed over the course of 40 sessions of brief dynamic psychotherapy. The participants were administered the Defense Mechanism Rating Scales (measured defense), Ways of Coping Checklist (WCCL), Symptom Checklist-90 (SCL-90) (measured somaticism), DSQ (defense self-report), Working Alliance Inventory (WAI), and the Inventory of Interpersonal Problems (IIP-C). The authors

found that overall defensive functioning changed significantly as rated by the DMRS. Overall, defensive functioning did not predict the quality of working alliance or treatment outcome. Improvement in the symptoms experienced by the clients occurred early in therapy and overall defensive functioning improved mainly during the last half of therapy.

Some clients with a conscious desire for change may seek a therapist, but when the opportunity arises, the client may feel ambivalent and resist change (Roberts, 1997). However, the therapeutic relationship can be used to assist certain clients in identifying, understanding, and changing cognitions that may lead to more satisfying and enduring therapeutic change (Rothstein & Robinson, 1991).

Bond (2004) indicated that there were possibilities of specific defenses being used as guides for specific interventions for clients (p. 276). An example given was of a depressed client who is known for using reaction formation and altruism as a defense mechanism. This insight may benefit that client working as a volunteer. Clients who use hypochondriasis and passive aggressiveness may "help a therapist avoid negative countertransference reactions and persist in being supportive despite the" client's "over response" (Bond, 2004, p. 276). Two studies by Foreman & Marmar (1985) and Winston, Winston, Samstag, & Muran (1994) found that improved alliance and outcome was attributed to addressing defenses in therapy and that addressing defense in a personality disorder sample "correlated with improvement in target complaints" (p. 277).

Therapeutic Change in Therapy

"Human beings, by nature are always evolving. We are a work in progress. Learning new ways of thinking in therapy will allow clients to build coping strategies" (Roberts, 1997).

Indeed, behavior takes time to change (Prochaska, Rossi & Wilcox, 1991; Valliant, 1997). Adaptation to changes in client's lives is an important skill to develop in therapy. Adaptation teaches "flexibility (life challenges, grief), assists in developing good coping skills and positive hope for the future and optimism" (Roberts, 1997). Change begins with the client, he/she must want change in order for change to occur. Minasian (2005) investigated whether Negative Beliefs About Change Measure (NBC) can serve as a measure of resistance in patients. NBC is a 22-item instrument based on cognitive-behavioral concept of resistance to change. The study included 72 participants with forty-two percent diagnosed depressive disorder, 25% adjustment disorder, 17% anxiety disorder, and 16% with bipolar disorder. They were administered the NBC, K scale of the Minnesota Multiphasic Personality Inventory –II (MMPI-II), Openness to Change Scale of the 16 Personality Factor, SOC, WAI, client and therapist versions of the Therapist Rating Scale, and BSI at three points (8^{th}, 9^{th}, 16^{th} sessions) in therapy. The results indicated that the NBC was related to readiness to change and forming a working relationship. NBC was a weak predictor of change in symptomology for the 8^{th} and 9^{th} sessions. "Stress and state factors resulting from anxiety and depression can also effect change in coping skills over the course of psychotherapeutic treatment" (Beutler et al., 2003, pp. 1153-1154; Franken et al., 2001).

Beutler et al. (2003) discusses several studies that identified therapeutic changes in client's coping skills. Chung et al. (2001) found that clients with alcohol use disorders illustrated an increase in behavioral approach coping and a decrease in cognitive and behavioral avoidance coping between intake and a 12-month follow-up. In addition, Timko, Moos, Finney, and Lesar's (2000) study indicated that individuals with alcohol use disorders increased their reliance on approach coping between baseline and one and three year follow-ups. Ouimette, Ahrens, Moos,

and Finney (1997) stated that receiving more counseling sessions increased more approach coping in clients. This finding means the longevity of the treatment could be related with increased coping skills usage (p. 1154). Moser and Annis (1996) conducted a study that found that clients with alcohol abuse disorders who used a number of coping strategies when confronted with high-risk, crisis situations was a strong predictor of continued abstinence (Beutler et al., 2003, p. 1156).

Change, according to Jacobson and Truax (1991), made by a client should be considered meaningful when reliable change occurred during the therapy can be statistically supported, the client has surpassed a contrasted discontinued score between normal and patient populations.

Monitoring the progress of each client can "substantially enhance treatment outcomes". Monitoring can also address the EBT push for efficacy and effectiveness by examining general problems that usually hinder the "integration of research findings into clinical practice" (Newnham & Page, 2007, p. 2). Thus, by using this monitoring process of comparing typical and atypical methods, the client uses client-focused research in their work as a therapist.

Linking Defense, Change, and Treatment Outcomes

Currently, the research speaks of CBT growing developmentally in the discipline of psychology from illustrating that treatment works to understanding when and why treatments do not work (Newnham & Page, 2007). Client focused research is defined as investigating the client's responses to treatment. The goal of Client focused research's is to "improve the individual clients' outcome by monitoring progress and using feedback" to guide continued treatment of client (Newnham & Page, p. 2). It is based upon the idea that early treatment response can indicate outcome (Newnham & Page, 2007; Whipple et al., 2003). Thus, by using feedback given by the client, the clinician can amend treatment plans to benefit the client. In fact,

client-focused research assists in improving overall treatment response by aiding to match appropriate techniques to clients (Lambert, Hansen & Finch, 2001; Newnham & Page, 2007). Newnham and Page (2007) discuss several studies that indicate changes in outcomes, specifically decrease of negative outcomes and increase in positive outcomes are directly related to the client monitoring by the therapist.

Defenses are learned, yet they can also be unlearned. The client can learn to manage the maladaptive response better and how to acquire alternative (adaptive) response (Valliant, 1997). By increasing clinician's self-awareness and learning skills to identify indicators of defensive functioning in clients, clients can change their responses to various situations (Roberts, 1997). The purpose/goal of is not to have any defenses at all, but rather to have defenses that work effectively for the client. In addition, this approach gives clients options in order to provide various defensive strategies from which to choose from (Roberts, 1997).

Valiant (1997) gives a full description as to how to facilitate defense recognition in and offer options to clients. The steps are listed as follows:

1. Maintain a collaborative therapeutic stance.
2. Regulate anxiety by teaching self-compassion.
3. Identify the structure of defenses; how the client avoids feelings
4. Identify the hidden impulse or feeling; what emotion the patient is avoiding
5. Identify the conflicts (anxiety, guilt, shame, or pain); the reason the defenses occur.
6. Generate a working hypothesis about preceding patterns and note the patient's response to it.
7. Identify these patterns as they are repeated across relationships.
8. Use this formulation to guide treatment interventions. (p. 117)

Thus, by using this method it allows the clinician to ask three questions: "(1) How is the client behaving maladaptively?; (2) What would be a more adaptive response?; and (3) Why is the client behaving more maladaptively than adaptively?" (Valliant, 1997, p. 124). As the clinician goes through each step, in collaboration with the client, the client can then prepare to be more cognizant of their behaviors and which adaptive options they could choose. In addition, development of these skills gives clients more autonomy outside of therapy with which to maintain adaptive defense styles. Maslow states, "psychologically healthy people are better cognizers and perceivers" This can be interpreted as "a person is capable of comprehending experiences without blocking out positive or negative aspects of reality" (as cited in Roberts, 1997, p. 37).

Bond and Perry (2004) examined two distinct concepts in their study. First, whether patients with chronic and recurrent anxiety and depression disorder and/or personality disorder demonstrate improvement in defense styles with long-term psychotherapy. Secondly, what is the relationship between defense style change and symptomatic change? Patients were given the DSQ, The California Psychotherapy Alliance Scale-Patient Version, the Hamilton Depression Rating Scale (DRS), and the SCL-90-R over the course of 3 to 5 five years. The results indicated that those with initial scores on maladaptive and self-sacrifice defense styles improved. Overall defensive functioning also improved. Depressed people improved their scores on the DRS significantly, there were significant improvements in distress according to the SCL-90-R, and the changes in DSQ scores helped predict the variance in outcome levels. In addition, higher levels of defensive functioning predicted a better self-reported therapeutic alliance.

