THE RELATIONSHIP OF BURNOUT, LOCUS OF CONTROL, AND LEARNED HELPLESSNESS IN INTENSIVE CARE NURSES

by:

Lee W. Little, B. S., B. S. N., CCRN

A Thesis

Presented to

The Oregon Health Sciences University

School of Nursing

in partial fulfillment of

the requirements for the degree of

Master of Nursing

December 7, 1988

APPROVED:

Charold Baer, R.N., Ph.D.
Department of Adult Health and Illness
Thesis Advisor

Carol Burckhardt, R.N., Ph.D.
Department of Mental Health Nursing
Thesis Committee

Donnajo Putzier, R.N., Ph.D.
Department of Adult Health and Illness
Thesis Committee

Carol Lindeman, R.N., Ph.D., F.A.A.N.
Dean, School of Nursing, Oregon Health Sciences University

Acknowledgements

Much credit for this research must be given to Dr. Charold Baer, RN, PhD, my advisor; to Dr. Donna Jo Putzier, RN, PhD, my erstwhile advisor and member of my research committee; and to Dr. Carol Burckhardt, RN, PhD, another member of my research committee who is especially credited with the statistical analysis.

Additional credit is thankfully offered to Mr. Jonothan Fields of ORDU who patiently led me through the computer maze and provided me with a two-inch stack of printed data.

A grateful acknowledgement is also made to the nursing administrations of the Veterans Administartion Hospital and Medical Center and the Oregon Health Sciences University Hospital, both of Portland, Oregon, for their cooperation. Particular attention is drawn to Dr. Mary Maxwell, RN, PhD and Sharon Kirklin, RN, respectively, who were most helpful in assisting me with access to the ICU settings.

The ICU nurses of each hospital who took on the added burden of completing the battery of instruments are singled out for special credit.

My gratitide is extended to Dr. Jerry Thornton, PhD, of Angelo State University, San Angelo, Texas for allowing me to use his *Learned Helplessness Inventory.*

London House, Inc. of Park Ridge, Illinois gratiously permitted me to reproduce and use Jones' *Staff Burnout Scale for Health Professionals* without charge. They also provided me with a significant number of appropriate reprints. Their generosity and cooperation is much appreciated.

And, finally, thanks to Cal....who knows.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER I

Introduction

Statement of the Problem

Health professionals can do little to manage stress and burnout amongst themselves unless they become *aware* that there is a problem. At this time, burnout in the individual has been well described, and many personal, environmental, and organizational variables that tend to promote burnout have been identified. Also, while the impact of burnout on the health professional, the organization, and especially the client being serviced has been only approximated or implied, it must be acknowledged as having immense importance (Maslach, 1982). Very possibly, burnout may be a major problem facing the contemporary health care community, and one which can only be expected to worsen. Yet, attention to this problem has been one of decreasing interest in the last several years.

Many authorities seem to be of the opinion that the responsibility for managing stress belongs to the individual worker since organizations are not subject to change, or at least they change only with much difficulty.

The implicit, and often explicit, assumption seems to be that because organizations will continue to be as rigid as they are, it is up to individuals to do whatever they can to survive the unchangeable "givens" of the system (Muldary, 1982). Erroneously, administrators often show little concern for staff who leave, thinking that they are probably not "good" employees anyway; after all, "they couldn't take it" (Maslach, 1982). They do not seem to be aware that they are likely losing their *best* personnel.

Burnout is a very serious problem with highly significant implications for health care professionals, particularly nurses. From the statistics that are available, nurses would appear to be the most susceptible to burnout. No other health profession is subject to as much turnover and loss as is nursing (Edelwich and Brodsky, 1980).

Awareness, or the recognition that a problem exists, is a first step toward dealing with the threat posed by burnout. Awareness must be followed by a *commitment* to do something about the problem. Yet awareness is no more than static insight and commitment is no more than a good idea unless *action* is taken to bring about positive change. None of this, however, will serve much purpose without fundamental *knowledge* of the burnout phenonmena, and such knowledge is acutely deficient (Jones, 1980b). Basic

research on and related to burnout, both theoretical and applied, is an urgent need and should be maintained as a high priority, particularly in nursing.

