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An investigation of reactance, coping, quality of life, and well -being

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AN INVESTIGATION OF REACTANCE, COPING, QUALITY OF LIFE, AND WELL-BEING

by

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ABSTRACT

Psychological reactance (reactance) is a personality variable receiving a great deal of attention. Reactance has been defined as the motivational force aroused in an individual when a behavioral freedom is lost or threatened (Brehm, 1966). The current study assessed the interrelationships among psychological reactance, coping, quality of life, and well-being. A total of 353 participants were analyzed for this study. Participants completed four self-report instruments: (1) the Therapeutic Reactance Scale, (2) the Coping Styles Questionnaire, (3) the Overall Quality of Life Scale, (4) the General Well-Being Schedule, and a demographics questionnaire. Significant gender differences existed for reactance, detachment coping, emotional coping, and anxiety well-being; therefore males and females were analyzed separately. As hypothesized, psychological reactance and coping were related. Specifically, emotional coping and detachment coping predicted levels of reactance in males. Emotional coping predicted reactance in females. Likewise, as hypothesized psychological reactance was related to quality of life. A negative relationship was found between reactance and quality of life indicating that as reactance increases quality of life decreases for both males and females. A relationship was found between psychological reactance and well-being indicating that as individuals become more reactant their well-being decreases and they become more self-controlling. This was true for both males and females. As hypothesized, psychological reactance moderated the relationship between reactance and quality of life for males but the

specific nature of the relationship could not be determined. For females, psychological reactance moderated the relationship between detached coping and quality of life. Finally, psychological reactance moderated the relationship between coping and well-being but the exact nature, direction, and intensity could not be determined. These findings, in conjunction with future research, may enhance the process of therapy, therapist-client relations, doctor-patient relations, and employer-employee relations both theoretically and practically.

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DEDICATION

I would like to dedicate my dissertation to my mother, Carolyn Matherne, and father, Ray Matherne, for their never ending support and understanding throughout my life, and my recently deceased brother, Scott Matherne, Sr., who will never be forgotten.

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CHAPTER 1

INTRODUCTION

Psychological reactance (reactance) has received a great deal of attention in the literature. Psychological reactance has been defined as the motivational force aroused in an individual when a behavioral freedom is lost or threatened (Brehm, 1966). The present study assessed the interrelationships among psychological reactance, coping, quality of life, and well-being in a university sample.

According to psychological reactance theory individuals believe that they have both behavioral and cognitive freedoms. An individual makes decisions to satisfy his or her needs by selecting the most beneficial choice. When choices are limited for various reasons, individuals may feel threatened and experience psychological reactance (Brehm, 1966). Brehm (1966) proposed that an individual in a state of psychological reactance may have various responses to the loss or threat of loss of a behavioral freedom. People may attempt to directly re-establish their freedom by engaging in the prohibited behavior regardless of the consequence. They may also react by engaging in a similar behavior, watching others taking part in the prohibited behavior, and/or becoming angry at the entity that took away the behavioral freedom.

Researchers initially regarded psychological reactance as a state or situation specific variable. For example, situations having high levels of structure and/or coercion lead to higher levels of reactance (Dowd, 1999). Therapeutic or prison settings may

be seen as examples of highly structured environments that have the potential to arouse reactance. Recent investigations argue that psychological reactance is an individual trait rather than a situation specific variable (Brehm & Brehm, 1981; Dowd, Milne, & Wise, 1991; Hong & Page, 1989; Jahn & Lichstein, 1980; Rohrbaugh, Tennen, Press, & White, 1981).

Reactance has been studied in relation to many concepts and environments. Psychological reactance has been associated with a variety of personality disorders and personality characteristics. In addition, reactance has been discussed in relation to noncompliance, learned helplessness, and frustration. Specific demographic variables such as gender, race, and age also have painted a picture of the reactant individual. Many settings may be influenced with the reactant individual present. To date, reactance has been researched in relation to the therapeutic, medical, and business settings.

For the purpose of this study, the relationships among four client variables were investigated. The variables were psychological reactance, coping, quality of life, and well-being. Thus far, the research conducted has focused on relationships between psychological reactance and coping, coping and quality of life, as well as coping and well-being. Palmentera (1996) found a relationship between psychological reactance and coping. It would appear that if reactance is related to several negative characteristics such as frustration, loneliness, and hostility, reactance may also be related to decreases in quality of life and well-being (Bischoff, 1997; Joubert, 1990; Seemann, 2003). Understanding the relationships among these four variables, reactance, coping, quality of life, and well-being, may enhance many environments.

Statement of the Problem

Recent investigations have attempted to expand the concept of psychological reactance conceptually as well as theoretically. A study completed by Palmentera (1996) investigated specific relationships among psychological reactance, coping, stress, and gender. Coping may be defined as one's efforts to efficiently deal with threatening, harmful, or challenging conditions when an automatic or routine response is not readily available (Lazarus, Averill, & Opton, 1974; Lazarus & Folkman, 1984; Monat & Lazarus, 1985; White, 1974). Otherwise stated, coping may be seen as an emotional or behavioral response to internal or external demands (Lazarus & Folkman, 1984). Coping may be discussed in a variety of ways.

The results of Palmentera's study (1996) indicated that reactant individuals utilized more emotion-focused coping rather than task-focused. The researcher suggested that reactant individuals usually did not use healthy coping strategies (task-focused coping) when seeking to regain control of a lost or threatened free behavior. With this finding, a more comprehensive conceptual framework of psychological reactance was obtained.

Additionally, specific types of coping have been shown to influence individuals' quality of life. Maladaptive coping significantly lowered quality of life in HIV+ adults (Vosvick, Gore-Felton, Koopman, Thoresen, Krumboltz, & Spiegel, 2002). Comparable results were found in diabetic patients. Diabetic patients using avoidant coping were found to have less favorable quality of life than diabetic patients using confrontational coping (Coelho, Amorim, & Prata, 2003). In a sample of depressed patients, emotion focused coping was used frequently and diminished quality of life was observed

(Ravindran, Matheson, Griffiths, Merali, & Anisman, 2002). Schouws, Dekker, Tuynman-Qua, Kwakman, and Jonghe (2001) indicated that avoidance coping in depressed patients led to lower levels of quality of life. Subsequently, Fauerbach, Lawrence, Bryant, and Smith (2002) found that the use of ambivalent coping led to a decrease in quality of life.

Echteld, Van Elderen, and Van Der Kamp (2003) stated that approach coping predicted positive quality of life variables. Mothers of adult children with intellectual disabilities improved their quality of life when problem-focused coping was enacted (Kim, Greenberg, Seltzer, & Krauss, 2003). Schouws et al. (2001) found that depressed individuals who used active coping were associated with higher levels of quality of life. The literature indicates diminished quality of life when emotion, avoidant, or ambivalent coping is employed and better quality of life when problem-focused or active coping is used.

Well-being has also been researched in relation to coping. Well-being may be discussed in two categories: mental well-being and physical well-being. Both physically and mentally, an individual's well-being may be influenced by the type of coping. Depressed mood, anxiety, and negative affect are positively related to avoidance coping according to Billings and Moos (1981). Many other studies have reported avoidance coping positively associated with psychological distress (Aldwin & Revenson, 1987; Felton, Revenson, & Hinrichsen, 1984; Fleishman & Fogel, 1994; McCrae & Costa, 1986; Pearlin & Schooler, 1978). In addition, in a sample of married adults, problem-focused coping was negatively associated with psychological symptoms (Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986). Mothers of adult children with an

intellectual disability or a mental illness exhibited declining levels of well-being when emotion-focused coping was utilized (Kim et al., 2003). Lastly, in a sample of depressed patients, coping was related to symptom severity and treatment-resistance (Ravindran et al., 2002).

Physical well-being, as it related to coping style, may be negatively affected by avoidance coping. Nowack (1991) found individuals who utilized avoidance coping styles were more likely to have physical illness. Fleishman and Vogel (1994) found avoidance coping styles to increase negative health behaviors. Epsetin and Katz (1992) also found that individuals who utilized more problem-focused techniques reported fewer physical symptoms, accidents, and skin problems.

Although many studies have been conducted on each construct, a comprehensive study with reactance, coping, quality of life, and well-being has yet to be performed. Prior research failed to detail possible interrelationships among these constructs. There is evidence of the relationships of: reactance with coping, coping with quality of life, and coping with well-being, as well as coping with treatment resistance. One might contemplate that with elevated levels of reactance, an individual may have poor coping skills and experience decreases in quality of life and well-being. Palementera (1996) found that highly reactant individuals were more likely to experience stress, as well as to have more emotion-focused coping.

The present study was aimed at conceptually expanding psychological reactance by examining the various relationships that may exist among the constructs coping, quality of life, and well-being. Additionally, by decreasing individuals' levels of psychological reactance they may have fewer negative outcomes and more adaptive

coping, better quality of life, and elevated well-being. Higher levels of reactance have been related to several negative outcomes. This study sought to add to the existing body of reactance literature, while better understanding the reactant individual in order to decrease negative life outcomes.

Justification for the Study

Reactance is a construct that has been investigated and frequently used during the last 40 years. With the emergence of numerous studies of psychological reactance, a better understanding of how it influences individuals would be helpful. The construct of reactance in relation to personality characteristics and personality disorders spans many settings such as medical, business, and therapeutic settings. With repeated usage of reactance in the literature and use of reactance measures in various settings, continued research on this construct is warranted.

Numerous studies have been conducted linking psychological reactance to various personality characteristics and disorders. Joubert (1990) found psychological reactance to be positively correlated with loneliness and negatively correlated with self-esteem and happiness. Dowd and Wallbrown (1993) found that individuals high in psychological reactance were more defensive, dominant, aggressive, and autonomous. Dowd, Wallbrown, Sanders, and Yesenosky (1994) stated that reactant individuals were less concerned about making a good impression upon others, less tolerant of the beliefs of others, less likely to adhere to social rules and norms, resistant to outside rules and regulations, and more inclined to express strong emotions concerns and worries about the future.

Huck (1998) found high levels of reactance in paranoid, borderline, sadistic, and antisocial personality patterns. Additionally, Huck found a negative correlation between psychological reactance and each of the following personality styles: dependent, avoidance, and histrionic. Mallon (1992) found antisocial behaviors to be associated with psychological reactance. Seibel and Dowd (2001) discovered that individuals with obsessive-compulsive or borderline personality disorders displayed higher reactance levels. Individuals with dependent personality or passive-aggressive disorder had lower ratings of reactance. In addition, Seemann's (2003) results supported Mallon's (1992) findings and Huck's (1998) on antisocial personality styles. Lastly, Seemann (2003) found that a positive relationship existed between passive-aggressive or aggressive personality styles with psychological reactance.

Recent literature suggests that the process and outcome of therapy is influenced by the level or presence of psychological reactance in the client (Courchaine, Loucka, & Dowd, 1995; Dowd, Hughes, Brockbank, Halpain, Seibel, & Seibel, 1988; Dowd, Trutt, & Watkins, 1992; Graybar, Antonuccio, Boutilier, & Varble, 1988; Loucka, 1990; Tracey, 1989). Palmentera (1996) found that individuals high in reactance experienced more stress, struggled with and against directives in counseling, and were more emotion-focused and less task-focused than low reactant individuals. Reactance has also been positively correlated with symptom severity in therapy. Courchaine et al. (1995) found that psychological reactance, as a client variable, had a greater effect on social influence and the working alliance than the technique variables used in their study. Also, highly reactant subjects rated the counselor less positively than those low in reactance.

Reactance also was found to be positively associated with premature termination and negatively associated with global improvement (Seibel & Dowd, 1999).

Mikulincer (1988) related that high reactant subjects showed greater frustration and hostility, while exhibiting increased levels of performance on one unsolvable task. When given four unsolvable tasks, high reactant subjects decreased in performance and exhibited more intense feelings of incompetence than low reactant participants. In a study on anxiety and procrastination, high reactant participants were found to be less satisfied with their procrastination, had less of an expectation for change, and were more anxious after treatment than low reactant subjects (Dowd et al., 1988).

Reactance also has been researched in association with medical and therapeutic noncompliance (Fogarty & Youngs, 2000; Graybar, Antonuccio, Boutilier, & Varble, 1988; Rhodewalt, & Davison, 1983; Rhodewalt, & Strube, 1985; Rhodewalt, & Marcroft, 1988; Seibel & Dowd, 1999). Rhodewalt and Marcroft (1988) studied diabetic patients and found that highly reactant subjects complied less with physicians' advice. In addition, Rhodewalt and Strube (1985) stated that high reactant males with running-related injuries were less compliant with the suggestions of their physicians. In a study on psychological reactance and medication compliance, Fogarty and Youngs (2000) found quantitative and qualitative correlational data revealing a link between reactance and noncompliance.

Psychological reactance also has application in the business sector. Psychological reactance has been researched in conjunction with stress-related learned helplessness (Baum, Fleming, & Reddy, 1986) and complaints about supervisors (Sachau, Houlihan, & Gilbertson, 1999). Baum et al. (1986) found that arousal of reactance occurred in

initial stages of unemployment stressors, where as, learned helplessness was exhibited at later stages. People who displayed higher levels of reactance initially resulted in a greater sensation of hostility and frustration. In research completed by Sachau et al. (1999), reactance was found to be a significant predictor of employees' complaints about supervisors' requests.

Many settings such as the therapeutic, medical, business, and family settings may be influenced by the presence of individuals with psychological reactance. Evidence has been shown implicating a correlation between reactance and coping (Palmentera, 1996). It is quite possible that an individual's level of reactance may also influence his or her quality of life and/or well-being. Knowing the relationship that exists between reactance, coping, quality of life, and well-being could benefit a therapist in particular. A therapist could modify treatment to better suit the individual that is reactant, while considering other factors such as coping, quality of life, and well-being. The therapist may also be able to target problem behaviors with a more holistic approach using the knowledge of the underpinnings of these four constructs. The therapist may be able to help the client in a more efficient manner by utilizing additional knowledge of the correlation of these constructs. In addition, when the emergence of psychological reactance arises in the client, the therapist then may be aware that teaching coping skills is vital, as well as addressing issues regarding quality of life and well-being. The therapeutic alliance could benefit considerably from this study, but many other settings such as medical, business, and family may also gain useful information that may be applied to everyday practices. The knowledge of the various relationships may be applied to everyday practices, as well as professional relationships.

Review of the Literature

Theory of Psychological Reactance

Brehm's (1966) original theory of reactance stated that an individual is motivationally aroused when a freedom is lost or threatened. The actual motivational state is called psychological reactance. The theory of psychological reactance assumes there are "free behaviors" that an individual may take part in at the present time or in the near future. Imperative to the theory of psychological reactance is the individual's control over his or her free behaviors. The free behaviors must be realistically possible (Brehm, 1966). These behaviors may also be considered cognitively. Thus, cognitive freedoms may also be considered to influence free behaviors or arouse reactance.

In order for a behavior to be considered free, an individual must have the relevant physical and psychological abilities to carry out the desired behavior. The individual must know through experience, general custom, or formal agreement that he or she has the ability to engage in the desired behavior (Brehm, 1966). Brehm (1966) suggested that free behaviors are an imperative part of an individual's life. If an individual did not have the opportunity to select behaviors, not only would his or her needs be satisfied less frequently, but extreme deprivation, pain, and death could result as a consequence. Additionally, having the freedom to choose behaviors helps an individual to thrive and survive (Brehm, 1966).

Brehm (1966) proposed that the magnitude of reactance arousal is a direct function of "(1) the importance of the free behaviors which are eliminated or threatened, (2) the proportion of free behaviors eliminated or threatened, and (3) where there is only a threat of elimination of free behaviors, the magnitude of that threat" (p. 4). The first

function of the magnitude of reactance arousal postulated by Brehm (1966) indicated that the greater the importance of the free behavior to the individual, the larger the magnitude of reactance. The importance of a behavior is a function of the unique value that a given behavior has for satisfaction of needs, multiplied by the actual or potential maximum of those needs. The behavior is unique in that no other behavior may satisfy the need or set of needs. Additionally, an individual does not have to believe at all times that the needs are important. Rather, an individual may only believe that the need will be important at some point in the future.

For example, a young woman has the ability to purchase items from a particular department store by physically shopping at the store, shopping on the internet, shopping through the mail, or shopping over the phone. She has just been told that the department store will be shut down for renovations. Although she has no immediate shopping to do, the fact that she may want to shop in the future at the closed store may arouse reactance. In this example shopping online, by mail, or over the phone may have been preferred, but by taking away the freedom of shopping at the department store it may become more important and arouse reactance.

The magnitude of reactance is a direct function of the relative importance of the threatened or eliminated freedom weighed against the importance of other freedoms at the given time. For example, the same young woman purchases three pairs of shoes from her favorite store, Neiman Marcus. She also purchases three pairs of shoes from Macy's. Although she likes Macy's, she prefers items from Neiman Marcus. If she returns home and her husband tells her she should return all of the shoes from Neiman Marcus, the level of reactance arousal would be higher than if her husband told her she would have to

return the shoes from Macy's due to the greater absolute attractiveness of the items from Neiman's in comparison to items from Macy's. If the absolute attractiveness is eliminated or held constant, the magnitude of reactance will be determined by the relative attractiveness. If the young woman showed her husband the Macy's group of shoes and he told her she should return pair one of the group, reactance would be aroused. She would experience less reactance if pair one and pair two were from Macy's, pair three was from Neiman Marcus, and she was told to return pair one from Macy's due to the relative attractiveness.

The magnitude of reactance is also influenced by the proportion of behaviors eliminated or threatened with elimination. For example, the mall staff has four stores, one of which will be closing for renovations. The closing of this one store arouses reactance, but more reactance would be aroused if two of the four stores were closing. If there are only two stores from which to choose and one store is closing, more reactance would be aroused than if there were four stores and one of them were closing.

Furthermore, Brehm (1966) stated that the magnitude of reactance can be influenced by the probability that the threat will materialize into a loss. There are three factors that influence the threat of loss and its probability of loss which are (1) the entity that makes the threat, (2) the loss of other free behaviors, and (3) the loss of others' free behaviors. Consider that, a child may realize his mother follows through with the removal of toys more than his father. When the mother threatens the removal of a toy, the child experiences more reactance than if the threat is made by his father (entity making the threat). The child now loses his Play Station game discs. He may also assume that he may soon lose his music discs, as well (other free behaviors). By observing his sister's loss of

phone privileges as a punishment, he may lose the same behavioral freedom (other's free behaviors).

In 1981, Brehm and Brehm found that psychological reactance could be aroused in individuals who had not actually received a threat but had anticipated one. The authors defined a threat as any kind of social influence, behavior, and/or event that works against an individual's capability to implement a freedom. By weighing the worth of the freedom against the potential costs of attempting to regain it, the individual chooses whether or not to attempt to regain the lost or threatened freedom. If the apparent costs to regain the freedom are too high, the individual may deny that there was a loss of freedom at all.

Brehm's (1966) original theory of psychological reactance was modified in 1981. Brehm and Brehm (1981) found four factors that have an effect on psychological reactance: (1) perceived importance of the freedom lost or threatened, (2) the number of freedoms lost or threatened, (3) how strongly the individual believes that he or she possesses the lost or threatened freedom, and (4) the magnitude of the threat to the freedom.

The fourth addition is the strength of the individual's belief of the freedom which can be easily demonstrated (Brehm and Brehm, 1981). If an individual does not think that a behavior is currently free, the loss of that freedom will not arouse a high level of reactance. If the individual is unsure whether the behavior is free, a higher level of reactance arousal will occur when the freedom is taken away. Also, the number of freedoms threatened or lost was found to influence reactance in a different way than the explained intention of Brehm (Tennen, Press, Rorhbaugh, & White, 1981). These authors

found that individuals who had fewer freedoms also had higher levels of reactance when a freedom was lost or threatened.

Brehm (1966) postulated that an individual in a state of psychological reactance may have various responses to the loss or the threat of loss of a behavioral freedom. An individual may attempt to directly reestablish his or her freedom and/or control by engaging in the prohibited behavior regardless of the consequence, which is termed direct restoration (Brehm & Brehm, 1981). The individual may also react by engaging in similar behaviors, watching others taking part in the prohibited behavior (indirect restoration), and/or becoming angry at the entity that took the behavioral freedom away.