Unlike Hersoug et al. (2002), Bond and Perry (2004) did find a relationship between defenses and outcomes. Whereas prediction of overall defensive functioning could not be

supported in the Hersoug et al. (2002), Bond & Perry (2004) found an improvement of defensive functioning and changes in outcomes.

When studies include longitudinal studies or pre-post studies the results support the hypotheses of improved defensive functioning and working alliance. Thus, there is a change factor included in defensive functioning and a timeframe to be ready for change in defenses.

A Pilot Study

This dissertation is based on a pilot study that was conducted by the author. The purpose of the study was to investigate the usefulness of a defensive functioning measure in identifying maladaptive and adaptive coping styles. This cross-sectional study allowed the clinician to do three important things in psychotherapy: (1) identify symptoms of depression, anxiety, and obsessive-compulsive disorder; (2) identify proper measures to assess symptomology, change, and defensive functioning; and (3) help therapists assist clients to facilitate a healthier (adaptive) defense style by formulating appropriate treatment plans (Jackson & Campbell, 2006). There were ten hypotheses that questioned the use of defense styles to determine readiness for change, symptomalogy, depression, anxiety, obsessive-compulsive disorder and other severe mental disorders. The results were mixed, there was a significant difference between those individuals with high maladaptive defense style scores and GSI, depression, anxiety, and psychoticism scores. There was not a difference between the means in terms of paranoia and maladaptive defense style usage. It was also found that depression was used more by those with high maladaptive defense style scores than anxiety and psychoticism. Thus, the first hypothesis was partially supported (Jackson & Campbell).

In Bond's (2004) review of other studies that supported defense style relationships with psychopathology and change he found in regard to depression: (1) those with major depression

"reported significantly lower usage of mature defenses; (2) negative correlation between adaptive functioning and depression; and (3) those individuals with anxiety and depressive disorders "scored significantly lower on mature defense style" (p. 267). Bond (2004) also indicated that there was "a clear correlation between severity of psychopathology and maladaptiveness of defense" (p. 271).

Hypotheses Two and Three were supported. Those with adaptive defense styles were in the action stage of change and those who used maladaptive defense styles were found to be in the pre-contemplative stage. It was also found that there is a relationship between adaptive defense style scores and readiness for change. Thus, Hypothesis Four was supported (Jackson & Campbell, 2006).

The author hypothesized that those with adaptive defenses, if in a therapeutic environment, would be more "willing to make behavioral changes and overcome their difficulties" (Prochaska & Norcross, pp. 443-444). Likewise, those with maladaptive defenses would be "unaware of their problems" or have "no intention to change" (Prochaska & Norcross, 2001, pp. 443-444).

Individuals with high to moderate scores on the BSI did have maladaptive defense styles. Therefore, Hypothesis Five was supported. However, though not statistically significant, the means for GSI scores indicated that those with high maladaptive scores used more maladaptive defenses that those with low usage of maladaptive defenses (Jackson & Campbell, 2006).

Those individuals with maladaptive defense styles indicated that they suffered depressive and psychosis symptoms, but did not obsessive-compulsive symptoms. Thus, the hypothesis was partially supported. In addition, depressive symptoms were indicated more than any other variables when compared to maladaptive defense styles. The population used for this study was

based at an outpatient community mental health center and not an inpatient mental health facility. The author assumed that the incidence of depressive symptoms may be higher than those individuals that may be treated at higher incidence levels than at the Center for Counseling and Personal Evaluation (Jackson & Campbell, 2006). Bond (2004) also indicated there is a correlation between maladaptive defense style and depression.

Out of the ten BSI items that were indicated as physical symptoms only two were endorsed while the others were not significant. Hypothesis Eight in the pilot study was partially supported. Interpersonal-sensitivity, depression and psychoticism were the only statistically significant correlations (Jackson & Campbell, 2006). Depression and psychopathology have been stated in studies as indicators of maladaptive defenses (Bond, 2004). The final two hypotheses found there were no differences between males and females on readiness for change and stages of change, constructs of the SOC.

There were some limitations to this study. The sample size should be increased to generalize to the general population. This study was limited to every five sessions rather than looking at a longitudinal study of five sessions over time, which affected the results as well.

For future research, researchers may increase the sample size to increase the power of the study and compare with a normal sample of people. This comparison would give a broader view of defense functioning and symptomology. In addition, “normal” samples would give an indication of what adaptive functioning looks like for those absent of clinical diagnosis. This could serve as good information for treatment planning. A personality measure should be included with these measures. Coping and defense have been correlated with the type of personality a person may have. Finally, looking at conducting a longitudinal study can help

define the types of treatments used, specific diagnoses, defense styles, and change over time (Jackson & Campbell, 2006).

This present study will include a greater sample, will look at profiles with “normal” functioning in comparisons for maladaptive treatment, and use them to extend the current study. The pilot study gave some indications that there was validity in what the study conveyed, thus this extends that notion and further specifies some hypotheses that previously were not identified.

CHAPTER 3

METHODOLOGY

Participants

The participants included 97 clients from a psychology community clinic is a university-based counseling center that serves students and people from North Georgia communities. All of the Center's staff is under the direct supervision of faculty members who are also licensed psychologists. The Center Director is a licensed psychologist. In addition it is a multidisciplinary training center that houses community masters and counseling psychology doctoral clinicians with various ethnicities and theoretical orientations. The community clinic provides professional services for a wide range of emotional, interpersonal, and educational concerns. The clients who participated in the study had various diagnoses. All incoming adult clients who entered the clinic for an intake were given the instruments in a packet; however, those clients who were court ordered or cognitively impaired were omitted for the purposes of this study. There were 73 females and 24 males. The respondents ranged from ages 18-60. Sixty-six percent of the participants were between the ages of 18 and 28. There were 77 White, 11 African-American, 7 Hispanic, and 2 Other participants in this study.

Procedures

This study is a part of an ongoing therapeutic monitoring system established by the center in which symptom measures are taken in increments of five sessions (e.g., 5, 10, and 15) rather than a pre-post type of method. As a part of the client’s initial consent form, authorization to

collect data for the purpose of research was approved. Each participant's clinician explained the consent form and received their signatures before any instruments were administered.

The investigator only used for the purpose of this study those items indicated by Bond and Wesley (1996) for maladaptive and adaptive functioning. The maladaptive defense style consists of immature defense mechanisms such as, withdrawal, acting out, regression, inhibition, passive aggression, and projection. The adaptive defense style consists of mature defense mechanisms, such as humor, suppression, and sublimation (Bond & Wesley). Thus the 88 item, questionnaire was reduced to 40 items. When people see the word defense, it often represents a negative connotation. To rectify that limitations and to help respondents easily understand the content of the instrument, the DSQ was temporarily renamed the Coping Strategy Survey to avoid negative perception of clients.

The respondents were individually administered the DSQ, Stages of Change Scale, Coping Strategy Survey, BDI-II, and BSI during their scheduled counseling sessions. Only the DSQ, the SOC, and the BSI were used in this study. Each instrument was completed in five to ten minutes.

Instrumentation

This study is comprised of three instruments The Defense Style Questionnaire (DSQ), The Brief Symptom Inventory (BSI), and The Stages of Change (SOC).

Defense Style Questionnaire (DSQ)

The Defense Style Questionnaire (DSQ) was developed by Bond and Wesley in 1996. It was used to examine the subject's characteristic style of dealing with conflict, consciously or unconsciously. It is based on the idea that people can accurately comment on their behaviors

from a distance (Bond & Wesley, 1996; Corruble, Bronnec, Falissard, & Hardy, 2004; Davidson & MacGregor, 1998).