Significance of the Study

Burnout in a selected population of nursing professionals is the central interest of this study. It is time for the health care community to confront the challenging problem of burnout. This study speaks to information regarding the feasibility of a specific conceptual framework of burnout.

The questions this research proposes to answer are: 1) Are externalized locus of control, learned helplessness, and burnout positively correlated in the sample population as measured by the three psychometric scales, **LOC, LHI,** and **SBS-HP**; 2) Is there significant correlation between any or all of the these concepts and the selected organizational and/or demographic variables?; 3) Do nurses categorized as burned out attribute their condition to different causes than nurses who are not burned out?; and, 4) Do the organizational and/or demographic variables demonstrate a characteristic profile of the burned out nurse as measured in this study?

History of Burnout

During the latter part of the 1960's, Herbert Freudenberger, a practicing psychoanalyst, began to notice that many of his clients, especially professionals, came to him with stories having a common thread. Their lives seemed to have lost meaning. Often they were unable to get along with family, friends, and co-workers. They were disillusioned with their marriages and careers. Uniformly, they complained of chronic fatigue and of being filled with frustration, forced to put forth increasing amounts of energy into their lives just to maintain pace and yet failing to do so. The harder they worked, the more stubbornly satisfaction seemed to elude them. Each had started out with high expectations and visions of achievement, and for much of their lives, they had been enthusiastic, energetic, and optimistic. Then gradually, a dullness and deadness set in. The energy had turned into ennui, the enthusiasm into anger, the optimism into despair.

Freudenberger began to compile data and to chronicle experiences gathered from these clients. Soon patterns began to emerge. Freudenberger likened their plight to the shell of a burned-out building or to the filament of a lightbulb which burns a little brighter just before it

burns out. He began to use the term *"Burn-Out"* when talking with his clients and each time got a profound reaction - immediate identification. The term exactly fit their feelings (Freudenberger, 1980). Presenting his observations and his thoughts to a seminar of students at a free clinic where he served as a consultant, Freudenberger learned that they, too, had made similar notations of this same pattern of complaints. In this way, Freudenberger came to coin the term *Burn-Out* for the first time in publication (1974).

Freudenberger attributes the impact of societal change moving at breakneck speed, especially since World War II, as being the major precursor of Burn-Out (1980). Furthermore, these changes continue to accelerate, geometrically if not exponentially.

In the field of health care, change occurs very rapidly. Society demands the very best treatment when life or health is threatened. The charge placed on the health care professions by society is enormous and technological advances in health care will continue to outpace their implementation. The net effect on nursing is increasing pressure and nearly continuous change. If Freudenberger is correct in his opinion, nursing can anticipate a steadily rising problem with burnout.

Current Status of Burnout

Freudenberger's unmasking of the concept of Burn-Out brought an immediate reaction in the professional community. Researchers, primarily in the psycho-sociological fields, promptly began to investigate the concept. Christina Maslach, by conducting hundreds of interviews with clients exhibiting symptoms of Burn-Out and compiling the data from these case histories, became and remains a leading researcher in the field. She described what she termed the *Burn-Out Stress Syndrome*, or **BOSS**, in great detail and developed the Maslach Burnout Inventory (**MBI**), the first scale for measuring burnout (1978).

Thereafter, burnout interest accelerated. Studies became more specific and refined. Research began to connect burnout with other sociological and psychological concepts, such as stress, depression, environment, and psychosomatic illness. Emerging with these data was the observation that certain sub-populations, those having occupations in human services, such as police officers, bus drivers, attorneys, and health personnel, seemed especially prone to developing symptoms of burnout. In time, the focus of burnout research narrowed almost exclusively to health professionals, particularly nurses,

where abnormally high levels of burnout were encountered. The nursing profession is now second only to the psychosociological fields in burnout research and interest.