Initially, psychological reactance was considered as a state or situation specific variable (Brehm, 1966; Brehm & Bryant, 1976). Situations that have high levels of structure and/or coercion would lead to higher levels of reactance (Dowd, 1999). Two examples of highly structured environments that have the potential to arouse reactance are therapeutic and prison settings.

Other literature posits that psychological reactance is an individual trait rather than a situation specific variable (Brehm & Brehm, 1981; Dowd et al., 1991; Hong & Page, 1989; Jahn & Lichstein, 1980; Rohrbaugh et al., 1981). Brehm and Brehm (1981) presented evidence which indicated that individuals with Type A behavior patterns may have lower thresholds of threat for the arousal of reactance than individuals with Type B behavior patters. Furthermore, Brehm and Brehm (1981) presented information indicating that reactance potential is positively correlated with internal locus of control. The tendency to resist overt influences is exasperated when the magnitude of the threat or the importance of the freedom is high. The research conducted by Dowd et al. (1991)

suggested that psychological reactance is a relatively stable individual difference that is relatively stable. Although reactance originally was conceived of as a psychological state, reactance is typically viewed as a trait (Brehm & Brehm, 1981; Dowd et al., 1991; Hong & Page, 1989; Jahn & Lichstein, 1980; Rohrbaugh et al., 1981).

Resistance in Relation to Reactance. Another concept often addressed in relation to reactance is resistance (Dowd & Sanders, 1994). Resistance differs from reactance in that resistance is behaviorally exhibited in interpersonal interactions while reactance is a motivational force to regain control. In addition, reactance is focused on the restoration of personal freedoms where as resistance, from a cognitive perspective, is focused on meaning structures or schemata. Interestingly, individuals may be resistant and not reactant by engaging in oppositional behaviors. Individuals also maybe reactant and not resistant by expressing themselves vicariously or covertly (Dowd, 1999). Dowd and Sanders (1994) proposed that reactance can be employed to overcome resistance. Although related concepts, reactance and resistance are distinct variables.

Summary of the Theory of Psychological Reactance. Psychological reactance comprises motivational force (for control) aroused when a freedom is taken away or threatened. The freedom in question must be considered tangible by the individual. The magnitude of reactance may be influenced by the beliefs about the freedom as well as the importance, proportion, and threats of the freedom in question. There are several ways of reestablishing the freedom or control over the freedoms including engaging in the prohibited behavior, exhibiting similar behaviors, watching others doing the prohibited behavior, and/or becoming angry at the entity that prohibited the behavior. Finally, resistance and reactance are closely related concepts, but vary considerably.

Psychological Reactance

Psychological reactance has been researched in relation to personality characteristics, personality disorders, therapy, non-compliance, gender, race, age, and many other variables. Moreover, reactance research has been addressed in medical and business settings.

Psychological Reactance and Individual Characteristics. Cherulnik and Citrin (1974) studied psychological reactance and locus of control and found a strong correlation between psychological reactance and locus of control. Individuals with an internal locus of control exhibited the highest level of reactance when personal freedoms were eliminated. Individuals with an external locus of control exhibited the highest level of reactance when impersonal freedoms were taken away.

Whereas Cherulnik and Citrin (1974) conceptualized reactance as a dichotomous choice in relation to locus of control, Brehm and Brehm (1981) found that psychological reactance existed on a continuum. Furthermore, Brehm and Brehm (1981) showed psychological reactance to be strongly correlated with locus of control.

Brehm and Brehm (1981) also demonstrated a correlation between psychological reactance and Type A behavior. Subjects who were considered to be more Type A exhibited reactant behavior when faced with a threat. Likewise, Buboltz, Woller, and Pepper (1999) indicated highly reactant subjects were domineering, controlling, independent, aggressive, and persuasive. Similar results were found by Dowd and Wallbrown (1993). Their results indicated that individuals considered high in psychological reactance were more likely to be defensive, dominant, aggressive, autonomous, quick to take offense, nonafflitative, and unlikely to describe themselves or

others in favorable terms. In a more positive light, Dowd and Wallbrown (1993) showed that reactant individuals were more action-oriented and leaders in society.

Whereas Merz (1983) found that psychological reactance correlated highly with autonomy and insecurity, Seemann, Buboltz, and Thomas (2004) determined that psychological reactance correlated with agreeableness, openness to experiences, and extraversion. Individuals high in psychological reactance scored low in agreeableness were characterized by a tendency to have a dislike for rules, regulations, imposed structure, and direct confrontation with others. Also, individuals high in reactance were high in openness to experiences which is characterized by creativity and contemplation. Conjointly, Seemann, Buboltz, and Thomas (2004) established that individuals who were high in reactance were more likely to be high in extraversion which implied that these individuals were interpersonally distant, assertive, excitement-seekers, and had negative emotional expressions.

Similarly, Joubert's (1990) demonstrated a positive relationship between psychological reactance and loneliness as well as negative relationships between reactance and self esteem, and between reactance and happiness. Furthermore, individuals who scored high in psychological reactance may react in ways perceived as antagonistic by others when they feel that their freedom of choice has been threatened (Joubert, 1990). Additionally, a highly reactant individual's efforts to reclaim lost or threatened freedoms may be seen as less conventional and less acquiescent than those of an individual with lower levels of reactance.

Buboltz et al. (1999) found that individuals became more analytical, intellectually oriented, curious, adventurous, self-confident, ambitious, and leader-

oriented as levels of reactance increased. Individuals with lower levels of reactance were found to be more cooperative, empathic, sociable, friendly, and helpful. These authors indicated that psychologically reactant individuals view themselves as being unable to understand others, as well as having a preference for the manipulation of others. A reactant individual may prefer to be nonconforming and persuasive. Additionally, highly reactant individuals did not like to be limited and did not like social interactions. Reactant individuals also were found to have strong disregard for rules, regulations, and obligations.

Interestingly, the results of Dowd et al. (1994) were similar. Their study established that reactant individuals were less concerned about making a good impression upon others. Reactant individuals were less tolerant of the beliefs and values of others, less likely to adhere to social rules and norms, resistant to outside rules and regulations, and more inclined to express strong emotions, concerns, and worries about the future. Dowd et al. (1994) found that psychologically reactant individuals held a high opinion of themselves and expressed their emotions and/or opinions freely.

Seemann's (2003) research indicated that the highly reactant individual is untrusting, wary, socially manipulative or unskilled, hostile, confrontational, and moody. The highly reactant individual may be described as territorial, impulsive, nonconforming, and vigilant. He found that individuals high in reactance were domineering, as did Dowd and Wallbrown (1993), and aggressive as did Dowd and Wallbrown (1993) and Buboltz et al. (1999).

Thus far, research indicates that the psychologically reactant individual has many personality characteristics that may be viewed as negative as well as some that may be

viewed as positive. The highly reactant individual may be seen as controlling, defensive, domineering, nonaffilitive, and aggressive (Buboltz et al., 1999; Dowd & Walbrown, 1993) and also may have little regard for rules and regulations (Buboltz et al., 1999; Seemann, Buboltz, & Thomas, 2004) as well as negative emotional expression (Seemann, Buboltz, & Thomas, 2004). The psychologically reactant individual may be quick to take offense (Merz, 1983), insecure (Merz, 1983), and have strong worries about the future (Dowd et al., 1994). Low self-esteem and loneliness may also be a part of the reactant individual's life (Joubert, 1990).

The individual who is high in reactance tends to be independent, controlling, and persuasive (Buboltz et al., 1999), while also being autonomous (Dowd & Wallbrown, 1993; Merz, 1983). On a more positive note, the reactant individual may be curious, intellectually oriented, analytical, adventurous, and ambitious (Buboltz et al., 1999; Dowd et al., 1994). Self-confidence (Buboltz et al., 1999) and assertiveness (Seemann, Buboltz, & Thomas, 2004) may also be descriptors of the reactant individual. The reactant individual may be viewed as action-oriented and a leader, as well as creative (Dowd & Wallbrown, 1993). Taken together, the highly reactant individual appears negatively as domineering, insecure, and lonely yet positively as intellectual and ambitious.

Psychological Reactance and Personality Disorders. Psychological reactance, has also been examined in relation to personality disorders and the behaviors associated with particular personality disorders. Specifically, paranoid, borderline, sadistic, antisocial, dependant, avoidant, histrionic, passive-aggressive, and obsessive-compulsive personality

disorders and/or behaviors have been researched in conjunction with psychological reactance.

Initially, Mallon (1992) established that psychological reactance is associated with many antisocial behaviors. Huck (1998) similarly found a correlation between antisocial personality patterns and reactance. According to Huck, reactance was positively associated with paranoid, borderline, sadistic, and antisocial personality patterns. Conversely, the researcher found a negative association between reactance and dependent, avoidant, and histrionic personality styles. After further investigation, Huck (1998) identified a strong relationship between dependent and paranoid patterns with psychological reactance, and found that dependent and paranoid patterns emerged with two separate measures of psychological reactance.

Seibel and Dowd (2001) found a relationship between psychological reactance and borderline personality disorder. Individuals categorized as borderline or obsessive-compulsive reported higher levels of reactance. Seibel and Dowd (2001) also found that individuals with dependent personality disorder or features of this disorder had lower ratings of reactance, which further supported the findings by Huck (1998). Seibel and Dowd (2001) also demonstrated that individuals who were considered passive-aggressive in had lower ratings of psychological reactance.

Seemann's (2003) results indicated that antisocial personality styles had a positive relationship with psychological reactance, thus supporting the findings of both Mallon (1992) and Huck (1998). Seemann (2003) also found that a positive relationship existed between passive-aggressive or aggressive personality styles with psychological reactance. However, Seemann (2003) failed to find a negative relationship with dependent

personality styles and psychological reactance, as did Huck (1998) and Seibel and Dowd (2001).

Taken together, individuals who were categorized as antisocial (Mallon, 1992; Huck, 1998; Seemann, 2003), paranoid (Huck, 1998; Seibel & Dowd, 2001), sadistic (Huck, 1998) and obsessive-compulsive (Seibel & Dowd, 2001) or who showed features of personality disorders, reported higher levels of psychological reactance. A lower level of reactance was found in individuals who were categorized as dependent (Huck, 1998; Seibel & Dowd, 2001), avoidant (Huck, 1998), histrionic (Huck, 1998), and passive-aggressive (Seibel & Dowd, 2001). However, Seemann's (2003) results indicated that passive-aggressive or aggressive personality styles had a positive correlation with psychological reactance.

Psychological Reactance in the Therapeutic Environment. The therapeutic environment is a unique yet fragile setting and may easily be changed by minor influences. Psychological reactance has been found to distinctively influence the therapeutic environment as well as the process and outcome of therapy (Seibel & Dowd, 1999), images clients have of their therapist (March, 1993), improvement in therapy (Seibel & Dowd, 1999), symptom severity (Biscoff, 1997), and attendance for therapy sessions (Morgan, 1986).

Seibel and Dowd (1999) followed 90 client-counselor dyads to assess psychological reactance in therapy. The therapist assessed change by recording client progression and changes in therapy. The therapist additionally recorded various client behaviors such as distancing behaviors, compliance with medication directives, as well as other behaviors that encourage collaboration in the therapeutic environment. The

researchers found that psychological reactance was strongly associated with behaviors that hamper the process of therapy. A weak association was identified between reactance and both compliance behaviors and behaviors that encourage therapeutic collaboration. More importantly, psychological reactance was found to be negatively associated with global improvement. It is important to note that the highly reactant individuals in this study still benefited from therapy. This study proved that although reactance may be disruptive and challenging to the process, a reactant individual can still make progress in the therapeutic setting. In short, these results indicate that reactance can play a part in the process of therapy.

Interestingly, Courchaine et al. (1995) stated that the level of psychological reactance in therapy had a greater effect on the working alliance than on the actual therapeutic techniques used. Although this may be surprising, it further underscores the assertion that psychological reactance is an important construct to consider in the therapeutic setting. Dowd and Sanders (1994) also discussed therapeutic methods in relation to reactance. They stated that a client with low levels of reactance may benefit from conventional therapy methods, such as compliance-based approaches. They suggested that a client low in reactance is more likely than and individual high in reactance to finish homework, attempt practice exercises, and do additional activities outside of therapy.

Alternatively, Dowd and Sanders (1994) suggested that a highly reactant individual may benefit from a defiance-based approach in which the client's change occurs as the client attempts to defy the counselor. A therapist may also use a method of reframing. One reframing method entails the therapist aiding the client in seeing the

behavior focused on as hindering access to his or her personal freedoms. Although reactance may work with the reframing technique, a strong working alliance between the therapist and client is essential. Additionally, Seemann (2003) indicated that the client may also need to be fairly insightful to engage in techniques such as reframing.

Dowd (1993) indicated that, in therapy, psychologically reactant individuals may protect their personal freedoms by proactively eliminating their own alternatives. Reactant individuals will, in fact, oppose a therapeutic technique that gives them more options. In addition, Dowd (1993, 1999) stated that highly reactant individuals may view new information presented in therapy as extremely self-threatening. Reactant clients may have extreme difficulty processing new information.

Biscoff (1997) found that reactance was positively correlated with symptom severity. In her study, highly reactant individuals had more symptoms or at least reported more symptoms during therapy. Palmentera (1996) discovered that highly reactant individuals were more emotion-focused when dealing with stressful situations and less task-focused. She also found that highly reactant individuals struggled with and against directives in therapy, and experienced more stress overall.

Greater frustration and hostility was shown by highly reactant subjects in a study by Mikulincer (1988). Highly reactant individuals exhibited increased levels of performance when given one unsolvable task; when given four unsolvable tasks their levels of performance decreased dramatically. Highly reactant participants also showed more intense feelings of incompetence than low reactant subjects in the four-task scenario. Dowd et al. (1988) indicated that highly reactant subjects were found to be less satisfied with their procrastination, had less of an expectation for change, and were more

anxious after treatment than low reactant subjects in a study on anxiety and procrastination.

Psychological reactance also has been researched in relation to individuals' views of their therapists. Highly reactant subjects were found to be more likely to rate counselors less positively (Courchaine et al., 1995). However, in a study conducted by March (1993), reactant individuals were more likely to rate a therapist as trustworthy or as an expert. The therapists were seen as less favorable overall by reactant individuals, and reactant individuals were less likely to seek advice than individuals relatively low in reactance.

Obviously, clients who do not show up for therapy and terminate therapy prematurely are less likely to receive the benefits of therapy. Seibel and Dowd (1999) concluded that reactance was positively associated with premature termination of therapy. Also, in Morgan's (1986) study, reactant individuals had a larger number of "no shows" during a therapy regimen. In contrast to Seibel and Dowd's (1999) findings, Morgan found reactant individuals were likely to remain in therapy longer, although this may be due to a lack of success of the therapy process for these individuals.

In summation, the therapeutic environment is clearly influenced by reactance. Research has suggested that the process and outcome of therapy is influenced by the level or presence of psychological reactance in the client (Courchaine et al., 1995; Dowd et al., 1988; Dowd, Trutt, & Watkins, 1992; Graybar et al., 1988; Loucka, 1990; Tracey et al., 1989). Psychological reactance influences the image a client has of his or her therapist (March, 1993), the likelihood a client will advance in therapy (Seibel & Dowd, 1999), symptom severity (Biscoff, 1997), and attendance for therapy sessions (Morgan, 1986).

The influence on the therapeutic environment is evident, but more research clearly warranted.

Psychological Reactance in Medical and Business Settings. Ascertaining the level of psychological reactance of individuals in other settings may be quite beneficial. Although the most researched area related to reactance is the therapeutic environment, there are many other arenas that stand to gain from studies on reactance. Both medical and business settings have been studied in relation to psychological reactance.

Reactance has been linked to medical noncompliance (Fogarty & Youngs, 2000; Graybar et al., 1988; Rhodewalt, & Davison, 1983; Rhodewalt, & Marcroft, 1988; Rhodewalt, & Strube, 1985). In a study of Rhodewalt's and Marcroft's (1988), 39 diabetic patients were surveyed: the individuals high in reactance abided by their doctors' advice less than individuals with lower reactance levels.

Along this vein, Rhodewalt and Strube (1985) assessed individuals with running-related injuries. They established that highly reactant males with running-related injuries were less obedient to their physicians' advice and suggestions. Fogarty and Youngs (2000) sought to research medical recommendations and found a link between reactance and noncompliance using both quantitative and qualitative correlational data.

Additionally, Graybar et al. (1988) conducted a research study on physicians' advice of smoking cessation and reactance potential on 104 smokers. The subjects were given either positively toned advice or negatively toned advice from their physician. For subjects high in reactance, a low amount of negatively toned advice was beneficial to facilitate a reduction in smoking. Those subjects low in reactance responded the best to high amounts of either positively or negatively toned advice.

Researchers have also found that levels of reactance influence the business setting in areas such as stress-related learned helplessness (Baum et al., 1986) and complaints about supervisors (Sachau et al., 1999). The study by Baum et al. (1986) assessed unemployed participants on stress-related learned helplessness and reactance. They established that the arousal of reactance occurred in initial stages of unemployment stressors. In contrast, learned helplessness was exhibited at later stages of unemployment stressors. Another finding related to reactance was that subjects that exhibited higher levels of reactance initially resulted in a greater sensation of hostility and frustration.

Another research study conducted in the business setting related to reactance was a study by Sachau et al. (1999). They used 306 employees from various organizations in the United States. Their results indicated that reactance was the best predictor of self reports of employees' complaints about supervisors' requests. Although this study also addressed noncompliance, reactance was not a significant predictor in this case. The studies in business, as well as in medical settings, show that reactance is applicable to areas extending beyond therapy.

Psychological Reactance and Gender. The question has often been posed as to whether or not there are gender, age, or cultural differences evident when dealing with psychological reactance. Many researchers have observed gender differences in relation to psychological reactance. For instance, Mallon (1992) found men to be significantly more reactant than women. Although men were more reactant on the Therapeutic Reactance Scale (TRS), there were no significant gender differences on the Questionnaire for the Measurement of Reactance (QMPR) (Dowd et al., 1994; Courchaine, 1993).

In contrast, Loucka (1991) stated that males were more reactant than females on both of the measures of reactance called the TRS and the QMPR. On the Hong Psychological Reactance Scale, Joubert (1990) reported that males tended to score higher than females in psychological reactance. Also, Dowd and Wallbrown (1993) stated that there were differences in males' and females' scores on the reactance measure. Additional support was found for gender differences by both Seemann, Buboltz, and Flye (under review) and Seemann, Buboltz, Jenkins, Soper, and Woller (2004) when their results indicated that men had higher levels of psychological reactance than women.

On the other hand, Hong and Page (1989) conducted a study on 257 university students. They found no significant differences in reactance between males and females on the Hong Psychological Reactance Scale. Additionally, Hong (1990) used subjects from the general public and found no significant differences between males and females responses on the reactance measure. Furthermore, Hong, Giannakopoulos, Laing, and Williams (1994) did not find evidence of gender differences in relation to psychological reactance. Although there is evidence for both gender differences and no gender differences in psychological reactance, there appears to be more studies indicating that males are more reactant than females.

Psychological Reactance and Age. Although briefly researched, the relationship between psychological reactance and age has yet to be determined. Most studies that have been conducted with psychological reactance have primarily been with university aged students (Hong, 1990; Joubert, 1990). University level participants are relatively young. Brehm and Brehm (1981) hypothesized that older individuals have more coping resources and are better prepared to handle various dimensions of psychological

reactance. The study completed by Hong et al. (1993) supported Brehm and Brehm's (1981) hypothesis. The study by Hong et al. (1993) included 1,749 adult subjects. They established that younger individuals tended to exhibit more psychological reactance than older individuals in this study.

