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Basic Needs Satisfaction and Social Support in the Adult Trauma Victim

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**BASIC NEEDS SATISFACTION AND SOCIAL SUPPORT
IN THE ADULT TRAUMA VICTIM**

By

Gail A. Mercer

A THESIS

**Submitted to
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in partial fulfillment of the requirements
for the degree of**

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ABSTRACT

BASIC NEED SATISFACTION AND SOCIAL SUPPORT

IN THE ADULT TRAUMA VICTIM

By

Gail A. Mercer

Traumatic injury prevention and treatment is an increasingly important focus for the nursing profession as trauma tops the list for causes of death among young people in the United States. The specific purpose of this study was to explore whether a pre-existing state of low basic need satisfaction and low social support contribute to traumatic injury in adults. A descriptive correlational design was used. The theoretical frameworks of Erickson, Tomlin, and Swain (1983) and Lazarus (1964) formed the foundation for this study. Two survey tools were employed, the Basic Need Satisfaction Inventory (Kline Leidy, 1994) and the Personal Resource Questionnaire (PRQ85-Part II) (Brandt & Weinert, 1981). A sample of 86 subjects in the United States Army Reserve was collected. There was no significant relationship found between lower levels of basic need satisfaction and social support and the incidence of trauma using one tailed t-tests for statistical analysis.

Dedication

Dedicated to my husband, Arch, my two beautiful daughters, and my friends/colleagues in the infamous "thesis support group" for their much appreciated understanding and encouragement.

Acknowledgements

I would like to express my sincere appreciation to Patricia Underwood, Ph.D., R.N., my thesis committee chairperson, for her patient assistance and expertise in guiding me through the research/thesis process. Thank you also to my thesis committee, Linda Bond, Ph.D., R.N., and Rodney Mulder, Ph.D. for their time and advisement in this project.

A special thank you goes to Linda Scott, M.S.N. for all her encouragement and assistance in the data analysis process. I also greatly appreciate the cooperation and facilitation of Colonel Ed Kotarski and the permission of Colonel Lean of the U. S. Army Reserve in my data collection process. Lastly, a warm thank you to my brother Jon for his assistance with the computer many times over.

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CHAPTER 1

INTRODUCTION

Justification

As nursing seeks to understand more clearly the interrelationships between person, health, the environment, and the nurse, formal research study of variables influencing people's health is valuable. Erickson, Tomlin, and Swain (1983) conceptualize health as a state of dynamic equilibrium among the various subsystems composing holistic man. These subsystems include biophysical, cognitive, psychological, and social systems. Disequilibrium may result from disruption of one or more of the subsystems depending on the individual's "adaptive potential" or restorative energy available to maintain equilibrium, according to the authors.

The disruption of multiple subsystems simultaneously predisposes individuals to a state of disequilibrium (Erickson et al., 1983). Such disruption is of concern when an individual experiences traumatic injury. Indeed, biophysical, cognitive, psychological, and social systems are often all suddenly and seriously assaulted when a major mechanism of trauma, such as a motor vehicle crash, leaves the individual with skeletal fractures, brain injury, chest and abdominal injuries, etc. Cardona, Hurn, Mason, Scanlon-Schlipp, and Veise-Berry (1988) state:

Most healthy people are able to perceive stressors and cope without much assistance.

However, in the case of the trauma patient, there is an acute and chronic summative crisis from the constant bombardment of multiple stressors. The energy demanded by the patient for continuous coping will eventually exhaust him (p.187). A state of equilibrium among the subsystems is, therefore, important in order to optimize adaptive potential, both in prevention of and recovery from traumatic injury.

Lazarus (1991) notes patterns of physiologic change with specific emotions; autonomic nervous system and neurohumoral system changes are indicated by physiological responses to psychological events. He maintains that efforts on the part of health professionals (an external source) to strengthen a person's coping skills are an important avenue by which distress, dysfunction, and disconnection can be fought.

Pollock (1984) cites overwhelming research support for the relationship between stress-related physiologic processes. The influence of psychologic factors on stress-related hormonal patterns is specifically described as Pollock reviews a broad span of research. She states, "Psychoendocrine literature reveals that activation of the hypothalamic- pituitary-adrenal axis is concomitant with psychologic states characterized by failing ego defenses"(p. 6). Pollock concludes that, "The biologic stress response is psychologically determined, not only by the appraisal of a stressor, but also by successful coping. When coping is effective, it either ameliorates or nullifies the stressor, the biologic response is diminished, and consequently, the risk of illness decreased" (p. 7).

Two factors indicate the mounting significance of traumatic injuries as a health problem for the American population. The first is the successful prevention and/or treatment of

other illnesses which has forced trauma to the top of the list for causes of death among young people in the United States. Baker, O'Neill, Ginsburg, and Guohua (1992) point out that the injury death rate was three and a half times the death rates from diseases in 1986 for individuals aged 35-44, whereas the opposite was true in 1930. Today, injuries outnumber deaths from any other single cause for this age group, according to the authors. The second factor is the average age at which fatal or disabling injury occurs in comparison to most other major diseases. Baker et al.(1992) state that for ages 1-44 injuries are the leading cause of death in the United States. Motor vehicle related injuries are the most common cause of death for ages 1-34. In view of the early ages at which injuries from motor vehicle crashes are sustained, the direct and indirect costs of these injuries have great societal impact when using dollars as a comparative measure (Baker et al., 1992). Using admission to hospitals as another point of comparison to other illnesses, the authors report that in 1988, 1.6 million injury admissions for people under the age of 45 years made injury the leading cause of hospitalization for this age group. Overall, injuries are the third leading cause of death in our country (Baker et al. , 1992).

Purpose and Previous Studies

The purpose of this study is to compare the self-reported responses to measures of basic need satisfaction and personal resources (social support) of adults who have experienced recent traumatic events with those of non-traumatized adults. This comparison was particularly focused on exploring whether or not a pre-existing state of low basic need satisfaction and low social support contributed to traumatic injury. Since retrospective self report of basic need satisfaction and social support by trauma victims

might be significantly biased by the traumatic experience, the possible relationships among these variables in a non-hospitalized population were examined.

This study builds on Kline Leidy's (1990) study testing a theory based structural model describing the relationships among psychosocial resources, perceived stress, disease severity, and symptomatic experience in people with chronic obstructive pulmonary disease. According to Zimrin (1986), an individual's cognitive appraisal of a positive balance between resources and stress increases the chance of successful coping. High levels of basic need satisfaction and social support may heighten individuals' confidence in internal and external resources available to combat stress (positively influencing their cognitive appraisal of resources versus stressors), increasing adaptive potential.

CHAPTER 2

THEORETICAL FRAMEWORK AND LITERATURE

Theoretical Framework

The theoretical frameworks of Erickson, Tomlin, and Swain (1983) and Lazarus (1964) form the foundation for this study. Kinney and Erickson (1990), in a paradigm case for Modeling and Role-Modeling (Erickson et al., 1983), note that the theory addresses interrelations among basic need satisfaction, object relations and loss theory, growth and development of psychosocial systems and cognitive systems, and the individual's acquisition of resources available for coping with stressors. Assumptions underlying Modeling and Role-Modeling theory that specifically relate to this study are as follows:

1) Man is a holistic being composed of the following dynamically interacting subsystems: biophysical, psychological, social, cognitive, genetic makeup, and spiritual drive.

2) Humans possess an innate drive toward holistic health that is facilitated by consistent and systematic nurturance.

Erickson, Tomlin, and Swain's (1983) theory of Modeling and Role Modeling recommends assessment of basic need satisfaction and resources ("resource potential") clients possess as indicators of adaptive potential. Resources can be internal, self-strengths, or external, provided by a client's social network, according to the authors. Social support, a construct widely studied and measured by researchers such as Weinert

and Tilden (1990), is viewed as an external resource within Modeling and Role Modeling theory. Adaptive potential is the ability to mobilize resources for coping (Erickson et al., 1983).