Daily, health professionals are intensely involved with the suffering and distress of human beings under their care. And, daily, they are faced with unprecedented demands for efficiency and accountability for the quality of care they provide. Until Freudenburger (1974) introduced the term Burn-Out and described it, little attention had been given to the question of what happens to professionals who work so intimately with others, wavering the peaks and valleys of emotion, against the background of enormous social, professional, and institutional pressures. It seems to have been a foregone conclusion that health professionals naturally retain their objectivity and remain unaffected by such conditions. However, the question now begs for attention since it is currently accepted that many health professionals are stressed and unable to cope with the mental and emotional strain of unrelieved job pressures.

Most health professionals have experienced at least some of the prominent symptoms of this job-stress reaction. Most of those who have experienced the full force of burnout have felt a general exhaustion and a loss

of energy, enthusiasm, and commitment to their work, their patients, and to their profession. Thus, many burned-out health professionals ultimately leave their profession forever. Those who remain may cope with the stresses of their work by detaching themselves emotionally from the people they serve. Table 1 presents a complete itemization of burnout as it affects the health care provider, the client, and the health care organization (Cherniss, 1980b; Jones, 1980a; McConnell, 1982).

Locus of Control

This study is organized around burnout as it may relate to two sociological theories: Rotter's *Social Learning Theory* and Seligman's *Theory of Learned Helplessness*. Both of these theories are being hypothesized as components of the "natural history" of burnout development.

According to Rotter (1966), individuals differ in the degree to which they believe that they control important sources of reinforcement in their lives. "Internals" tend to believe that they control their destinies. If they want something, they assume that they can get it. If they fail, it is because they lacked the will or the ability. "Externals" believe they are at the mercy of fate or powers beyond their control. Whether life turns out well

Table 1. Impact of burnout in the health arena

Staff physical indices
Fatigue
Headaches
Back pain
Sleep disturbances
Frequent colds
GI disorders
Menstrual irregularities
Frequent injuries
Muscle tension
Shortness of breath
Malaise
Weight loss
Weight gain
Stooped shoulders
Weakness

Staff psychological indices
Feelings:
- Anger
- Isolation
- Boredom
- Loss of motivation
- Guilt
- Apathy
- Frustration
- Depression
- Disillusionment
- Anxiety
- Helplessness
- Despair
- Resentment
- Suspicion
- Irritability
- Hopelessness
- Pessimism

Attitudes:
- Cynicism
- Indifference
- Resignation
- Self-doubt

Other:
- Loss of empathy
- Loss of self-worth
- Cannot concentrate
- Low morale

Staff behavioral indices
Fault finding
Scapegoating
Defensiveness
Withdrawal
Clock watching
Overcommitment
Undercommitment
Absenteeism
Frequent errors
Conflict with co-workers
Use of ETOH or drugs on the job
Marital/family conflict
Aggression
Narrowing social focus
Ineffective job performance

Client indices
Dehumanization by staff
Derogatory labeling by staff
Victimization by staff
Physical distancing by staff
Deteriorating quality of care
Stereotyping by staff
Absence of staff respect
Absence of staff concern
Increased risk to well-being

Organizational indices
Deteriorating client care
Low staff morale
Increased dishonesty and theft
High absenteeism
Increased turnover
Generalized staff inefficiency
Increased accidents
Loss of staff loyalty
Increased costs to client

(Compiled from Cherniss, 1980b; Jones, 1980a; and McConnell, 1982)

or poorly for them, they attribute the cause not to their own efforts or abilities but to external forces. Thus, locus of control refers to an individual's belief about whether or not a contingency relationship exists between self behavior and the outcomes of that behavior. This is the fundamental tenet of Rotter's *Social Learning Theory*. Self-perceived externalized locus of control is conceptualized in this study as a possible first stage in the development of burnout.

Learned Helplessness

Seligman proposed his *Theory of Learned Helplessness* in 1975 (Seligman, 1975), in which he theorized that situations in which an individual's voluntary actions chronically have no effect would result in a condition of learned helplessness. All persons have experienced helplessness or powerlessness at times, but these are typically transient events and the feeling of helplessness is temporary. However, given repeated instances of helplessness in a certain situation, it becomes *learned* and according to Seligman, thereafter leads to three deficits in the individual: motivational, cognitive, and emotional.