The DSQ measures four defense styles: maladaptive, image-distorting, self-sacrificing, and adaptive. This ordering of styles is based on a hierarchy of immature/primitive-mature continuum of defenses (Bond &Wesley, 1996). Several studies suggest adequate reliability and validity of the DSQ. The test-retest reliability for the original DSQ with all four defense styles was highly significant ($p = 0.001$). The DSQ has been correlated with a variety of mental health measures. These measures examined anxiety, depression, medical symptomology, coping, personality disorder, life stress, neuroticism, and eating disorder (Bond & Wesley). There are several studies that have indicated adequate reliability and validity of the DSQ (Bond & Wesley). Stem scores can range from 0-9 with higher scores indicating greater defensive behavior (Azibo et al., 2004; Bond & Wesley). The DSQ was also designed to examine a range of defenses that are accepted by most psychodynamic oriented clinicians (Corruble et al., 2004). The DSQ is also able to discriminate healthy individuals and psychiatric people (Andrews, Pollock, & Stewart, 1989; Nishimura, 1998). The factor loading for maladaptive defense style (.65) is greater than the factor loading for adaptive defense style (.50). The correlation between maladaptive and adaptive defense styles is -.28, which indicates that there is a low inverse relationship between two styles (higher and lower defensive functioning). The test-retest reliability for the maladaptive defense style and the adaptive defense style were $r = .73$ and $r = .69$ respectively. The Cronbach's alpha for the 40 item instrument was .80 ($M = 169.42$, $SD = 33.60$). Nunnally (1978) suggests a value of .70 as an acceptable alpha. DeVellis (1991) listed these guidelines in determining lower and upper limits of alpha: "below .60, unacceptable;

between .70 and .80, respectable; between .80 and .90 very good; much above .90, one should consider shortening the scale" (p. 85).

Strength of Correlation	
Size of r	Interpretation
0.90 to 1.00	Very high correlation
0.70 to 0.89	High correlation
0.50 to 0.69	Moderate correlation
0.30 to 0.49	Low correlation
0.00 to 0.29	Little if any correlation

According to Bond & Wesley (1996), defense theory states that as patients become worse or "regress" during treatment and as they recover adopt more mature defenses. The DSQ demonstrates evidence of decreased reliance on immature defense functioning as patients recover from affective/symptom disorders. Part of the purpose of this study is to take that knowledge and apply to a sample of outpatient clients to determine if indeed this reduction of symptomalogy is occurring.

Brief Symptom Inventory (BSI)

The Brief Symptom Inventory (BSI) was developed by Leonard R. Derogatis in 1979 (Derogatis, 1979). The BSI provides an overview of a client's symptoms and symptom intensity over a specific period of time. The BSI is a self-report measure composed of 20 items. It is also composed of nine scales: Somatization (SOM), Obsessive-Compulsive (O-C), Interpersonal Sensitivity (I-S), Depression (DEP), Anxiety (ANX), Hostility (HOS), Phobic Anxiety (PHOB), Paranoid Ideation (PAR), and Psychoticism (PSY). There are three indices on the BSI: Global Severity Index (GSI), Positive Symptom Distress Index (PSDI), and the Positive Symptom Total (PST). The GSI measures the overall psychological distress level of the client. The intensity of the client's symptoms is assessed by the PSDI. The PST indicates the prevalence of self-reported

symptoms (Derogatis). The BSI functions as an assessment of the participants' level and severity of psychological symptoms. The reliability of the BSI ranges from 0.71 to 0.85.

The Stages of Change (SOC)

The Stages of Change (SOC) is used to measure how people change. It was developed by Prochaska, DiClemente, and Norcross (1992) from a transtheorectical orientation. There were several change techniques examined across different theories. As shown in Table 2, this change process occurs through five stages. The stages each represent a period of time and a set of tasks that are needed to move from one stage to the next. The time that an individual spends in each stage may vary and the tasks to be accomplished may be variable (Prochaska & Norcross, 2001).

Table 2

Explanation of the Stages of Change

Stages of Change	Explanation	Person Reaction
Pre-Contemplation	There is no intention to change behavior in near future.	May be unaware
Contemplation	People are aware that a problem exists and are seriously thinking about overcoming it but have not yet made a commitment to take action.	Can remain stuck in this stage for long periods of time. Weigh pros, cons, and solutions
Preparation	Combines intention and behavioral criteria.	Have made small behavioral changes. May intend to take action the next month, but has been unsuccessful the whole year.
Action	Modify their behavior, experiences, or environment in order to overcome their problems.	Overt behavioral changes Requires commitment, energy, and time.
Maintenance	People work to prevent relapse and consolidate the gains attained during action.	Stabilization of behavior change and avoiding relapse

Note. Taken from Prochaska, DiClemente, & Norcross (1992).

The SOC is a self-report measure with 32 items, but only 30 items are loaded into the five stages of change. This instrument was used to measure participants' readiness for behavioral change. The internal consistency reliabilities for the SOC have ranged from .79 to .89 (McConnaughy, Prochaska, & Velicer, 1983). In addition, studies have yielded intercorrelations from -.52 for Pre-contemplation and Contemplation to .53 for Contemplation and Action. McConnaughy et al. (1983) found that contiguous stages are most highly correlated and that Contemplation, Action, and Maintenance stages are somewhat similar, but not repetitive. This idea is consistent with the original theory of the SOC.

Research Design and Statistical Analysis

This study was a correlational-experimental design. Hypotheses One was analyzed using an independent sample t-test. A maladaptive score was computed by summing all respective items that corresponded with the maladaptive defense style. These items included 2, 4, 9, 10, 17, 19, 21, 22, 25, 27, 28, 29, 32, 33, 35, 36, 40, 41, 46, 49, 50, 54, 55, 60, 62, 63, 65, 67, 69, 73, 75, 82, and 85 (Bond & Wesley,1996). The Global Severity Index (GSI) will be summed according to the BSI-II manual (Derogatis, 1979).

Hypotheses Two and Three will be analyzed using the analysis of variance (ANOVA). The SOC stages were computed into averages according to scoring instructions by Prochaska, DiClemente, and Norcross (1992). The adaptive defense style score were computed by summing all respective items that corresponded with the adaptive defense style. Those items included 3, 5, 8, 59, 61, 68, and 86 (Bond & Wesley, 1996).

Hypotheses Four and Five will be analyzed using a correlation method. The adaptive style scores are summed and correlated with the SOC's readiness of change score, which is

computed according to the SOC manual. Both the DSQ and BSI has one individual score, the sores are correlated to determine the relationship of the correlation.

CHAPTER 4

RESULTS

Of the 97 questionnaires that were completed across the treatment group only 1% (n = 1) was excluded from the sample due to incomplete data. This exclusion was based on the manual of the Defense Style Questionnaire that stipulates a number of responses omitted before the protocol is deemed invalid. There were 3% (n = 3) who were excluded from the BSI sample due the high number of item omissions. All other information was kept as these particular subjects completed all other survey instruments, thus explanation for the total 97 respondents.

Descriptive Statistics for All Subjects

The participants included 97 clients from a psychology community clinic located in the Southeast. The clients who participated in the study had various diagnoses. All incoming adult clients who entered the clinic for an intake were given the instruments in a packet; however, those clients who were court ordered or cognitively impaired were removed for the purposes of this study. Seventy three or 75.3% of the participants were females and 24 or 24.7% of the participants were males. The respondents ranged from ages 18-60. Sixty-six percent (n = 64) of the participants were between the ages of 18 and 28. Seventeen participants (17.5%) were ages 29-39. Eight or 8.2% participants were ages 40-49. Six or 6.2% participants were ages 50-60. Finally two or 2.1% of the participants were ages 60 and above. The largest percentage actually represents the ages that are most served as the clinic is located on a college campus. Of the total sample, 77 (79.4%) described themselves as White, 11 (11%) describes themselves as African-

American, seven (7.2%) described themselves as Hispanic, and two (2.1%) described themselves as being in an Other category of race.

Descriptive Statistics for Defense Usage

In terms of maladaptive defense style usage, of the total sample 99% (n = 96), 2.1% (n = 2) fell in the low range, 61.9% (n = 60) fell in the medium range, and 35.1% (n = 34) fell in the high range. Adaptive defense style usage of the total sample 99% (n = 96), 4.1% (n = 4) fell in the low range, 62.9% (n = 61) fell in the medium range, and 32% (n = 31) fell in the high range. Figure 1 and Figure 2 both illustrate that the participants in the study endorsed functioning in mid range both maladaptively and adaptively.

Descriptive Statistics for Global Score Indices

Of the 97 participants 57.7% (n = 56) GSI scores fell within the medium range, while 36.1% (n = 35) fell within the high range, and only 6.2% (n = 6) fell in the low range. Figure 3 illustrates that respondents described their psychological distress as falling within mid range.