Psychological Reactance and Cultural or Ethnic Differences. The effects of cultural or ethnic differences on psychological reactance have not been focused upon in current literature. In Dowd's (1995) research, German students were significantly more psychologically reactant than students from America. Seeman, Buboltz, and Flye (2004) and Seemann, Buboltz, Jenkins, et al. (2004) established significant differences between African American individuals and Caucasian American individuals in psychological reactance. Both studies indicated that African American participants reported higher levels of psychological reactance than Caucasian American participants.

It appears that there needs to be more research to determine differences in psychological reactance in regards to gender, age, and cultural/ethnicity. More research supports the theory that males are more psychologically reactant than females. Additionally, older individuals may be less reactant than younger individuals. Evidence has also been found suggesting that African Americans and German individuals may be more reactant than Caucasian Americans. Although research has been done on these areas, each area has only tentative hypothesis that requires more research to determine the exact relationship that exists among psychological reactance with gender, age, and culture.

Coping

There are many definitions that have been developed to explain coping, coping styles, and coping strategies. Several experts agree that coping can be described as an individual's efforts to efficiently deal with threatening, harmful, or challenging conditions when an automatic or routine response is not readily available (Lazarus et al., 1974; Lazarus & Folkman, 1984; Monat & Lazarus, 1985; White, 1974). According to Lazarus and Folkman (1984), coping may be seen as an emotional or a behavioral response to internal or external demands or stressors. The individual either adapts to the stimulus, or is unsuccessful at adapting to the stimulus. It is important to note that coping is defined independently of its outcome. Additionally, coping refers to efforts to manage demands, regardless of the success of the individual's efforts.

According to McGrath (1970), coping is defined as overt and covert behavior patterns that individuals use in attempts to actively alleviate, prevent, and/or respond to stressful conditions. Monat's and Lazarus' (1985) description of coping adds that the current stressful situation or stressor must be met with modified or new behavioral solutions to face the ever-changing demands placed upon the individual. Pearlin and Schooler (1978) referred to coping as behaviors individuals use to protect themselves against problematic social and psychological harm Lastly, Lazarus (1983) described coping as a process by which individuals decide how to best protect themselves from adverse effects of stressors and negative outcomes while taking advantage of any positive outcomes.

It is apparent that when coping skills are discussed, people immediately assume that the stressor or outcome is negative. Coping skills are evident with both positive

stressors and positive outcomes. If the individual is anticipating a negative outcome, he or she makes attempts to protect him or herself. Individuals cope in stressful situations with positive outcomes in order to take advantage. It is apparent that coping is evident in stressful situations whether negative or positive outcomes exist (Monat & Lazarus, 1985).

Coping is discussed in various ways, but has often been categorized as either problem-focused (changing the source of stress) or emotion-focused (regulating stressful emotions). Generally, problem-focused coping is considered to be a positive approach to a stressor and may include management strategies that are aimed at changing or improving the stressful situation. Emotion-focused coping is aimed at decreasing or relieving the emotional impact of the stressor or stressful situation (Folkman & Lazarus, 1980). Many studies factor analyzed self-reports of coping and supported the categorization of problem-focused and emotion-focused coping. Yet, many types of emotion-focused coping have materialized (Folkman et al., 1986; McCrae, & Costa, 1986; Pearlin, & Schooler, 1978).

Individuals employing problem-focused coping are attempting to improve the person-environment relationship by changing the components of the current situation. For example, the individual coping may confront the individuals responsible for the difficult situation, not respond impulsively or too hastily, and/or seek out helpful information (Folkman & Lazarus, 1980). Problem-focused coping strategies are most adaptive if the stressor can be changed. Additionally, when using problem-focused coping, management strategies may be used in order to direct change in the stressful situation. Problem-focused coping may include active coping, planning, problem solving, and information seeking (Lazarus & Folkman, 1984). Aspinwall and Taylor (1992) found that when a

stressor is seen as controllable and individuals high in self-efficacy, they are more likely to use engaging or approach coping strategies which may also be considered as problem-focused coping or adaptive coping. Engaging coping strategies include active coping, planning problem solving, information seeking, and using social support.

On the other hand, emotion-focused coping is aimed at changing the way individuals think, feel, and see the situation or stressor, rather than changing the situation as in problem-focused coping (Lazarus & Folkman, 1984). When individuals use emotion-focused coping, they engage in actions or thoughts aimed at decreasing the emotional impact of stress including psychological or physical disturbances. Emotion-focused coping may make individuals feel better, yet it does not change the damaging situations (Folkman & Lazarus, 1980).

Examples of emotion-focused coping include venting of feelings, denying that anything is wrong, seeking social support, detaching or distancing oneself from the stressor or stressful situation, avoiding thinking about the difficulty, attempting to relax, and/or using mood altering medications (Folkman & Lazarus, 1980; Lazarus & Folkman, 1984). Emotion-focused coping may include individuals changing the meaning of stressful situations or diverting focus to situations that are more pleasant and satisfying (Folkman & Lazarus, 1980).

When individuals consider a stressor as highly threatening and uncontrollable, they are more likely to use disengaging coping strategies similar to avoidant, emotional-focused, or maladaptive coping. Individuals using disengaging coping may distance themselves, engage in cognitive avoidance, have behavioral avoidance, be distracted, and deny what is occurring (Taylor, Kemeny, Aspinwall, Schneider, Rodriguez, & Herbert,

1992). Individuals minimize their stress by avoiding thoughts and feelings surrounding the stressor (Suls & Fletcher, 1985). Schwartz, Lerman, Miller, Daly, and Masny (1995) concluded that avoidance and denial may eventually lead to intrusive thoughts that can generate more distress.

Although emotion-focused coping is traditionally considered maladaptive, it may be positive in certain situations. Cohen (1975) explained that denial may be useful in many aspects by possibly decreasing physiological responses and allowing the individual to avoid being overwhelmed by negative life situations. Conversely, the usefulness of denial appears to be short-term in particular situations. These situations include instances where the individual would be otherwise overwhelmed by the unpleasant reality, where the likelihood of threats taking place is small, where there is nothing the individual can do to plan for the potential threatening event, or where an optimistic outlook prevents feelings of surrendered.

A common issue that arises when discussing coping is whether or not one type of coping is more beneficial than others. This is an issue that has no definite solution. The best coping method may be different based on various levels of analysis, such as psychological, physiological, and sociological, as well as specific situations at different points in time (Cohen, 1975). Furthermore, Folkman and Lazarus (1980) point out, individuals normally use a variety of multifaceted combinations of emotion-focused and problem-focused strategies to cope with everyday stressors.

Coping and Psychological Reactance. Palmentera (1996) conducted a study testing the hypothesis that individuals who are highly reactant will show different types of coping in comparisons to individuals low in psychological reactance. She used 177

participants including 64 males and 112 females. Her participants were undergraduates from a large Midwestern community college. The ages ranged from 19 to 46, with 81.5% under the age of 30. Approximately 95% of the participants were Caucasian.

Palmentera (1996) established that participants in her study who were considered reactant utilized more emotion-focused coping rather than task-focused coping. In addition, she found that reactant participants did not, for the most part, use coping styles that were task-focused or considered as healthy. She stated that individuals who were "generally" reactant did not utilize healthy coping skills when attempting to regain control of a lost or threatened free behavior. Instead, the reactant participants responded more emotionally than the individuals considered less reactant or not reactant at all. She concluded that individuals who are reactant utilized more emotion-focused coping and less task-focused coping styles.

A more in-depth analysis of Palmentera's (1996) results indicated that individuals who were verbally reactant did not utilize emotion-focused coping. Avoidance-focused participants did not have a significant relationship with reactance. In this study, examples of avoidance-focused coping were considered to be cognitive changes and/or activities aimed at avoiding the stressful stimuli or situation. Palmentera (1996) found that emotion-focused coping styles were utilized more by individuals who were behaviorally reactant. Behaviorally reactant participants tended not to utilize task-focused coping, and verbally reactant individuals used more task-oriented coping strategies.

Quality of Life

Andrews and Withey (1976) performed a comprehensive quality of life research project using a representative sample of 5,000 Americans. Six domains were frequently

endorsed which represented important areas of psychosocial living, and/or were recommended to be included in a quality of life instrument. They were the self, the family, money, fun, housing, and the national government. London, Crandall, and Seals (1977) further analyzed data collected by Andrews and Withey (1976). London et al. (1977) established that overall quality of life was linked to occupational and leisure satisfaction for the college-educated individual. On the other hand, a minority or a blue collar worker's overall quality of life was not linked to occupational and leisure satisfaction. Females rated leisure satisfaction as the most significant to quality of life. Males rated their jobs as most important although this may be indicative of the traditional household roles in the seventies.

Harju and Bolen (1998) stated that the large studies of Andrews and Withey (1976) and London et al. (1977) greatly enhanced the understanding of quality of life. Harju and Bolen (1998) affirmed that these studies provided a model that included interview methods, a standard for comparison, and the defining of dimensions and domains of quality of life that did not exist prior to the mid-seventies.

There are many different definitions and descriptors currently associated with quality of life. Quality of life may incorporate multiple dimensions of life including health, feelings, emotions, social functioning, and role functioning. O'Boyle (1992) described quality of life as the plans individuals have for their lives combined with the interrelated purposes that create a sense of meaning. Additionally, Calman (1984) described quality of life as the difference, at a particular time, between an individual's hopes or expectations versus his or her experiences.

Coping and Quality of Life. Recently, there has been a lot of research emerging on quality of life and specific types of coping. Coping and quality of life have been researched in populations such as HIV positive individuals, cancer patients, burn victims, diabetic patients, depressed clients, and mothers of children with disabilities. It is evident that the type of coping employed by individuals will influence his or her quality of life (Coelho et al., 2003; Echteld et al., 2003; Fauerbach et al., 2002; Fawzy & Fawzy, 1998; Leiberich, Engeter, Olbrich, Rubbert, Schumacher, Brieger, Kalden, & Joraschky, 1997; Kim et al., 2003; Ravindran et al., 2002; Schouws et al., 2001; Swindle, Cronkite, & Moos, 1989; Vosvick et al., 2002).

Quality of life has further been associated with coping style among individuals with life threatening illnesses such as cancer and HIV/AIDS (Fawzy & Fawzy, 1998; Leiberich, et al., 1997; Swindle et al., 1989; Vosvick et al., 2002). Vosvick et al. (2002) researched quality of life and coping among individuals living with HIV/AIDS after realizing that most of the research on coping, disease progression, quality of life, and psychological distress, only focused on adaptive coping strategies. Vosvick and his colleagues (2002) assessed 141 HIV positive individuals from the San Francisco Bay Area. There were 80 males and 61 females.

The results of the study conducted by Vosvick et al. (2002) indicated that greater use of maladaptive coping strategies was associated with poor psychological quality of life in HIV positive individuals. Participants who used strategies to distract themselves from the problems in their lives reported worse quality of life. This finding is consistent with previous research indicating that avoidance coping strategies are associated with a decreased quality of life (Leiberich, et al., 1997). Denial in this study was negatively

associated with three forms of disengagement coping. These were mental disengaging, behavioral disengaging, and alcohol/drug use which are also considered an avoidance strategies. Each of these areas of denial were further found to be negatively correlated with quality of life. Safren, Radomsky, Otto, and Salomon (2002) also found that coping style was related to quality of life in HIV positive individuals. They established that perceived social support, adaptive coping styles, and lower levels of punishment beliefs associated with having HIV were distinctive predictors of depression, quality of life, and self esteem.

In other medically related studies, 158 patients undergoing coronary angioplasty were assessed on quality of life and coping. Avoidant coping and stress perception predicted all quality of life indicators. Conversely, approach coping predicted only positive quality of life (Echteld et al., 2003). Also, Coelho et al. (2003) conducted a study on 123 diabetic patients and 124 patients without diabetes at a Portuguese health center. Across both groups of patients, females had worse quality of life than males. They found that a larger number of diabetic patients used avoidance coping styles rather than active confrontation coping styles. Results indicate that avoidance coping styles in this study were associated with worse quality of life.

Seventy-six hospitalized acute burn victims participated in the study on quality of life and coping by Fauerbach et al. (2002). The researchers stated that ambivalent coping, at baseline, led to more symptoms of depression at follow-up even when baseline symptoms were controlled. More relevant to this discussion, ambivalent coping was related to post-burn psychosocial health-related quality of life. They concluded that decreasing the amount of inconsistent coping may improve adjustment.

Coping has been related to several mental issues in recent literature. Ravindran et al. (2002) found that depressed participants exhibited excessive dependence on emotion-focused coping as well as diminished quality of life relative to the control groups. They also indicated that, among depressed patients, the hassles, coping styles, and various elements of quality of life were correlated to symptom severity and treatment resistance. They concluded that quality of life epitomizes a functional index of the behavioral and cognitive impact on depression. The findings of Schouws et al. (2001) on 211 patients with major depression were quite similar. They indicated that active coping, approach coping, and seeking social support were associated with higher quality of life. Also, passive lifestyles and avoidance were linked to lower quality of life in participants with major depression.

In a study of 66 post acute patients with schizophrenia, one of the four strongest significant predictors of quality of life was negative coping (Bechdolf, Klosterkotter, Hambrecht, Knost, Kuntermann, Schiller, & Pulkrop, 2003). Ritsner, Ben-Avi, Ponizovsky, Timinsky, Bistrov, and Modai (2003) assessed quality of life and coping in 161 inpatient individuals with schizophrenia. Results indicated that patients' life quality was positively correlated with task-oriented coping and avoidance-oriented coping styles. A slight negative relationship was established between life quality and emotion-oriented coping. They also found that emotion-oriented coping mediated the relationship between the severity of activation, anxiety and depression symptoms, and quality of life. In another study on individuals with schizophrenia, however, it was discovered that problem-focused and emotion-focused coping did not moderate the relations between symptoms and quality of life. Also, it was found that there were no significant relations

among quality of life and symptoms of outpatients diagnosed with schizophrenia (Rudnick, 2001).

Frare, Axia, and Battistella (2002) assessed children with headaches on quality of life, coping, and family routine. Participants in this study were 48 Italian families whose children were seeking treatment for headaches. The researchers stated that quality of life is affected by a child's coping abilities in a causal direction. Ironically, children's coping strategies are not associated with headache severity. Kim et al. (2003) researched aging mothers of adults with intellectual disabilities, and mothers of adults with mental illness. They established that mothers of adult children with intellectual disabilities improved their quality of life when problem-focused coping was employed.

In a non-clinical population, Harju and Bolen (1998) researched optimism, coping, and perceived quality of life and found that individuals with high levels optimism have the highest overall quality of life and satisfaction. Optimists also used the most action in reframing coping styles. Individuals with mid-level optimism reported quality of life satisfaction, but used an increased amount of alcohol as a coping style. Lastly, individuals who were low in optimism were dissatisfied with their overall quality of life and used more alcohol and disengagement for coping. Females in this study reported greater quality of life and coped by using emotion, venting, and religion. However, males used more acceptance and humor.

Well-Being

There are numerous studies that have researched coping and well-being. Well-being is often envisioned as comprising either mental well-being or physical well-being.

An individual's well-being, whether mental or physical, may be influenced by the specific type of coping employed.

Coping and Mental Well-Being. Coping and depression have gained a lot of attention in past years. The study conducted by Billings and Moos (1981) indicated that depressed mood, anxiety, and negative affect were positively related to avoidance coping. Swindle et al. (1989) found similar results. Their study involved individuals who received treatment for depression. After a one year follow-up, participants who had relied more on problem solving and less on information seeking and emotional discharge, had better treatment outcomes. At the four-year follow-up, participants who relied more on problem solving and less on emotional discharge were less depressed and more self-confident. Billings and Moos (1995) added to the body of research on coping and mental well-being with their results that showed that problem-focused coping was linked to severe depression.

Recently, Ravindran et al. (2002) conducted a study of depressed individuals. His results indicated that depressed participants had higher perceptions of day-to-day stressors, reduced perception of uplifting events, and excessive reliance on emotion-focused coping. They concluded that coping was related to symptom severity and treatment-resistance. Additionally, Williams, Hagerty, Yousha, Hoyle, and Oe (2002) found that by assessing risk factors for depression in Navy recruits, depressed participants used more emotion-oriented coping and less task-oriented coping.

Folkman, Chesney, Pollack, and Coates (1993) assessed stress, coping, and depression in individuals infected with HIV. They stated that perceived controllable stress was associated with more positive coping styles and fewer depressed moods.

Additionally, detachment among HIV individuals was related to increased amounts of depression. Wolf, Balson, Morse, Simon, Gaumer, Dralle, and Williams (1991) also did research with HIV individuals. They found that active coping strategies were associated with fewer mood disturbances and greater social support. Conversely, avoidance coping strategies were associated with greater mood disturbances and less social support. As stated earlier, the research by Fauerbach et al. (2002) indicated that ambivalent coping at baseline led to more symptoms of depression at follow-up even when baseline symptoms were controlled. Their results indicated that by decreasing the amount of inconsistent coping, one may be able to decrease the amount of depressive symptoms.

Several additional studies have found avoidance coping positively associated with psychological distress (Aldwin & Revenson, 1987; Felton et al., 1984; Fleishman & Fogel, 1994; McCrae & Costa, 1986; Pearlin & Schooler, 1978). Folkman et al. (1986) found that in a sample of married adults, problem-focused coping was negatively associated with psychological symptoms. Furthermore, Pakenham (2002) established that in a study of caregivers of individuals with multiple sclerosis, passive avoidant emotion-focused coping was associated with poorer psychological adjustment of the caregiver.

Kim et al. (2003) investigated 246 aging mothers of adults with intellectual disabilities and 74 mothers of adults with mental illness. For both groups of mothers, an increase in utilization of emotion-focused coping led to waning levels of well-being. Also, it was observed that for the parents of adults with intellectual disability, an influx in their use of problem-focused coping resulted in a decrease in distress. Additional studies provide undeniable evidence that active coping strategies, acceptance, and reappraisal have more psychological benefits than avoidant coping, maladaptive coping, or

disengaging strategies (Carver, Pozo, Harris, Noriega, Scheier, Robinson, Ketcham, Moffat, & Clark, 1993; Taylor et al., 1992).

Breslin, O'Keeffe, Burrell, Ratliff-Crain, and Baum (1995) conducted a study assessing the relationship between women's coping styles and stress-related alcohol consumption. Often, alcohol consumption is considered to be an avoidant, emotional, or maladaptive coping style. Their findings reinforced this notion. The results indicated that women who used problem-focused coping strategies consumed less alcohol during stressful periods in comparisons to women who used emotion-focused coping strategies.

Coping and Physical Well-Being. There are many studies that document the relationship between coping and physical well-being. With a more in-depth look at research on cancer patients, long term consequences may be seen in relation to coping styles. Goodkin, Antoni, and Blaney (1986) established that there was a significant correlation, among women who utilized hopelessness and pessimism, between stressful life events and disease promotion. Unfortunately, men are not spared when it comes to coping and well-being. Everson, Goldberg, Kaplan, Cohen, Pukkala, Tuomilehto, and Salonen (1996) conducted a massive longitudinal study consisting of 2428 males from Finland with ages ranging from 42 to 60. They indicated that men with high hopelessness scores were significantly more at risk of death from all causes compared with men who scored low on hopelessness.

Penley, Tomaka, and Wiebe (2002) conducted a series of meta-analyses scrutinizing the associations between coping and health-related outcomes with non-clinical adult participants. They established that problem-focused coping was positively correlated with overall health outcomes. In addition, they found that confrontive coping,

distancing, self-control, seeking social support, accepting responsibility, avoidance, and wishful thinking were each negatively associated with overall health outcomes. According to Swindle et al. (1989), individuals who sought treatment for depression at a four-year follow-up reported less physical symptoms if they had previously stated at a one year follow-up than they used less emotional discharge processing. On the other hand, Frare et al. (2002) assessed children with headaches on quality of life, coping, and family routine. Ironically, children's coping strategies were not associated with headache severity.