The motivational deficit involves a reduction in

active, adaptive responding, even in those situations where one, in fact, has *control*. If people expect their actions to have little effect on outcomes, then the probability of initiating actions designed to solve problems or to overcome obstacles will decrease. The cognitive deficit consists of the interference which learned helplessness produces in future learning. It is more difficult for "helpless" individuals to learn that their actions can produce outcomes. Their behavior is characterized by a belief that their efforts will be doomed to failure. Finally, the emotional deficit is typified by such responses as depression, lowered self-esteem, and self-blame.

In 1978, Abramson, Seligman, and Teasdale (1978), reformulated Seligman's theory. The original hypothesis was found to have two major problems: 1) it did not distinguish between cases in which outcomes were controlable for all people and cases in which outcomes were only controlable for some people; and 2) it did not specify when helplessness effects would be general and when specific, or when chronic and when acute. Using attributional theory, the reformulation postulated that causal attributions mediate the effects of helplessness according to three orthogonal (not correlated) dimensions: 1) *personal-universal*, in which personal attributions stem

from the individual and universal attributions come from the environment); 2) *global-specific*, in which global factors occur across situations whereas specific factors are unique to a particular context); and 3) *stable-unstable*, where stable factors are long-lived and recurrent, and unstable factors are short-lived and intermittent. The degree of helplessness is said to vary with the type of attribution individuals make about the cause of uncontrollable events. Learned helplessness is being conceptualized in this study as an especially important stage in the development of burnout - perhaps the key stage - and is predicted to increase as externalized locus of control increases.

Review of the Literature

Burnout

From 1974, when Freudenberger first published his concept of burnout and defined it as a unique phenomenon, until 1980, a comprehensive review of the literature reveals only fifty-one references on this topic (Paine, 1980). In the following two years that number had tripled and at least twelve books had been released (Cherness, 1980a and 1980b; Edelwich & Brodsky, 1980; Freudenberger &

Richelson, 1980; Jones, 1980a; Truch, 1980; Vash, 1980; Pines and Aronson, 1981; Potter, 1981; Veninga & Spradley, 1981; Maslach, 1982; and McConnell, 1982). Burnout articles were a "faddish" topic and seem to have reached their peak at this point in time. After 1982, and particularly toward the latter half of the decade of the 80's, the literature indicates a tapering of interest in burnout. None of the leading contributors have published since 1982. The dwindling interest in this subject does not bode well for the health professions. If Freudenberger is correct in postulating that rapid societal change is the primary generator of burnout, then burnout can only become worse because change will continue to occur ever more rapidly. Coupled with numerous other contemporary challenges facing the professional health community - DRG's; a better informed and more health conscious populace demanding better health care; the demographic shift toward senior citizenry; the call for a national plan of guaranteed health care; and the question of how to handle cost increases that continue to spiral upwards, it places extra burdens on health professionals already under strain just to keep pace. Indeed, burnout may prove to be the most important problem the health community will have to confront.

As in the case of many entities, burnout first became

recognized as a condition of illness having its own properties (Freudenberger, 1974). Thereafter came a more fully detailed accounting of the syndrome, its common descriptive characteristics, its demographics, and its implications (Maslach, 1978). Once burnout had been reliably described and accepted, the focus of interest shifted to that of cause and cure. The bulk of the literature on burnout, from whatever source, is anecdotal. Drawing from the work of a few in the field, many more authors have written what is essentially a review of these initial findings, occasionally slanted toward some specific population such as management (Bramhall and Ezell, 1981), teachers (Truch, 1980), or health professionals (Jones, 1980a; Hagemaster, 1983; Yasko, 1983), with recommendations and conclusions stated as a likelihood or supposition. In the nursing literature, the word *burnout* did not appear until 1978 in an article by Shubin. Jones (1981) has stated that the biggest current problem with burnout is that research on the subject is still in a state of infancy. Since the inception of the concept by Freudenberger in 1974, there has been a dirth of *research* papers published on burnout, and burnout research remains in a state of infancy.