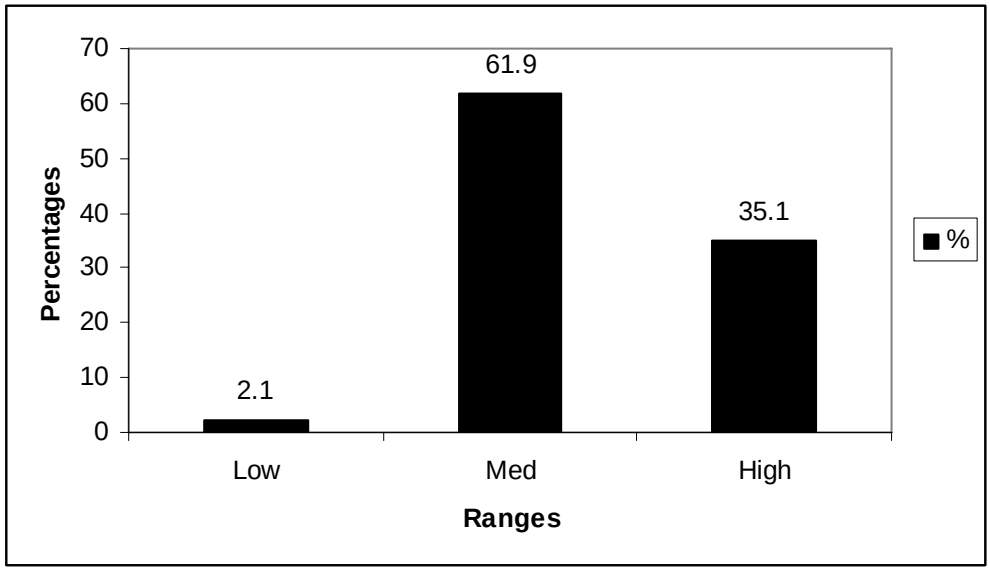

Figure1. Maladaptive defense style usage in sample.

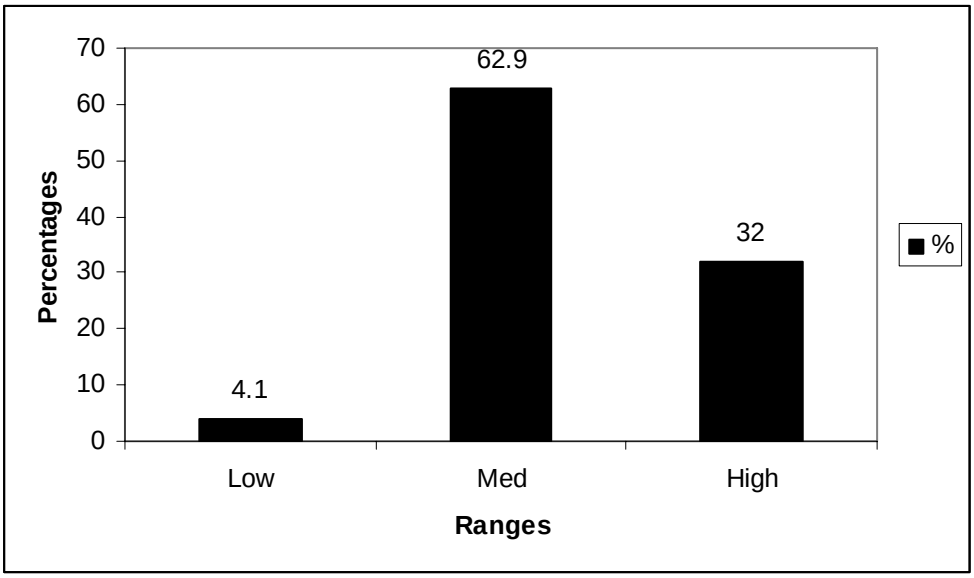

Figure 2. Adaptive style usage in sample.

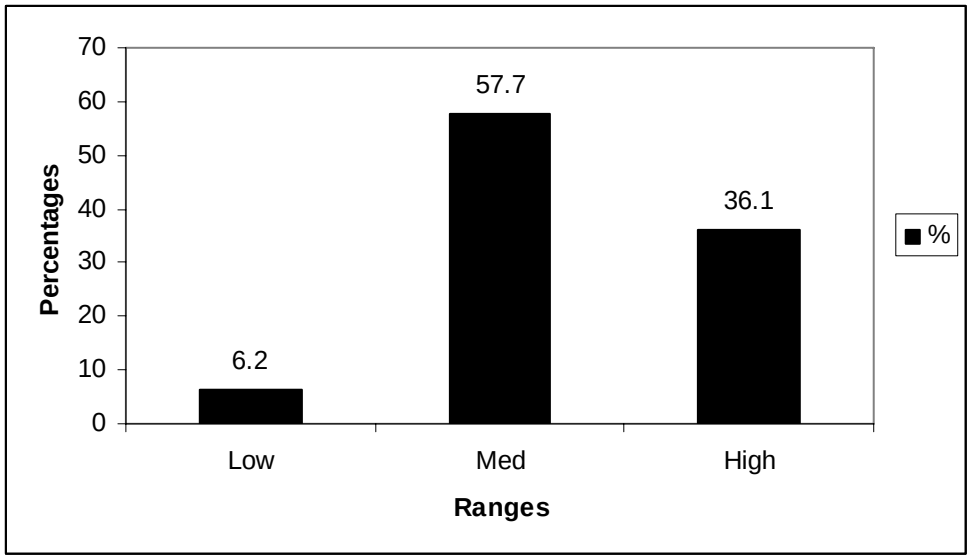

Figure 3. Global severity index frequency among sample.

Descriptive Statistics for Stage of Change

Regarding the sample's stage of change, significantly more participants described themselves as being in the contemplative stage of change (n = 51; 52.6%), while 38.1% (n = 37) described themselves as being in the action stage, 5.2% (n = 5) described themselves as being in

the maintenance stage, and there 4.1% (n = 4) who were defined as in between stages. These percentages are shown in Figure 4.

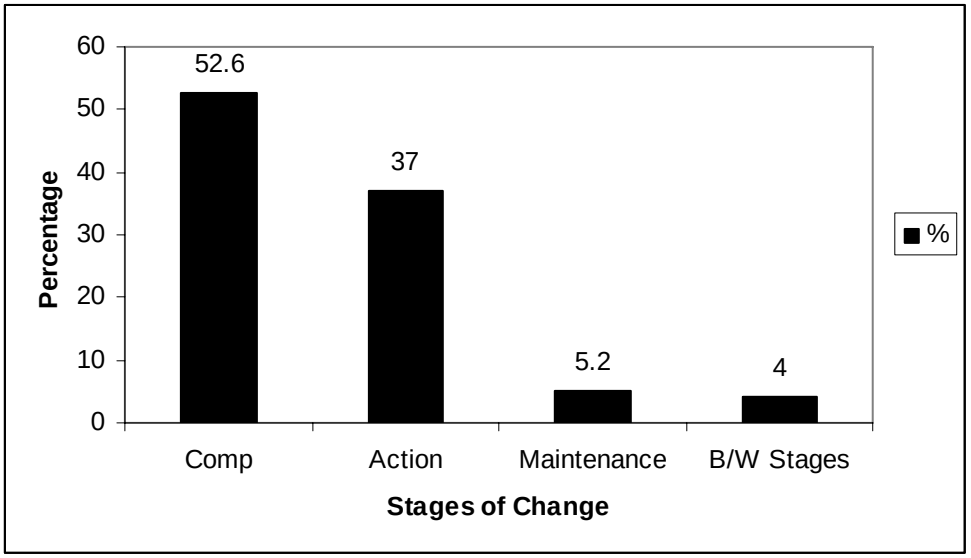

Figure 4. Stages of change in sample.

Results of T-Test for Hypothesis One

Hypothesis One: Those individuals with high maladaptive defense style scores will have high Global Severity Index scores on the Brief Symptom Inventory.

An independent samples t test was conducted with an alpha level of .05 to evaluate the hypothesis that clients who use maladaptive defenses the most will have higher GSI scores on the BSI. The test was significant, $t(92) = -4.39$, $p = .00$. Clients with higher GSI scores used more maladaptive defenses ($M = 1.55$, $SD = .744$) than were those with medium GSI scores on the BSI ($M = .944$, $SD = .579$).

Results of Analysis of Variances (ANOVA) for Hypotheses Two and Three

Hypothesis Two: Those individuals who have high maladaptive defense style scores will be in the pre-contemplative stage of change.

