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THE UNIVERSITY OF ALBERTA

The Relationship of Self-Esteem and Locus of Control to Perception of Stress

by

Cheryl Mullaly

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF EDUCATION

IN

COUNSELLING PSYCHOLOGY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

Fall, 1987

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DEGREE: Master Of Education

YEAR THIS DEGREE GRANTED: Fall 1987

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The undersigned certify that they have read and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled: The Relationship of Self-Esteem and Locus of Control to Perception of Stress, submitted by Cheryl Mullaly in partial fulfilment for the degree of Master of Education in Counselling Psychology.

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ABSTRACT

Seventy-six adults completed three questionnaires: the Perception of Stress Scale, the Self-Esteem Scale and the Internal-External Locus of Control Scale. Results indicated that there were differences in self-esteem and locus of control between individuals who perceived events in a stressful manner and those who did not. These findings, which are consistent with the literature, suggest that those who perceive a greater amount of stress tend to have a lower level of self-esteem and tend to be external in locus of control orientation.

The purpose of this study was to test two of the factors which are believed to be influential in determining how individuals view situations. It was predicted that individuals with low self-esteem would perceive events as being more stressful than would those with high self-esteem, and that those with an external locus of control would view events in a more stressful manner than would internals.

ACKNOWLEDGEMENTS

I would like to express my appreciation to Dr. E. E. Fox for the support and guidance that he provided throughout the evolvement of this thesis. I am grateful to Dr. Ram Gupta and Dr. Peggy Platt for their time and input. A special thank you is also due my husband, Robert Mullaly, for his unfailing encouragement and good common sense.

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Chapter 1

Introduction

In recent years stress has become an increasingly popular area of research. Interest in this topic is attributable to the fact that stress has a large impact upon the life of every individual. And each person will continue to encounter many stressors, as technology advances and the pace of life becomes more and more hurried. Research in the stress domain is focusing not only on developing an understanding of this subject, but also on what can be done to eliminate the majority of its harmful consequences.

Although stress is a term which is used with regularity, it does not have one generally agreed-upon meaning. One of the more widely known definitions of stress was offered by Selye (1974), who said that "stress is the nonspecific response of the body to any demand made upon it" (p. 14). This definition

identifies objective events as being instrumental in causing the unpleasant sensations and emotions that result from stress.

While stress was once believed to be the result of too many life changes or events (Redfield & Stone, 1979), researchers now understand that both stimulus variables and personal characteristics of individuals determine reactions to situations. Life events in and of themselves do not produce stress. Emotions and stress are the products of cognitions; they result depending upon the way in which individuals appraise or perceive the situation in which they find themselves (Woolfe, 1984). There is extreme variability with regard to how different individuals perceive the same event. Events that are extremely stressful for some cause very little disturbance for others. A study by Redfield and Stone (1979) provides evidence that marked individual differences for perceptions of life events do exist. Their results indicate that events were differentially desirable, meaningful and change producing for

different subject groups.

Many factors play a part in producing individual differences in the way that events are perceived. The wide variety of cultural, familial, social and economic factors as well as personality variables are some of these. Although there is a vast amount of literature which explores the relationship between stress, defined in terms of life events, and some of the above mentioned variables, very little research has to date examined any of these variables as they relate to the perception of stress.

There is, however, some support in the literature (Eckenrode, 1984; Lester, Leitner & Posner, 1985) for the assertion that the personality variable self-esteem is a factor which distinguishes between individuals who tend to perceive events as being stressful and those who do not. Individuals with a lower level of self-esteem tend to perceive events as being more stressful than do individuals who have higher self-esteem. As noted by Hobfoll, Nadler and Leiberman (1986),

one hypothesis which has been presented to explain this tendency argues that because low self-esteem individuals have fewer positive self-cognitions than those with high self-esteem, they are more vulnerable to incoming negative information. Consequently, they would tend to perceive events in a more negative or stressful light than would higher esteem persons.

The literature also provides evidence that locus of control is an aspect of personality which distinguishes between those individuals who perceive events as being more stressful and those who perceive them as less so. Several authors (i.e., Johnson & Sarason, 1978; Kobasa, 1979) have indicated that the personality characteristic of internal locus of control moderates the negative effects of stress. The idea behind this assertion is that internals perceive themselves as having more control over negative events and that this perception of control leads to a lower stress level.

Statement of the Hypothesis

The present study is an attempt to verify the hypothesis that the personality variables self-esteem and locus of control are factors which distinguish between those individuals who tend to perceive events as being stressful and those who do not. The aim of this research is to provide support for the contention that individuals with a lower level of self-esteem, as well as those who are external in their control orientation, tend to perceive events as being more stressful than do individuals who have higher self-esteem and those with an internal locus of control.

Chapter 2

Review of the Literature

Perception of Stress

In a good percentage of the literature, stress is conceptualized as negative physiological and psychological reactions to life changes or events. The Holmes and Rahe Life Events Scale (1967) is one very popular example of the objective events type of stress measure. Although some studies have shown relationships between life events and indices such as an illness or depression, there is still controversy surrounding the use of life events as measures of stress (Fleming, Baum & Singer, 1984). Life events are stressors which have the potential to cause an individual to feel anxious and stressed, but they do not in and of themselves produce stress reactions.