Conceptualizations of stress and coping are important to the application of the adaptive potential assessment model (APAM) as a tool for assessing adaptation to stress.

Erickson, Tomlin, and Swain (1983) define coping as the process of contending with stressors and state that coping can be adaptive (health and growth directed) or maladaptive (illness directed). They differentiate stressors from distressors, stating that stressors are viewed as a challenge whereas distressors are viewed as a threat to the individual. The Adaptive Potential Assessment Model is also based on the observation that maladaptive responses are demonstrated by clients whose psychosocial resources are depleted and whose physical resources are used to contend with the psychosocial distressors.

There are several components pertinent to this study drawn from Modeling and Role Modeling theory. An individual's potential to mobilize self-care resources is reflected in three states of coping: arousal, equilibrium, and impoverishment. These states were synthesized from Hans Selys's (1974) general adaptation syndrome and George Engle's (1962) psychosocial responses to stressors in order to form a model from which nurses could predict an individual's potential to cope with stress. Arousal and impoverishment are both described as stress states; however, an impoverished individual possesses diminished, if not depleted, resources available for mobilization thus increasing the risk for maladaptation in response to stressors (Erickson et al., 1983). A good potential for

mobilizing coping resources characterizes people in equilibrium . Movement among the states is dynamic versus unidirectional and influenced by ability to cope with stressors.

The authors also propose that basic-need deficits result in a threat to the individual that creates anxiety and utilizes more resources than do growth-need deficits, promoting a defensive activity state. Additionally, an individual's social network may be perceived as energy depleting or energizing.

Lazarus' theory of stress and coping supports the importance of the process of individual cognitive appraisal of threat in producing stress reactions. Lazarus (1991) emphasizes that psychological stress and emotion " . . . are not generated per se by factors in the environment or by intrapsychic processes, but by person-environment relationships that change over time and circumstance" (p.819). He defines cognitive as meaning knowledge and appraisal of what is happening in the adaptational encounters of living. He defines appraisal as involving evaluation of the personal significance of encounters with the environment.

Lazarus (1991) differentiates emotions from reflexive responses by pointing out that no single stimulus is capable of eliciting any emotion regularly in all intact persons. He illustrates this point by delineating pain and pleasure as reflexive responses to physical stimuli that produce sensory reactions. He states that pain tolerance and possibly pain thresholds can be influenced by appraisal and by the anxiety about pain that it produces, thereby dampening or enhancing both pain and pleasure. He concludes that appraisal is a key factor in the evolution of adaptational processes.

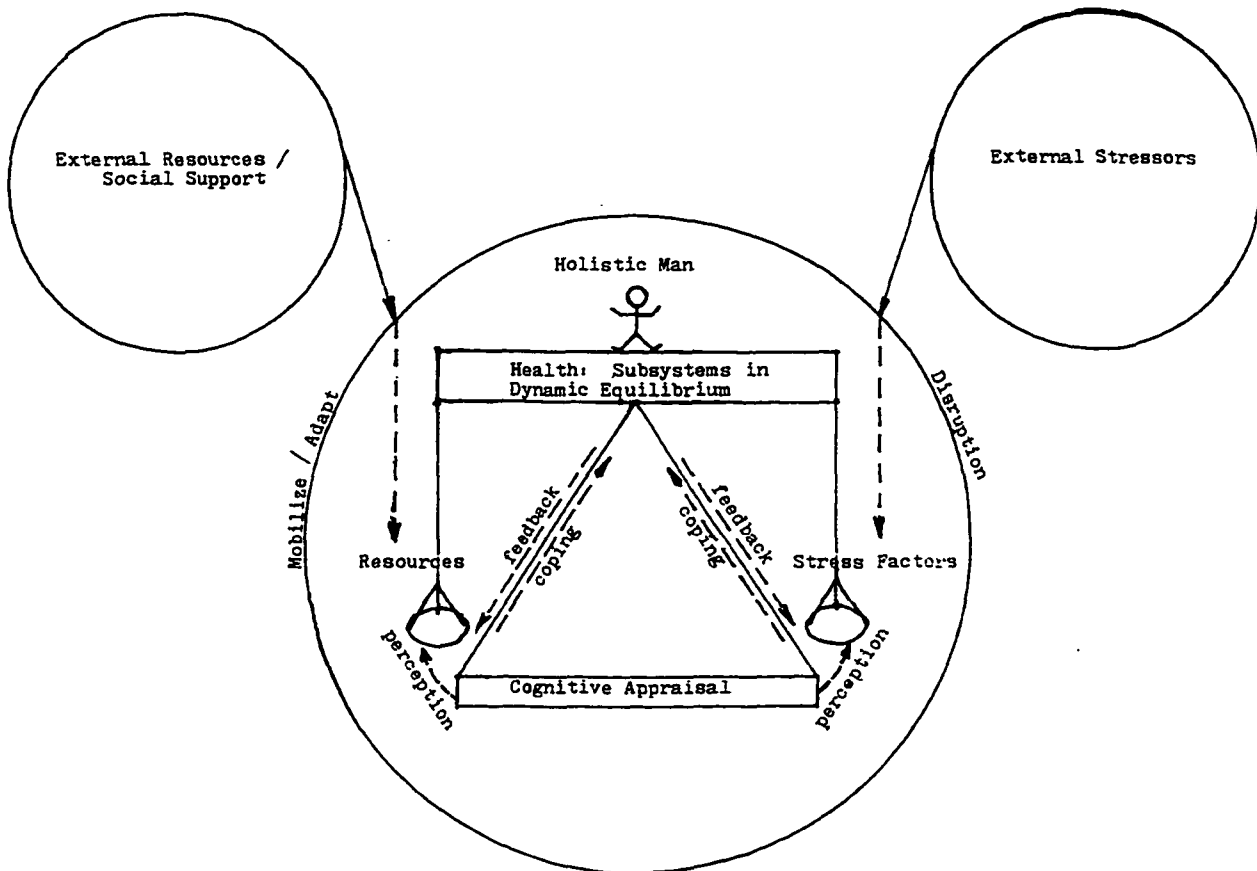
Propositions underlying Lazarus' theory of stress and coping that form a framework for

this study include:

- 1) A stimulus must be regarded by a person as a threat to his welfare in order for stress responses to be produced.
- 2) Psychologic stress exists when demands [stress factors] tax or exceed available resources (internal and external) based on the involved person's appraisal.
- 3) An individual's cognitive appraisal of an event(s) mediates his/her level of stress reaction.
- 4) The stress experience is a transactional process between the person and his environment; the person perceives a situation, responds according to his appraisal of it, receives feedback which enables him to evaluate the effectiveness of his coping behavior and forms a new appraisal based on his evaluation, enabling him to shape the stress experience and its future results (Zimrin, 1986).

Using Modeling and Role Modeling (Erickson et al., 1983) and Lazarus' (1964) stress and coping theory, a linkage would seem to exist between levels of basic need satisfaction and social support and a person's adaptive potential which subsequently has an impact on ability to cope with life stress. Assuming that basic need satisfaction and the perception of positive social support represent factors that increase an individual's ability to mobilize resources and that traumatic injuries represent a result of disruption of the subsystems composing holistic man tilting the scale toward stress, Figure 1 illustrates the relationship of these factors. The diagram shows the relationship of social support and stress factors as forces to the maintenance of dynamic equilibrium among the subsystems.

Figure 1. The Impact of Resources and Stressors on Dynamic Equilibrium and Adaptive Potential in Holistic Man.



Literature

Literature reviewed explored linkages between the major concepts of interest, social support and basic need satisfaction, as they relate to adaptive potential. The concept of coping was additionally sought in the literature to illuminate coping in the adult trauma victim, the broader focus of this study.