Hypothesis Three: Those individuals who have high adaptive defense style scores will be in the action or maintenance stage of change

Two one-way analyses of variances were conducted to evaluate the relationship between maladaptive and adaptive defense style scores and pre-contemplative, action, and maintenance stages of change. The independent variables, defense style scores, included three levels: low, medium, and high. The dependent variables were the stages of change. Figure 5 illustrates the results of these analyses where it was found that those individuals with high maladaptive scores were in the action stage of change $F(2, 95) = .915$, $p = .40$ and those with high adaptive scores were in the contemplative stage of change $F(1, 90) = .61$, $p = .44$.

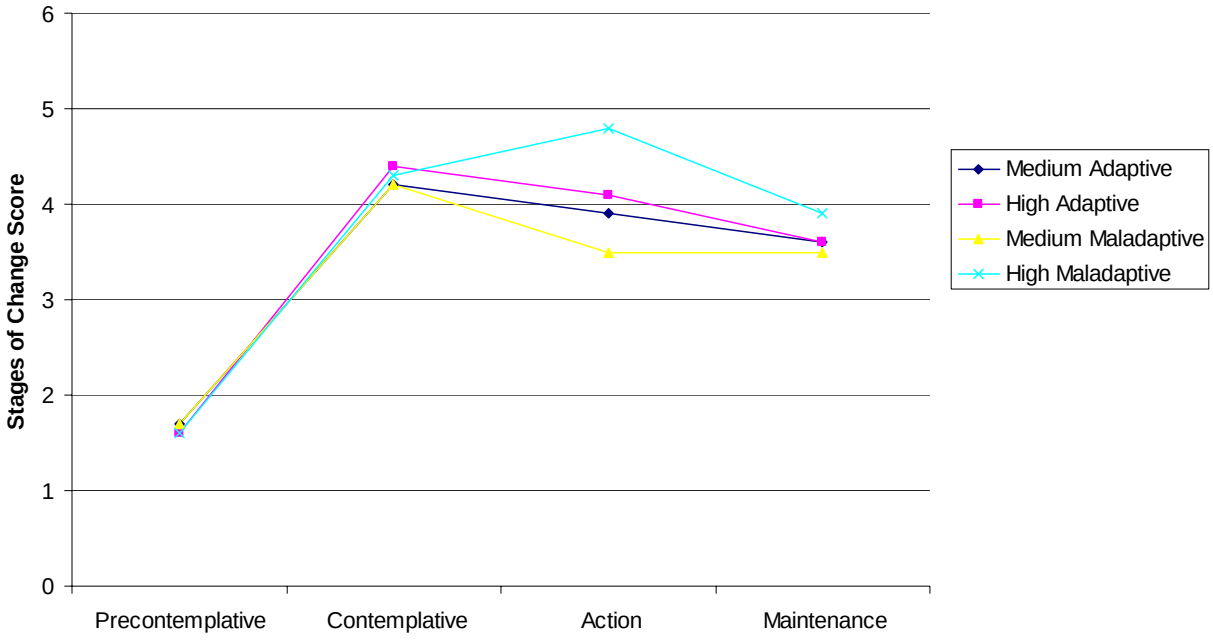

Figure 5. The relationships between stages of change scores and DSQ scores.

Results of Correlations for Hypotheses Four and Five

Hypothesis Four: There is a negative relationship between adaptive defense style scores and readiness for change scores.

Hypothesis Five: Those individuals with high to moderate scores on the Brief Symptom Inventory scales will have a positive relationship with maladaptive defense style scores.

Both Hypotheses Four and Five were analyzed using the Pearson Product Moment correlation. The adaptive style scores are summed and correlated with the SOC's readiness of change score, which is computed according to the SOC manual (Prochaska, DiClemente, & Norcross, 1992). Both the DSQ and BSI has one individual score, the sores are correlated to determine the relationship of the correlation. Table 3 illustrates that there was no relationship found between adaptive defense style scores and readiness for change scores, however there was a significant relationship between the global severity indices of the BSI and maladaptive defense scores $r(95) = .55,\ p < .001$.

Table 3

The Correlation between Defense Style Scores and Readiness for Change

Variables		Readiness for Change
Total Maladaptive	Pearson Correlation	.226**
	Sig, (2 tailed)	.027
	N	96
Total Adaptive	Pearson Correlation	.191
	Sig (2 tailed)	.062
	N	96

** Correlation is significant at the .001 level (2 tailed)

Supplemental Analyses

A correlation matrix of all study variables was constructed (see Table 4). Of interest is the lack of correlation between maladaptive and adaptive defense styles. This finding suggests that the constructs of maladaptive and adaptive defense styles are orthogonal. Further, the correlation between the Action stage of the SOC and the GSI lends support to the possibility that clients with psychological distress may be more actively engaged in the therapeutic process.

Table 4

Correlations across All Groups

Defense Style	Variables Included in Study					
	Pre-Contemplative	Contemplative	Action	Maintenance	Readiness for Change	GSI
Maladaptive	-.087	.157	.765**	.446**	.226*	.550**
Adaptive	-.125	.168	.238*	.055	.191	.022

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed)

A post hoc independent t-test was performed to determine whether the Action scores for clients with high maladaptive defenses were different from the medium maladaptive clients (see Figure 5). The result indicated that the Action score for the high maladaptive defense group was higher than the medium maladaptive defense group ($t = 6.33$, $p < 0.001$).

CHAPTER 5

DISCUSSION

Restatement of the Problem

The field continues to seek instruments that will help clients move to their next level of growth/change and help guide treatment planning. By doing so, clinicians will be promoting better outcomes in therapy and supporting the drive for more EBT in their practice. This study seeks to use the Stages of Change, Defense Style Questionnaire, and the Beck Symptom Inventory to help develop a battery of instruments to help guide treatment planning.

Restatement of the Purpose

The purpose of this study was to examine the usefulness of the Defense Style Questionnaire (DSQ) in treatment planning. This study may also assist therapists in facilitating a healthier (adaptive) defense style with clients through formulation of appropriate treatment plans. In addition, the Maladaptive and Adaptive scales of the DSQ will be examined in relationship to treatment variables: the Stages of Change and Brief Symptom Inventory (BSI) indices. The investigator hypothesized that if clinicians had a clear sense as to how clients cope with difficulties, along with their Stage of Change, and psychological problems that the clinicians can form more tailored decisions about their clients.

Restatement of the Procedures

This study is a part of an ongoing therapeutic monitoring system established by the center in which symptom measures are taken in increments of five sessions (e.g., 5, 10, and 15). As a part of the client's initial consent form, authorization to collect data for the purpose of research

was approved. Each participant's clinician explained the consent form and received their signatures before any instruments were administered.

The investigator only used for the purpose of this study those items indicated by Bond & Wesley (1996) for maladaptive and adaptive functioning. Thus the 88 item, questionnaire was reduced to 40 items. When people see the word defense, it often represents a negative connotation. To rectify that and to help respondents easily understand the content of the instrument, the DSQ was renamed the Coping Strategy Survey to avoid negative perception of clients.

The respondents were individually administered the DSQ, Stages of Change Scale, Coping Strategy Survey, BDI-II, and BSI during their scheduled counseling sessions. Only the DSQ, the SOC, and the BSI were used in this study. Each instrument was completed in five to ten minutes.

Hypotheses included in the Study and Conclusions

Hypothesis One stated that those individuals with high maladaptive defense style scores would have high GSI scores on the BSI. This hypothesis was supported. The researcher predicted that high GSI scores on the BSI within the clinical significant range specify that an individual is functioning on an abnormal level. Likewise with high maladaptive defense style scores on the DSQ indicate that individual is not adapting normally. This finding was also supported by previous pilot study conducted by Jackson and Campbell (2006). Watson's (2002) study also indicated that when examining the BSI and the DSQ-40 that immature/maladaptive defenses were major predictors of symptom patterns. Bond and Perry (2004) found that psychological distress significantly improved defense usage. In addition, Holi, Sammallahti, and Aalberg (1999) indicated in their findings that 51% of the variation found in their sample of 337 subjects'

GSI scores could be explained by their defense styles. Immature/maladaptive defense styles were found to represent most of the variation in the symptoms. Piersma, Reaume, and Boes (1994) found that 50% of their inpatient population in their study illustrated a decrease of GSI. This fact indicated that there was significant change in posttreatment within normal range. However, a study done by Emery (1999) found that there was no correlation between defenses and the BSI.