More studies have indicated that physical well-being may be negatively influenced when avoidant coping is utilized. In a study by Nowack (1991), avoidant coping styles were found to significantly predict physical illness. Avoidant coping styles were related to negative health behaviors, such as intravenous drug use in individuals with AIDS (Fleishman & Vogel, 1994). Folkman, Chesney et al. (1992) found that using spirituality and seeking social support may reduce the likelihood that an individual will engage in risky behaviors, such as unprotected sexual intercourse or needle sharing. In support of the previous findings, the study by Epsetin and Katz (1992) established that individuals who used more problem-focused techniques exhibited less physical symptoms, accidents, and skin problems.

Statement of the Purpose

Hypotheses

The focus of this study was to assess the relationships that exist among the four constructs: psychological reactance, coping style, quality of life, and well-being. The review of the literature led to the following hypotheses:

Justification for Hypothesis 1

Palmentera (1996) found that psychologically reactant individuals utilized more emotion-focused coping rather than task-focused coping. She also found that reactant participants did not employ coping styles that were task-focused or considered as healthy. She reported that individuals that were reactant did not use healthy coping skills when attempting to regain control of a lost or threatened free behavior. Instead, reactant participants responded more emotionally than individuals considered less reactant or not reactant at all. She concluded that individuals who are reactant utilized more emotion-focused coping and less task-focused coping styles. It is apparent from Palmentera's (1996) results that reactance is correlated with coping style.

Statement of Hypothesis 1: Psychological reactance (TRS:T) will be significantly related to maladaptive coping skills (EMCOP and AVCOP) and adaptive coping skills (RATCOP AND DETCOP).

Justification for Hypothesis 2

Previous research indicates a relationship between coping and quality of life (Coelho et al., 2003; Echteld et al., 2003; Fauerbach et al., 2002; Fawzy & Fawzy, 1998; Leiberich, et al., 1997; Kim et al., 2003; Ravindran et al., 2002; Schouws et al., 2001; Swindle et al., 1989; Vosvick et al., 2002). Increased levels of maladaptive coping have been related to lower quality of life. Additionally, psychological reactance has been related to coping (Palmentera,1996). Therefore, it is hypothesized that the level of reactance would be related to quality of life.

Statement of Hypothesis 2: Psychological reactance (TRS:T) will be negatively correlated with quality of life (OQL).

Justification for Hypothesis 3

Type of coping has been related to both mental and physical well-being. Mental well-being, such as depression, anxiety, stress, and negative affect, was found to be associated with maladaptive types of coping (Aldwin & Revenson, 1987; Billings and Moos, 1981; Breslin et al., 1995; Fauerbach et al., 2002; Felton et al., 1984; Fleishman & Fogel, 1994; Folkman et al., 1993; Kim et al., 2003; McCrae & Costa, 1986; Pakenham, 2002; Pearlin & Schooler, 1978; Ravindran et al., 2002; Williams et al., 2002; Wolf et al., 1991). Conversely, adaptive types of coping have been associated with positive mental well-being (Folkmane et al., 1993; Wolf et al., 1991).

Maladaptive coping styles have been associated with physical well-being, such as with disease promotion, stress, risk of death, and negative health habits (Everson et al., 1996; Fleishman and Vogel, 1994; Goodkin et al., 1986; Nowack, 1991). Additionally, adaptive coping was shown to be associated with better overall physical well-being (Epsetin and Katz, 1992; Folkman et al., 1992; Penley et al., 2002).

Furthermore, psychological reactance has been associated with depression and many other psychological disorders. Due to the relation between coping and reactance, and coping with well-being, it was hypothesized that the level of reactance would be related to well-being.

Statement of Hypothesis 3: Psychological reactance (TRS:T) will be significantly related to well-being (GWBT, GWBA, GWBD, GWBP, GWBS, GWBV, & GWBG).

Justification for Hypotheses 4A and 4B

Since research has demonstrated the relationship between coping and reactance, coping and quality of life, and coping and well-being, the question arises as to whether psychological reactance influences these relationships between coping, quality of life, and well-being. Assessing the potential moderating effects of these variables will have both theoretical and applied value.

Palmentera (1996) found a relationship between reactance and coping. Evidence has unequivocally demonstrated the relationship between both coping and quality of life (Coelho et al., 2003; Echteld et al., 2003; Fauerbach et al., 2002; Fawzy & Fawzy, 1998; Leiberich, Engeter, Olbrich, Rubbert, Schumacher, Brieger, Kalden, & Joraschky, 1997; Kim et al., 2003; Ravindran et al., 2002; Schouws et al., 2001; Swindle, Cronkite, & Moos, 1989; Vosvick et al., 2002), and coping and well-being (Aldwin & Revenson, 1987; Epsetin & Katz, 1992; Felton, Revenson, & Hinrichsen, 1984; Fleishman & Fogel, 1994; Folkman, et al., 1986; Kim et al., 2003; McCrae & Costa, 1986; Nowack, 1991; Pearlin & Schooler, 1978; Ravindran et al., 2002). No single study has investigated an integrative model incorporating psychological reactance, coping, quality of life, and well-being. The findings of these hypotheses may add to the body of research defining psychological reactance, as well as aid in supervisors, significant others, doctors, and therapists in dealing with the psychologically reactant individual.

Statement of Hypothesis 4A: Psychological reactance (TRS:T) will moderate the relationship between coping (CSQ; EMCOP, AVCOP, RATCOP, & DETCOP) and quality of life (QOL).

Statement of Hypothesis 4B: Psychological reactance (TRS:T) will moderate the relationship between coping (CSQ; EMCOP, AVCOP, RATCOP, & DETCOP) and well-being (GWBT).

CHAPTER 2

METHOD

The primary focus of this study was to investigate the relationships among psychological reactance, coping, quality of life, and well-being. Psychological reactance was measured by the Therapeutic Reactance Scale (TRS; Dowd et al., 1991). Coping style was assessed by the Coping Styles Questionnaire (CSQ; Roger, Jarvis, and Najarian, 1993). The Overall Quality of Life (OQL) scale, by Woodruff and Conway (1992), was used to measure quality of life, and the General Well-Being Schedule (GWB), by Dupuy (1978), was used to assess well-being. Lastly, a demographics questionnaire was used to gather additional data. The interrelationships among psychological reactance, coping, quality of life, well-being, and various demographic items also were examined.

Participants

Participants were recruited from introductory undergraduate psychology courses from a medium/large sized university in the southern United States. Participants were informed in writing that their involvement in this study was completely voluntary. Volunteers included 353 students. All participants were treated in accordance with the ethical guidelines established by the American Psychological Association (APA, 1992), and were guaranteed anonymity. Survey packets were approved by the university's

institutional review board. These consisted of a consent form explaining the nature of the study, the TRS, the CSQ, the OQL, the GWB and a demographics questionnaire. Prior to data collection, participants were asked to read and sign the consent form. Participants also were notified of their right to refuse participation. All collected data were analyzed collectively with no data being investigated individually. The completed surveys were stored separately from consent forms to ensure anonymity and that the data would remain in strict confidence.

Instruments

Therapeutic Reactance Scale (TRS)

The Therapeutic Reactance Scale (TRS; Dowd et al., 1991) is a 28 item, self-report scale that measures psychological reactance. Each item is scored on a 4-point Likert-type scale ranging from strongly disagree to strongly agree. A minimum of 28 and a maximum of 112 can be achieved on the TRS. The TRS items pertain to reactions to loss or to potential loss of personal or impersonal freedoms. An example of an item on the TRS is "I resent authority figures who try to tell me what to do." The TRS has two subscales, behavioral reactance (TRS:B), and verbal reactance (TRS:V).

A mean total reactance score (TRS:T) of 66.7 (SD = 6.59) was found on the original sample of 211 university students. The second study completed by Dowd et al. (1991) used 150 students for an additional norming sample. Their results indicated a mean score of 68.9 and a standard deviation of 7.19. Additional studies have produced similar means and standard deviations (Buboltz et al., 1999; Huck, 1998; Seemann, Buboltz, & Flye, 2004).

Males have been found to be more reactant than females on the Therapeutic Reactance Scale. Most recently Seemann, Bublotz, Jenkins, Soper, and Woller (2004) found mean scores of males in three samples ($M = 73.3$, $SD = 8.7$), ($M = 74.7$, $SD = 9.1$), and ($M = 73.4$, $SD = 6.7$) whereas the females' mean scores were ($M = 69.3$, $SD = 8.9$), ($M = 68.5$, $SD = 8.9$), and ($M = 68.9$, $SD = 6.6$).

Internal consistency using Cronbach's alpha for the TRS ranged from .75 to .84 (Dowd et al., 1991). Additionally, a three-week test-retest reliability ranged from .57 to .60. Lukin, Dowd, Plake, and Kraft (1985) found a one-week test-retest reliability of .76. Convergent, divergent, and construct validity have been established for the TRS total score but not for the verbal and behavioral subscales (Dowd et al., 1991). Morgan (1986) found evidence of convergent validity with a positive correlation of .27 ($p < .005$) between the TRS:T and the internality of the Rotter Internal-External Locus of Control Scale, and a negative correlation of .48 between the K scale of the Minnesota Multiphasic Personality Inventory (MMPI) and the TRS total score.

Divergent validity was found between the TRS:T and the Counselor Rating Form-Short when no significant correlations were found between the two scales. Lukin et al. (1985) found additional evidence of divergent validity when there was no significant correlation between the TRS total score and the State and Trait scales of the State-Trait Anxiety Inventory scale (Speilberger, Gorsuch, & Lurshene, 1970), as well as between the TRS:T and the Beck Depression Inventory (Beck, 1967). Dowd et al. (1988) found that highly reactant individuals showed less anxiety reduction, less expectation for change on their procrastination behaviors, and more external excuses in order to exhibit construct validity. Likewise, other studies have continued to document the construct

validity of the TRS (Buboltz et al., 1999; Huck, 1998; Morgan, 1986; Seibel & Dowd, 1999).

Coping Styles Questionnaire (CSQ)

The Coping Styles Questionnaire (CSQ; Roger et al., 1993) assesses coping style with 60 items that question how individuals typically react to stress. The responses are on a 4-point Likert-scale consisting of responses that are never, sometimes, often, or always. The CSQ consists of 4 scales: emotional coping (EMCOP) and avoidance coping (AVCOP) which are considered maladaptive, and rational coping (RATCOP) and detachment coping (DETCOP) which are considered adaptive. Higher scores indicate greater usage of that particular type of coping.

The EMCOP scale consists of 16 items that assess feelings described as, "feel worthless and unimportant." The AVCOP scale has 13 items and has items such as "trust in fate—that things have a way of working out for the best." The RATCOP scale has 16 items and has items such as "try to find out more information to help make a decision about things." The DETCOP scale has 15 items including an item that says "just take nothing personally." The DETCOP scale assesses feelings of being independent of the event and the emotion associated with it, as well as stress management by emotional control. The retest reliability coefficients at a three month interval for the CSQ ranged from .70 to .80. Internal consistency using coefficient alphas for the four factors is as follows: EMCOP .74, AVCOP .69, RATCOP .39, and DETCOP .89.

Overall Quality of Life (OQL)

The Overall Quality of Life (OQL) scale by Woodruff and Conway (1992) was used to assess quality of life. The OQL measured life satisfaction and positive affect in

areas such as personal accomplishments, interpersonal relationships, work/school, and life. There are 14 items that on a 7-point scale ranging from 1 (terrible) to 7 (delighted). Wording of this scale was based on Andrews and Withey (1976) and the OQL scale was adapted from the items of Caplan, Abbey, Abramis, Andrews, Conway, and French (1984). Internal consistency averaged over three years was a coefficient alpha of .91. Also, student related wording was added to suit the college population in the current study.

General Well-Being Schedule (GWB)

For the measure of mental and physical well-being, the General Well-Being Schedule (GWB; Dupuy, 1978) was chosen. The scale measures how the individual feels about his or her inner personal state. The scale consists of 18 items that are self-report. The GWB scale was designed to measure subjective feelings of psychological well-being and distress which reflect both positive and negative feelings. There are six dimensions of the GWB that cover anxiety, depression, health, positive well-being, self-control, and vitality.

The GWB was developed for the U.S. Health and Nutrition Examination Survey. Originally, there were 68 items which were narrowed down to 18 for final analysis. Of the 18 items, the first 14 questions of the GWB use a 6-point Likert-type scale representing intensity or frequency. The last four questions use a 0 to 10 rating scale defined with various adjectives at each end. Dupuy (1978) utilized a total score (GWBT). The GWBT runs from 0 to 124 with low scores representing more severe distress and high scores representing positive well-being. Reliability estimates are as follows: coefficient alpha reliability for the total score ranged from .88 to .95 and three month

test-retest reliability ranged from .68 to .85. Fazio (1977) and Himmelfarb and Murrell (1983) found criterion and construct validity of the GWB to range from .47 to .90, which is considered adequate.

The subscales of the General Well-Being Schedule are as follows: (1) The anxiety well-being subscale (GWBA) consisting of questions 2, 5, 8, and 16 assessing nervousness, strain, stress, pressure, anxiousness, worry, and/or being upset, relaxed or tense. (2) The depression well-being subscale (GWBD) consisting of items 4, 12, and 18 which measure being sad, discouraged, hopeless, down-hearted, blue, and/or depressed. (3) The positive well-being subscale (GWBP) consisting of numbers 1, 6, and 11 that assess universal feelings, feelings of happiness and satisfaction, and/or level of interesting life. (4) The subscale entitled self-control well-being (GWBS) consisting of items 3, 7, and 13 which measure control of behavior, emotions, fear of losing mind or control, emotional stability, and certainty of self. (5) The vitality well-being subscale (GWBV) consisting of items 9, 14, and 17 which assess feelings of being rested, tired, worn out and/or energy level. (6) Finally, general health well-being subscale (GWBG) consisting of items 10 and 15 assessing illness, worry, and concern about illness.

Demographics Questionnaire

A short questionnaire consisting of nine items was utilized in order to assess general demographic information.

Procedure

Participants were given a packet consisting of an informed consent form, a demographic questionnaire, the TRS, the CSQ, the OQL, and the GWB. Participants first read the informed consent, then signed a consent form explaining the purpose of the

study. The informed consent ensures their anonymity, as well as their right to refuse participation or discontinue at any time. They were assured that all data is confidential and that data will only be collectively analyzed. Those who signed the consent form were asked to complete the packet, which took approximately 20 to 40 minutes.

Data Analysis

Once the data were collected, it was analyzed to determine the relationships between psychological reactance, coping, quality of life, and well-being. Gender differences were tested first. Significant gender differences were present. Separate analyses were conducted for each gender. Descriptive statistics are provided for all variables including frequencies, means, standard deviations, and correlations. A measure of internal consistency (Cronbach's alpha) was conducted for each instrument.

Hypothesis 1. Hypothesis 1 was analyzed using a regression. The relationship between psychological reactance and coping was assessed using the Therapeutic Reactance Scale and the Coping Style Questionnaire. The TRS total score (TRS:T) was regressed on the four scales of the CSQ (EMCOP, AVCOP, DETCOP, and RATCOP). The psychological reactance total score served as the dependent variable and the CSQ scales served as the independent variable.

Hypothesis 2. Hypothesis 2 was analyzed using the Pearson Product Moment Correlation Coefficient. The relationship between psychological reactance and quality of life was assessed using the Therapeutic Reactance Scale and the Overall Quality of Life scale. The TRS total score (TRS:T) was assessed in relation to the total score of the OQL. The psychological reactance total score served as the dependent variable and the total score of the OQL served as the independent variable.

Hypothesis 3. Hypothesis 3 was analyzed using a regression. The relationship between psychological reactance and well-being was assessed using the Therapeutic Reactance Scale and the General Well-Being Schedule. The TRS total score (TRS:T) was regressed on the total well-being scale (GWBT) and the well-being subscales of anxiety (GWBA), depression (GWBD), positive well-being (GWBP) , self-control (GWBS), vitality (GWBV), and general health (GWBG). The psychological reactance total score served as the dependent variable and the scales the GWB scales served as the independent variable.

Hypothesis 4A. Hierarchical regression was used to test Hypothesis 4A. The moderating effects of psychological reactance on the relationship between coping and quality of life was determined by using the Therapeutic Reactance Scale, Coping Style Questionnaire, and the Overall Quality of Life Scale. Baron and Kenny (1985) describe moderating variables as variables that change the direction and strength of the relationship between two other variables. In the first block, coping styles (EMCOP, AVCOP, DETCOP, and RATCOP) were entered. In the second block, the psychological total score (TRS:T) was added. In the third block, the interactions between psychological reactance and coping were entered. Interactions that added incremental variance indicated that psychological reactance moderated the effects of coping style on quality of life.

Hypothesis 4B. Hierarchical regression was used to test Hypothesis 4B. The moderating effects of psychological reactance on the relationship between coping and well-being was determined using the Therapeutic Reactance Scale, Coping Style Questionnaire, and the General Well-Being Schedule. Once again, Baron and Kenny (1985) stated that moderating variables change the direction and strength of the

relationship between two variables. In the first block, coping styles (EMCOP, AVCOP, DETCOP, and RATCOP) were entered. In the second block, the psychological total score (TRS:T) was added. In the third block, the interactions between psychological reactance and coping were entered. Interactions that add incremental variance indicated that psychological reactance moderates the effects of coping style on well-being.

CHAPTER 3

RESULTS

Data Analysis

This chapter provides results of the current study. Data were analyzed to test the hypotheses about the various relationships among psychological reactance and coping, psychological reactance and quality of life, psychological reactance and well-being, as well as whether or not psychological reactance moderates the relationship between coping and quality of life, and coping and well-being. Significant gender differences were found for several variables including three coping scales, one well-being scale, and psychological reactance. See Table 1 for gender differences. Due to the significant gender differences found on many important variables, male responses and female responses were analyzed separately.

Participants

Participation in the current study was limited to students enrolled in undergraduate classes at a Southern university. An initial sample of 362 participants was given survey packets. For failure to complete an entire survey or skipping a page in the survey packet, three participants were excluded. One participant was excluded for providing an invalid profile by circling all the same numbers on the TRS. Two participants were excluded for providing an invalid profile on the CSQ by circling the

Table 1

Gender Differences

	Mean				
Variables	Males	Females	*f*	*df*	*p*
Psychological Reactance					
TRST	70.58	66.74	29.944	344	.000**
Coping Style					
RATC	43.09	42.42	.837	352	.186
DETC	35.99	32.80	26.685	350	.000**
EMC	31.83	35.12	20.484	351	.000**
AVC	30.78	32.15	4.584	350	.101
Quality of Life					
OQL	72.31	73.45	.931	351	.601
Well-Being					
GWBT	82.72	79.69	3.018	353	.094
GWBA	17.46	15.34	14.615	353	.000**
GWBD	16.17	15.80	.557	353	.622
GWBP	10.72	11.18	3.601	353	.124
GWBS	14.12	13.74	1.528	353	.181
GWBV	13.34	13.35	.001	353	.779
GWBG	10.92	10.23	2.294	353	.140

Note: TRST = Total Reactance; RATC = Rational Coping; DETC = Detached Coping; EMC = Emotional Coping; AVC = Avoidance Coping; OQL = Overall Quality of Life; GWBT = Well-Being Total; GWBA = Anxiety Well-Being; GWBD = Depression Well-Being; GWBP = Positive Well-Being; GWBS = Self Control Well-Being; GWBV = Vitality Well-Being; GWBG = General Health Well-Being; *f* = f ratio of anova; *df* = degrees of freedom; *p* = probability 2 tailed.

same number on each item on the survey, and three participants were excluded for not indicating their gender. A total of 353 participants were retained for this study after six were excluded.

Males

There were 150 male participants in this study. Male participants ranged in age from 18 to 44 with a mean age of 20.2 and a standard deviation of 2.86. Approximately 80% of the male participants were between the ages of 18 to 21. The male sample included 116 Caucasian Americans (77.9%), 20 African Americans (12.8%), 6 Asian Americans (4.0%), 2 Latino (1.3%), 2 Native Americans (1.3%), and 4 individuals (2.7%) that identified themselves as another ethnicity not listed on the questionnaire.