Burnout and Occupational Stress

Burnout, it is agreed by nearly all authors, is directly a product of occupational stress. Beyond that generalization, opinions diversify. MacNeill (1981) states that although much of the burnout literature is anecdotal, it would appear that these anecdotal descriptions bear a striking resemblance to the well-documented research into the causes and effects of occupational stress. Selye (1964) remarked that an individual will experience stress when he/she perceives that a specific situation will require a significant enough change in the individual's normal coping patterns to represent a threat to his/her psychological equilibrium. This perceived threat is seen as the stimulus that triggers a series of physiological, cognitive, and behavioral mechanisms which, if activated over a prolonged period of time, may lead to a state of eventual exhaustion and physical deterioration. Muldary (1982) applies Lazarus's Transactional Model of psychological stress to fit the burnout pattern. Within this model, psychological stress is seen as a product of the way an individual appraises and constructs a relationship with the environment. Stress is not conceptualized as a linear phenonmenon resulting solely from impinging environmental forces but from an individual's perceived notion of what is and is not a

stressor to him/herself, making psychogenic stressors highly individualized.

One very important aspect of human service workers that makes the demand for competence, and therefore the probability of stress, so strong is the personal significance of the work. Human service work is expected to be more than just a job. One's identity and self-esteem thus may be more tied to the outcome of one's work than would be the case in other occupations. Motivation to succeed is high and failure to succeed or barriers that obstruct one's sworn duties and obligations can be crushing to the self-esteem (Cherniss, 1980a). Edelwich and Brodsky (1980) actually restrict their use of the term burnout to the helping professions. Although they acknowledge that burnout can occur in virtually any profession, they maintain that it tends to occur with more regularity, carry higher social costs, and assume special intensity and character in the human service professions.

Pines and Kanner (1982) in studying dialysis nurses in several hospitals concluded that burnout was clearly a result of work stress, remarking that in 1970, 70% of staff nurses in American hospitals resigned from their jobs. Bailey, Steffen, and Grout (1980) indicated some evidence in their research that ICU nurses perceive interpersonal relationships as a major source of stress in

their jobs and, at the same time, one of their greatest sources of job satisfaction. Several authors (Jones, 1981; Muldary, 1982; McConnell, 1982; Vreeland and Ellis, 1982) have pinpointed intensive care unit (ICU) nurses as being especially vulnerable to burnout because of the high level of stressors found in that setting. Keane, Ducette, and Adler (1985) used the **SBS-HP** to compare stress in ICU and non-ICU nurses, finding no difference in level of burnout between the two groups. Chiriboga and Bailey (1986) selected several instruments to compare stress and burnout between ICU nurses and medical-surgical nurses and concluded that the ICU group reported higher burnout, especially if the job was perceived as nonrewarding and also undemanding. They noted that work environment variables contributed the most strongly to burnout and that younger nurses and single nurses were more vulnerable. Yasko (1983) studied variables in oncology clinical nurse specialists using the **SBS-HP** and did not find the variables usually associated with burnout - salary, hours spent at work, and hours of client contact (stressors) - to be characteristic of this group. Cronin-Stubbs and Rooks (1985) conducted a study with critical care nurses, finding that occupational stress was significantly correlated with burnout. They go on to state that occupational stress is the most reliable predictor

of, and is very nearly synonymous with, burnout.

MacNeill (1980) takes issue with the burnout phenomenon. He points out that if burnout is truly a distinct entity, then it must also have distinct stages of development. He suggests that much of the theoretical and methodological work related to burnout already exists in the occupational stress literature. He goes on to comment that the precision necessary for the design of research and training methodologies to study the burnout phenomenon are absent in the burnout literature.

Muldary (1982), although acknowledging that burnout and occupational stress are intrinsically related, maintains that they are *not* synonymous. Burnout is typically considered as one consequence of occupational stress, which appears to be a necessary condition for burnout to occur. But many workers experience occupational stress and do not burn out, yet none burn out without experiencing occupational stress. This would appear to clearly distinguish the two as separate entities.