Cobb (1976) operationally defined social support as information leading subjects to believe that they are cared for and loved, esteemed and valued, and part of a network of communication and mutual obligation. He emphasized that social support is protective, facilitating coping by moderating the effects of major life transitions and unanticipated crises. Cobb stated, "It appears that social support can protect people in crisis from a wide variety of pathological states . . ." (p. 300). "Social support may reduce the amount of medication required, accelerate recovery, and facilitate compliance with prescribed medical regimens" (Cobb, 1976, p. 300).

Using the theoretical frameworks of Cobb and others, Cohen (1989) addressed occupational stress among nurse executives. Her article focused on the need for nurse researchers to identify the components of social support that would potentially moderate stress. She described the intensity of the demand for adaptation to promote homeostasis as being of key importance. She pulled two main effects of social support from the theoretical framework of La Rocco, House, and French (1980): a) direct enhancement of well-being by offsetting the negative effects of stress through meeting important human needs of security, social contact, approval, and affection, and b) direct reduction of levels of work stress, minimizing interpersonal pressures through supportive supervisors and coworkers.

A qualitative study by Williams (1992) examining family coping with childhood cancer compared parents' perceptions of the helpfulness of various activities performed by health professionals with the perceptions of health professionals involved in the care of their children. Activities that met the affective needs of the parents were identified by them as

being most supportive. "The ability to listen well and to show compassion were important aspects of affective support. Caring was a central theme expressed by the parents. . . " (Williams, 1992, p. 182). Williams performed an average of thirteen structured observations per family lasting five minutes each and in-depth interviews. The small, nonrandom sample of fifteen families is a limitation in this study. A social network inventory modified from McCallister and Fischer (1983) was used without establishing reliability. Face validity was established by comparing the inventory findings with the interview data. Despite the fact that health professionals thought caring and educational activities were two ways to offer families support, parents rarely mentioned teaching as a supportive activity.

Two very different studies published in 1986 are particularly applicable to the examination of the relationship between social support and success in coping. Zimrin (1986) studied a sample of 84 children under the age of 5 attending a mother and child clinic in a homogenous neighborhood with a lower-class population. A longitudinal, two-group ex post facto design was used for this fourteen year follow-up prediction study which examined the relationship between possession versus non-possession of eight character variables and success in psychosocial adjustment after child abuse. The eight identified traits were fatalism, self-esteem, cognitive abilities, self-destructiveness, hope and fantasy, behavior patterns, and external support.

Children possessing the eight character variables demonstrated significantly more success in psychosocial adjustment ("survival"). Important differences identified between survivors and non-survivors were: 1) activity as opposed to passivity and regression, 2) a

positive evaluation of personal resources as opposed to a negative evaluation, and 3) the existence of a significant relationship with an external figure as opposed to the absence of such a relationship. Limitations of the study included the lack of random sample selection which makes generalization tentative and the small sample size of 28 in the abused children group. Also, validity and reliability were not reported for the five measures used. One strength of the study was the extended period over which observation of coping and adjustment took place. A combination of qualitative and quantitative methods of measurement for every variable was also a strength.

The second study by Muhlenkamp and Sayles (1986) used a convenience sample of 98 adults residing in a large apartment complex in a southwestern city. A descriptive correlational design using three self-report questionnaires (including the Personal Resource Questionnaire Part II) was used to measure the relationship between social support and self-esteem and the influence of both on positive health practices.

The study found that respondents with high self-esteem perceived their social support to be adequate, and they maintained more positive health practices than those with lower levels of self-esteem and social support. As with Zimrin's (1986) study, the lack of a random sample is a limitation. Causal relations were implied rather than demonstrated and findings may have been sample specific. The ability to generalize from the study findings is expanded, however, by the similarity of mean scores for social support to means reported in other studies according to the authors (Muhlenkamp & Sayles 1986).

An external source of support and reinforcement was a key to health/wellness in both studies. Zimrin (1986) found that hope, self-image, and a positive person who

encouraged, empathized, and inspired confidence were significantly related to "survival" among abused children. Muhlenkamp and Sayles (1986) described social support as necessary throughout the lifespan and involving interpersonal interactions that produce a sense of belonging, communicating a positive affect.

Kline Leidy's (1990) descriptive correlational study of symptomatic experience in people with chronic obstructive pulmonary disease (COPD) supported the hypothesized positive relationships between psychosocial attribute strengths as a significant predictor of basic need satisfaction, basic need satisfaction as a significant predictor of perceived stress, and basic need satisfaction, perceived stress, and disease severity as significant predictors of symptomatic experience. Using the theoretical framework of Modeling and Role Modeling (Erickson et al., 1983), Kline Leidy used the Modified Erikson Psychosocial Stage Inventory (Darling-Fischer & Kline Leidy, 1988) to measure the responses of 109 subjects sampled by cross-sectional mail survey. Fifty-eight males and fifty-one females with COPD responded to 80 simple theory-based statements describing the psychosocial attributes associated with each stage of Eriksonian development. A 5-point scale for each item offered responses ranging from "hardly ever true" to "almost always true." Eight subscale scores and an aggregate score were calculated to indicate psychosocial attribute strength across stages. Aggregate score reliability was given as $\alpha = .94$ and construct validity described as strong. Basic need satisfaction was measured by the 27 item Basic Need Satisfaction Inventory where respondents rated on a scale of 1 (terrible) to 7 (delighted) how they felt about various aspects of their lives. Five subscale scores and an aggregate score reflected an individual's overall sense of need

satisfaction. Perceived stress referred to negative life experiences during the previous 12 months. A negative change score was computed on a modified version of the Life Experiences Survey (Sarason, Johnson, and Siegel, 1978). There was a moderate relationship between negative change score and the general stress rating ($r = .49$, $df = 100$, $p < .0001$). Gender effects were tested. Females reported significantly higher stress levels than males ($t = 2.19$, $p < .05$). Disease severity was tested by pulmonary function test. Symptomatic experience was defined as the perception of the frequency of various symptoms, intensity of dyspnea, and frequency of exacerbations during the previous year. These three indices were strongly and significantly intercorrelated. The symptomatic experience levels reported by females were significantly higher than males ($t = 3.69$, $p < .001$).

Nearly 40% of the variance in symptomatic experience could be accounted for by the variables of psychosocial attribute strength, basic need satisfaction, and perceived stress. Kline Leidy concluded that nursing care designed to promote the meeting of basic needs, directly and indirectly (by strengthening psychosocial attributes) might foster client attitudes of challenge, reduce their perceptions of stress, and assist them in avoiding or minimizing potentially harmful stress responses. Generalizability to a younger population suffering acute injury is tentative.

Summary. The concept of social support has been extensively studied, the literature providing a broad range of quantitative and qualitative data from studies of both children and adults. Healthy and chronically ill subjects primarily composed the samples in the studies reviewed. Studies of subjects experiencing acute or episodic health crises such as

traumatic injury represented an area less commonly researched. Overall, the studies reviewed supported the positive effect of an external source of support on health and/or coping. The findings of these studies would be strengthened by replication or related research using larger samples.

Basic need satisfaction was also studied in a chronically ill adult sample. However, Kline Leidy's (1990) use of Modeling and Role Modeling (Erickson et al., 1983) theory offered a common foundation from which to hypothesize concerning the relationship of basic need satisfaction levels to acute, episodic illnesses such as traumatic injury. Additional studies of basic need satisfaction levels and adaptive potential would lend support to the hypotheses formed for this study. The lack of literature discovered exploring the correlation between levels of social support and basic need satisfaction and the incidence of traumatic injury in adults is a significant weakness.

Research Question and Hypotheses

Though these and other studies clearly link higher levels of basic need satisfaction and social support with more effective coping (better adaptive potential), the relationship of these concepts and adaptive potential to the incidence of traumatic injury in adults is not well established. This study describes their relationships in an attempt to discover whether an important area for disease prevention/health promotion efforts may be escaping the attention of the healthcare community.