The male undergraduate participants were 45% Freshman, 20.8% Sophomore, 19.5% Junior, and 14.8% Senior classmen. Their mean grade point average was 2.88 with a standard deviation of .65. Approximately 8.8% of the males' grade point averages were under 2.0. Roughly 49.7% of the males' grade point averages were between 2.0 and 3.0. Lastly, 36% of the males' grade point averages were between 3.3 and 4.0; eight male participants did not indicate their grade point averages.

Females

There were 203 female participants in this study. Female participants ranged in age from 18 to 54 with a mean age of 20.5 and a standard deviation of 3.64. Approximately 80% of the female participants were between the ages of 18 to 21. The female sample included 161 Caucasian Americans (79.3%), 26 African Americans (12.8%), 7 Asian Americans (3.4%), 3 Latino (1.5%), 2 Native Americans (1.0%), and

3 individuals (1.5%) that identified themselves as another ethnicity not listed on the questionnaire with one female not reporting her ethnicity.

The female undergraduate participants were 41.4% Freshman, 20.2% Sophomore, 19.2% Junior, and 17.7% Senior classmen. Their mean grade point average was 3.04 with a standard deviation of .51. No females reported grade point averages under 2.13. Approximately 6% of the females' grade point averages were between 2.13 and 2.49. Roughly 26.1% of the females' grade point averages were between 2.5 and 2.99, and 33.6% were between a 3.0 and 3.49. Lastly, 22.7% of the females' grade point averages were between 3.5 and 4.0; 14 female participants did not indicate their grade point averages.

Significant Gender Differences

Means and standard deviations are presented in Table 2. There was a 3.84 point difference between the mean total reactance score for males ($M = 70.58$, $SD = 6.91$) and the mean total reactance score for females ($M = 66.74$, $SD = 7.18$). The significant difference, $F(1, 344) = 24.944$, $p < .001$, indicates that on average, males were more reactant than females in this sample. The original norming sample by Dowd et al. (1991) on the TRS was from a large Northern university with a mean of 68.87 and a standard deviation of 7.19 which is slightly lower than the males in this sample and slightly higher than the females. Seemann et al. (under review) found higher scores ($M = 76.44$, $SD = 11.29$) in a mid-sized Southern university as compared to the current sample. Similar scores were found by Huck (1998) with a mean of 69.7 ($SD = 11.3$) and Buboltz et al. (1999) with a mean of 69.3 ($SD = 11.3$).

Table 2

Means, Standard Deviation, and Internal Consistencies of the Variables

Variables	Males			Females		
	M	*SD*	α	*M*	*SD*	α
Psychological Reactance						
TRST	70.58	6.91	.69	66.74	7.18	.75
Coping Style						
RATC	43.09	7.55	.86	42.42	6.33	.74
DETC	35.99	6.32	.80	32.80	5.25	.71
EMC	31.83	6.60	.66	35.12	6.87	.82
AVC	30.78	5.95	.60	32.15	5.95	.63
Quality of Life						
OQL	72.31	11.34	.90	73.45	10.74	.89
Well-Being						
GWBT	82.72	16.36	.83	79.69	16.11	.87
GWBA	17.46	5.35	.77	15.34	4.98	.80
GWBD	16.17	4.98	.44	15.80	4.15	.81
GWBP	10.72	2.36	.50	11.18	2.14	.18
GWBS	14.12	2.85	.65	13.74	2.81	.75
GWBV	13.34	3.65	.64	13.35	3.87	.74
GWBG	10.92	3.80	.36	10.28	4.08	.60

Note: TRST = Total Reactance; RATC = Rational Coping; DETC = Detached Coping; EMC = Emotional Coping; AVC = Avoidance Coping; OQL = Overall Quality of Life; GWBT = Well-Being Total; GWBA = Anxiety Well-Being; GWBD = Depression Well-Being; GWBP = Positive Well-Being; GWBS = Self Control Well-Being; GWBV = Vitality Well-Being; GWBG = General Health Well-Being.

Seemann (2003) reported a mean of 68.87 with a standard deviation of 6.75 in incarcerated males at a medium security prison which is slightly lower than the males in the present study. The lower scores in Seemann's (2003) study may be due to the older average age of males in his study versus the current male student participants.

There was a significant difference, F (1, 350) = 26.685, $p < .001$ of 3.19 points between the mean detachment coping scale score for males (M = 35.99, SD = 6.32) and the mean detachment coping scale for females (M = 32.80, SD = 5.25) indicating that for this sample males reported greater usage of detachment coping. There was a 3.29 point difference between emotional coping for males (M = 31.83, SD = 6.60) and emotional coping for females (M = 35.12, SD = 6.87). The significant difference, F (1, 351) = 20.484, $p < .001$, indicates that on average, females used more emotional coping than males in this sample. The avoidance coping scale mean scores were males (M = 30.78, SD = 5.91) and females (M = 32.15, SD = 5.95) with a significant difference, F (1, 350) = 4.584, $p < .05$ of 1.37 point suggesting that on average females used more avoidance coping than males for this sample.

There was a 2.11 point significant difference between the mean anxiety well-being score for males (M = 17.46, SD = 5.35) and the mean anxiety well-being score for females (M = 15.34, SD = 4.98). The significant difference, F (1, 353) = 14.615, $p < .001$, indicates that on average, males reported less anxiety in relation to well-being than females in this sample.

Additional Descriptive Statistics

For non-significant differences refer to Table 1 and for means and standard deviations refer to Table 2. On the rational coping scale, there were approximately equal

means for males ($M = 43.09$, $SD = 7.55$) and females ($M = 42.42$, $SD = 6.33$). The mean scores for quality of life were slightly over one point difference from each other for males ($M = 72.31$, $SD = 11.34$) and females ($M = 73.45$, $SD = 10.74$).

On the General Well-Being Total scale, male ($M = 82.72$, $SD = 16.36$) and female ($M = 79.69$, $SD = 16.11$) scores were similar. Both male and female total well-being scores indicated moderate levels of distress. The depression well-being subscale for males ($M = 16.17$, $SD = 4.98$) and females ($M = 15.80$, $SD = 4.15$), the positive well-being subscale for males ($M = 10.72$, $SD = 2.36$) and females ($M = 11.18$, $SD = 2.14$), the self-control well-being subscale for males ($M = 14.12$, $SD = 2.85$) and females ($M = 13.74$, $SD = 2.81$), the vitality well-being subscale measure for males ($M = 13.34$, $SD = 3.65$) and females ($M = 13.35$, $SD = 3.87$), and the general health well-being scale for males ($M = 10.92$, $SD = 3.80$) and females ($M = 10.28$, $SD = 4.08$) had comparable means for both genders.

For internal consistencies refer to Table 2. On the Therapeutic Reactance Scale, internal consistencies were .69 for males and .75 for females which was considerably lower than the internal consistency alpha of .84 from the original norming sample by Dowd et al. (1991). The Overall Quality of Life scale's internal consistency was for males .90 and females .89. Internal consistencies of the Coping Styles Questionnaire subscales ranged from .60 to .80 for males and .63 to .82 for females. The General Well-Being Schedule had internal consistencies that ranged from .36 to .83 for males and .18 to .87 for females. The low alphas question the accuracy of the specific subscales. For males the lowest subscale alpha was general health well-being, and for females the lowest subscale alpha was on the positive well-being scale.

Correlations Among Variables

Significant correlations will be discussed in the following section by gender.

Males

For males, correlations are presented in Table 3. There were no significant correlations between any of the demographic variables and the reactance, coping, quality of life, or well-being measures.

The Therapeutic Reactance Scale total score was correlated significantly with the following scales: Detachment Coping ($r = .249, p < .01$), Emotional Coping ($r = .338, p < .01$), Avoidance Coping ($r = .191, p < .05$), General Well-Being Total ($r = .265, p < .01$), Positive Well-Being ($r = -.217, p < .01$), Self-Control Well-Being ($r = -.302, p < .01$), Anxiety Well-Being ($r = -.200, p < .05$), Vitality Well-Being ($r = -.171, p < .05$), and Overall Quality of Life ($r = -.190, p < .05$).

The Rational Coping scale was correlated significantly with the following scales: Detachment Coping ($r = .708, p < .01$), Emotional Coping ($r = -.292, p < .01$), Overall Quality of Life ($r = .439, p < .01$), General Well-Being Total ($r = -.241, p < .01$), Positive Well-Being ($r = .282, p < .01$), Self-Control Well-Being ($r = .339, p < .01$), Depression Well-Being ($r = .209, p < .05$), and Vitality Well-Being ($r = .197, p < .05$). The Detachment Coping scale was correlated significantly with the following scales: Emotional Coping ($r = -.246, p < .01$), Avoidance Coping ($r = .231, p < .01$), and Overall Quality of Life ($r = .255, p < .01$). The Emotional Coping scale was correlated significantly with the following scales: Avoidance Coping ($r = .428, p < .01$), Overall Quality of Life ($r = -.467, p < .01$), General Well-Being Total ($r = -.530, p < .01$),

Table 3

Correlation Matrix for All Variables for Males

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Age	1.00	.15	-.03	.01	-.09	-.08	-.16	.12	.00	-.03	.11	-.10	-.03	,00	.01
2. GPA		1.00	-.02	.08	.03	.01	-.07	.11	.01	-.10	.07	-.01	.01	.04	.07
3. TRST			1.00	.02	.25**	.34**	.19*	-.19*	-.27**	-.20*	-.16	-.22**	-.30**	-.17*	-.14
4. RATC				1.00	.71**	-.29**	.10	.44**	.24**	.13	.21*	.28**	.34**	.20*	-.04*
5. DETC					1.00	-.25**	.23**	.26**	.13	.13	.11	.12	.14	.12	-.07
6. EMC						1.00	.43**	-.47**	-.53**	-.46**	-.40**	-.28**	-.45**	-.32**	-.28**
7. AVC							1.00	-.20*	-.23**	-.19*	-.18*	-.14	-.10	-.17*	-.15
8. OQL								1.00	.64**	.50**	.47**	.67**	.60**	.48**	.11
9. GWBT									1.00	.83**	.73**	.66**	.76**	.71**	.52**
10. GWBA										1.00	.46**	.44**	.57**	.57**	.35**
11. GWBD											1.00	.42**	.52**	.35**	.20*
12. GWBP												1.00	.52**	.50**	.15
13. GWBS													1.00	.44**	.30**
14. GWBV														1.00	.18*
15. GWBG															1.00

Note : TRST = Total Reactance; RATC = Rational Coping; DETC = Detached Coping; EMC = Emotional Coping; AVC = Avoidance Coping; OQL = Overall Quality of Life; GWBT = Well-Being Total; GWBA = Anxiety Well-Being; GWBD = Depression Well-Being; GWBP = Positive Well-Being; GWBS = Self Control Well-Being; GWBV = Vitality Well-Being; GWBG = General Health Well-Being; * p , .05 two-tailed; ** p , .01 two tailed.

Anxiety Well-Being (r = -.470, p < .01), Depression Well-Being (r = -.401, p < .01), Positive Well-Being (r = -.276, p < .01), Self-Control Well-Being (r = -.448, p < .01),Vitality Well-Being (r = -.319, p < .01) and General Health Well-Being (r = -.280, p < .01). Avoidance coping was correlated significantly with the following scales: General Well-Being Total (r = -.227, p < .01), Overall Quality of Life (r = -.200, p < .05), Anxiety Well-Being (r = -.192, p < .05), Depression Well-Being (r = -.177, p < .05), and Vitality Well-Being (r = -.171, p < .05).

Overall Quality of Life was correlated significantly with the following scales: General Well-Being Total (r = .635, p < .01), Anxiety Well-Being (r = .492, p < .01), Depression Well-Being (r = .467, p < .01), Positive Well-Being (r = .661, p < .01), Self-Control Well-Being (r = .596, p < .01), and Vitality Well-Being (r = .479, p < .01).

The General Well-Being total score was correlated significantly with the following scales: Anxiety Well-Being (r = .833, p < .01), Depression Well-Being (r = .730, p < .01), Positive Well-Being (r = .655, p < .01), Self-Control Well-Being (r = .760, p < .01), Vitality Well-Being (r = .705, p < .01) and General Health Well-Being (r = .520, p < .01). The Anxiety Well-Being scale was correlated significantly with the following scales: Depression Well-Being (r = .455, p < .01), Positive Well-Being (r = .438, p < .01), Self-Control Well-Being (r = .565, p < .01), Vitality Well-Being (r = .568, p < .01), and General Health Well-Being (r = .347, p < .01). The Depression Well-Being scale was correlated significantly with the following scales: Positive Well-Being (r = .424, p < .01), Self-Control Well-Being (r = .519, p < .01), Vitality Well-Being (r = .348, p < .01), and General Health Well-Being (r = .197, p < .05). The Positive Well-Being scale was correlated significantly with the following scales: Self-Control Well-Being (r =

.523, $p < .01$), and Vitality Well-Being ($r = .499$, $p < .01$). The Self-Control Well-Being scale was correlated significantly with the following scales: Vitality Well-Being ($r = .438$, $p < .01$), and General Health Well-Being ($r = .300$, $p < .01$). The Vitality Well-Being scale was correlated significantly with the General Health Well-Being scale ($r = .180$, $p < .05$).

Females

For females, correlations are presented in Table 4. Age was correlated significantly with Rational Coping ($r = .183$, $p < .01$) and Avoidance Coping ($r = -.162$, $p < .05$). Grade point average was correlated significantly with Avoidance Coping ($r = -.214$, $p < .01$), Overall Quality of Life ($r = .284$, $p < .01$), Detachment Coping ($r = -.161$, $p < .05$), Depression Well-Being ($r = .166$, $p < .05$), and Positive Well-Being ($r = .157$, $p < .05$).

The Therapeutic Reactance Scale total score was correlated significantly with following scales: Emotional Coping ($r = .196$, $p < .01$), Overall Quality of Life ($r = -.219$, $p < .01$), General Well-Being Total ($r = -.234$, $p < .01$), Self-Control Well-Being ($r = -.265$, $p < .01$), Vitality Well-Being ($r = -.200$, $p < .01$), Depression Well-Being ($r = -.160$, $p < .05$), and Positive Well-Being ($r = -.174$, $p < .05$).

The Rational Coping scale was correlated significantly with the following scales: Detachment Coping ($r = .530$, $p < .01$), Emotional Coping ($r = -.204$, $p < .01$), Overall Quality of Life ($r = .233$, $p < .01$), Depression Well-Being Total ($r = .194$, $p < .01$), Positive Well-Being ($r = .270$, $p < .01$), Self-Control Well-Being ($r = .319$, $p < .01$), Avoidance Coping ($r = .156$, $p < .05$), and General Well-Being Total ($r = .175$, $p < .05$).

Table 4

Correlation Matrix for All Variables for Females

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Age	1.00	-.07	-.08	.18**	-.09	-.07	-.16*	-.12	-.09	-.09	-.01	-.07	.07	-.14	-.12
2. GPA		1.00	-.12	.00	-.16*	-.12	-.21**	.28**	.10	.04	.17*	.16*	.11	.07	-.04
3. TRST			1.00	-.08	.06	.20**	.05	-.22**	-.23**	-.13	-.16*	-.17**	-.27**	-.20**	-.14
4. RATC				1.00	.53**	-.20**	.16*	.23**	.18*	.11	.19**	.27**	.32**	.13	-.12
5. DETC					1.00	-.14	.22**	.15*	.12	.11	.05	.14*	.21**	.12	-.03
6. EMC						1.00	.43**	-.48**	-.57**	-.56**	-.61**	-.23**	-.63**	-.43**	.01
7. AVC							1.00	-.11	-.23**	-.18*	-.23**	-.19	-.28**	-.16*	-.04
8. OQL								1.00	.60**	.38**	.55**	.56**	.58**	.48**	.19**
9. GWBT									1.00	.83**	.84**	.59**	.77**	.82**	.47**
10. GWBA										1.00	.70**	.32**	.58**	.62**	.18**
11. GWBD											1.00	.44**	.70**	.62**	.17*
12. GWBP												1.00	.50**	.45**	.19**
13. GWBS													1.00	.56**	.14
14. GWBV														1.00	.28**
15. GWBG															1.00

Note: TRST = Total Reactance; RATC = Rational Coping; DETC = Detached Coping; EMC = Emotional Coping; AVC = Avoidance Coping; OQL = Overall Quality of Life; GWBT = Well-Being Total; GWBA = Anxiety Well-Being; GWBD = Depression Well-Being; GWBP = Positive Well-Being; GWBS = Self Control Well-Being; GWBV = Vitality Well-Being; GWBG = General Health Well-Being; * p , .05 two-tailed; ** p, .01 two tailed.

The Detachment Coping scale was correlated significantly with the following scales: Avoidance Coping ($r = .224$, $p < .01$), Self-Control Well-Being ($r = .211$, $p < .01$), Positive Well-Being ($r = .141$, $p < .05$), and Overall Quality of Life ($r = .154$, $p < .05$). The Emotional Coping scale was correlated significantly with the following scales: Avoidance Coping ($r = .428$, $p < .01$), Overall Quality of Life ($r = -.477$, $p < .01$), General Well-Being Total ($r = -.570$, $p < .01$), Anxiety Well-Being ($r = -.558$, $p < .01$), Depression Well-Being ($r = -.609$, $p < .01$), Positive Well-Being ($r = -.227$, $p < .01$), Self-Control Well-Being ($r = -.626$, $p < .01$), and Vitality Well-Being ($r = -.427$, $p < .01$). Avoidance coping was correlated significantly with the following scales: General Well-Being Total ($r = -.225$, $p < .01$), Depression Well-Being ($r = -.232$, $p < .01$), Self-Control Well-Being ($r = -.279$, $p < .01$), Anxiety Well-Being ($r = -.181$, $p < .05$), and Vitality Well-Being ($r = -.162$, $p < .05$).

Overall Quality of Life was correlated significantly with the following scales: General Well-Being Total ($r = .601$, $p < .01$), Anxiety Well-Being ($r = .379$, $p < .01$), Depression Well-Being ($r = .553$, $p < .01$),), Positive Well-Being ($r = .562$, $p < .01$), Self-Control Well-Being ($r = .578$, $p < .01$), Vitality Well-Being ($r = .484$, $p < .01$) and General Health Well-Being ($r = .191$, $p < .01$).

The General Well-Being total score was correlated significantly with the following scales: Anxiety Well-Being ($r = .825$, $p < .01$), Depression Well-Being ($r = .844$, $p < .01$), Positive Well-Being ($r = .587$, $p < .01$), Self-Control Well-Being ($r = .769$, $p < .01$), Vitality Well-Being ($r = .819$, $p < .01$) and General Health Well-Being ($r = .468$, $p < .01$). The Anxiety Well-Being scale was correlated significantly with the following scales: Depression Well-Being ($r = .695$, $p < .01$), Positive Well-Being ($r =$

.316, $p < .01$), Self-Control Well-Being ($r = .579$, $p < .01$), Vitality Well-Being ($r = .615$, $p < .01$), and General Health Well-Being ($r = .182$, $p < .01$). The Depression Well-Being scale was correlated significantly with the following scales: Positive Well-Being ($r = .435$, $p < .01$), Self-Control Well-Being ($r = .700$, $p < .01$), Vitality Well-Being ($r = .623$, $p < .01$), and General Health Well-Being ($r = .165$, $p < .05$). The Positive Well-Being scale was correlated significantly with the following scales: Self-Control Well-Being (r = .499, $p < .01$), Vitality Well-Being ($r = .451$, $p < .01$), and General Health Well-Being ($r = .193$, $p < .01$). The Self-Control Well-Being scale was correlated significantly with the Vitality Well-Being scale ($r = .560$, $p < .01$). The Vitality Well-Being scale was correlated significantly with the General Health Well-Being scale ($r = .277$, $p < .01$).

Results for Hypotheses

Results for Hypothesis 1 for Males

The first hypothesis that psychological reactance would be related to coping in males was tested using a regression. Coping was assessed using the Coping Response Inventory. Four subscale scores (EMCOP, AVCOP, RATCOP, & DETCOP) were obtained and used as the predictor variable. Psychological reactance was assessed using the total reactance score of the Therapeutic Reactance Scale (TRS:T) and was used as the criterion variable. Results for Hypothesis 1 for males are presented in Table 5.