Burnout and Demographic Variables

The personal characteristics of the nurse with BOSS have been well established at this time (Maslach, 1976, 1982). A number of demographic variables strongly associated with burnout have also been identified. How and

why burnout develops in certain populations, and then only among certain individuals in a given population, remains an unanswered question. Demographics presented in a repetitious pattern would be a logical place to begin looking for clues.

Bartz and Maloney (1986) used the **MBI** to study burnout in ICU nurses and noted significant correlation between burnout and certain demographic variables. Burnout was higher in those with lesser length of practice, younger age, and lesser education. Chiriboga and Bailey (1986) also found younger aged nurses, single nurses, and less experienced nurses to be more prone to feeling burnout, as did Shubin (1978). McCarthy (1985), using the **SBS-HP**, discovered no significant difference between burnout scores and gender in a group of psychiatric nurses but, again, younger ages produced higher scores. Keane, Ducette, and Adler (1985), also using the **SBS-HP**, correlated higher burnout scores with lower age and higher education. Maslach and Jackson (1981) using the **MBI**, noted higher burnout scores among females vs males, younger respondents vs older, single persons vs married, higher education vs lower, and no differences due to ethnic group.

Burnout and Environmental/Organizational Variables

In all the burnout literature, both anecdotal and research based, it is generally agreed that the primary source of burnout is to be found among environmental or organizational variables. More specifically, the source stems from the individual's relationship or interaction with the environment or organization. Personal qualities, such as self-perception of stressors, coping mechanisms, or other factors that may predispose an individual to burnout doubtlessly play a role, but this role is not seen as determining the outcome of whether a person develops burnout or not except in a small percentage of cases (Jones, 1980b; Maslach, 1982).

Cherniss (1980a) divides organizational design into three major components; role structure, power structure, and normative structure. *Role structure* refers to the way tasks and duties are allocated among specific roles in a setting. There are many ways in which this can be done, and certain roles will tend to create more stress and strain than will others. Role structures can have an impact on burnout by creating role conflict, which may include person-person conflict (between staff), person-client conflict, person-role conflict (internal: inconsistent with one's values), role overload, or professional-bureaucratic role conflict (Sarason, Sarason,

and Cowden, 1975; Kramer, 1974); or by role ambiguity which encompasses boredom (lacking challenge, variety, or meaning), task identity (the understanding of how his/her role contributes to the total effort), learning (opportunity to obtain new skills), and feedback and information (critical resources without which a worker cannot perform his/her role with success and meaning), (Hackman and Suttle, 1975; Sarata and Jepperson, 1977).

Power structure is the second major aspect of organizational design that influences burnout. Helplessness and lack of autonomy from a hierarchical power structure contribute to burnout because autonomy is a strong motive for choosing a professional career and bureaucratic interference is unexpected. Low autonomy was associated with job dissatisfaction and alienation in several studies (Pearlin, 1967; Aiken and Hage, 1971; Maslach and Jackson, 1978). The power structure contributes to burnout indirectly through its impact on the role structure.

The goals, norms, and ideologies of the organization constitute the third major component, the *normative structure*, of the organizational design. The guiding philosophy of treatment and the strength of the bureaucratic mentality tend to be directly proportional to the level of staff autonomy and control, initiative, and

staff loyalty (Sarason, 1971). A second aspect is the extent to which the production of new knowledge is an organizational goal (burnout is less frequent if research is an active concern; Mendel, 1978). A third factor concerns the norms centered about organizational health and staff needs. Many human service organizations are created with only client services in mind. The needs of the staff are of little importance, and it is usually assumed that the organization's "health" will never be a problem and therefore requires little attention (Price and Cherniss, 1976).