This study sought to answer the question: What is the relationship between basic need satisfaction and traumatic injury and social support and traumatic injury in adults? Based on assumptions stemming from a consideration of Modeling and Role Modeling (Erickson

et al., 1983) and the work of Lazarus (1964) and a review of relevant literature, the following hypotheses were formulated: a) Subjects who experienced trauma in the last year will report less basic need satisfaction than those who have not experienced trauma in the last year, b) subjects who experienced trauma in the last year will report lower personal resources/social support than people who have not experienced trauma in the last year.

Definitions

The major concepts for this study are defined as follows:

1. basic need satisfaction - according to Maslow's (1968, 1970) theory, the gratification of essential needs in an inexact hierarchy of relative predominance, including physiological needs, safety and security needs, love and belongingness, and self-esteem/esteem for others (Kline Leidy, 1994).
2. social support - information that leads persons to believe they are loved, esteemed, and a member of a network of mutual obligations (Cobb, 1976); relationships which involve an exchange of emotional comfort or nurturance, intimacy, assistance/guidance, problem-solving, and affirmation of worth (Brandt & Weinert, 1981).
3. traumatic injury - physical damage, impairment or loss arising from an exchange of energy with a source external to the body; a physical injury severe enough to require medical attention. The first two concepts stem from the theoretical framework of Modeling and Role Modeling, highlighting Erickson's (1983) incorporation of Richard Lazarus' works examining human responses to stress and Abraham Maslow's theory of basic need satisfaction.

CHAPTER 3

METHOD

Design

This study used a descriptive correlational design. A convenience sample was obtained from a single source, adults attending a week end drill meeting of the United States Army Reserve. Data on perceived availability of social support and basic need satisfaction were collected from the respondents.

The greatest threat to internal validity in this study was a lack of control over extraneous variables. Threats to external validity included potential non-representativeness of the accessible population for generalization to the target population.

Sample

Subjects were obtained from members of a U. S. Army Reserve unit attending a week end meeting in a mid-sized urban community. All subjects selected were seventeen years of age or older. Only subjects who willingly consented to participate in this study after being informed of its purpose and process were included. Subjects were of necessity English speaking and literate (able to read and complete a written questionnaire). This sample was selected as an interesting representation of the primary age group for adults effected by traumatic injury in the U. S.; as stated in chapter 1, injuries are the leading cause of death for ages 1-44 (Baker et al., 1992).

A convenience sample was the method employed for this study. This method was

chosen as a result of deciding to look at a specific population, trauma victims, and their responses, requiring a convenience sample for the practical collection of data. A sample of 150 subjects was approached for the study. Eighty six completed questionnaires were returned for a participation rate of 57%.

Instruments

Two instruments were used to collect data, the Personal Resource Questionnaire (PRQ85-Part II) by Brandt and Weinert (1981) and the Basic Needs Satisfaction Inventory by Kline Leidy (1994). Written permission for use was obtained from the authors of both instruments (See Appendix D).

PRQ85-Part II. The PRQ85-Part II is designed to measure perceived availability and intensity of social support. The instrument is composed of a 25-item questionnaire in a seven-point scale format measuring the relational dimensions of intimacy, social integration, nurturance, worth, and assistance. Response options range from strongly disagree to strongly agree. Total scale scores range from 25 to 175 with higher scores indicating higher levels of perceived social support.

In order to establish construct validity of the PRQ85, a study was performed in 1987 comparing the tool ". . . with five other prominent measures of social support and with one measure of individual affective state to examine convergence across support measures and to discriminate between social support measures and individual affective states" (Gibson & Weinert, 1987). Convergent validity correlations between Part II of the PRQ and other social support scales and subscales ranged from .40 - .74 ($p < .01$). A correlation matrix of the six social support measures examining the relationship of each to

the Profile of Mood States (McNair, Lorr, and Droppleman, 1971) was used to establish the discriminate validity of the PRQ85. There as a weak, negative relationship between the PRQ85 and the Profile of Mood States ($r = -.29$, $p < .01$). A study by Muhlenkamp (1985) of 132 older persons living in trailer park or mobile home settings in the Southwest reported an internal consistency (Cronbach's alpha) of .87 for the total scale. Results from a second study by Catanzaro (1986) of 100 middle-aged adults found a total scale alpha of .90. A third study by Weinert (1987) of 132 middle-aged men and women produced a total scale apha of .89. Cronbach's alpha reliability for the PRQ in this study was .91.

Basic Need Satisfaction Inventory. The Basic Need Satisfaction Inventory (BSNI) is designed to operationalize the construct of need satisfaction. Kline Leidy (1994) used 123 subjective social indicators of life concerns developed by Andrew and Withey (1974) to develop items for the BNSI. Items were classified into five need subscales, rewording one item, adding one new one, and eliminating irrelevant items. Sampling adequacy of the content and suitability of classification of items used were attested by two scientists conversant with Maslow's theory, establishing content validity (Kline Leidy, 1994).

The BNSI is a 27-item instrument asking subjects to rate, on a scale of 1 (terrible) to 7 (delighted), how they feel about various aspects of their lives (Kline Leidy, 1994). Each item fits into a subscale representing one of Maslow's five basic need categories with a ". . . global evaluation of life as a whole included at the end of the instrument" (Kline Leidy, 1994, p.282). The mean value of each subscale reflects the subjective evaluation of satisfaction in each need category. The total score, the mean of the means across subscales, reflects overall perception of need satisfaction.

The BNSI was tested for internal consistency reliability and construct validity using two samples, the healthy elderly and elderly COPD patients. Cronbach's alpha was used to estimate internal consistency of the subscales using casewise deletion of missing data (Kline Leidy, 1994). Coefficients of .72 for physiological needs, .74 for safety needs, .69 for love-belongingness, .76 for esteem/self-esteem, and .76 for self-actualization were obtained. Total scale alpha was .92 (N=106). Cronbach's alpha reliability for the BNSI in this study was 0.93. Construct validity was explored by examining interrelatedness of subscales for the hierarchical relationship proposed by Maslow, examining strength of correlation between adjacent subscales as compared with nonadjacent scales in both samples (Kline Leidy, 1994). Pearson correlation procedures were used to measure significant relationships between the BNSI and four other hypothetically related measures including a measure of perceived stress. Significant relationships were found in both samples.

To further explore validity, three working hypotheses were tested using an analysis of covariance (ANCOVA) regression approach and multivariate ANCOVA. The three hypotheses that: (a) physical and self-actualization subscale scores will differ significantly between chronically ill and healthy subjects, (b) no gender differences will be found in subscale and total scores, and (c) marital status will be a significant predictor of basic need satisfaction and specifically love-belongingness were all supported.

Questions related to trauma. The questionnaire included the definition of traumatic injury developed for this study (the latter part only). Respondents were then asked to reply yes or no to the question of whether they had experienced traumatic injury within the

last year. If they had experienced a traumatic injury, they were asked to indicate the mechanism involved (ex. motor vehicle crash) and the actual injury(ies) sustained using a list provided. Questions related to age, marital status, gender, education level, employment status, and race were asked in order to collect data consistent with Brandt and Weinert's (1981) tool. Questions concerning chronic disease history and prior traumatic injuries were of interest in relation to Kline Leidy's (1994) study and tool measuring basic need satisfaction (See Appendix E).

Procedure

A verbal presentation of the purpose of the study was given to the Army Reserve unit by the investigator with the commanding officer's permission. Questionnaires plus a written explanation of the study and its purpose (see Appendix A) were then distributed. Questionnaires were completed in an open meeting hall; members were provided time to participate by their officers. The two self-report type instruments previously described were used for measurement of each subject's cognitive appraisal of the availability and intensity of social support and basic need satisfaction. No potential risks to subjects were identified. Confidentiality was maintained by instructing subjects not to put their names on the questionnaire and to seal the questionnaire in an unmarked envelope provided.