The regression analysis was significant F (2, 144) = 21.053, p = <.001. Two coping subscales had significant beta weights with the Therapeutic Reactance Scale total score. The EMCOP accounted for 11.5% of the variance in Therapeutic Reactance Scale total score with a beta weight of .338 in the first model. The second block resulted in an additional 11.4% of the variance in reactance being accounted for in the. The EMCOP

had a significant beta weight (β = .420, p < .001) and the DETCOP had a significant beta weight (β = .347, p < .001) in the second model. The prediction that for males psychological reactance would be related to coping was confirmed. Specifically, emotional coping and detached coping predicted psychological reactance.

Table 5

Hypothesis 1 Males

Regression with Coping Predicting Psychological Reactance

Variable	β	R^2	t	F	p
Model 1		.115		18.503	.000*
EMC	.338		4.301		.000*
Model 2		.229		21.053	.000**
EMC	.420		5.536		.000**
DETC	.347		4.584		.000**

Note: β = standardized beta weight; Table only presents significant variables * p < .05. ** p < .01
Note 2: TRST = Total Reactance; RATC = Rational Coping; DETC = Detached Coping; EMC = Emotional Coping; AVC = Avoidance Coping.

Results for Hypothesis 1 for Females

The same procedure utilized to test Hypothesis 1 for males was used to test the first hypothesis for females. Results for hypothesis 1 for females are presented in Table 6.

The regression analysis was significant F (1, 192) = 7.293, p = <.008. The EMCOP accounted for 3.7% of the variance in the Therapeutic Reactance Scale total score, and had a significant beta weight (β = .192, p < .008). The prediction that for

Table 6

Hypothesis 1 for Females

Regression with Coping Predicting Psychological Reactance

Variable	β	R^2	t	F	p
Model 1		.037		7.293	.008*
EMC	.192		2.701		.008*

Note: β = standardized beta weight; Table only presents significant variables * $p < .05$. ** $p < .01$
Note 2: TRST = Total Reactance; RATC = Rational Coping; DETC = Detached Coping; EMC = Emotional Coping; AVC = Avoidance Coping.

females psychological reactance would be related to coping was confirmed. Specifically, emotional coping was the only predictor of reactance for females.

Results for Hypothesis 2 for Males

The second hypothesis that psychological reactance would be related to quality of life in males was tested using the Pearson Product Correlation Coefficient. Quality of life was assessed using the Overall Quality of Life scale total score (OQL), and psychological reactance was assessed using the total reactance score of the Therapeutic Reactance Scale (TRS:T).

The Pearson Product Correlation Coefficient with psychological reactance and quality of life for males revealed a significant relationship, (r =-.190, $p < .05$) thus confirming the prediction that for males psychological reactance is related to quality of life.

Results for Hypothesis 2 for Females

The same procedure utilized to test Hypothesis 2 for males was used to test the second hypothesis for females. The Pearson Product Correlation Coefficient with psychological reactance and quality of life for females revealed a significant relationship, ($r = -.219, p < .01$) thus confirming that for females psychological reactance is related to quality of life.

Results for Hypothesis 3 for Males

Hypothesis 3 stated that psychological reactance would be related to well-being in males; this hypothesis was tested using a regression. Well-being was assessed using the General Well-Being Scale. The total General Well-Being Scale score (GWBT) and six subscale scores (GWBA, GWBD, GWBP, GWBS, GWBV, & GWBG) were obtained and used as the predictor variables. Psychological reactance was assessed using the total reactance score of the Therapeutic Reactance Scale (TRS:T) and was used as the criterion variable. Results for Hypothesis 3 for males are presented in Table 7.

The regression analysis with well-being entered as the predictor variables and psychological reactance as the criterion variable for males was significant $F(1, 144) = 14.353, p = <.001$ and accounted for 9.1% of the variance in the Therapeutic Reactance Scale total score. The GWBS had a significant beta weight ($\beta = -.302, p < .001$). The prediction that for males psychological reactance would be related to quality of life was confirmed. Specifically, self-control (well-being) was the only predictor of psychological reactance.

Table 7

Hypothesis 3 Males

Regression with Well-Being Predicting Psychological Reactance

Variable	β	R^2	t	F	p
Model 1		.091		14.353	.000**
GWBS	-.302		-3.789		.000**

Note: β = standardized beta weight; Table only presents significant variables * $p < .05$. ** $p < .01$
Note 2: TRST = Total Reactance; GWBT = Total Well-Being; GWBA = Anxiety Well-Being; GWBD = Depression; GWBP = Positive Well-Being; GWBS = Self-Control Well-Being; GWBV = Vitality Well-Being; GWBG = General Health Well-Being.

Results for Hypothesis 3 for Females

The same procedure used to test Hypothesis 3 for males was used to test the third hypothesis for females. Results for Hypothesis 3 for females are presented in Table 8.

The regression analysis with well-being entered as the predictor variables and psychological reactance as the criterion variable for females was significant F (1, 197) = 14.806, p = <.001 and accounted for 7% of the variance in the Therapeutic Reactance Scale total score. The GWBS had a significant beta weight (β = -.265, $p < .001$). The prediction that females psychological reactance would be related to quality of life was confirmed. Specifically, self-control (well-being) was the only predictor of psychological reactance.

Table 8

Hypothesis 3 Females

Regression with Well-Being Predicting Psychological Reactance

Variable	β	R^2	t	F	p
Model 1		.070		14.806	.000**
GWBS	-.265		-3.848		.000**

Note: β = standardized beta weight; Table only presents significant variables * $p < .05$. ** $p < .01$
Note 2: TRST = Total Reactance; GWBT = Total Well-Being; GWBA = Anxiety Well-Being; GWBD = Depression; GWBP = Positive Well-Being; GWBS = Self-Control Well-Being; GWBV = Vitality Well-Being; GWBG = General Health Well-Being.

Results for Hypothesis 4A for Males

It was predicted that psychological reactance would moderate the relationship between coping and quality of life. The effect of psychological reactance as a moderator variable was assessed using hierarchical regression analysis. The dependent variable was quality of life. Coping variables (EMCOP, AVCOP, RATCOP, & DETCOP) were entered into the first block. Total psychological reactance (TRS:T) was added next. Lastly, the interactions between psychological reactance and coping variables were added. Results for hypothesis 4A for males are presented in Table 9.

The first block (coping variables) was significant $F(4, 143) = 19.137, p < .001$. The examination of variance in the first model indicated 35.5% of the variance in quality of life was accounted for by coping. The standardized beta weights provide a means of assessing the relative contribution for each of the predictor variables on the dependent

variable. Rational coping was the strongest predictor among the coping variables (β = .420, $p < .001$). Emotional coping was also a significant predictor (β = -.337, $p < .001$).

Table 9

Hypothesis 4A for Males

Hierarchical Regression with Psychological Reactance Moderating the Relationship Between Coping and Quality of Life

Variable	β	R^2	t	F	p
Block 1 (Coping)		.355		19.137	.000**
RATC	.420		4.349		.000**
EMC	-.337		-4.120		.000**
DETC	-.068		-.683		.496
AVC	-.112		-1.356		.177
Block 2 (add Reactance)		.361		15.572	.000**
RATC	.401		4.088		.000**
EMC	-.298		-3.354		.001**
DETC	-.017		-.154		.878
AVC	-.124		-1.495		.137
TRST	-.088		-1.096		.275
Block 3 (add Interactions)		.373		8.865	
RATC	.763		.656		.513
EMC	-.620		-.634		.527
DETC	.337		.327		.744
AVC	-.941		-.932		.353
TRST	-.254		-.426		.671
TRST*RATC	-.439		-.317		.751
TRST*EMC	-.446		-.331		.741
TRST*DETC	.382		.312		.755
TRST*AVC	.992		.810		.419

Note: β = standardized beta weight; Following numerals * $p < .05$, ** $p < .01$
Note 2: TRST = Total Reactance; RATC = Rational Coping; EMC = Emotional Coping; DETC = Detached Coping; AVC = Avoidance Coping.

The second model determined the effect of psychological reactance on quality of life, while holding constant the factors previously entered. This model was significant, F (5, 143) = 15.572, $p < .001$, and an additional .06% of the variance was identified.

Standardized beta weights suggested that the strongest predictor was rational coping (β = .401, $p < .001$). Emotional coping was also a significant predictor (β = -.298, $p < .001$). Finally, the results of adding the interaction of reactance and coping style also produced a significant model F (9, 143) = 8.865, $p < .001$, and an additional 1.3% of the variance was identified. Although there were no significant beta weights for the interaction terms, this model is significant in that it answers a theoretical question involving moderating effects rather than an empirical one.

The prediction that for males psychological reactance would moderate the relationship between coping and quality of life was confirmed.

Results for Hypothesis 4A for Females

The same procedure used to test Hypothesis 4A for males was used to test the fourth hypothesis for females. Results for hypothesis 4A for females are presented in Table 10.

The first block (coping variables) was significant F (4, 191) = 15.478, $p < .001$. The first model indicated 24.9% of the variance in quality of life was accounted for by coping. The standardized beta weights provide a means of assessing the relative contribution for each of the predictor variables on the dependent variable. Emotional coping was the only predictor among the coping variables (β = -.488, $p < .001$).

The second model determined the effect of psychological reactance on quality of life, while holding constant the factors previously entered. This model was significant, F (5, 191) = 13.478, $p < .001$ with an additional 1.7% of the variance being accounted for. Standardized beta weights suggest that the strongest predictor was emotional coping (β = -.456, $p < .001$), but the total score of reactance was also significant (β = -.135, $p < .05$)

Table 10

Hypothesis 4A for Females

Hierarchical Regression with Psychological Reactance Moderating the Relationship Between Coping and Quality of Life

Variable	β	R^2	t	F	p
Block 1 (Coping)		.249		15.478	.000**
RATC	.098		1.275		.204
EMC	-.488		-6.554		.000**
DETC	.029		.383		.702
AVC	.088		1.181		.239
Block 2 (add Reactance)		.266		13.478	.000**
RATC	.085		1.105		.271
EMC	-.456		-6.057		.000**
DETC	.050		.658		.512
AVC	.077		1.035		.302
TRST	-.135		-2.089		.038
Block 3 (add Interactions)		.293		8.374	.000**
RATC	-1.561		-2.165		.032*
EMC	-1.432		-2.248		.026*
DETC	.664		.992		.323
AVC	.876		1.229		.221
TRST	-.960		-1.766		.079
TRST*RATC	1.992		2.294		.023*
TRST*EMC	-.782		-.911		.363
TRST*DETC	1.242		1.549		.123
TRST*AVC	-.972		-1.118		.265

Note: β = standardized beta weight; Following numerals * $p < .05$, ** $p < .01$
Note 2: TRST = Total Reactance; RATC = Rational Coping; EMC = Emotional Coping; DETC = Detached Coping; AVC = Avoidance Coping.

Finally, the results of adding the interaction of reactance and coping style also produced a significant model F (9, 191) = 8.374, $p < .001$, accounting for an additional 2.7% of the variance. Significant beta weights are as follows: rational coping (β = -1.561, $p < .05$), emotional coping (β = -1.432, $p < .05$), and the interaction of reactance and rational coping (β = 1.992, $p < .05$).

The prediction that for females psychological reactance would moderate the relationship between coping and quality of life was confirmed.

Results for Hypothesis 4B for Males

It was predicted that psychological reactance would moderate the relationship between coping and well-being. The effect of psychological reactance as a moderator variable was assessed using hierarchical regression analysis. The dependant variable was well-being. Coping variables (EMCOP, AVCOP, RATCOP, & DETCOP) were entered into the first block. Total psychological reactance (TRS:T) was added next. Lastly, the interactions between psychological reactance and coping variables were added. Results for hypothesis 4B for males are presented in Table 11.

The first block (coping variables) was significant F (4, 144) = 15.594, $p < .001$. The first model accounted for 30.8% of the variance with emotional coping having a significant beta weight ($\beta = -.513$, $p < .001$). No other coping scale had significant beta weights.

The second model determined the effect of psychological reactance on well-being, while holding constant the factors previously entered. This model was significant, F (5, 144) = 12.717, $p < .001$. Emotional coping accounted for an additional .6% of the variance in the second model with a significant beta weight ($\beta = -.474$, $p < .001$).

Finally, the results of adding the interaction of reactance and well-being also produced a significant model F (9, 144) = 7.640; $p < .001$, with an additional 2.4% of the variance was accounted for. There were no significant beta weights for the interaction terms.

The prediction that for males psychological reactance would moderate the relationship between coping and well-being was confirmed.

Table 11

Hypothesis 4B for Males

Hierarchical Regression with Psychological Reactance Moderating the Relationship Between Coping and Well-Being

Variable	β	R^2	t	F	p
Block 1 (Coping)		.308		15.594	.000**
RATC	.179		1.784		.077
EMC	-.513		-6.008		.000**
DETC	-.116		-1.131		.260
AVC	-.010		-.115		.909
Block 2 (add Reactance)		.314		12.717	.000**
RATC	.161		1.592		.114
EMC	-.474		-5.110		.000**
DETC	-.071		-.640		.523
AVC	-.019		-.219		.827
TRST	-.087		-1.069		.287
Block 3 (add Interactions)		.337		7.640	.000**
RATC	-.220		-.185		.854
EMC	-.972		-.960		.339
DETC	.304		.309		.758
AVC	-1.157		-1.150		.252
TRST	-.876		-1.416		.159
TRST*RATC	.450		.320		.749
TRST*EMC	-.520		-.407		.685
TRST*DETC	.586		.463		.644
TRST*AVC	1.404		1.141		.256

Note: β = standardized beta weight; Following numerals * $p < .05$, ** $p < .01$
Note 2: TRST = Total Reactance; RATC = Rational Coping; EMC = Emotional Coping; DETC = Detached Coping; AVC = Avoidance Coping.

Results for Hypothesis 4B for Females

The same procedure used to test Hypothesis 4B for males was used to test the fourth hypothesis for females. Results for hypothesis 4B for females are presented in Table 12.

Table 12

Hypothesis 4B for Females

Hierarchical Regression with Psychological Reactance Moderating the Relationship Between Coping and Well-Being

Variable	β	R^2	t	F	p
Block 1 (Coping)		.337		23.839	.000**
RATC	.046		.633		.527
EMC	-.570		-8.176		.000**
DETC	.038		.527		.599
AVC	.022		.316		.752
Block 2 (add Reactance)		.352		20.306	.000**
RATC	.032		.448		.655
EMC	-.541		-7.688		.000**
DETC	.059		-.819		.414
AVC	.013		.185		.853
TRST	-.128		-2.105		.037*
Block 3 (add Interactions)		.358		11.316	.000**
RATC	.085		.125		.901
EMC	-1.090		-1.817		.071
DETC	-.094		-.147		.883
AVC	.781		1.163		.246
TRST	-.043		-.083		.934
TRST*RATC	-.064		-.078		.938
TRST*EMC	.216		.262		.793
TRST*DETC	.707		.940		.349
TRST*AVC	-.945		-1.150		.252

Note: β = standardized beta weight; Following numerals * $p < .05$, ** $p < .01$
Note 2: TRST = Total Reactance; RATC = Rational Coping; EMC = Emotional Coping; DETC = Detached Coping; AVC = Avoidance Coping.

The first block (coping variables) was significant F (4, 192) = 23.839, $p < .001$ and accounted for 33.7% of the variance. Emotional coping was the only predictor among the coping variables (β = -.570, $p < .001$).

The second model determined the effect of psychological reactance on well-being, while holding constant the factors previously entered. This model was significant, F (5, 192) = 20.306, $p < .001$, with an additional 1.5% of the variance accounted for by emotional coping and psychological reactance. Standardized beta weights suggest that the strongest predictor was emotional coping (β = -.541, $p < .001$). Psychological reactance also was a predictor (β = -.128, $p < .05$).

Finally, the results of adding the interaction of reactance and well-being also produced a significant model F (9, 192) = 11.316, $p < .001$, accounting for an additional .6% of the variance. There were no significant beta weights for the interaction terms.

The prediction that for females psychological reactance would moderate the relationship between coping and well-being was confirmed.

CHAPTER 4

DISCUSSION

The focus of the current study was to determine the potential relationships among psychological reactance, coping, quality of life, and well-being. There were four hypotheses investigated: (1) the relationships between psychological reactance and coping, (2) the relationships between psychological reactance and quality of life, (3) the relationships between psychological reactance and well-being, (4A) the level at which psychological reactance would moderate the relationship between coping and quality of life, and (4B) the level at which psychological reactance would moderate the relationship between coping and well-being.

The discussion of the current study begins with a summary of the research problem. The four formal hypotheses are then discussed individually. A general discussion follows highlighting the significant findings and implications. Next, the limitations of this study are assessed. Lastly, suggestions for future research are explored and an brief summary of the study concludes this section.

Summary of Research Problem and Method

Prior research indicated a relationship between psychological reactance and coping (Palmentera, 1996). Palmentera (1996) found that individuals that were high in psychological reactance were more likely to utilize more emotion-focused coping rather than task-focused coping. Additionally, previous research indicated a relationship

between coping and quality of life (Coelho et al., 2003; Echteld et al., 2003; Fauerbach et al., 2002; Fawzy & Fawzy, 1998; Leiberich, et al., 1997; Kim et al., 2003; Ravindran et al., 2002; Schouws et al., 2001; Swindle et al., 1989; Vosvick et al., 2002). Specifically, more usage of maladaptive coping has been linked to diminished quality of life.

Lastly, type of coping has been related to both mental and physical well-being. Negative mental well-being has been associated with maladaptive types of coping (Aldwin & Revenson, 1987; Billings and Moos, 1981; Breslin et al., 1995; Fauerbach et al., 2002; Felton et al., 1984; Fleishman & Fogel, 1994; Folkman et al., 1993; Kim et al., 2003; McCrae & Costa, 1986; Pakenham, 2002; Pearlin & Schooler, 1978; Ravindran et al., 2002; Williams et al., 2002; Wolf et al., 1991). In contrast, positive mental well-being has been associated with adaptive types of coping (Folkmane et al., 1993; Wolf et al., 1991). Physical well-being, such as disease promotion, stress, risk of death, and negative health habits have been linked to maladaptive coping (Everson et al., 1996; Fleishman and Vogel, 1994; Goodkin et al., 1986; Nowack, 1991). Furthermore, adaptive coping is linked to better overall physical well-being (Epsetin and Katz, 1992; Folkman et al., 1992; Penley et al., 2002).

Interactions between reactance and coping, coping and quality of life, coping and well-being, and reactance and well-being have been observed. This study was intended to further the understanding of the nature of each construct and the relationships that exists between them. In order to assess these relationships, the Therapeutic Reactance Scale was used to measure psychological reactance, the Coping Styles Questionnaire was used to assess coping, the Overall Quality of Life scale was used to assess quality of life, and the General Well-Being Schedule was used to measure well-being. The sample for this study

consisted of 353 students enrolled in undergraduate psychology classes. There were 150 males and 203 females comprised of ethnicities such as Caucasian American, African American, Asian American, Latino, Native American, and other. The hypotheses were analyzed with Analysis of Variance, Regression, Hierarchical Regression, and correlations.

Summary of Results

Demographic and Descriptive Data

Significant gender differences were found on four scales used in this study. Males were found to be more reactant than females which is consistent with previous research, and were found to utilize more detached coping which is defined as having feelings of being independent of the event and emotion, and using emotional control as stress management. Females used more emotion focused coping, and reported more anxiety (well-being) than males.