Anxioty is an unpleasant emotion that has been experienced by each individual at one time or another. Becker (1976) has

defined anxiety as " a response of malaise and anguish —— a feeling of impending doom (which is) associated with apprehension" (p. 139). Several sources (Milgram & Zucker, 1985; Holahan & Moos, 1985; Becker, 1976) have attested to the close link between anxiety and stress. Often, when an individual reports feeling 'stressed', what he or she is really experiencing is anxiety. Lazarus (1966) has conceptualized the relationship between stress and anxiety as having an intervening variable, the perception of threat. According to his framework, stressors are constantly impinging upon everyone. It is not until an individual perceives a threat to exist that anxiety is experienced. As can be seen, it is not the stressors which result in anxious feelings, but rather the amount of threat that an individual feels when confronted with that stressor. In this situation, threat does not refer directly to observable factors but rather it must be inferred from antecedent conditions and responses (Lazarus, 1966).

Several sources (i.e., Kiritz & Moos, 1974; Woolfe, 1984; LaGreca, 1985) support the assertion that one's perception of any situation is the vital ingredient with regard to what its outcome will be. Woolfe (1984) has noted that appraisal is the key concept. It has been mentioned by Goodhart (1985) that people's subjective interpretations are what ultimately determine an event's psychological effects. This precept is further supported by Lazarus, Delongis, Folkman and Gruen (1985), who note that " stress lies not in the environmental input but in the person's appraisal of the relationship between that input and its demands and the person's agendas (e.g. beliefs, commitments, goals) and capabilities to meet, mitigate or alter these demands in the interests of well being" (p. 770).

Research results also support the position maintained above. In a study which examined the relationship between life stress, social support and emotional disequilibrium in pregnancy, it was found that stress during pregnancy is highly nonspecific,

and that it is based upon the woman's idiosyncratic perception of events as negative during this period in her life (Norbeck & Tilden, 1983).

An individual's perception of any situation is a cognitive process which involves learning, memory, judgement, thought and sensory acuity (Lazarus, 1966). The cognitions that we form- our thoughts, ideas, evaluations and conclusions - determine what our emotional reactions will be. Cognitions can give rise to positive emotions, which lead to happiness and contentment, or to negative emotions, which lead to anxiety and unhappiness. This relationship between cognitions and emotions is, however, strongly interactive. As noted by Woolfe (1984), although cognitions cause emotions, emotions also influence both cognitions and behavior. As has been noted by Kiritz and Moos (1974), " it is the perception of the social environment . . . which affects (one) directly, and in turn affects (one's) personality and behavior." (p. 107).

Most situations contain both positive and negative elements. The aspects which are attended to is what determines what one's perception of any situation will be. Goodhart (1986) has noted that positive and negative thoughts about past stressful events influence response to future stressors. People's confidence in their ability to cope with a stressful experience may depend in part on their perceptions of how well they have coped with stress in the past. Goodhart (1985) mentioned that negative thinking creates general feelings of helplessness in the face of stress. It possibly interferes with effective coping strategies when stressors occur, and thereby leads to poorer resolutions of events, which in turn generates an ongoing state of stress.

Along the same line as a situation being perceived as being positive or negative is that of one being regarded as either a threat or a challenge. Individuals who view stressors as a challenge remain healthier than those who see them as a threat. In a study of midlife male executives, Kobasa (1979) found that

those who generally tended to view stressors as challenges, that is, as opportunities for growth and change, remained physically healthier over a three year period than men who tended to view these occurrances as threats. Because the situation is appraised in a more positive light, positive emotions also result. Waterhouse (1984) added that appraising an event as challenging rather than threatening is more favorable to morale, and it fosters the capacity to perform under pressure without being emotionally overwhelmed.

It is apparent from the preceeding paragraphs that there is a broad diversity with regard to how different individuals perceive events. One situation is regarded as a challenge by one, a threat by another. One individual will perceive the positive elements in a situation whereas another person will see only the negative elements in the same circumstance. Redfield and Stone (1979) have provided striking evidence for individual differences in perceptions in life events. They report that different subject groups found events differentially

desireable, meaningful, and change producing. Lazarus, DeLongis, Folkman and Gruen (1985) assert that even major events such as the death of a loved one, divorce, loss of job, illness, incapacitation and so on elicit wide individual variation in the degree to which they are experienced as stressful. They have gone on to propose that "there is simply no way to define an event as a stressor without referring to the properties of persons that make their well-being in some way vulnerable to that event" (p. 778). Similarly, Redfield and Stone (1979) concluded that "it may be as important to understand which characteristics of individuals determine responses to stressful life events as it is to understand qualities of the events themselves" (p. 153).