Hypothesis Two states that those individuals who have high maladaptive defense style scores will be in the pre-contemplative stage of change. This hypothesis was not supported. It was found that those individuals with high maladaptive scores were in the action stage of change.

The researcher predicted that those with high maladaptive defense scores would be symptomatic and thus would indicate a pre-contemplation thought process in terms of change. These results differ from the research indicated by Bond (2004) who found in his studies that those individuals who use maladaptive defenses move toward greater usage of adaptive defenses. When examining any version of the DSQ Bond (2004) has indicated that Maladaptive defenses are significantly correlated with mental disorders and symptomology. Chun-Yun & Ying (2005) also found in a 10-session pre-post study that mature defenses were significantly lower in OCD patients than in undiagnosed patients and immature defense were significantly higher in OCD patients than in other patients.

Hypothesis Three states that those individuals who have high adaptive defense style scores will be in the action or maintenance stage of change. The hypothesis was not supported. It was found that those with high adaptive scores were in the contemplative stage of change. The researcher predicted that those with higher adaptive functioning would be found in a higher stage of change, action or maintenance. The author thought that those with adaptive defenses, if in a therapeutic environment, would be more “willing to make behavioral changes and overcome

their difficulties". Likewise, those with maladaptive defenses would be "unaware of their problems" or have "no intention to change" (Prochaska & Norcross, 2001, pp. 443-444). Hersoug et al. (2002) found that improvement in the symptoms experienced by clients occurred early in therapy and overall defensive functioning improved mainly during the last half of therapy. Bond (2004) found that adaptive defenses are correlated with greater health and prognosis in therapy. Unlike findings in Hypotheses Two and Three, Jackson & Campbell's (2006) study indicated that that those with adaptive defense styles would be in the action stage and those with maladaptive defense styles were in the pre-contemplative stage.

Hypothesis Four indicated that there is a negative relationship between adaptive defense style scores and readiness for change scores. There was no relationship found between these two variables. The researcher predicted that the more defended an individual is the less ready she/he is for change in therapy.

A study conducted by Derisley & Reynolds (2002) found that when using score averages instead of the highest score method as indicated by the SOC manual that subjects held attitudes/beliefs that correspond with several different stages of change. This finding is also supported by Sutton (1996) who conceptualized the SOC scores as reflecting, "competing and conflicting tendencies regarding change" (p. 221). According to Derisley and Reynolds' (2002) critique of the SOC there is some uncertainty in the process of client's moving in and out of stages.

Hypothesis Five stated that those individuals with high to moderate scores on the Brief Symptom Inventory scales will have a positive relationship with maladaptive defense style scores. The hypothesis was supported. There was a significant relationship between the global

severity indices of the BSI and maladaptive defense scores. The researcher predicted that the symptomatic individuals are on the BSI the more their maladaptive defense style usage.

Unlike the researcher, Velasquez, Carbonari, and DiClemente's (1999) study on the BSI and SOC in alcoholism findings indicated that the more the subject's psychiatric distress the more higher the score on maintenance stage of change. The author discussed this relationship as perhaps the subject's need to worker harder or be vigilant to prevent relapse. In addition, the author's indicated similar results found in a study at an outpatient mental clinic where researcher King (1994) found those in maintenance stage appeared to have the most severe and chronic symptoms.

Implications

In terms of using the DSQ, BSI, and the SOC as a battery of tests there is no research available to explain using all three in treatment planning or in research period. However, there are studies using two of the instruments together amongst the three. Bond (2004) states that using the DSQ as a guide for treatment is an intriguing assessment, but also indicates it is rare to use systematic assessments of defenses for the sole purposes of treatment planning.

Hypothesis Two could possibly be explained by the sample used in the study. Normally most clients that come to therapy to be seen have identified that there are some negative/ maladaptive behaviors that they want to change and are taking action by coming to therapy. Thus, this could be understood under the pretenses that perhaps the clients in this study were future seeking or looking toward solving/working on their clinical issues.

A possible explanation for the opposite result in Hypothesis Three could be an indication of those with adaptive behaviors feel there may be little change to be made to their lives. In

addition, perhaps they may see change as being more than what needs to happen for them, thus causing them to fall in the contemplative stage of change.

Hypothesis Four could also be explained by what occurred in hypothesis three. In that those who were functioning on an adaptive level may see no need to change or may feel they have already made changes that suit their lives.

Overall, Watson (2002) and Feldman, Araujo, and Steiner (1996) both agree that profiles of defense mechanism usage has "broad ranging clinical utility in treatment planning and predicting the course of treatment" (p. 286). This has not been supported with the results of this study. In addition, later authors have suggested that knowledge of which defenses are used along with the disorders can be an asset to clinicians. Certainly, the results indicate that what a clinician may propose as the usage of defense styles can be ultimately misjudged. It does however open some questions. One, if defense style usage and stage of change are conflictual, what does that mean for the population seen in therapy? How does one use that data to determine what stages, disorders, psychological distress, and defenses should say about the population for treatment planning?

Recommendations for Future Research

Any future research should include an increase in sample size and specific analyses aimed at looking at racial and gender differences. Examining how therapist variables such as ethnicity/race of the clinician, theoretical orientation of the clinician, level of experience of the clinician, and therapeutic relationship between client and clinician would interplay with the study would be valuable. It is also recommended to using a pre-post test study design to determine if the results would have been different. The researcher would also recommend using an impatient setting to look at psychopathological differences through the use of personality tests like the

MMPI or PAI. Finally, looking at conducting a longitudinal study can help define the types of treatments used, specific diagnoses, defense styles, and change over time.

REFERENCES

Ahn, H., & Wampold, B. (2001). Where oh where are the specific ingredients? A meta-analysis of component studies in counseling and psychotherapy. *Journal of Counseling Psychology, 48*(3), 251-257.

Akkerman, K, Carr, V, & Lewin, T. (1992). Changes in ego defense in recovery from depression. *Journal of Nervous and Mental Disease, 180*(10), 634-638.

Alford, B. A., & Gerrity, D. M. (1995). The specificity of sociotropy-autonomy personality Dimensions to depression vs. anxiety. *Journal of Clinical Psychology*, *51*, 190-195.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

American Psychological Association (2006). *Mental health disorders*. Retrieved July 1, 2006 from http://apahelpcenter.org

Andrews, G., Peters, L., & Teesson, M. (1994). *Measure of consumer outcome in mental Health: A report to National Mental Health Information Strategy Committee*. Sydney, Australia: Clinical Research Unit for Anxiety Disorders.

Andrews, G., Pollock, C., & Stewart, G. (1989). The determination of defense style by questionnaire. *Archives of General Psychiatry, 46*, 455-460.

Azibo, D. Y., Jackson, A. L., & Slater, S. (2004). A test of theoretical propositions about psychological defense mechanism functioning in contemporary African descent people. *Journal of Social Relations, 28*(1), 83-108.

Baer, M. A. (2004). Two important issues for psychotherapy professionals. *Annals of the American Psychotherapy Association, 7*(1), 32-33.

Barlow, D. H. (Ed.) (2001). *Clinical handbook of psychological disorders: A step-by-step treatment manual* (3rd ed.). New York: Guilford Press.

Baumeister, R. F., Dale, K., & Sommer, K. L. (1998). Freudian defense mechanisms and empirical findings in modern social psychology: Reaction formation, projection, displacement, undoing, isolation, sublimination, and denial. *Journal of Personality, 66,* 1081-1124.

Beck, A. T., Rush, J. A., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford Press.

Beck, J. S. (1995). *Cognitive therapy: Basics and beyond.* New York: Guilford Press.

Beutler, L. E., Moos, R. H., & Lane, G. (2003). Coping, treatment planning, and treatment outcome: Discussion. *Journal of Clinical Psychology, 59*(10), 1151-1167.

Blechman, E. A. (2000). Resilience. In A. E. Kazdin (Ed.), *Encyclopedia of psychology* (Vol. 17, p. 537). New York: Oxford University Press.

Bond, M. (1986). Defense style questionnaire. In G. E. Valliant (Ed.), *Empirical studies of ego mechanisms and defense* (pp. 146-152). Washington, DC: American Psychiatric Press, Inc.