There were many significant correlations for males but no other demographic variable besides gender had a significant correlation. As reactance increased for males, detached coping and emotional coping increased while overall well-being, positive well-being, and self-control (well-being) decreased. As males increased the usage of rational coping, detached coping, quality of life, overall well-being, positive well-being, and self-control (well-being) increased, and emotional coping decreased. As detachment coping increased, avoidance coping and quality of life increased, while emotional coping decreased. Males with higher levels of emotional coping also utilized more avoidance coping, had worse quality of life, overall well-being, and positive well-being, had more anxiety (well-being) and depression (well-being), were more self-controlled (well-being),

and were less vital (well-being) and healthy (well-being). As quality of life increased, all scales of well-being approached positive well-being, except the general health well-being scale. As overall well-being increased, anxiety (well-being) and depression (well-being) decreased, and positive well-being, self-control (well-being), vitality (well-being), and general health (well-being) increased.

There were a number of significant correlations for females as well. As age increased, so did rational coping. As grade point increased, quality of life increased and avoidance coping decreased. As reactance increased, individuals had less self-control (well-being) and vitality (well-being), lowered quality of life and overall well-being, and utilized more emotional coping. As females increased the usage of rational coping, detached coping, quality of life, overall well-being, positive well-being, and self-control (well-being) increased, and depression (well-being) levels decreased. As detachment coping increased, avoidance coping and self-control (well-being) increased. Females with higher levels of emotional coping also utilized more avoidance coping, had worse quality of life, overall well-being, and positive well-being, had more anxiety (well-being) and depression (well-being), were more self-controlled (well-being), and less vital (well-being). As avoidance coping increased, overall well-being and self-control (well-being) decreased while depression (well-being) increased. As quality of life increased, all scales of well-being approached a better state of well-being. As overall well-being increased, anxiety and depression decreased, and positive well-being, self-control (well-being), vitality (well-being), and general health (well-being) increased.

Interpretation of Hypothesis 1 for Males

The first hypothesis was tested to determine if there was a relationship between psychological reactance and coping. The results indicated that there was a significant relationship between reactance that was measured by the Therapeutic Reactance Scale, and coping that was measured by the Coping Styles Questionnaire. An examination of the results showed two significant predictor variables: emotional coping and detachment coping. Emotional coping accounted for 11.5% of the variance in psychological reactance. When detached coping was added, the incremental variance in psychological reactance was 11.4%.

Results from Hypothesis 1, indicated that males who used emotional coping were more reactant. Emotional coping consists of engaging in actions or thoughts aimed at decreasing the emotional impact of stress, including psychological or physical disturbances. Emotion focused coping often makes the individual feel better, but it does not change the damaging situation (Folkman & Lazarus, 1980). The results of Hypothesis 1 supported the previous research results of Palmentera (1996) indicating that more emotion focused coping was used by highly reactant individuals. Also, Seemann's (2003) results indicated that reactant individuals may be described as moody. It would seem that a moody individual would act in haste to reduce the immediate stressor, as would an individual engaging in emotional coping. Therefore, the results of Hypothesis 1 may also lend support to Seemann's (2003) findings.

Male participants who used more detached coping also were found to be more reactant. The detached coping subscale measures the ability of an individual to remove himself from a situation, to take nothing personally, and to look at a situation as nothing

more than what it is. Highly reactant individuals have been found to be independent (Buboltz et al., 1999; Merz,1983) and autonomous (Dowd & Wallbrown, 1993). The relationship between detached coping and reactance found in this study supports Palmentera's (1996) findings as well as the findings of Buboltz et al. (1999), Dowd & Wallbrown (1993), and Merz (1983).

The results of Hypothesis 1 may benefit therapists, doctors, and employers alike. In particular, males who use emotion focused coping will be psychologically reactant. A therapist should address more adaptive ways of coping, as well as issues concerning dominance, control, aggression, and defensiveness in males. A physician or employer may want to keep in mind that a man who responds emotionally to suggestions also may be quick to take offense, may be nonconforming, and may have a problem with rules and regulations.

Interpretation of Hypothesis 1 for Females

The first hypothesis was tested to determine if there was a relationship between psychological reactance and coping for females. The results indicated that there was a significant relationship between reactance and coping. An examination of the results showed one significant coping variable which was emotional coping. Emotional coping accounted for 3.7% of the variance in psychological reactance.

Results from Hypothesis 1 indicated that as females used emotional coping, they also were more reactant. As stated previously, the results of Hypothesis 1 supports the previous research results of Palmentera (1996), indicating that more emotion focused coping was used by highly reactant individuals. These results support Seemann's (2003) findings, as well. Again, when working with a woman that has a tendency to cope and

express herself verbally, a therapist, physician, or employer should consider addressing issues regarding aggression and dominance. Additionally, the female may be defensive and may not adhere to advice given by others.

Interpretation of Hypothesis 2 for Males

The second hypothesis was tested to determine if there was a relationship between psychological reactance and quality of life. The results indicated that there was a significant relationship for males between reactance, measured by the Therapeutic Reactance Scale, and quality of life, measured by the Overall Quality of Life.

Results indicated that as reactance increases quality of life decreases. Research has shown that psychological reactance is associated with a variety of negatively viewed personality characteristics (Buboltz et al., 1999; Dowd & Walbrown, 1993; Dowd et al., 1994; Joubert, 1990; Merz, 1983; Seemann, Buboltz, & Thomas, 2004), and that maladaptive coping has also been associated with decreases in quality of life (Bechdolf et al., 2003; Coelho et al., 2003; Echteld et al., 2003; Fauerbach et al., 2002; Leiberich, Engeter, Olbrich, Rubbert, Schumacher, Brieger, Kalden, & Joraschky, 1997; Ravindran et al., 2002; Schouws et al., 2001; Vosvick et al., 2002). With these two previously researched areas, the results of hypothesis 2 would be expected for males.

The findings of Hypothesis 2, adds to the body of literature detailing the nature of psychological reactance, as well as a new area of discussion on reactance and quality of life. Also, it is imperative for anyone working with reactant men to understand that many other areas in their life may be negatively influenced. Directives should address all areas of their lives in order to find the problem areas.

Interpretation of Hypothesis 2 for Females

The second hypothesis was tested to determine if there was a relationship between psychological reactance and quality of life. The results indicated that there was a significant relationship for females between reactance and quality of life.

Results showed that as reactance increases quality of life decreases. With the findings that psychological reactance is associated with many negative characteristics (Buboltz et al., 1999; Dowd & Walbrown, 1993; Dowd et al., 1994; Joubert, 1990; Merz, 1983; Seemann, Buboltz, & Thomas, 2004), and maladaptive coping is associated with lower levels of quality of life (Bechdolf et al., 2003; Coelho et al., 2003; Echteld et al., 2003; Fauerbach et al., 2002; Leiberich, Engeter, Olbrich, Rubbert, Schumacher, Brieger, Kalden, & Joraschky, 1997; Ravindran et al., 2002; Schouws et al, 2001; Vosvick et al., 2002) the results of this hypothesis 2 are not surprising.

The findings of Hypothesis 2, adds to the body of literature detailing the nature of psychological reactance, as well as, a new area of discussion on reactance and quality of life that has not been previously detailed. It is important to note that as reactance reaches problematic levels, females may suffer in their personal, love, social, familial, and occupational lives.

Interpretation of Hypothesis 3 for Males

The third hypothesis was tested to determine if there was a relationship between psychological reactance and well-being. The results indicated that there was a significant relationship between reactance, measured by the Therapeutic Reactance Scale, and well-being, measured by the General Well-Being Schedule. An examination of these results showed that self-control (well-being) was a significant predictor of psychological

reactance. Self-control (well-being) accounted for 9.1% of the variance in psychological reactance.

These results indicate that males who were more self-controlled, experiencing more distress and lower well-being because of there controlling nature, also were more reactant. Although there is little research in the area of psychological reactance and well-being, other researched areas would imply a probable relationship between well-being and reactance. Specifically, the relationship between reactance and coping has been researched (Palmentera, 1966), and the relationship between coping and well-being has been well established (Aldwin & Revenson, 1987; Billings and Moos, 1981; Breslin et al., 1995; Epsetin and Katz, 1992; Everson et al., 1996; Fauerbach et al., 2002; Felton et al., 1984; Fleishman & Fogel, 1994; Folkman et al., 1993; Goodkin et al., 1986; Kim et al., 2003; McCrae & Costa, 1986; Pakenham, 2002; Pearlin & Schooler, 1978; Penley et al., 2002; Ravindran et al., 2002; Williams et al., 2002; Wolf et al., 1991). Also, much research has been done on psychological reactance and mental well-being (Buboltz et al., 1999; Dowd & Walbrown, 1993; Dowd et al., 1994; Joubert, 1990; Merz, 1983; Seemann, Buboltz, & Thomas, 2004). The results of Hypothesis 3 support current findings that indicate psychological reactance does have a relationship with an individual's mental well-being. Furthermore, Buboltz et al. (1999) found highly reactant individuals to be domineering, controlling, and aggressive.

Hypothesis 3 further supports the findings of Buboltz et al. (1999) and supports the implication that highly reactant individuals are also highly controlling. Males who have more distress related to their controlling nature, may also have concerns about

aggression, assertion, and emotional expression. All practitioners should address loneliness, control, and dominance when dealing with the reactant male.

Interpretation of Hypothesis 3 for Females

The third hypothesis was tested to determine if there was a relationship between psychological reactance and well-being. The results indicated that there was a significant relationship between reactance and well-being. An examination of the results showed that the self-control (well-being) was a significant predictor of psychological reactance. Self-control (well-being) accounted for 7% of the variance in psychological reactance.

These results indicate that females who were more self-controlled, experiencing more distress and lower well-being because of their controlling nature, were also more reactant. The results of Hypothesis 3 support current findings that indicate psychological reactance does have a relationship with an individual's mental well-being. The results also support the findings of Buboltz et al. (1999) and the implication that highly reactant individuals are also highly controlling. Professionals working with the reactant female may note that her well-being may suffer due to her compulsion to command and organize.

Interpretation of Hypothesis 4A for Males

Hypothesis 4A addressed the moderating effect of psychological reactance on the relationship between coping and quality of life in males. The fourth hypothesis was that psychological reactance, measured by the TRS, would moderate the relationship between coping, measured by the CSQ, and quality of life, measured by the OQL. As expected, the results revealed that males who were reactant and used emotional coping had lowered quality of life.

To determine the moderating effects of psychological reactance, the variables of each construct were blocked into three sets. The dependent variable in all blocks was quality of life. In all sets, the relationship was determined to be significant. In the first set, the four variables of coping (detached coping, emotional coping, avoidance coping, and rational coping) were entered into the equation. In this set, rational coping and emotional coping significantly contributed to the relationship. This demonstrated that the quality of life for a man decreased when he used emotional coping and increased when he used rational coping. Rational and emotional coping accounted for 35.5% of the variance in the relationship.

The second set of variables consisted of coping (detached coping, emotional coping, avoidance coping, and rational coping) and reactance (total psychological reactance) variables. These variables accounted for an additional .6% of the variance of the relationship when the reactance variable was added. Once again, the variables that significantly contributed to the variance in the relationship were rational and emotional coping.

The final set of variables entered into the third model included the individual interactions of each construct of the coping measure (detached coping, emotional, coping, avoidance coping, and rational coping) and the reactance construct (total psychological reactance). The results of this set demonstrated that coping, reactance, and the interactions between coping and reactance accounted for 1.3% of the variance.

Psychological reactance was found to moderate the relationship between coping and quality of life for males. However, the specific nature and direction of the interaction can not be interpreted because there were no significant beta weights present. Therapists

should consider that men who are reactant may additionally suffer from problems associated with lower quality of life, as well as problems confronting distressful situations.

Interpretation of Hypothesis 4A for Females

Hypothesis 4A addressed the moderating effect of psychological reactance on the relationship between coping and quality of life in females. The fourth hypothesis was that psychological reactance would moderate the relationship between coping and quality of life. As expected, the results revealed that females who were reactant and utilized emotional coping had lowered quality of life.

To determine the moderating effects of psychological reactance, the variables of each construct were blocked into three sets. The dependent variable in all blocks was quality of life. In all sets, the relationship was determined to be significant. In the first set, the four variables of coping (detached coping, emotional coping, avoidance coping, and rational coping) were entered into the equation. In this set, only emotional coping significantly contributed to the relationship. This demonstrated that the quality of life for a woman decreased when she used emotional coping. Emotional coping accounted for 24.9% of the variance in the relationship.

The second set of variables consisted of coping (detached coping, emotional coping, avoidance coping, and rational coping) and reactance (total psychological reactance) variables. These variables accounted for an additional 1.7% of the variance of the relationship when the reactance variable was added. The variables that significantly contributed to the variance in the relationship were emotional coping and reactance.

The final set of variables entered into this model included the individual interactions of each construct of the coping measure (detached coping, emotional, coping, avoidance coping, and rational coping) and the reactance construct (total psychological reactance). The results of this set demonstrated that coping, reactance, and the interactions between coping and reactance accounted for 2.73% of the variance.

Psychological reactance was found to moderate the relationship between coping and quality of life in females. The two variables that significantly predicted this relationship were rational and emotional coping. The interaction that predicted this relationship was reactance and rational coping. Specifically, psychological reactance strengthens the relationship between rational coping and quality of life.

Interpretation of Hypothesis 4B for Males

Hypothesis 4B addressed the moderating effect of psychological reactance on the relationship between coping and well-being in males. The fourth hypothesis was that psychological reactance, measured by the TRS, would moderate the relationship between coping, measured by the CSQ, and well-being, measured by the GWB. As expected, the results revealed that males who were reactant and used emotional coping had more distress (less of a sense of overall well-being).

To determine the moderating effects of psychological reactance, the variables of each construct were blocked into three sets. The dependent variable in all blocks was well-being. In all sets, the relationship was determined to be significant. In the first set, the four variables of coping (detached coping, emotional coping, avoidance coping, and rational coping) were entered into the equation. In this set, emotional coping was the only significant contributor to the relationship. This demonstrated that well-being for a man

decreased when he used emotional coping. Emotional coping accounted for 30.8% of the variance in the relationship.

The second set of variables consisted of coping (detached coping, emotional coping, avoidance coping, and rational coping) and reactance (total psychological reactance) variables. These variables accounted for an additional .6% of the variance of the relationship when the reactance variable was added. Again, the variable that significantly contributed to the variance in the relationship was emotional coping.

The final set of variables entered into this model included the individual interactions of each construct of the coping measure (detached coping, emotional, coping, avoidance coping, and rational coping) and the reactance construct (total psychological reactance). The results of this set demonstrated that coping, reactance, and the interactions between coping and reactance accounted for an additional 2.4% of the variance.

Psychological reactance was found to moderate the relationship between coping and well-being for males. However, the direction of the interaction can not be interpreted because there were no significant beta weights present.

Interpretation of Hypothesis 4B for Females

Hypothesis 4B addressed the moderating effect of psychological reactance on the relationship between coping and well-being in females. The fourth hypothesis was that psychological reactance would moderate the relationship between coping and well-being. As expected, the results revealed that females who were reactant and used emotional coping had more distress (less of a sense of well-being).

To determine the moderating effects of psychological reactance, the variables of each construct were blocked into three sets. The dependent variable in all blocks was well-being. In all sets, the relationship was determined to be significant. In the first set, the four variables of coping (detached coping, emotional coping, avoidance coping, and rational coping) were entered into the equation. In this set, emotional coping was the only significant contributor to the relationship. This demonstrated that well-being for a woman decreased when she used emotional coping. Emotional coping accounted for 34% of the variance in the relationship.

The second set of variables consisted of coping (detached coping, emotional coping, avoidance coping, and rational coping) and reactance (total psychological reactance) variables. These variables accounted for an additional 1.5% of the variance of the relationship when the reactance variable was added. Again, the variable that significantly contributed to the variance in the relationship was emotional coping.

The final set of variables entered into this model included the individual interactions of each construct of the coping measure (detached coping, emotional, coping, avoidance coping, and rational coping) and the reactance construct (total psychological reactance). The results of this set demonstrated that reactance, coping, and the interactions between coping and reactance accounted for an additional .6% of the variance.

Psychological reactance was found to moderate the relationship between coping and well-being for females. However, the direction of the interaction can not be interpreted because there were no significant beta weights present.

Implications

Based on the results of this study, psychological reactance is related to coping. These findings further validate the relationship previously researched by Palmentara (1996). In this study, emotional coping and detached coping predicted psychological reactance. In working with a reactant client, the therapist may want to teach positive coping skills since more emotional coping may be utilized by males and females who are reactant. Since research has evidenced that psychological reactance is related to the outcome of therapy (Courchaine et al., 1995; Dowd et al., 1988; Dowd, Trutt, & Watkins, 1992; Graybar et al., 1988; Loucka, 1990; Tracey et al., 1989), images clients have of their therapists (March, 1993), the likelihood clients will advance in therapy (Seibel & Dowd, 1999), symptom severity (Biscoff, 1997), and attendance for therapy sessions (Morgan, 1986) more coping skills training is warranted to enhance the therapeutic environment.

Additionally, other environments may benefit from knowing the relationship between psychological reactance and coping. A doctor dealing with highly reactant patients can grasp that not only could their patient be non-compliant (Fogarty & Youngs, 2000; Graybar et al., 1988; Rhodewalt, & Davison, 1983; Rhodewalt, & Marcroft, 1988; Rhodewalt, & Strube, 1985) and less obedient (Rhodewalt, & Strube, 1985), but the patient also may use maladaptive coping skills. The doctor could address the patient's lack of adaptive coping skills and teach the patient more adaptive coping skills, which may in turn lead to greater health outcomes. In a business setting, stress-related learned helplessness (Baum et al., 1986) and complaints about supervisors (Sachau et al., 1999) have been related to psychological reactance. An employer may be aware that the highly

reactant employee may benefit from coping skills training to increase productivity and morale.

Psychological reactance was also related to quality of life and well-being for both genders in this study. As reactance level increased, quality of life diminished. This is a significant finding that can be easily implemented in therapy. With the knowledge that a client is reactant and may have a lower quality of life, the therapist may immediately address the individual's quality of life when reactance presents itself in therapy. Specific areas of quality of life that may be addressed in therapy are personal life, romantic life, occupational or educational life, and the client's feelings about each one of these areas.

As self-controlling well-being increased to a level of distress, so did psychological reactance. A therapist may discuss and address the psychological reactant client's need for control as well as areas in the client's life that may be too controlled or restricted. For the business setting, the employer or supervisor may realize that an individual who has a lower quality of life and is extremely self-controlling, may also be reactant. The employer or supervisor may address issues regarding quality of life, well-being, and reactant individuals.

This study has added to the body of literature on psychological reactance by validating three specific relationships between reactance and coping, reactance and quality of life, and reactance and well-being. Reactance literature may also be enhanced by the finding that psychological reactance may moderate the relationship between coping and well-being, as well as between coping and quality of life, although the specific intensities are not as clear. Only one interaction for females was found to be significant indicating the psychological reactance does moderate the relationship between

coping and quality of life. More research is needed to detail this relationship for practical purposes.

Limitations

Despite the many significant findings and implications revealed in this study, certain limitations regarding this research should be addressed.

All of the measures in this study were self-report instruments which is a noteworthy limitation. The findings of this study can only be said to depict accurately the manner in which an individual rates himself or herself on the reactance, coping, quality of life, and well-being measures. Future research may use other methods of recording the participant's level of reactance, coping, quality of life, well-being, and demographic information.

The Therapeutic Reactance Scale, the Coping Styles Questionnaire, and the General Well-Being Schedule are all widely used, validated, and reliable instruments. The Overall Quality of Life scale has fewer studies reported on it than the other measures. Future research may find further validation and reliability on this scale or warrant the use a different measure. The Therapeutic Reactance Scale's subscales were not reported in this study. The behavioral and verbal subscales have been researched and have questionable reliability and validity. Although more insight may have been gained from the use of these subscales, the verbal and behavioral subscales were not included in this study leading to results only being applicable to general reactance.

The sample characteristics also serve as an additional limitation in this study. The sample participants were restricted in age, ethnic diversity, educational level, and geographical location. Participants were primarily between the ages of 18 and 21.

Additionally, the sample was mostly Caucasian Americans while each other ethnicity made up 13% or less of the sample. All of the participants in this study were in a southern university receiving secondary education. The results of this study may not be consistent with the results that might be obtained from other regions. This limits the range of individuals to whom this data can be generalized, and may confine variability in scores on each measure which in turn may change the strengths of the correlations observed.