There are several factors which could play a part in producing differences in perceptions between individuals. Everly, Jr. and Rosenfeld (1981) have asserted that an individual's interpretations of environmental stimuli are affected by such variables as personality components, status

and social role behaviors. Witmer, Rich, Barcikowski and Mague (1983) report that the response which one makes to environmental stressors is cognitively mediated by the evaluation which one makes of how detrimental the stressors might be to one's well being. This evaluation is in regard to the feelings of harm-loss, threat or challenge (process of 'primary appraisal') as well as in regard to how well the person may summon coping resources, options and constraints (process of 'secondary appraisal'). They have suggested that major influences on secondary appraisal are likely to include previous experiences with such situations, generalized beliefs about self and environment and the availability of resources such as the individual's morale and assessments of health-energy, problem solving skills, social support and material resources. One final view has been offered by Waterhouse (1984), who remarked that " the proposition that the impact of stress depends crucially on interactions with personality characteristics of the individual comes up again and again

(p. 125). Since personality characteristics are widely recognized as being factors which influence the perception of stress, two major ones are the focus of this investigation into why different individuals perceive events in different ways.

Self-Esteem and the Perception of Stress

One personality characteristic which has been noted (i.e., Linn & Zeppa, 1984) to discriminate between those individuals who perceive events in their lives as stressful and those who do not, is self-esteem. Self-esteem refers to the positiveness of one's attitude towards oneself (Pearlin & Schooler, 1978). Several sources (i.e., Hobfoll, Nadler & Leiberman, 1986; Kawash, 1982) have attested to the importance of self-esteem for healthy functioning. One very popular area of self-esteem research is its relationship to stress. It is evident that these factors are related. Eckenrode (1984) reported that chronic stress is associated with lower levels of psychological well being and, according to Petrie and Rotheram (1982),

"self-esteem is . . . associated with low anxiety and with fewer psychosomatic symptoms of stress" (p. 964). In a study by Witmer, Rich, Barcikowski and Mague (1983), positive self-esteem was found to more accurately predict higher levels of health than did relationships with others, physical environment, heredity, or availability of medical and psychological services. Since higher levels of health also reflect lower stress levels, these results suggest that a high level of self-esteem is more crucial to perceiving less stress than are several other factors, which have previously been considered important.

In a study of 1,496 workers, Margolis, Kroes and Quinn (1974) reported that those who were highly stressed also had lower mean self-esteem. Cohen and Hoberman (1983) found that self-esteem was the only one of four needs that made a significant unique contribution to explaining life stress variance. Self-esteem resources were noted as being central in the buffering of both stress-induced depressive and physical

symptomatology. Similar findings have also been reported by Petrie and Rotheram (1982). After conducting a study which examined the relationship between self-esteem, assertiveness and stress in firefighters, these researchers found that high self-esteem and high personal assertiveness were both directly related to low stress. Results also indicated that assertiveness is a subcomponent of self-esteem, making the relationship between self-esteem and stress even more powerful.

Several sources have included stress perception into their analysis of the stress-self-esteem relationship. Dobson, Campbell and Dobson (1982) examined the relationship between children's self-concepts, perception of school and life change. The results of their study indicated that a high amount of life change as well as dissatisfaction with school related to lower self-concept, while a low amount of life change and satisfaction with school related to a high level of self-esteem. Clayson and Frost (1984) reported that high stressed individuals have lower mean self-esteem and perceive their

spouses similarly, whereas low stressed individuals had higher mean self-esteem and perceived their spouses as much happier than did the other group.

In a study which examined the relationship of personality and performance to stress in medical students, Linn and Zeppa (1984) found that low self-esteem was associated with the perception of unfavorable stress although it did not correlate with any of the performance areas except oral examinations. These researchers also noted that stressors have the most devastating impact upon persons when the persons have low self-esteem. Finally, Kiritz and Moos (1974) have reported results which identified self-esteem as one of three factors which was responsible for an improvement in health among men in one study. These men, who had been laid off work, experienced elevated blood pressure until they were settled into their new jobs. Those individuals with higher ego resilience, lower irritation and higher self-esteem experienced a quicker drop in blood pressure after going on a new job. The

authors conclude by commenting that "the most efficient predictor of a person's physiological behavior in a given environment may consist of how he perceives that environment" (p. 109).

It has been previously indicated that anxiety does not result from stressors but from perceptions of them. The results of a study by Kawash (1982) have shown that self esteem consistently correlates with low anxiety. As was previously mentioned, perceptions, cognitions and emotions all interrelate with each other. This is illustrated by a statement made by Peale (1956), which is simple yet powerful in its implications: "If you think in negative terms, you will get negative results. If you think in positive terms, you will get positive results" (p. 170). Study results reported by Goodhart (1985) provide support for Peale's statement. Subjects who evaluated the outcomes of initially negative events as positive reported higher levels of self-esteem compared to those who evaluated the outcomes of these events as negative. She further

mentioned that thinking influences overall perceptions of oneself.