Questionnaires were handed back by placing them in a box provided by the investigator. Human subject approval was obtained from the Human Research Review Committee at Grand Valley State University prior to initiating the data collection process.

CHAPTER 4

DATA ANALYSIS

Data were analyzed using various statistical tests to explore the stated hypotheses for the study as well as other questions of interest related to the study. The relationships of basic need satisfaction levels and social support levels to the incidence of traumatic injury were central to the data analysis.

Sample

The 86 subjects sampled ranged in age from 17 years to 59 years ($m=30$, $SD=10.5$). Fifty two subjects were male, 32 female, and 2 did not indicate gender. Seventy five of the subjects were Caucasian (87.2%), and 7 African American. Forty (46.5%) of the 86 respondents were married and 28 (32.6%) were single. The majority, 50% of the respondents, had attended some college. Twenty four percent had completed college, 14% high school, 8% master's degrees, and 3.5% held doctoral degrees. Sixty three subjects (73.3%) were employed full-time (at least 30 hours per week) and 12 (14%) were regular part-time (20 - 29 hours per week) employees (see Table 1). Although the exact number was not obtained, the majority of female respondents were nurses.

Trauma Experience

Sixty four (75.3%) of the respondents reported no traumatic injury in the past year. A total of 21 respondents (24.7%) reported experiencing traumatic injury requiring medical attention in the past year. One individual did not respond. Eleven subjects reported one injury, 5 reported 2 injuries, 4 reported 3, and 1 person reported 4 or more injuries. Forty

Table 1

Demographic Characteristics

Characteristic	Frequency	Percent*
Gender n=84		
Male	52	61.9
Female	32	38.1
Race n=85		
Caucasian	75	88.2
African American	7	8.2
Hispanic	1	1.2
American Indian	1	1.2
Asian/Pacific Islander	1	1.2
Marital Status n=86		
Married	40	46.5
Single	28	32.6
Divorced	8	9.3
Separated	4	4.7
Cohabiting	6	7.0
Education Level n=86		
High School	12	14.0
Some College	43	50.0
College	21	24.4
Master's Degree	7	8.1
Doctoral Degree	3	3.5
Employment Status n=85		
Full time	63	74.1
Regular/part time	12	14.1
Irregular/part time	8	9.4
Unemployed/retired	2	2.4

*Percentages calculated from available data.

five subjects (52.3%) indicated they worked in an environment that placed them at increased risk for physical injury (see Table 2). The most commonly reported mechanisms of injury were sports (n=12), motor vehicle crashes (n=5), blunt force (n=5), machinery related (n=4), penetrating force (n=4), and falls (n=3) (see Table 3). One near drowning/asphyxiation, and one burn were reported. Injuries reported included 9 abrasions/lacerations, 7 head injuries, 4 facial injuries, 2 extremity fractures, 1 pelvic fracture/hip dislocation, 1 spine injury, 1 rib/clavicle/sternum fracture, 1 internal injury, and 5 other (foreign body in the eye, muscle injury, ligament/tendon injuries) (see Table 4).

In the previous five years, twelve subjects had experienced one physical injury requiring emergency care, while 22 had experienced two or more injuries. The mean number of injuries in the previous 5 years was 1.1.

Need Satisfaction and Social Support

Total BNSI scores ranged from 51 to 176 with a total possible score of 189. The mean total score for all subjects was 135.6 (SD=20.3) and the median was 138. PRQ (Part II) total scores ranged from 57 to 173 with a total score possible of 175. The mean was 130.8 (SD=22.7) and the median was 136. The broad total score point ranges of 125 and 116 respectively were of interest. Subscale mean scores were not analyzed for either variable.

Hypotheses

The following hypotheses were tested: a) Subjects who have experienced trauma in the last year will report lower basic need satisfaction than people who have not

Table 2

Categories of High Risk Work Environments

Category	Frequency	Percent
<hr/>		
Construction/Heavy Equipment/Industrial	19	22.6
Medical/Health Care	12	14.3
Public Safety/Security	4	4.8
Agriculture/Lawn Care	3	3.6
Glass Work	1	1.2
Truck Driver	1	1.2
Field Work/Nature	1	1.2
Back Injury Risk	1	1.2
Chemist	1	1.2

Table 3

Mechanisms of Injury Requiring Medical Attention in the Past Year

Mechanism	Frequency Percent	
Sports injury (not falls)	12	14.0
Motor vehicle crash/ Motorcycle crash	5	5.8
Hit by blunt instrument	5	5.8
Injured by machinery	4	4.7
Penetrating injury	4	4.7
Fall	3	3.5
Pedestrian/bike rider struck by motor vehicle	1	1.2
Electrical shock	1	1.2
Near drowning/Asphyxiation	1	1.2
Other		
Foreign object in eye	1	1.2

Table 4

Specific Injuries Sustained in the Last Year

Type of Injury	Frequency	Percent
Abrasions/lacerations	9	10.5
Head	7	8.1
Facial	4	4.7
Ligament/cartilage/ tendon injury	4	4.7
Fractured extremity	2	2.3
Fractured ribs/ clavicle/sternum	1	1.2
Pelvic fracture/ Hip Dislocation	1	1.2
Internal Injury	1	1.2
Crushed muscle	1	1.2
Occular injury	1	1.2

experienced trauma in the last year, and b, subjects who have experienced trauma in the last year will report lower personal resources/social support than people who have not experienced trauma in the last year. One tailed t-tests were used to examine differences between independent samples of subjects who did and did not experience trauma in reference to basic need satisfaction and social support.

Mean BNSI scores for individuals having experienced traumatic injury were not significantly different from those who had not experienced injury ($t=-.52$, $df=79$, and $p=.60$) (see Table 5). In other words, the level of basic need satisfaction as measured by the BNSI in this study was not lower in injured persons as hypothesized. Mean PRQ scores for individuals having experienced traumatic injury as compared to those who had not was similarly non-significant ($t=.04$, $df=80$, and $p=.97$) (see Table 6). Once again, the level of social support was not found to be lower in injured persons as hypothesized. Neither hypothesis was supported.

In order to compare groups more similar in size, 20 cases were randomly selected from the 64 cases in the non-injured group to compare BNSI scores to the 21 cases in the injured group. No significant difference in total scores was found ($t=.88$, $df=39$, $p=.38$). A t-test for independent samples of injury groups was also performed comparing total PRQ scores of 19 randomly selected non-injured subjects to those of 19 injured subjects. No significant difference was found ($t=.49$, $df=36$, $p=.63$). A separate versus pooled formula for df was used.

Injury Number

Two groups were constructed by categorizing subjects according to number of injuries

Table 5

**T-tests for Equality of Mean Basic Need Satisfaction Inventory Scores in Respondents
Reporting Traumatic Injury and Those Reporting No Traumatic Injury**

Variable	Number of Cases	Mean Score	SD	t-value (Equal)
BNSI Score n=81				
Injured	21	137.5	19.1	-.52
No Injury	60	134.8	20.9	
df*	2-tail sig			
79	.602			

*Separate formula used for df versus pooled formula.

Table 6

T-tests for Equality of Mean Personal Resource Questionnaire (Part II) Scores in
Respondents Reporting Traumatic Injury and Those Reporting No Traumatic Injury

Variable	Number of Cases	Mean Score	SD	t-value (Equal)
PRQ Score n=82				
Injured	19	130.3	21.7	-.04
No injury	63	130.6	23.1	
df*	2-tail sig			

80 .965

*Separate formula used for df versus pooled formula.

reported in the last year (1 injury, and 2-4 injuries). Total scores on the BNSI and PRQ were then analyzed separately by category of injury number to see if subjects reporting repeated injury showed higher or lower levels of basic need satisfaction and social support than those with single injuries. No significant difference was found between total BNSI scores in groups one and two for injuries sustained in the last year ($t=.25$, $df=19$, $p=.81$). Similarly, no significant difference was found for total PRQ score by single versus multiple injuries in the last year ($t=1.42$, $df=17$, $p=.17$). Correlations between experience of single versus multiple trauma and basic need satisfaction and social support were very weak and not significant (Eta squared =.01 and .03 respectively).