These limitations did not devalue the results of this study but should be considered when applying the findings in various settings. The following section addresses some of the limitations by suggesting future research in several areas.

Suggestions for Future Research

One suggestion for future research is to survey older adults in relation to psychological reactance, coping, quality of life, and well-being. Brehm and Brehm (1981) hypothesized that older individuals would have more coping resources and would have less reactance. Hong et al. (1993) discovered that younger participants exhibited more psychological reactance than older participants. Future studies could use older participants to see if the same relationships that were found in this study apply to older adults.

The participants in this study were primarily Caucasian Americans and were attending a southern university in a conservative town. Future research may replicate the study at a more diverse university where many ethnicities are significantly represented and where there are participants that hold both liberal and conservative views. A more diverse sample would broaden the overall validity of this study if similar results were found. Conducting a study concentrating on the relationships of reactance, coping, quality

of life, and well-being in environments that elicit reactance, such as in a prison setting or in therapy, may also be a possibility for future research.

All of the measures on reactance, coping, quality of life, and well-being were self-report instruments. Additional research may want to compare individuals' reports on each measure to other objective findings from other onlookers. More research needs to be conducted on the verbal and behavioral subscales of the Therapeutic Reactance Scale. Once these subscales produce adequate reliability and validity, the study can be replicated with the addition of a more in-depth analysis of the four constructs.

The measures of reactance, coping, and well-being are widely used instruments. Future replications of this study may want to use a different measure of quality of life due to the lack of detailed research on this particular instrument. The wording of the instrument was directed at individuals in the work force. Wording was changed to address students at a university for this study. If this study is done again, the wording should be adapted to match the participants or another measure should be chosen. Also, in both the measure of well-being and quality of life, questions addressed the participants' romantic lives. Several students expressed verbally and in writing that they were not currently in a relationship. Both scales should address this issue in the wording of their questions, or future researchers using this scale should verbally discuss this with the participants in their study prior to completion of the surveys. A more in-depth measure of actual health may add to the relationships found in this study. A subscale of the well-being scale addressed general health but was only composed of two questions. More information on how reactance, coping, quality of life, and well-being influence individual's health could be useful information for many settings.

Finally, each moderation between coping and quality of life, and coping and well-being was significant. Only one interaction for females was found to predict specifically the relationship. Future replications should test this initial finding for accuracy and practicality.

Summary of the Research

In summary, the present study served to add to the body of literature on psychological reactance. The finding that psychological reactance is related to coping in this study supported the findings of prior research in this area. Emotional coping and detachment coping predicted levels of reactance in males, and emotional coping predicted reactance in females.

There is a documented relationship between reactance and coping, and between coping and quality of life, but no research found prior to this study addressed the reactance and quality of life relationship. This study found a relationship indicating that as reactance increases, quality of life decreases. Furthermore, there was a documented relationship between reactance and coping, as well as coping and well-being but none with psychological reactance and well-being. This study found a relationship between psychological reactance and well-being indicating that as individuals become more reactant, their well-being decreases and they become more self controlling.

As for the moderating effects of psychological reactance on coping and quality of life, and coping and well-being, more evidence is needed. There were significant findings for both relationships but the details as to the nature, directionality, and intensity of the predictors were lacking in support. One specific relationship was found. Psychological reactance modified the relationship between rational coping and quality of life.

This study was completed in order to further advance the detailed complexity of the relationships that exist with psychological reactance. This research in conjunction with future research, may enhance the process of therapy, therapist-client relations, doctor-patient relations, and employer-employee relations both practically and theoretically.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL

LOUISIANA TECH
UNIVERSITY

OFFICE OF UNIVERSITY RESEARCH

MEMORANDUM

TO: Monique M. Matherne, Dr. Walter Buboltz

FROM: Nancy Fuller, University Research

SUBJECT: HUMAN USE COMMITTEE REVIEW

DATE: 2/03/05

In order to facilitate your project, an EXPEDITED REVIEW has been done for your proposed study entitled:

"An Investigation of Psychological Reactance, Coping, Quality of Life, and Well-being"
Proposal # HUC-137

The proposed study procedures were found to provide reasonable and adequate safeguards against possible risks involving human subjects. The information to be collected may be personal in nature or implication. Therefore, diligent care needs to be taken to protect the privacy of the participants and to assure that the data are kept confidential. Informed consent is a critical part of the research process. The subjects must be informed that their participation is voluntary. It is important that consent materials be presented in a language understandable to every participant. If you have participants in your study whose first language is not English, be sure that informed consent materials are adequately explained or translated. Since your reviewed project appears to do no damage to the participants, the Human Use Committee grants approval of the involvement of human subjects as outlined.

Projects should be renewed annually. This approval was finalized on February 3, 2005 and this project will need to receive a continuation review by the IRB if the project, including data analysis, continues beyond February 3, 2006. Any discrepancies in procedure or changes that have been made including approved changes should be noted in the review application. Projects involving NIH funds require annual education training to be documented. For more information regarding this, contact the Office of University Research.

You are requested to maintain written records of your procedures, data collected, and subjects involved. These records will need to be available upon request during the conduct of the study and retained by the university for three years after the conclusion of

the study. If changes occur in recruiting of subjects, informed consent process or in your research protocol, or if unanticipated problems should arise it is the Researchers responsibility to notify the Office of Research or IRB in writing. The project should be discontinued until modifications can be reviewed and approved.

If you have any questions, please contact Mary Livingston at 257-2292.

APPENDIX B

HUMAN SUBJECTS CONSENT FORM

HUMAN SUBJECTS CONSENT FORM

The following is a brief summary of the project in which you are asked to participate. Please read this information before signing the statement below.

TITLE OF PROJECT: An investigation of psychological reactance, coping, quality of life, and well-being.

PURPOSE OF STUDY/PROJECT: To explore the relationship between psychological reactance, coping, quality of life, and well-being.

PROCEDURE: In this experiment, you will be asked to complete a demographics questionnaire as well as 5 surveys designed to assess your attitudes, feelings, beliefs, behaviors, and personality characteristics.

INSTRUMENTS: The Therapeutic Reactance Scale (TRS), Coping Styles Questionnaire (CSQ), Overall Quality of Life Measure (OQL), General Well-Being Schedule (GWB), and a brief demographics questionnaire.

RISKS/ALTERNATIVE TREATMENTS: None.

BENEFITS/COMPENSATION: There will be no benefits or compensation for participants.

I, _____, attest with my signature that I have read and understood the following description of the study, "An exploration of reactance, coping, quality of life, and well-being", and its purposes and methods. I understand that my participation in this research is strictly voluntary and my participation or refusal to participate in this study will not affect my relationship with Louisiana Tech University or my grades in any way. Further, I understand that I may withdraw at any time or refuse to answer any question without penalty. Upon completion of the study, I understand that the results will be freely available to me upon request. I understand the results of my survey will be confidential, accessible only to the principal investigators, myself, or a legally appointed representative. I have not been requested to waive nor do I waive any of my rights related to participating in this study.

_____ _____

Signature of Participant or Guardian Date

CONTACT INFORMATION: The principal experimenters listed below may be reached to answer questions about the research, subjects' rights, or related matters.

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Members of the Human Use Committee of Louisiana Tech University may also be contacted if a problem cannot be discussed with experimenters:

Dr. Les Guice (257-4647)
Dr. Mary M. Livingston (257-2292)
Stephanie Herrmann (257-5075)

APPENDIX C

INSTRUMENTS

Demographic Questionnaire

AGE:_____
GPA:_____

Please place an "X" by the answer that best describes you.

GENDER:
_____ Male
_____ Female

COLLEGE STATUS:
_____ Freshman
_____ Sophomore
_____ Junior
_____ Senior

RACE:
_____ African American
_____ Asian
_____ Caucasian
_____ Latino
_____ Native American
_____ Other

YOUR MARITAL STATUS:
_____ Single
_____ Married
_____ Divorced
_____ Separated
_____ Widowed

YOUR PARENTS' MARITAL STATUS:
_____ Married to each other
_____ Divorced from each other
_____ Never married to each other

YOUR RELATIONSHIP STATUS:
_____ Not currently in a relationship
_____ Currently in a relationship

WHO WAS PRIMARILY RESPONSIBLE FOR REARING YOU?

_____ Mother	_____ Mother and Step-Father	_____ Step Father
_____ Father	_____ Father and Step-Mother	_____ Grandparents
_____ Mother and Father	_____ Step Mother	_____ Other

TRS

Instructions: Please answer each item by circling the appropriate number below.

	Strongly Disagree		**Agree**	**Strongly Agree**
1. If I receive a lukewarm dish at a restaurant, I make an attempt to let that be known.	1	2	3	4
2. I resent authority figures who try to tell me what to do.	1	2	3	4
3. I find that I often have to question authority.	1	2	3	4
4. I enjoy seeing someone else do something that neither of us is supposed to do.	1	2	3	4
5. I have a strong desire to maintain my personal freedom.	1	2	3	4
6. I enjoy playing "devil's advocate" whenever I can.	1	2	3	4
7. In discussions, I am easily persuaded by others.	1	2	3	4
8. Nothing turns me on as much as a good argument!	1	2	3	4
9. It would be better to have more freedom to do what I want on a job.	1	2	3	4
10. If I am told what to do, I often do the opposite.	1	2	3	4
11. I am sometimes afraid to disagree with others.	1	2	3	4
12. It really bothers me when police officers tell people what to do.	1	2	3	4
13. It does not upset me to change my plans because someone in the group wants to do something else.	1	2	3	4
14. I don't mind other people telling me what to do.	1	2	3	4

	Strongly Disagree	Disagree	Agree	Strongly Agree
15. I enjoy debates with other people.	1	2	3	4
16. If someone asks a favor of me, I will think twice about what this person is really after.	1	2	3	4
17. I am not very tolerant of others' attempts to persuade me.	1	2	3	4
18. I often follow the suggestions of others.	1	2	3	4
19. I am relatively opinionated.	1	2	3	4
20. It is important to me to be in a powerful position relative to others.	1	2	3	4
21. I am very open to solutions to my problems from others.	1	2	3	4
22. I enjoy "showing up" people who think they are right.	1	2	3	4
23. I consider myself more competitive than cooperative.	1	2	3	4
24. I don't mind doing something for someone even when I don't know why I'm doing it.	1	2	3	4
25. I usually go along with others' advice.	1	2	3	4
26. I feel it is better to stand up for what I believe than to be silent.	1	2	3	4
27. I am very stubborn and set in my ways.	1	2	3	4
28. It is very important for me to get along well with the people I work with.	1	2	3	4

CSQ

Instructions: Although people may react in different ways to different situations, we all tend to have a characteristic way of dealing with things which upset us. **How would you describe the way you typically react to stress?** Circle **Always (A), Often (O), Sometimes (S),** or **Never (N)** for each item below:

	Always	Often	Sometimes	Never
1. Feel overpowered and at the mercy of the situation.	A	O	S	N
2. Work out a plan for dealing with what has happened.	A	O	S	N
3. See the situation for what it actually is and nothing more.	A	O	S	N
4. See the problem as something separate from myself so I can deal with it.	A	O	S	N
5. Become miserable or depressed.	A	O	S	N
6. Feel that no-one understands.	A	O	S	N
7. Stop doing hobbies or interests.	A	O	S	N
8. Do not see the problem or situation as a threat.	A	O	S	N
9. Try to find the positive side to the situation.	A	O	S	N
10. Become lonely or isolated.	A	O	S	N
11. Daydream about times in the past when things were better.	A	O	S	N
12. Take action to change things.	A	O	S	N
13. Have presence of mind when dealing with the problem or circumstances.	A	O	S	N
14. Avoid family or friends in general.	A	O	S	N
15. Feel helpless—there's nothing you can do about it.	A	O	S	N
16. Try to find out more information to help make a decision about things.	A	O	S	N
17. Keep things to myself and not let others know how bad things are for me.	A	O	S	N
18. Think about how someone I respect would handle the situation and try to do the same.	A	O	S	N
19. Feel independent of circumstances.	A	O	S	N
20. Sit tight and hope it all goes away.	A	O	S	N
21. Take my frustration out on the people closest to me.	A	O	S	N
22. 'Distance' myself so I don't have to make any decision about the situation.	A	O	S	N
23. Resolve the issue by not becoming identified with it.	A	O	S	N
24. Assess myself or the problem without getting emotional.	A	O	S	N
25. Cry, or feel like crying.	A	O	S	N
26. Try to see things from the other person's point of view.	A	O	S	N
27. Respond neutrally to the problem.	A	O	S	N
28. Pretend there's nothing the matter, even if people ask what's bothering me.	A	O	S	N
29. Get things into proportion—nothing is really that important.	A	O	S	N
30. Keep reminding myself about the good things about myself.	A	O	S	N
31. Feel that time will sort things out.	A	O	S	N
32. Feel completely clear-headed about the whole thing.	A	O	S	N
33. Try to keep a sense of humor—laugh at myself or the situation.	A	O	S	N
34. Keep thinking it over in the hope that it will all go away.	A	O	S	N
35. Believe that I can cope with most things with the minimum of fuss.	A	O	S	N
36. Try not to let my heart rule my head.	A	O	S	N
37. Eat more (or less) than usual.	A	O	S	N

	Always	Often	Sometimes	Never
38. Daydream about things getting better in the future.	A	O	S	N
39. Try to find a logical way of explaining the problem.	A	O	S	N
40. Decide it's useless to get upset and just get on with things.	A	O	S	N
41. Feel worthless and unimportant.	A	O	S	N
42. Trust in fate—that things have a way of working out for the best.	A	O	S	N
43. Use my past experience to try deal with the situation.	A	O	S	N
44. Try to forget the whole thing.	A	O	S	N
45. Just take nothing personally.	A	O	S	N
46. Become irritable or angry.	A	O	S	N
47. Just give the situation my full attention.	A	O	S	N
48. Just take one step at a time.	A	O	S	N
49. Criticize or blame myself.	A	O	S	N
50. Simply and quickly disregard all irrelevant information.	A	O	S	N
51. Pray that things will just change.	A	O	S	N
52. Think or talk about the problem as if it did not belong to me.	A	O	S	N
53. Talk about it as little as possible.	A	O	S	N
54. Prepare myself for the worst possible outcome.	A	O	S	N
55. Feel completely calm in the face of any adversity.	A	O	S	N
56. Look for sympathy and understanding from people.	A	O	S	N
57. See the thing as a challenge that must be met.	A	O	S	N
58. Be realistic in my approach to the situation.	A	O	S	N
59. Try to think about or do something else.	A	O	S	N
60. Do something that will make me feel better.	A	O	S	N

OQL

Instructions: Read each question carefully. This section contains questions about how you feel. Circle the appropriate number that best applies to you.

1. How do you feel about your own personal life?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

2. How do you feel about your wife/husband (or girlfriend/boyfriend)?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

3. How do you feel about your romantic life?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

4. How do you feel about your job or college career?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

5. How do you feel about the people you work with or go to school with? (co-workers/fellow students)

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

6. How do you feel about the work you do on the job or at school? (the work itself)

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

7. How do you feel about the way you handle problems that come up in your life?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

8. How do you feel about what you are accomplishing in your life?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

9. How do you feel about your physical appearance—the way you look to others?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

10. How do you feel about yourself?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

11. How do you feel about the extent to which you can adjust to changes in you life?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

12. How do you feel about your life as a whole?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

13. Considering all things together, how content are you with your life as a whole?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

14. To what extent has your life as a whole been what you wanted it to be?

delighted	pleased	mostly satisfied	mixed	mostly dissatisfied	unhappy	terrible
1	2	3	4	5	6	7

GWB

Instructions: This section contains questions about how you feel and how things have been going with you. For each question, circle the appropriate number that best applies to you.

1. How have you been feeling in general? (DURING THE PAST MONTH)	1 In excellent spirits 2 In very good spirits 3 In good spirits mostly 4 I have been up and down in spirits a lot 5 In low spirits mostly 6 In very low spirits
2. Have you been bothered by nervousness or your "nerves"? (DURING THE PAST MONTH)	1 Extremely so—to the point where I could not work or take care of things 2 Very much so 3 Quite a bit 4 Some—enough to bother me 5 A little 6 Not at all
3. Have you been in firm control of your behavior, thoughts, emotions, OR feelings? (DURING THE PAST MONTH)	1 Yes, definitely so 2 Yes, for the most part 3 Generally so 4 Not too well 5 No, and I am somewhat disturbed 6 No, and I am extremely disturbed
4. Have you felt so sad, discouraged, hopeless, or had so many problems that you wondered if anything was worthwhile? (DURING THE PAST MONTH)	1 Extremely so—to the point that I have just about given up 2 Very much so 3 Quite a bit 4 Some—enough to bother me 5 A little 6 Not at all
5. Have you been under or felt you were under any stress, strain, or pressure? (DURING THE PAST MONTH)	1 Yes—almost more than I could bear or stand 2 Yes—quite a bit of pressure 3 Yes—some, more than usual 4 Yes—some, but about usual 5 Yes—a little 6 Not at all
6. How happy, satisfied, or pleased have you been with your personal life? (DURING THE PAST MONTH)	1 Extremely happy—could not have been more satisfied or pleased 2 Very Happy 3 Fairly Happy 4 Satisfied—pleased 5 Somewhat dissatisfied 6 Very dissatisfied
7. Have you had any reason to wonder if you were losing your mind, or losing control over the way you act, talk, think, feel, or of you memory? (DURING THE PAST MONTH)	1 Not at all 2 Only a little 3 Some—but not enough to be concerned or worried about 4 Some and I have been a little concerned 5 Some and I am quite concerned 6 Yes, very much so and I am very concerned

8. Have you been anxious, worried, or upset? (DURING THE PAST MONTH)	1 Extremely so—to the point of being sick or almost sick 2 Very much so 3 Quite a bit 4 Some—enough to bother me 5 A little 6 Not at all
9. Have you been waking up fresh and rested? (DURING THE PAST MONTH)	1 Every day 2 Most of every day 3 Fairly often 4 Less than half of the time 5 Rarely 6 None of the time
10. Have you been bothered by any illness, bodily disorder, pains, or fears about you health? (DURING THE PAST MONTH)	1 All the time 2 Most of the time 3 A good bit of the time 4 Some of the time 5 A little of the time 6 None of the time
11. Has your daily life been full of things that were interesting to you? (DURING THE PAST MONTH)	1 All the time 2 Most of the time 3 A good bit of the time 4 Some of the time 5 A little of the time 6 None of the time
12. Have you felt down-hearted and blue? (DURING THE PAST MONTH)	1 All the time 2 Most of the time 3 A good bit of the time 4 Some of the time 5 A little of the time 6 None of the time
13. Have you been feeling emotionally stable and sure of yourself? (DURING THE PAST MONTH)	1 All the time 2 Most of the time 3 A good bit of the time 4 Some of the time 5 A little of the time 6 None of the time
14. Have you felt tired, worn out, used-up, or exhausted? (DURING THE LAST MONTH)	1 All the time 2 Most of the time 3 A good bit of the time 4 Some of the time 5 A little of the time 6 None of the time

For each of the four items below, note that the words at each end of the 0 to 10 scale describe opposite feelings. Circle any number along the scale that seems closest to how you have generally felt DURING THE PAST MONTH.	
15. How concerned or worried about your HEALTH have you been? (DURING THE PAST MONTH)	0 1 2 3 4 5 6 7 8 9 10 Not concerned at all — Very concerned
16. How RELAXED or TENSE have you been? (DURING THE PAST MONTH)	0 1 2 3 4 5 6 7 8 9 10 Very relaxed — Very tense
17. How much ENERGY, PEP, & VITALITY have you felt? (DURING THE PAST MONTH)	0 1 2 3 4 5 6 7 8 9 10 No energy AT ALL, listless — Very ENERGETIC dynamic
18. How DEPRESSED or CHEERFUL have you been? (DURING THE LAST MONTH)	0 1 2 3 4 5 6 7 8 9 10 Very depressed — Very cheerful