One's perception of stress leads directly to an emotional response and to the coping strategies which are utilized to deal with environmental stressors. A positive assessment of a situation is itself an excellent coping strategy which prevents anxiety from occurring. Hobfoll, Nadler and Leiberman (1986) have mentioned that self-esteem has been found to be a key personal attribute in studies of stress resistance. Witmer, Rich, Barcikowski and Mague (1983) have reported that "self-esteem was by far the most important (factor) in discriminating between good and poor copers" (p. 76). Results obtained by Rosen, Terry and Leventhal (1982) also suppport this assertion. They found that low esteem subjects were less likely to take preventative action against stressors than were high esteem subjects. As well, these researchers found that low esteem subjects perceived themselves to be less competent than did high esteem subjects. This difference in

perception of competency is an indication that low and high esteem individuals may also differ according to their perceptions of stress. As has been noted by Chan (1977), "our stress responses are necessarily connected with our perceptions of the stimuli, which are, in turn, dependent on how we evaluate ourselves, especially the kinds of coping skills or resources we think (or are told by significant others) we have at our disposal" (p. 96).

Many explanations for the link between self-esteem and the perception of stress are provided in the literature. Chan (1977) has remarked that low self-esteem subjects in their inability to operate the self-esteem as a mediating mechanism, become exceedingly field dependent and vulnerable to environmental influence. Colletta, Hadler and Gregg (1981) also stated that an individual's self-esteem is directly related to vulnerability to the influence of the environment. They mention that people high in self-esteem have a past history of success in dealing with environmental stresses. Their sense of efficacy decreases the

panic responses to stressors so that individuals perceive the events as being less stressful and are able to initiate adaptive strategies. On the other hand, those with low self-esteem feel caught by their inability to cope with the environment and they react to difficult circumstances with anxiety. Similarly, Hobfoll and Walfisch (1984) mentioned that a favorable attitude towards oneself is an effective resource in vitiating the effect of stressors. Persons with high self-esteem are likely to feel that they can handle stressful situations and that they would be resistant to attributing to themselves negative characteristics because of a stressful life event. They also said that persons with strong self-concepts may be more likely to see the 'light at the end of the tunnel' when in the midst of a crisis and therefore predict positive outcomes despite their current problems. This hypothesis provides an explanation as to why the relationship between self-esteem and perception of stress exists. Individuals with a high sense of self-esteem are more likely to maintain a positive attitude when faced with

difficult circumstances because they have more faith in their ability to solve their problems. As a result, they are less likely to feel threatened, anxious and stressed.

Another view is offered by Pearlin, Leiberman, Menaghan and Mullen (1981). They have asserted that the strain that is generated by stressors is especially likely to eventuate in stress when it also results in a diminishment of the self. They added that when faced with persistent role strains, individuals perceive of themselves as unable to alter the unwanted circumstances of their lives. Under these conditions, they become vulnerable to the loss of self-esteem, and "the diminishment of (the) treasured elements of self is viewed as the final step in the process leading to stress" (p. 340). Cohen and Hoberman (1983) have remarked that it is the resources that are necessary for high self-esteem that are also needed to cope with stressful life events, and that "threats to self-esteem may be the most serious of stressful events and thus may be the type of stress that it is most important to

counter" (p. 117).

From the above review it can be seen that the personality variable self-esteem has a powerful impact upon how individuals perceive and react to their environments. Further exploration is necessary in order to understand more thoroughly the relationship between these two variables.

Locus of Control and Perception of Stress

Another relationship which must be further analyzed is that of locus of control and perception of stress. As with self-esteem, locus of control is a personality characteristic which influences the way that individuals perceive their environments. Whether an event is perceived as stressful or not is dependent in part upon the control orientation of the individual.

Rotter (1966) has stated that individuals who feel that they control their own fate and assume responsibility for what happens to them are identified as having an internal locus of

control, while those who believe that they have little or no responsibility for what happens to them are external in orientation. A study by Crandall and Lehman (1977) indicates that a relationship between stressful life events and locus of control exists. They found a positive correlation between the Holmes and Rahe (1967) Social Readjustment Rating Scale and external locus of control. Similar results have been reported by Flannery, Jr. (1984) and Clayson and Frost (1984), with the latter research team adding their finding that individuals with an external locus of control tend also to have lower levels of self-esteem. Conflicting results were obtained by Tyson (1981), who found that objective experience of stressful life events was not correlated with locus of control. This finding leads us back to the previously mentioned supposition that it is the perception of stress rather than the objective events in and of themselves which is the more influential factor. It is apparent that, since locus of control has generally been found to be related to stress, that it is another variable which must

be examined with reference to perception of stress.

Several researchers (i.e., Davis & Davis, 1972; Phares, 1973) have, in fact, indicated that a person's locus of control affects his or her perception of the world as well as of him or herself. Anderson (1977) has reported that under stressful conditions externals are more likely than internals to report feeling anxiety and stress. Likewise, Holahan and Moos (1985) mentioned that life stress was associated with anxiety and depression for college students characterized by an external locus of control, but that no relation between stress and pathology was found for those with an internal locus of control. A study by Manuck, Hinrichsen and Ross (1975a) has provided further support for the proposition that there is a relationship between anxiety and externality. They found that externals tended to report more stress than internals on both state and trait anxiety measures, although the difference was significant only for the state anxiety measure. In another study a distinction was made between high and low stress conditions.