Gender

Gender effects were of specific interest since death from traumatic injury is reported to occur more often in males (Baker et al., 1992). Of the 21 people who had injuries, 60% were men. T-tests for independent samples of gender were performed. The t-test for equality of means of BNSI scores revealed no significant differences for gender ($t=.76$, $df=78$, $p=.45$). Likewise there were no gender differences on social support mean scores ($t=1.51$, $df=79$, $p=.13$). A t-test for number of traumatic injuries experienced in the last year by males as compared to females showed no significant differences.

Age

Age was also a variable of interest since the death rate from unintentional traumatic injury is reported to be highest in adult males age 20 to 24 (Baker et al., 1992). T-tests for mean total BNSI scores and mean total PRQ scores by subgroups of age above and below the median in each category revealed no significant differences.

Marital Status

A t-test was performed analyzing mean BNSI scores and mean PRQ scores for two groups by marital status to examine differences in scores by level of attachment. Group one was composed of single, separated, divorced, and widowed respondents. Group two included married and cohabiting subjects. Mean BNSI scores for individuals in group one as compared to those in group two were not significantly different ($t=-.91$, $df=80$, and $p=.37$), although mean scores for group two were higher. Mean scores for personal resources/social support reported by those who were married and cohabiting were significantly higher than were those reported by subjects in the "unattached" marital categories ($t=-2.6$, $df=81$, $p=.01$).

Within each marital status group, the relationship between social support and basic need satisfaction was examined. BNSI and PRQ scores were strongly correlated for each group. Pearson correlation coefficients for BNSI scores and PRQ scores in group one showed an $r=.76$, $p<.001$; group two (married or cohabiting) showed an $r=.84$, $p<.001$.

Summary

Neither hypothesis, that lower basic need satisfaction levels and lower social support levels would be reported by people who had experienced trauma in the last year than by those who had not, was supported. Analyses for differences in scores by injured versus non-injured individuals, single versus multiple injuries, age and gender showed no significant differences. Mean PRQ scores were significantly higher in married and cohabiting individuals, and personal resources and basic need satisfaction were strongly related.

CHAPTER 5

DISCUSSION AND IMPLICATIONS

Discussion

The theoretical frameworks of Modeling and Role Modeling (Erickson et al., 1983) and Lazarus (1964) lead one to expect and hypothesize that individuals who experience traumatic injury possess pre-existing lower levels of basic need satisfaction and social support. Anecdotal data suggests many trauma patients have fragmented families or troubled social networks, limited financial resources, disrupted employment, and problems with alcohol/illicit drug abuse. As stated in Chapter 4, the hypothesized relationships between basic need satisfaction and social support levels and the incidence of traumatic injury were not supported by this study. No significant differences in levels of basic need satisfaction and social support were found with increasing numbers of injuries experienced as expected. The fact that only 24% of the sample had been injured in the past year and the relatively small subsequent numbers ($n=21$) in the focal group made it difficult to adequately test for any differences. The relationship between basic need satisfaction and social support and increasing numbers of injuries was very weak and not significant.

Theoretical Framework

An important question is raised by the results of this study as to the practical use of the theoretical framework of Modeling and Role Modeling (Erickson et al., 1983) for predicting cases of sudden, acute illness/injury. Erickson et al. (1983) maintain that, "Once the nurse has determined the individual's potential for mobilizing resources and has

a sense of how that person models his or her world, the nurse will have a good understanding of the client's ability to mobilize resources to contend with current stressors and the potential effect of future stressors." Basic need satisfaction and social support are important parts of "resource potential" and must be assessed but are not inclusive of other important data to be analyzed in gaining this thorough understanding discussed by the authors.

One finding of this study consistent with the theoretical framework of Modeling and Role Modeling (Erickson et al., 1983) was that marital status was found to correlate strongly with levels of social support reported. Individuals who were in what might be considered "attached" relationships (married and cohabiting) reported significantly higher levels of social support than did those who were "unattached" (single, divorced, separated, widowed). Authors such as Zimrin (1986) and Muhlenkamp and Sayles(1986) have found significant correlations between external sources of support and health/wellness.

Significant differences between BNSI total scores in marital status groups were not found as they were in Kline Leidy's (1994) study on a sample of older adults with chronic obstructive pulmonary disease. Kline Leidy (1994) described marital status as a rough approximation of intimacy or an affectionate relationship with others, consistent with Maslow's description of the need for love-belongingness. Perhaps marital status had less bearing on perception of basic need satisfaction in a younger, healthier population than on the chronically ill elderly sampled by Kline Leidy. The correlation between total BNSI scores and PRQ scores in this study was strong for both unattached and attached groups.

Research studies of trauma patients using the theoretical framework of Modeling and

Role Modeling (Erickson et al., 1983) were not discovered. Studies on adults with chronic illnesses using Modeling and Role Modeling or components of it are much more readily available for comparison.

Age and gender showed no significant correlation with basic need satisfaction and social support levels or with the incidence of traumatic injury in the population sampled. These findings are contrary to the statistics reported by Baker et al. (1992) on injury mortality. The authors state:

Males have much higher rates in each category of injury death. For unintentional injury, male death rates have one peak in the 20-24 age group and another among the elderly. For suicide, there are also two peaks, one at ages 20-29 and a higher peak in the 75 and older age group. For homicide, the single peak occurs at ages 20-29 (p.19).

Instruments

Both the BNSI and the PRQ(Part II) were easy to understand and practical in length. Both instruments were reported to demonstrate good reliability and validity. Chronbach's alpha reliability coefficients in this study for each of the tools were .93 for the BNSI and .91 for the PRQ (Part II). One limitation to their usefulness for this study was the lack of previous studies discovered using the instruments with adult trauma victims.

The broad range of total scores obtained from both instruments used in this study was interesting. Kline Leidy (1994) did not report total point score range on the BNSI in her study of COPD patients. Weinert (1987) evaluated the multidimensionality of the PRQ⁸⁵ (Part II) by combining data sets from three studies (Catanzaro, 1986; Muhlenkamp, 1985; Weinert, 1987). The combined sample consisted of 248 subjects who were primarily white,

middle-class adults drawn from the general population (Weinert, 1987). Mean scores from the samples ranged from 139 to 143. Differences between mean scores from the three studies were not statistically significant (Weinert, 1987). Total point range on the PRQ for this study was from 57 to 173. The mean was 130.8 (SD 22.7). Again, total point range on the PRQ (Part II) was not reported by Weinert (1987).

Limitations

One question to be considered with the specific sample used is the relationship of high levels of physical fitness to risk for physical injury. Members of the U. S. Army Reserve are screened for diseases/disabilities that would interfere with their ability to perform required duties. Regular, rigorous physical training is received by members as well as weight monitoring and control. Perhaps the physical state of the population sampled had some preventive effect on risk for traumatic injury. However, one might expect that individuals engaged in aggressive or high risk physical activities would provide a particularly interesting sample from which to test the given hypotheses. Sports related injuries heavily dominated the mechanisms of injury reported. One might conclude that this finding was influenced by the specific population sampled. Besides excellent physical fitness, the mean age being 30 years (with a mode of 22 years) and 60.5% male with 52.3% reporting employment in a high risk environment may have contributed to the predominance of sports and occupational injuries reported. A predominantly young, male convenience sample was selected in hopes that it would represent the target population more closely than some other convenience samples might since death by traumatic injury is reported to occur most frequently in young males (Baker et al., 1992). One might assume

that a fairly homogenous socioeconomic status in the sample collected may also have influenced findings. An anecdotal observation that most of the women sampled were nurses may have influenced the findings as well, assuming nurses exercise more caution or safety measures preventing traumatic injury. Perhaps examining only major mechanisms of trauma or severe injuries would demonstrate different levels of basic need satisfaction and social support..