Environmental variables may include noxious sensory stimuli, such as odors, noise, or the sight of open wounds or of dying patients; patient care; client acuity; poor lighting; poor ventilation; malfunctioning equipment; absence of needed equipment; professional relationships; physical layout; or the number and schedule of working hours. Organizational variables encompass such items as role demands; extraneous additional duties (paperwork and red tape); role conflict; staff-to-patient ratios (work overload); ambiguous lines of authority; responsibility in the absence of authority; lack of support from superiors; lack of staff power and autonomy, especially in effecting change; a unit not associated with successful outcomes (oncology or hospice); inattention or indifference to

staff needs or complaints; authoritarian management; staff turnover; staff absenteeism; scapegoating and criticism of staff (lack of positive feedback); unpleasant work schedules; frequency of staff meetings; lack of structure; vague institutional objectives; time constraints; lack of promotional incentives and opportunities; policies not implemented as written; too many organizational changes without adequate planning; or low salaries coupled with limited benefits (Pines and Kafry, 1978; Cherniss, 1980a & b; Jones, 1980a & b, 1982; Maslach, 1982; McConnell, 1982; Muldary, 1982).

Constable and Russell (1986), using the **MBI**, found the lack of job enhancement factors, work pressure, and supervisor support to be the major predictors of burnout in a group of hospital-based nurses. Maslach (1976) noted poor client relationships as a significant variable in the promotion of burnout. In a psychiatric setting, McCarthy (1985) did not note a significant difference between nurses working with chronic vs acute patients or between nurses working day vs night duty. Duxbury, Armstrong, Drew, and Henly (1984) discovered higher burnout scores among staff nurses whose head nurses' leadership style was characterized by high structure - low consideration. McDermott (1984) significantly correlated staff nurses' dissatisfaction with thirteen job characteristics and

higher burnout scores. Bartz and Maloney (1986) noted that burnout, as measured by the MBI, was lower the longer a nurse remained in intensive care past the first two years. Cronin-Stubbs and Rooks (1985) determined that intensity of perceived impact, rather than frequency of stressors, contributed to burnout and that on-the-job social support reduced the incidence of burnout. Social support is also implicated (Freudenberger (1980); Edelwich and Brodsky (1980); Klagsburn (1976); and Pines and Kafry (1978), as reducing incidences of burnout.

Jones (1980d), Gentry, Foster and Froehling (1972), and Mohl, Denny, Mote, and Coldwater (1980) all noted higher burnout scores among ICU staff nurses, presumed to be due to the higher levels of stress normally associated with ICU settings. Keane, Ducette, and Adler (1985) found no difference between burnout levels in ICU vs medical-surgical nurses, in contrast to Chiriboga and Bailey (1986), who did find a difference. The latter also noted that specific psychosocial characteristics associated with the settings, such as the type of hospital (public or private) type of management, and clarity of rules and regulations, appeared to be more important to the development of burnout than the setting. In a study involving a group of oncology clinical nurse specialists, Yasko(1983) noted role dissatisfaction, related to a

number of work and environmental variables, to be the most important predictor of burnout.

A heavy client-to-staff ratio (work overload) may be one of the most important predictors of burnout. This tends to exacerbate most of the other environmental and organizational variables and serves as the major contributor to occupational stress (Cherniss, 1980a & b; Jones, 1980a & d, 1981; Barad, 1979; McConnell, 1982; Gaudinski, 1982; Jacobsen, 1982; Muldary, 1982; Oregon Nurses Association, 1987).

Burnout and Coping

Few authors, whether writing anecdotal articles or publishing their research results mention burnout without also referring to personal coping mechanisms. Theoretically, burnout cannot occur if the individual can cope with all the predispositional factors leading to burnout, regardless of how stressful and demanding they may be. On the other hand, the less effective an individual copes with these same factors, the more likely he/she will be prone to developing burnout (Maslach, 1982; Cherniss, 1982). Coping is best defined as efforts to master conditions of harm, threat, or challenge when a routine or automatic response is not readily available (Monat and Lazarus, 1977). Moreover, it is a *learned*

response that comes with experience.