It was asserted that under low stress conditions externals reported significantly more anxiety than did internals, however, under high stress conditions no differences in anxiety were found between the two groups (Manuck, Hinrichsen & Ross, 1975b).

According to Nowicki, Jr. (1978), external male and female college students reported experiencing more stress during their elementary and junior high school years than did internal individuals, and Lester and Tappert (1981) mentioned that self-reported stress was greater for individuals who had an external locus of control. A study by Geist and Borecki (1982) found that students who rated high on a measure of social avoidance and distress tended to perceive themselves as externally controlled and they also manifested a low level of self-esteem. Results obtained by Toves, Schill and Ramanaiah (1981) also provided support for the tenet that externally oriented individuals are more vulnerable to life stress. However, the results also suggested that the findings are

differential depending on the sex of the subject. Internality appeared to be advantageous only for males. A study by Johnson and Sarason (1978), which measured the relationship between life stress, depression, anxiety and locus of control, found that negative change was found to be significantly correlated with both depression and trait anxiety, although these relationships were found only for external subjects. These results indicate that externally oriented individuals, when confronted with stressors, feel more threatened and react with more anxiety than do internals. Locus of control, therefore, appears to be a variable which distinguishes between those who perceive events in their lives as stressful and those who do not.

It is well established that individuals who perceive themselves to be under a great degree of stress are more susceptible to illness as well as anxiety. Kobasa (1979) has indicated that persons who experience high degrees of stress without falling ill have a personality structure which differentiates them from persons who become sick under

stress. She has contended that, among persons under stress, "those who have a greater sense of control over what occurs in their lives will remain healthier than those who feel powerless in the face of external forces" (p. 3). Similar results have been reported by McFarlane, Norman, Streiner and Roy (1983). They found that events that were considered to be other than desirable when subjects did not feel in control of them were followed by an increase in reports of distress, symptoms and physician visits.

Coping strategies also appear to be influenced by an individual's locus of control. As well as finding that externals perceived higher stress than internals in a particular situation, the results of Anderson (1977) also indicated that externals tend to respond with much more defensiveness and much less task oriented coping behavior than do internals. Similar findings have been reported by Phares, Ritchie and Davis (1968). They mentioned that internals indicated a greater willingness to engage in action taking behaviors to confront

problems and deal constructively with stressors. Parkes (1984) has provided the opinion that " the role of locus of control as a mediator between life stress and physical and mental health outcomes is derived predominantly from the different ways that internals and externals adapt their coping in relation to their appraisal of the life stressors they encounter. . ." (p. 666).

Several suggestions have been provided in the literature to explain the relationship between locus of control and stress. Folkman (1984) has asserted that beliefs about control and situational appraisals of it can alter the extent to which an encounter is perceived as being threatening or challenging and can influence coping. According to this researcher, control can be viewed as " a cognitive mediator of a stressful transaction and its adaptational outcome" (p. 850). Ganellen and Blaney (1984) have made the distinction that locus of control does not refer to perceived responsibility for past events but instead to perceptions of control over future events. Chan (1977) has mentioned that internally oriented individuals as well as those

high in self-esteem may have a past history of successes in dealing with the environment and in coping with impinging external stresses and threats. She has suggested that the resulting sense of power and efficacy allows the individual to see the connection between personal efforts and environmental changes, which leads him or her to exercise perceived control of stress. Other researchers (i.e., Johnson and Sarason, 1978; Kobasa, 1979) support this assertion, as did the results of a study by Lester, Leitner and Posner (1985). These researchers found that the subjective level of stress perceived by individuals might be reduced by changing their perceptions about sources of control in their lives.

Although the majority of the research is in support of the tenet that externals are more likely than internals to perceive events as stressful, some sources have reported conflicting results. In a study of loneliness and locus of control, Schill, Toves and Ramanaiah (1980) found a positive and significant relationship between loneliness and psychological distress for

internal but not external subjects, a result which was the opposite of what would be expected according to the previously stated hypothesis. Sandler and Lakey (1982) obtained results which failed to provide evidence that locus of control was related to either perception of control over negative events or the effects of such control perceptions on the stressful impact of negative events. Similar findings were reported by Nelson and Cohen (1983).

From the review presented above, it is apparent that there is evidence in the literature to support the hypothesis that those who perceive events as more stressful tend to have a lower level of self-esteem. There is also evidence which suggests that greater perception of stress is related to external locus of control, although this relationship does not exist in every study. It can, therefore, be hypothesized that both variables, self-esteem and locus of control, are related to perception of stress, but the relationship between perception

of stress and self-esteem will be stronger than the relationship between perception of stress and locus of control.

Chapter 3

Method and Procedures

The following chapter contains a description of the sample, research instruments and an overview of other data collection procedures which were employed in this study. Each of these elements are described in turn. Data analysis procedures are briefly mentioned.

Sample

The subjects of this study represented an attempt by the researcher to select a stratified sample from a group of contacts, who agreed to complete and return a questionnaire. Testing conditions varied, since some tests were taken away and returned completed one or more days later. Of the 76 respondents, 41 are male and 35 are female. The age range is 17 to 59, which is similar to that of the labor force. Another

demographic characteristic of this sample which is similar to that of the labor force is occupation. Information relevant to the major occupational categories in Canada, percentages of each in the labor force, as well as numbers and percentages for each category from this sample is provided in Table 1.