The relatively small sample size of 86 may have been an important limitation of this study in discovering significant relationships between the variables of interest. A design other than the descriptive correlational design used may also have revealed different findings.

Another limitation was the lack of similar studies for comparison using larger samples and/or random samples. Such comparison would shed light on the impact sample size and the use of convenience sampling had on results obtained.

Implications for Nursing

The findings of this study specifically have limited usefulness for nursing in the prediction and/or prevention of traumatic injury. The importance of nurses acting as or accessing an external source of support for patients and/or family members is clearly established in the literature and should be emphasized. Recognizing the social support needs of "unattached" individuals (single, separated, divorced, widowed) is particularly important as nurses attempt to facilitate adaptation toward health/wellness. A suggestion for practice would be the referral of such individuals to pertinent support groups. For example, trauma victims experiencing Post Traumatic Stress Disorder could be referred to

a counseling/support group if such a group were available. Elderly individuals could be encouraged to access community resources such as a Senior Center to strengthen their social network, etc.

Recommendations

Replication of this study or performance of similar studies using larger samples and random samples is recommended. The study of basic need satisfaction and social support levels in an actual trauma patient population at various intervals throughout their recuperative process would be interesting. The relationship of perceived levels of basic need satisfaction and social support to healing and other aspects of physical or emotional adaptation could be more firmly established by such research.

Another approach would be the performance of a prospective study of the incidence of traumatic injury in a large sample over the span of a year or more after measuring levels of basic need satisfaction and social support. This design would be helpful to the investigator in identifying competing explanations.

A question for further research is the relationship of alcohol/illicit drug use to basic need satisfaction levels, social support levels and the incidence of traumatic injury. For the purpose of this study, the addition of questions related to alcohol/illicit drug use would have complicated the Human Subjects Approval and informed consent processes. Baker et al. (1992) state that, "High death rates in the 15-24 age group (e.g., from firearms, drownings, and motor vehicles) are partly due to increasing use by males beginning in their early teens, of alcohol and potentially lethal products such as guns and motorcycles" (p.43).

Finally, research study of trauma patients using Modeling and Role Modeling (Erickson et al., 1983) or any other nursing theoretical framework is limited and must be emphasized for the future as trauma tops the list of the leading causes of death among young people in the United States (Baker et al., 1992). Studies involving examination of the role of the nurse and nursing interventions on trauma prevention, recovery of trauma patients in the acute care setting, and the long-term rehabilitation of major trauma victims will greatly assist nursing in its use of a scientific approach to trauma care.

Appendix A

Cover Letter

In this day and age of stress, it has been suggested that relationships may effect the way we view our lives and the things that happen to us. If this is true, we may be able to be more helpful to people by helping them build relationships. You have been asked to participate in this study as members of the wider Kalamazoo Community. It is hoped that you will be willing to give 15 minutes of your time to answer the questionnaire about support, how you view your life and any trauma you may have experienced in the last year.

If you agree to participate in this study, do not put your name on the questionnaire so all responses will be anonymous and confidential. Any information collected will be coded by number--your name will never be attached. All reports of the findings will be written in group format--no individual data will ever be reported. It is not anticipated that you will be harmed in any way by this study.

Your participation in this research study is voluntary and you are free to withdraw from participation at any time. The personal benefits to you are limited. This study is being conducted by Gail Mercer, a registered nurse and student in the Master's of Science in Nursing program at Grand Valley State University. If you have any questions she can be contacted at the following number: 327-6405.

Appendix B

Verbal Explanation Script

My name is Gail Mercer and I'm a registered nurse and student in the Master's of Science in Nursing program at Grand Valley State University. I am completing the requirements for my master's by conducting a research study that looks at the supportive relationships in our lives and how those relationships might influence the things that happen to us. I am requesting your participation in the study which would involve taking one of the packets as they are handed out and completing two brief questionnaires. The completed questionnaires would then be returned to me by enclosing them in the sealed packets. Names will not appear on the questionnaires. Complete confidentiality will be maintained. Your participation in the study is strictly voluntary and may be withdrawn without notifying me simply by not responding to the questionnaires and returning them in the sealed packet. More detailed written instructions are enclosed in the packet. Thank you.

APPENDIX C

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Appendix D



Gail A. Mercer
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Kalamazoo, MI 49007

College of Nursing

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Telephone 406-994-3783
FAX 406-994-6020
October 22, 1991

Dear Ms. Mercer:


Thank you for your recent letter. I am pleased that you are interested in the PRQ85 for use in your research project. If you find it meets your needs, you have my permission to use it and reproduce as many copies as you will require. In this packet you will find a copy of the PRQ85, the directions for scoring, the suggested demographic information, and some additional results from the continued psychometric evaluation of the PRQ. Much of our work is published, but if you have specific questions please do contact me. Our latest article entitled "Social support: Assessment of validity", is in the July/August 1990 issue of Nursing Research.

As we continue to work with the refinement and development of the PRQ we are likewise beginning to collect and to collate data sets provided by researchers who have used the PRQ. One specific aim is to have a systematized data base that would provide a source of comparison across studies, populations, situations etc. If you are willing to share your data set we would be most happy to include it in this growing data base. I have included the list of demographic variables that should be sent with the data.

The PRQ has been designed with two distinct parts. Part 1 can address some aspects of the network structure and provides descriptive data regarding situational support. Part 2 is a scale developed to measure the level of perceived social support based on the work of Robert Weiss. While Part 1 can be used without Part 2 or Part 2 without Part 1 we ask that no items or questions be changed/deleted, or the item sequence altered in any way. If you feel you need to change specific items to meet the aims of your research, I would ask that you submit them to me for review. I would be happy to discuss any questions or concerns you have in relation to your specific research.

If you decide to use the PRQ85 in your research please send us a letter with a brief description of your study. Students are to include the name of their research advisor. The tool must be identified, in your questionnaire, as the Personal Resource Questionnaire and authorship of the tool acknowledged in any publication or communication regarding the tool. Please send three dollars to help with the expenses of this mailing. Thank you for your interest in the PRQ. I wish you well in your research.

Sincerely,


Clarann Weinert, SC, PhD, RN
Associate Professor

Mountains and Minds • The Second Century



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health
National Institute of
Nursing Research
Bethesda, Maryland 20892

September 27, 1993


Gail A. Mercer
316 E. Chart St.
Plainwell, Michigan 49080

Dear Ms. Mercer,

Several months ago we had an enjoyable conversation about the Basic Need Satisfaction Inventory and your research at Grand Valley. At that time, I promised I would send you a manuscript describing the BNSI's development and testing, upon its acceptance for publication. I have recently been informed that the paper will be published in *Issues in Mental Health Nursing*, and am pleased to enclose a copy for your information. Whether or not you have decided to use the BNSI in your thesis research, please pass the paper on to Dr. Keck with my regards (and a friendly hello).

Please let me know if I can be of any further assistance. And continued best wishes for success in your graduate studies!

Sincerely,


Nancy Kline Leidy PhD, RN
Senior Staff Fellow, Intramural Program
Laboratory for the Study of Human
Responses to Health & Illness

enc.

Appendix E

Each person has his or her way of viewing a situation. The purpose of this portion of the questionnaire is to ask how you feel about various parts of your life. Please include the feelings you have **now** -- taking into account what has happened in the last year and what you expect in the near future.