Bond, M. (2004). Empirical studies of defense style: Relationships with psychopathology and change. *Harvard Review of Psychiatry, 12*, 263-278.

Bond, M., Gardner, S., Christian, J., & Sigal, J. (1983). Empirical study of self-related defense styles. *Archives of General Psychiatry, 40*, 333-338.

Bond, M., & Perry, J. C. (2004). Long-term changes in defense styles with psychodynamic Psychotherapy for depressive, anxiety, and personality disorders. *American Journal of Psychiatry, 161*(9), 1665-1671.

Bond, M., & Wesley, S. (1996). *Manual for the Defense Style Questionnaire (DSQ)*. Montreal, Canada: McGill University.

Brown, S. D., & Lent, R. W. (2008). *Handbook of counseling psychology*. Hoboken, NJ: John Wiley.

Burger, J. M. (2000). *Personality*. (5th ed). California: Wadsworth.

Callaly, T., & Hallebone, E. L. (2001). Introducing the routine use of outcome measures to mental health services. *Australian Health Review, 2*, 43-50.

Chambliss, D. L., Baker. M. J., Baucom, D. H., Beutler, L. E., Calhoun, K. S. et al. (1998). Update on empirically validated therapies II. *Clinical Psychologist, 51*, 3-16.

Chambliss, D. L., & Ollenick, T. (2001). Empirically supported psychological interventions: Controversies and evidence. *Annual Review of Psychology, 52*, 685-716.

Chun-Yun, S., & Ying, Q. (2005). The defense mechanism and the changes after the treatment of patients with obsessive-compulsive disorder. *Chinese Mental Health Journal, 19*(12), 829-831.

Chung, T., Langenbucher, J., Labouvie, E., Noyes, C., Coutts, A., Moos pandina, R. J., & Moos, R. (2001). Changes in alcoholic patients' coping responses predict 12-month treatment Outcomes. *Journal of Consulting and Clinical Psychology, 69*, 92-100.

Corruble, E., Bronnec, M., Falissard, B., & Hardy, P. (2004). Defense styles in depressed suicide attempters. *Psychiatry and Clinical Neuroscience, 58*, 285-288.

Cramer, P. (1991). *The development of defense mechanisms: Theory, research, and assessment*. New York: Springer Verlag.

Cronkite, R., Moos, R., Twohey, J., Cohen, C., & Swindle, R. (1998). Life context, coping process, and depression. In E. Beckham & B. Leber (Eds.), *Handbook of depression* (2nd ed., pp. 569-587). New York: Guilford Press.

Davidson, K., & MacGregor, M. (1998). A critical appraisal of self-report defense mechanism measures. *Journal of Personality, 66*(6), 965-992.

Derogatis, L. R. (1979). *Brief symptom inventory administration, scoring, and procedures manual*. San Antonio, TX: The Psychological Corporation.

Derisly, J., & Reynolds, S. (2002). Evaluation of the stages of change scales to measure client Readiness for treatment in a mental health sample. *Behavioural and Cognitive Psychotherapy, 30*, 217-222.

DeVellis, R. F. (1991). *Scale development: Theory and applications*. Newbury Park, CA: Sage

DiClemente, C. C., & Prochaska, J. O. (1982) Self-change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. *Addictive Behaviors, 7*(2), 133-142.

Emery, W. (1999). Coping styles, belonging, and control among a mood and anxiety disorder population (Doctoral dissertation, Adler School of Professional Psychology, 1999). *Dissertation Abstracts International, 59*, 12-B.

Erdelyi, M. H. (1985). *Psychoanalysis: Freud's cognitive psychology*. New York: W. H. Freeman and Company.

Feldman, S. S., Araujo, K. B., & Steiner, H. (1996). Defense mechanisms in adolescents as a function of age, sex, and health status. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*, 1344-1358.

Folkman, S., Lazarus, R. S., Pimpley, S., & Novacek J. (1987). Age differences in stress and coping processes. *Psychology and Aging, 2*(2), 171-184.

Foreman, S. A., & Marmar, C. R. (1985). Therapist actions that address initially poor therapeutic alliances in psychotherapy. *American Journal of Psychiatry, 142*, 922-926.

Frank, J. (1963). *Persuasion and healing: A comparative study of psychotherapy*. New York: Schocken Books.

Franken, H. A, Hendriks, V. M., Haffmans, P. M. J., & Van der Meer, C. W. (2001). Coping style of substance abuse patients: Effects of anxiety and mood disorders on coping change. *Journal of Clinical Psychology, 57*, 299-306.

Freud, A. (1936). *The ego and the mechanisms of defense*. New York: International Universities.

Freud, S. (1923). *The ego and ID*. New York: W.W. Norton and Company.

Gazda, G. M., Ginter, E. J., & Horne, A. M. (2001). *Group counseling and group psychotherapy: Theory and application*. Boston: Allyn and Bacon.

Greenburg, L. S., & Safaran, J. D. (1987). *Emotion in psychotherapy: Affect, cognition, and the process of change*. New York: Guilford Press.

Haynes, S. N., Leisen, B. B, & Blaine, D. D. (1997). Design of individualized behavior treatment programs using functional analytic clinical case models. *American Psychological Assessment, 9*(4), 334-348.

Hersoug, A. G., Sexton, H. C., & Hoglend, P. (2002). Contribution of defensive functioning to the quality of working alliance and psychotherapy outcome. *American Journal of Psychotherapy, 56*(4), 539-554.

Holi, M. M., Sammallahti, P. R., & Aalberg, V. A. (1999). Defense styles explain psychiatric symptoms: An empirical study. *The Journal of Nervous and Mental Disease, 187*(11), 654-660.

Horowitz, M. J. (1988). *Introduction to psychodynamics*. New York: Basic Books.

Howes, L., & Parrot, C. A. (1991). Conceptualization and flexibility of cognitive therapy. In T. M. Vallis, J. L. Howes, & P. C. Miller (Eds.), *The challenge of cognitive therapy: Applications to nontraditional populations* (pp. 3-24). New York: Springer.

Jackson, A. L., & Azibo, D. (2001). Psychological defense mechanisms: Comparing an African-U.S. sample of college students with norms taken from clinical and non-clinical white populations. *McNair Journal, 12,* 24-26.

Jackson, A. L., & Campbell, L. F. (2006). *The effects of change and symptomology on defense styles*. Unpublished manuscript.

Jacobson, N. S., & Trauax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59,* 12-19.

King, T. K. (1994). *Personality and its relation to readiness to change variables and attendance among psychotherapy outpatients*. Unpublished doctoral dissertation, University of Houston, Texas.

Kneepkens, R. G., & Oakley, L. D. (1996). Raid improvement in the defense style of depressed women and men. *Journal of Nervous and Mental Disease*, *184*(6), 358-361.

Lambert, M. J., Hansen, N. B., & Finch, A. E. (2001). Patient-focused research: Using patient outcome data to enhance treatment effects. *Journal of Consulting and Clinical Psychology, 69,* 159-172.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Levant, G. (2005). *Report of presidential task force report on evidence based treatment*. Washington, DC: American Psychological Association.

Lin, X., Hu, C., & Hu, J. (2002). Defense mechanism and its related factors in patients with obsessive-compulsive disorder. *Chinese Journal of Clinical Psychology*, *10*(1), 14-16.

McConnaughy, E. A., Prochaska, J. O. & Velicer, W. F. (1983). Stages of change in psychotherapy: Measurement and sample profiles. *Psychotherapy: Theory, Research, and Practice, 20,* 368-375.

Meichenbaum, D. (1977). *Cognitive-behavior modification: An integrative approach*. New York: Springer.

Meichenbaum, D. (1996). Stress inoculation training for coping with stressors. *The Clinical Psychologist*, *49*, 4-7.

Minasian, G. (2005). Development of a measure of negative beliefs about change in psychotherapy (Doctoral Dissertation, University of Arizona, 2005). *Dissertation Abstracts International, 65,* 12-A.

Moser, A. E., & Annis, H. M. (1996). The role of coping in relapse crisis outcome: A prospective study of treated alcoholics. *Addiction, 91*, 1101-1113.

Mullen, L. S., Blanco, C., Vaughan, S. C., Vaughan, R., & Roose, S. P. (1999). Defense mechanisms and personality in depression. *Depression and Anxiety, 10*, 168-174.