Table 1

PERCENTAGE OF INDIVIDUALS IN MAJOR OCCUPATIONAL GROUPS*:

COMPARISON BETWEEN LABOR FORCE AND SAMPLE

Occupational Categories	Labor Force Percent	Sample Percent	Number
Managerial, administrative and related occupations	.088	.066	5
Occupations in natural sciences, engineering and mathematics	.033	.079	6
Occupations in social sciences and related fields	.016	.053	4
Occupations in religion	.003	.00	0
Teaching and related occs.	.042	.066	5
Occupations in medicine and health	.044	.040	3
Artistic, Literary, Recreational and Related occupations	.014	.00	0
Clerical and related occs.	.186	.184	14
Sales Occupations	.088	.092	7
Service Occupations	.119	.145	11

Table 1
(Continued)

PERCENTAGE OF INDIVIDUALS IN MAJOR OCCUPATIONAL GROUPS*: COMPARISON BETWEEN LABOR FORCE AND SAMPLE

Occupational Categories	Labor Force Percent	Sample Percent	Sample Number
Farming, Horticulture and Animal Husbandry Occs.	.040	.013	1
Fishing, Trapping and Related occupations	.003	.00	0
Forestry and Logging Occs.	.007	.00	0
Mining and Quarrying-including oil and gas field occs.	.006	.013	1
Processing Occupations	.040	.079	6
Machining and related occs.	.026	.00	0
Product Fabricating, Assembling and Repairing occs.	.079	.066	5
Construction Trades occs.	.065	.039	3
Transport Equipment Operating occupations	.039	.026	2

Table 1
(Continued)

PERCENTAGE OF INDIVIDUALS IN MAJOR OCCUPATIONAL GROUPS*: COMPARISON BETWEEN LABOR FORCE AND SAMPLE

Occupational Categories	Labor Force Percent	Sample Percent	Sample Number
Material Handling and Related Occupations	.021	.013	1
Other Crafts and Equipment Operating occs.	.012	.013	1
Occupations not Elsewhere Classified	.013	.013	1

* Information obtained from Statistics Canada (1981)

Instruments

The instruments which were used in this study include the Perceived Stress Scale, the Rosenberg Self-Esteem Scale and the Rotter Internal-External Locus of Control Scale. Each instrument is described in turn. Another method of data collection, in which personal information was obtained, is also described. A brief discussion of the investigation procedures is also offered.

The Perceived Stress Scale

The Perceived Stress Scale (PSS) was designed to measure the degree to which situations in one's life are appraised as stressful. It was noted by Cohen, Kamarck and Mermelstein (1983) that this measure has been found to be a better predictor of several stress related outcomes, two of which were depressive and physical symptomology and social anxiety, than were life event scores. A research item developed by

Cohen, Kamarck and Mermelstein (1983), the PSS is a fourteen item scale which taps the degree to which respondents found their lives unpredictable, uncontrollable and overloading during the four weeks prior to its administration.

For each item on the PSS, repondents choose from the following five alternatives:

0=never

1=almost never

2=sometimes

3=fairly often

4=very often

Seven of the fourteen items are worded negatively and seven are positively notated. PSS scores are obtained by reversing the scores on the seven positive items e.g.) 0=4, 1=3, 2=2, 3=1, 4=0 and then summing across all fourteen items. This self-administered test requires only about five minutes to complete.

Internal reliability coefficients from three samples have been reported by Cohen, Kamarck and Mermelstein (1983) as being .84, .85, and .86, while test-retest reliability was .85. Evidence which indicates that PSS has concurrent and predictive validity was also provided.

Rosenberg Self-Esteem Scale

The Self-Esteem Scale (S-E Scale) is a research instrument developed by Rosenberg (1965). This ten item test was designed to measure the respondent's level of self-esteem. Subjects indicate the extent of their agreement or disagreement with statements about their own perceived worth and competence.

For each item on the S-E Scale, respondents choose from the following four alternatives:

1=strongly agree

2=agree

3=disagree

4=strongly disagree

S-E Scale scores are obtained by reversing the scores on the positive items e.g) 1=4, 2=3, 3=2, 4=1 and then summing across all ten items. This scale can be completed in less than five minutes and is self-administered.

According to Weiss (1978), coefficient alpha reliability was .75, while validity correlations ranged from -.34 to .40.

Rotter Internal-External Locus of Control Scale

The Internal-External Locus of Control Scale (I-E Scale) was developed by Rotter (1966). This research instrument measures the extent to which respondents perceive an event to be contingent upon their own behavior or attributes (internal control) as opposed to being controlled by forces outside of themselves (external control).

The scale consists of 23 question pairs, in which internal statements are paired with external statements, as well as six filler questions. The statements are in a forced-choice format. One point is given for each external statement selected. Scores

can range from zero (most internal) to 23 (most external). This self-administered scale takes approximately ten to fifteen minutes to complete.