In the blank next to each question, **place the number of the response from the terrible/delighted scale** that best reflects how you feel.

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly	Mixed	Mostly	Pleased	Delighted
		Dissatisfied	1/2 & 1/2	Satisfied		

HOW DO YOU FEEL ABOUT. . .

1. ____ The physical comfort of your home over all -- things like heat, water, lighting, ventilation considered.
2. ____ Your level of physical activity.
3. ____ Your family life over all.
4. ____ The chance you have to know people with whom you can really feel comfortable.
5. ____ The extent to which you are developing yourself and broadening your life.
6. ____ How secure you are from people who might steal or destroy your property.
7. ____ The amount of respect you get from others.
8. ____ Yourself.
9. ____ The way you handle the problems that come up in your life.
10. ____ How much you are accepted and included by others.
11. ____ The way other people treat you.
12. ____ Close adult relatives -- people like parents, in-laws, brothers, and sisters.
13. ____ The chance you have to enjoy pleasant or beautiful things.
14. ____ The reliability of the people you depend on.
15. ____ Your safety.
16. ____ How creative you can be.
17. ____ The amount of friendship and love in your life.
18. ____ Your sex life.
19. ____ Your own health and physical condition.
20. ____ The amount of fun and enjoyment you have.
21. ____ The sleep you get.
22. ____ How secure you are financially.
23. ____ How dependable and responsible people around you are.
24. ____ The extent to which your world seems consistent and understandable.
25. ____ The extent to which your physical needs are met.
26. ____ The ways you spend your spare time, your non-working activities.
27. ____ Your life as a whole.

Below are some statements with which some people agree and others disagree. Please read each statement and circle the number of the response most appropriate for you. There are no right or wrong answers.

1 = STRONGLY DISAGREE

2 = DISAGREE

3 = SOMEWHAT DISAGREE

4 = NEUTRAL

5 = SOMEWHAT AGREE

6 = AGREE

7 = STRONGLY AGREE

Statements:

28. 1 2 3 4 5 6 7 There is someone I feel close to who makes me feel secure.
29. 1 2 3 4 5 6 7 I belong to a group in which I feel important.
30. 1 2 3 4 5 6 7 People let me know that I do well at my work (job, homemaking, etc.)
31. 1 2 3 4 5 6 7 I can't count on my relatives and friends to help me with problems.
32. 1 2 3 4 5 6 7 I have enough contact with the person who makes me feel special.
33. 1 2 3 4 5 6 7 I spend time with others who have the same interests I do.
34. 1 2 3 4 5 6 7 There is little time in my life to be giving and caring to another person.
35. 1 2 3 4 5 6 7 Others let me know that they enjoy working with me (job, committees, projects, etc.)
36. 1 2 3 4 5 6 7 There are people who are available if I needed help over an extended period of time.
37. 1 2 3 4 5 6 7 There is no one to talk to about how I am feeling.
38. 1 2 3 4 5 6 7 Among my group of friends we do favors for each other.
39. 1 2 3 4 5 6 7 I have the opportunity to encourage others to develop their interests and skills.
40. 1 2 3 4 5 6 7 My family lets me know that I am important for keeping the family running.

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = SOMEWHAT DISAGREE
4 = NEUTRAL
5 = SOMEWHAT AGREE
6 = AGREE
7 = STRONGLY AGREE

Statements:

41. 1 2 3 4 5 6 7 I have relatives or friends who will help me out even if I can't pay them back.
42. 1 2 3 4 5 6 7 When I am upset there is someone I can be with who lets me be myself.
43. 1 2 3 4 5 6 7 I feel no one has the same problem as I.
44. 1 2 3 4 5 6 7 I enjoy doing little "extra" things that make another person's life more pleasant.
45. 1 2 3 4 5 6 7 I know that others appreciate me as a person.
46. 1 2 3 4 5 6 7 There is someone who loves and cares about me.
47. 1 2 3 4 5 6 7 I have people to share events and fun activities with.
48. 1 2 3 4 5 6 7 I am responsible for helping provide for another person's needs.
49. 1 2 3 4 5 6 7 If I need advice there is someone who would assist me to work out a plan for dealing with the situation.
50. 1 2 3 4 5 6 7 I have a sense of being needed by another person.
51. 1 2 3 4 5 6 7 People think that I'm not as good a friend as I should be.
52. 1 2 3 4 5 6 7 If I got sick, there is someone to give me advice about caring for myself.

TRAUMATIC INJURY - is an occasion where you have experienced some type of physical injury severe enough for you to seek medical attention at doctor's office, urgent care, emergency room, outpatient service, hospital, etc.

53. How many times have you experienced a traumatic injury in the past year?

0)___ none 1)___ one 2)___ two 3)___ three 4)___ four or more

If you answered **"none"** to question 53, go on to question 73.

If you answered **one or more** to question 53, answer the next twenty questions by thinking about each time you experienced a traumatic injury in the past year. If you were injured more than three times in the past year, think about only the first three times.

What mechanism was involved **each of the times** you experienced a traumatic injury? Check **all boxes that apply**.

Example: If you had two injuries, the first time you were in a motor vehicle crash and the second time you were on a bike, you would complete the boxes as follows:

First Time	Second Time	Third Time	
✓			54. motor vehicle crash/ motorcycle crash
	✓		55. bike/ moped/ ATV accident

First Time	Second Time	Third Time	Mechanism Involved:
			54. motor vehicle crash/ motorcycle crash
			55. bike/ moped/ ATV accident
			56. pedestrian or bike rider struck by a motor vehicle
			57. fall
			58. hit by a blunt instrument (ex. baseball bat, fist, etc.)
			59. injured by machinery (ex. industrial, agricultural, lawn mower, saw)
			60. penetrating injury (ex. arrow, bite, glass, knife, gunshot wound)
			61. burn (ex. chemical, fire, severe sun burn)
			62. electrical shock (ex. electrical wires, socket, lightening)
			63. near drowning or asphyxiation
			64. sports injury (other than a fall)
			other: (specify)

What **type of specific injuries** did you sustain each time you were injured. Again, think only about the injuries described in questions 54-64. **Check all boxes that apply.**

First Time	Second Time	Third Time	Type of Injury:
			65. facial injury
			66. head injury
			67. spine injury
			68. broken ribs, collar bone and/or breast bone
			69. broken extremity (write name of area in box: arm, wrist, hand, leg, ankle, foot, joint)
			70. pelvic fracture or hip dislocation
			71. abrasions (rubbing injury)/lacerations (cutting injury)
			72. internal injury (write name of area in box: neck, blood vessel, heart, lung, abdominal, kidney, bladder)
			Other (specify)

73-74. What was your age at you last birthday? _____ years

75. What is your current marital status?

1. _____ married 2. _____ single 3. _____ divorced 4. _____ widowed

5. _____ separated 6. _____ not married but living with someone in a close relationship

76. Gender: 1. _____ male 2. _____ female

77. What is the highest level of education you have completed?

1. _____ some high school 2. _____ high school 3. _____ some college

4. _____ college 5. _____ masters degree 6. _____ doctorate

78. Do you work in an environment that increases your risk of physical injury? (For example, industry with heavy equipment, agriculture, public safety)

0. _____ No 1. _____ Yes (If yes, explain _____)

79. What is your employment status?

1. _____ unemployed/retired 2. _____ irregular part-time (less than 20 hrs./wk.)
3. _____ regular part-time (20-29 hrs./wk.) 4. _____ full-time (at least 30 hrs./wk.)

80. Race:

1. _____ Caucasian 2. _____ African American 3. _____ Hispanic
4. _____ American Indian 5. _____ Asian/Pacific Islander 6. _____ Middle Eastern

81. Do you have a history of chronic disease?

0. _____ No 1. _____ Yes

82. Not counting the past year, how many times in the previous five years have you had to seek
emergency care for a traumatic injury? _____ times

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