Nathan, P. E., & Gorman, J. M. (Eds.) (2002). *Guide to treatments that work* (2nd ed). Oxford: Oxford University Press.

Newnham, E. A., & Page, A. C. (2007). Client-focused research: New directions in outcome assessment. *Behaviour Change, 24*(1), 1-6.

Nishmura, R. (1998). Study of the measurement of defense style using Bond's defense style questionnaire. *Psychiatry and Clinical Neurosciences, 52*, 419-442.

Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of depressive episodes. *Journal of Abnormal Psychology, 100*(4), 569-582.

Norcross, J., Santrock, J., Campbell, L., Smith, T., Sommer, R., & Zuckerman, E. (2000). *Authoritative guide to self-help resources in mental health*. New York: Guilford Press.

Nunnally, J. O. (1978). *Psychometrics theory*. New York: McGraw-Hill.

Ouimette, P. C., Ahrens, C., Moos, R. H., & Finney, J. W. (1997). Posttraumatic stress disorder in substance abuse patients: Relationship to 1-year posttreatment outcomes. *Psychology of Addictive Behaviors, 11*, 34-47.

Piersma, H. L., Reaume, W. M., & Boes, J. L. (1994). The brief symptom inventory (BSI) as an Outcome measure for adult psychiatric inpatients. *Journal of Clinical Psychology*, *50*(4), 555-563.

Petrocelli, J. (2002). Effectiveness of group cognitive-behavioral therapy for general symptomology: A meta-analysis. *The Journal for Specialists in Group Work*, 27(1), 92-115.

Pollock, C., & Andrews, G. (1989). Defense styles associated with specific anxiety disorders. *The American Journal of Psychiatry, 146*, 1500-1502.

Prochaska, J. O., & DiClemente, C. C. (1986). The transtheorectical approach. In J. C. Norcross (Ed.), *Handbook of eclectic psychotherapy* (pp.163-200). New York: Beunner/Mazel.

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. *American Psychologist, 47*(9), 1102-1114.

Prochaska, J. O., & Norcross, J. C. (2001). Stages of change. *Psychotherapy, 38*(4), 443-448.

Prochaska, J. O., & Norcross, J. C. (2003). Systems of psychotherapy (5th ed.) Pacific Grove, CA: Brooks/Cole.

Prochaska, J. O., Rossi, J. S., & Wilcox, N. S. (1991). Change processes and psychotherapy outcome in integrative case research. *Journal of Psychotherapy Integration, 1,* 103-120.

Roberts, F. M. (1997). *Therapy sourcebook*. Los Angeles, CA: Lowell House.

Rothstein, M. M., & Robinson, P. J. (1991). The therapeutic change and resistance to change in cognitive therapy. In T. M. Vallis, J. L. Howes, & P. C. Miller (Eds.), *The challenge of cognitive therapy: Applications to non-traditional populations* (pp. 59-84). New York: Plenum Press.

Sahin, N., Ulusoy, M., & Sahin, N. (1993). Exploring the sociotropy-autonomy dimensions in a sample of Turkish psychiatric inpatients. *Journal of Clinical Psychology, 49,* 751-763.

Steenbarger, B. N., & Smith, H. B. (1996). Assessing the quality of counseling services: Developing accountable helping systems. *Journal of Counseling & Development, 75,* 145-150.

Sutton, S. (1996). Can “stages of change” provide guidance in the treatments of addictions? A critical example of Prochaska and DiClemente’s model. In G. Edwards & T. Dare (Eds.), *Psychotherapy, psychological treatments and the addictions* (pp. 189-205). Cambridge, MA: Cambridge University Press.

Timko, C., Moos, R., Finney, J., & Lesar, M. (2000). Long-term outcomes of alcohol use disorders: Comparing untreated individuals with those in Alcoholics Anonymous and formal treatment. *Journal of Studies on Alcohol, 61*, 529-540.

Vaillant, G. (1977). *Adaptation to life*. Boston, MA: Little Brown.

Vaillant, G. (1993). *The wisdom of the ego*. Cambridge, MA: Harvard University Press.

Vaillant, L. M. (1997). *Changing character: Short-term anxiety-regulating psychotherapy for restructuring defenses, affects, and attachment*. New York: Basic Books.

Vallis, T. M. (1991). Theoretical and conceptual bases of cognitive therapy. In T. M. Vallis, J. L. Howes, & P. C. Miller (Eds.), *The challenge of cognitive therapy: Applications to nontraditional populations* (pp. 3-24). New York: Springer.

Velasquez, M. M., Carbonari, J. P., & DiClemente, C. C. (1999). Psychiatric severity and behavior change in alcoholism: The relation of the transtheoretical model variables to psychiatric distress in dually diagnosed patients. *Addictive Behaviors*, 24(4), 481-496.

Wastell, C. A. (1999). Defensive focus and the defense style questionnaire. *The Journal of Nervous and Mental Disease*, 187(4), 217-223.

Watson, D. C. (2002). Predicting psychiatric symptomology with defense style questionnaire-40. *International Journal of Stress Management*, *9*(4), 275-287.

Weinberg, G. (1984). *The heart of psychotherapy*. New York: St. Martin's Press.

Whipple, J. L., Lambert, M. J., Vermeesch, D. A., Smart, D. W., Nielson, S. L., & Hawkins, E. J. (2003). Improving the effects of psychotherapy: The use of early identification of treatment failure and problem solving strategies in routine practice. *Journal of Counseling Psychology, 58*, 59-68.

Winston, B., Winston, A., Samstag, L. W., & Muran, J. C. (1994). Patient defense/therapist interventions. *Psychotherapy, 31,* 478-491.

Wong, L., Harris, M., Cotton, S., & Edwards, J. (2006). Routine outcome assessment and feedback for clinicians: A pilot in an early psychosis service. *Journal of Mental Health, 15*(3), 279-288.

APPENDIX A

COPING STRATEGY SURVEY

Coping Strategy Survey

1. People often call me a sulker.
   Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

2. I'm able to keep a problem out of my mind until I have time to deal with it.
   Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

3. I'm always treated unfairly.
   Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

4. I work out my anxiety through doing something constructive and creative like painting or woodwork.
   Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

5. I'm able to laugh at myself pretty easily.
   Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

6. I act like a child when I'm frustrated.
   Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

7. I'm very shy about standing up for my rights with people.
   Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

8. I stop myself from going all out in a competition.
   Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

9. Someone is robbing me emotionally of all I've got.
   Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

10. I often am driven to act impulsively.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

11. I'd rather starve than be forced to eat.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

12. People tell me I have a persecution complex.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

13. I often act impulsively when something is bothering me.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

14. I get physically ill when things aren't going well for me.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

15. I'm a very inhibited person.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

16. I withdraw from people when I feel hurt.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

17. I of ten push myself so far that other people have to set limits for me.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

18. I withdraw when I'm angry.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

19. I tend to be on my guard with people who turn out to be more friendly than I would have suspected.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

20. I work more things out in my daydreams than in my real life.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

21. I'm very shy about approaching people.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

22. I get openly aggressive when I feel hurt.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

23. I withdraw when I'm sad.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

24. I'm shy about sex.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

25. If my boss bugged me, I might make a mistake in my work or work more slowly so as to get back at him.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

26. Everyone is against me.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

27. I can keep the lid on my feelings if it would interfere with what I'm doing if I were to let them out.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

28. Some people are plotting to kill me.
Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

29. I'm usually able to see the funny side of an otherwise painful predicament.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

30. I get a headache when I have to do something I don't like.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

31. I often find myself being very nice to people who by all rights I should be angry at.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

32. We should never get angry at people we don't like.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

33. I fell apart under stress.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

34. When I know that I will have to face a difficult situation, like an exam or a job interview, I try to imagine what it will be like and plan ways to cope with it.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

35. Doctors never really understand what is wrong with me.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

36. When I'm depressed or anxious, eating makes me feel better.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

37. My doctors are not able to help me really get over my problems.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

38. No matter how much I complain, I never get a satisfactory response.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

39. I smoke when I'm nervous.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

40. If I were in a crisis, I would seek out another person who had the same problem.
    Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Adapted from *Defense Style Questionnaire (DSQ)* developed by Bond and Wesley (1996).