An internal reliability coefficient (Kuder Richardson) of .70 as well as a test-retest reliability coefficient of .72 were obtained from a sample of 400 college students. The scale has also been demonstrated to have convergent and discriminant validity (Rotter, 1966).

Other Data Collection Procedures

Personal Information Collection

All respondents were requested to complete a personal data questionnaire. Appendix 1 provides a copy of the form used. The information requested related to the individual's name, age, sex and occupation.

In the case that the respondent was unemployed, he or she was requested to indicate the occupation of his or her spouse

or the head of his or her household. The personal information obtained was coded and employed in relevant hypothesis testing.

Investigation Procedures

All tests were self-administered and all scoring of tests was in accordance with the descriptions already provided. The test results were entered on to the MTS computer system. Computer calculations were made consisting largely of correlational analyses and t-tests.

Chapter 4

Results

Introduction

It has been hypothesized that a relationship exists between perception of stress and the personality variables self-esteem and locus of control. The aim of this research has been to provide support for the contention that individuals with a lower level of self-esteem, as well as those who are external in their control orientation, tend to perceive events as being more stressful than do individuals who have higher self-esteem and those with an internal locus of control. Each of these hypotheses is discussed in turn, followed by the pertinent findings.

Perception of Stress and Self-Esteem

It is hypothesized that individuals with a lower level of self-esteem tend to perceive events as more stressful than those with higher self-esteem. Two types of analyses were performed to test this hypothesis.

First, a Pearson Product Moment Correlation was computed on the responses of all 76 Ss. The results of this analysis indicated that there is a relationship between perception of stress and self-esteem, with a correlation coefficient of -.48 ($p < .001$).

Means, standard deviations and the range of scores for perception of stress and self-esteem variables were calculated and are presented in Table 2 following.

Table 2

MEANS, STANDARD DEVIATIONS AND RANGE OF SCORES FOR PERCEPTION OF STRESS and SELF-ESTEEM

Variable	Mean	S.D.	Min.	Max.	N
Perception of Stress	19.276	7.30	2	36	76
Self-Esteem	33.368	4.369	20	40	76

Secondly, the sample was ordered in terms of Perception of Stress scores and subsequently the highest 33 percent and the lowest 33 percent of scores were selected for comparison of self-esteem. A t-test for independent groups was computed, comparing high and low PSS scores. The results of this analysis are depicted in Table 3.

Table 3

SUMMARY OF DIFFERENCES BETWEEN UPPER AND LOWER 33% OF PSS SCORES ON SELF-ESTEEM

Group	N	Mean	S.D.	t	df	p
Upper 33 percent of PSS scores	25	31.24	3.527			
				-4.89	48	<.001
Lower 33 percent of PSS scores	25	35.96	3.297			

As is apparent, the difference between the two groups of PSS scores is significant. From this finding as well as the correlational analysis, it can be confidently concluded that individuals with lower self-esteem tend to perceive events as more stressful than do those with a higher level of self-esteem.

Perception of Stress and Locus of Control

The second hypothesis of this research study is that individuals who are external in control orientation tend to perceive events as more stressful than do internals. Two types of analyses were performed to test this variable as with self-esteem.

A Pearson Product Moment Correlation was computed from the responses of all 76 subjects. The result of this analysis was a correlation coefficient of .28 ($p \leq .007$). Means, standard deviations and the range of scores for perception of stress and locus of control are presented in Table 4.

Table 4

MEANS, STANDARD DEVIATIONS and RANGE OF SCORES FOR PERCEPTION OF STRESS and LOCUS OF CONTROL

Variables	Mean	S.D.	Min.	Max.	N
Perception of Stress	19.276	7.30	2	36	76
Locus of Control	6.908	4.08	1	16	76

As with the self-esteem variable, the lowest and highest 33 percent of PSS scores in the sample were selected for comparison of their locus of control scores. A t-test for independent groups was computed, and the results of the analysis are presented in Table 5.

Table 5

SUMMARY OF DIFFERENCES BETWEEN UPPER AND LOWER 33% OF PSS SCORES ON LOCUS OF CONTROL

Group	N	Mean	S.D.	t	df	p
Upper 33 percent of PSS scores	25	7.88	4.333			
				2.79	48	$\leq .008$
Lower 33 percent of PSS scores	25	5.00	2.799			

As can be seen, the difference between the two groups is significant. These results and those obtained from the correlational analysis provide support for the hypothesis that external individuals tend to perceive events as more stressful than do those with an internal locus of control orientation.

Summary of Conclusions

Two major conclusions can be drawn from the findings related above. Firstly, there is a negative relationship between self-esteem and perception of stress. Individuals with lower self-esteem tend to perceive events as more stressful than do those with a higher level of self-esteem. Secondly, individuals who are external in their locus of control orientation tend to perceive events as more stressful than do those with an internal locus of control.

Chapter 5

Discussion and Implications

Discussion

Everly, Jr. and Rosenfeld (1981), as well as Waterhouse (1984) have indicated that personality characteristics are factors which influence how stressful events are perceived to be. The two personality characteristics which were the focus of this examination did indeed distinguish between individuals with regard to the perception of stress in their lives.

The results of this study indicate that there is an inverse relationship between the personality characteristic of self-esteem and perception of stress. It has been shown that individuals with lower levels of self-esteem tend to perceive events in their lives as being more stressful than do those with higher self-esteem. Similar results have been reported in the literature (i.e., Kiritz & Moos, 1974; Clayson & Frost, 1984;

Hobfoll, Nadler & Leiberman, 1986).

The next question which may be raised is why this relationship exists. Some sources (Hobfoll & Walfisch, 1984; Colletta, Hadler & Gregg, 1981) have indicated that persons with high self-esteem are more likely to feel that they can handle stressful situations. They react to difficult circumstances with a positive attitude and constructive coping mechanisms rather than with anxiety and panic. Conversely, individuals with a lower level of self-esteem, when confronted with the same circumstances, feel less capable of successfully coping with the situation (Rosen, Terry & Leventhol, 1982), and they therefore feel threatened and react with anxiety and stress.

Another possibility for the existence of the relationship between self-esteem and the perception of stress has been offered by Pearlin, Leiberman, Menaghan and Mullen (1981). These researchers have asserted that the stressors which lead to anxiety and stress are those which result in a diminishment

of self-esteem. Individuals who have a lower level of self-esteem are likely to be sensitive to incidents which they feel threaten their self-regard and, therefore, the stressors which do so are much more anxiety-provoking for them than for their high-esteem counterparts, who feel a lesser sense of threat.

Results indicate that there is a significant relationship also between locus of control and perception of stress. Individuals who are external in their locus of control orientation tend to perceive events as more stressful than do internals.

Chan (1977) has mentioned one reason for the existence of this relationship. According to her, the individual who feels that he or she is in control of a situation is "less likely to perceive the situation as threatening or stress-inducing, and in turn, (is) less likely to manifest adverse reaction patterns" (p. 93). Similarly, Folkman (1984) has indicated that beliefs about control can alter the extent to which an encounter is appraised as threatening and can influence coping. Perhaps an internal

locus of control not only keeps an individual from feeling threatened by incidents but also helps him or her to cope with stressors in a constructive manner, as a result, preventing feelings of anxiety and stress from arising.

Although the results of this study have indicated the existence of a relationship between external locus of control and greater stress perception, this relationship is not as powerful as was expected by the author. One possibility for this is that there are other factors which come into play along with locus of control. The presence of unknown factors in some externals may lead them to perceive events in a more stressful manner than in those externals in whom these factors do not exist. Toves, Schill and Ramanaiah (1981), for example, identified gender as possibly being one such factor. They found that internality was effective in preventing anxiety and stress only for males.

Another suggestion which has been offered by Manuck, Hinrichsen and Ross (1975) is that some internals may feel

more stressed than externals since they are more likely to attribute responsibility to themselves for their failures and disappointments, believing themselves to be the controlling force in each situation. Externals in this case would feel less stressed and anxious when assaulted by stressors since they would feel no responsibility for the incident.

It should be mentioned that although results indicate that relationships exist between the variables examined, they do not prove causality. More research is needed to determine why the tendency exists for individuals with low self-esteem to perceive events as being more stressful than do their high esteem counterparts, as well as why there is a tendency for externals more than internals to perceive events in a more stressful manner.

Implications

The results of this study have implications for practice. Hopefully, a more complete view of stress has been provided, with information as to why some individuals more than others feel anxious and stressed. It has been shown that these emotions result from feeling threatened, and that each individual differs with regard to how events are perceived. There are implications for counselors whose clients have come to them for help with stress-related problems. Counselors can gain more insight into the personality of the client with knowledge of the personality variables which are influential in determining how stressful events are perceived to be. Work with clients on stress management can be accomplished in part with changes in their self-esteem and perceptions of control in their lives. As well, counselors can help their clients by helping them to become aware of, through discussion of the events that are perceived as stressful, the factors which they

regard as threatening to their well-being. Implications for educators include helping these professionals to become aware, through the school psychologist or in-service programs, that it is the perception of events as threatening which causes stress and burnout, and these perceptions can be changed. Implications also extend to the students. They should receive grounding in affective education. In a safe, esteem-building environment, they will discover that they are in control of the way that they perceive the events in their environments.

Other Possibilities for Research

Implications for research include exploring other personality variables which might influence perception of stress. Further research could question whether there is a particular sex or age group which is particularly prone to perceiving events as stressful. Another possibility for research is the question of how much stress perception is the result of physical or medical symptoms and how much is the result of

emotional factors. Finally, future research could examine whether it is personality characteristics which are the influential factors in perceiving events as stressful or rather if the perception of events as stressful leads to a loss of self-esteem and to the feeling that events are uncontrollable.

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APPENDIX 1

Demographic Information

Name:_____

Sex: Male_____

Female_____

Age:_____

Occupation: _____

(If you are not employed please give the occupation of your spouse or the head of your household)

Code Number:_____

Thank you for taking the time to complete the following forms. Please try to answer the questions as accurately as you can. The information obtained will be confidential; your name and other identifying information will not be released.