Lazarus (1974) suggested two general types of coping: 1) *direct action* in which the person tries to master the stressful transaction with the environment, and 2) *palliation* in which the person attempts to reduce disturbances when unable to manage the environmental transaction or when action is too costly. Muldary (1982) relates coping to *attribution*, because individuals try to explain the stressful feelings they are experiencing to some set of causative factors. How individuals perceive cause and effect has important implications in how they cope. Brickman, Rabinowitz, Karuza, Coates, Cohn, and Kidder (1982) proposed models of helping and coping under four basic assumptions: 1) the *moral model*, people are seen as responsible for problems and solutions; 2) the *compensatory model*, people are viewed as being not responsible for problems but responsible for solutions; 3) the *medical model*, people are considered responsible for neither problems nor solutions; and 4) the *enlightenment model*, people are viewed as not responsible for solutions but responsible for problems. Maslach (1982) identifies coping efforts as personal, organizational, or social. Personal coping measures would include strategies such as setting realistic goals, novel approaches to chronic problems, breaking away from the source, taking matters

less personally, accentuating the positive, knowing oneself, rest and relaxation , and maintaining a separate life of one's own. Social coping strategies refer to peer support, assistance from colleagues, comfort (empathy), insight from others, use of comparison, reward, humor, and escape. Organizational coping would encompass improvements in the workplace, increasing resources, dividing responsibilities, changing client contact, limiting job turnover, and allowing for more time away from sources of stress.

Kafry, Kanner and Pines (1980) suggest that coping is essential for dealing with chronic pressures, hassles, and daily struggles in the absence of support. Patrick (1979) postulated in his study that the higher the education of a nursing population, the greater the stress due to respectively increasing responsibilities and the greater the need for coping. Pearlman, Stotsky, and Dominick (1969) indicated that the nurses they studied who had *more* experience with dying patients were more likely to avoid the dying and discussions about death, casting some doubt on the assumption that experience per se is the best teacher of how to manage one's work stresses. Pines and Aronsen (1981) point out that most nurses are women and that in their studies, women were more sensitive than men to the social and emotional aspects of their work and thus

nurses may have more difficulty coping with sick clients because they are expected to fulfill a role requiring a steady nurturant and empathetic tone. Callousness and emotional detachment are incongruent with their image in society, and feelings of this nature may bring guilt, depression, or loss of self-worth, all symptoms of burnout.

Impact of Burnout

The impact of burnout on the individual has been well documented (Maslach, 1982; Jones, 1980b; Jones, 1981, Jones, 1983; Cherniss, 1980a), and nearly all of the research has focused on the individual as he/she may be affected by environmental and organizational variables. However, the impact of burnout on the organization, especially in terms of cost, and on the client, in terms of patient outcomes, has not yet been researched. Like the bulk of most burnout literature, reason, logic, and implication are used to judge the impact of burnout on health organizations and society. No statistics have been advanced as even an approximation of the prevalance of burnout among health care professionals. To date, studies have centered on selected samples of an organization (Jones, 1981, 1983; Bartz and Maloney, 1986; Chiriboga and Bailey, 1986; Yasko, 1983), but not on the entire

professional staff of a given organization. In addition, the samples are too small to make inferential estimates of the organization from which they were taken, much less that of the profession as a whole.

A few authors have tentatively suggested that the impact *has* to be substantial. White (1980) points to the huge turnover of nurses annually, a figure of 45% in 1979, and an estimated cost of $2,000 - $3,000 in orientation and time lost to a given organization per nurse. This is paid by the organization but eventually gets passed on to the client as higher costs for care. Presenting the actual dollar cost is suggested as a means to garner serious attention from administrations because the figures are easily translated.

What is less than easily translated is the cost, mental and physical, to the health care giver who has reached a state of burnout. What is the cost to the nation when so many health care personnel leave their professions, taking with them valuable education, experience, and other resources? They will be replaced by newer individuals who will need several years to reach a comparable level of competence, and many of these will also leave.

What is the cost in health and well-being to a client serviced by a burned-out health care provider? Table 1 indicates such behavior as emotional detachment,

dehumanization, and client distancing as symptomatic of burnout. How often does this happen? Related studies, such as that by Knauss, Draper, Wagner, and Zimmerman (1986) on predicted vs actual patient mortality in the ICU can provide some information. In a national study of thirteen hospitals, they found that actual patient mortality was much higher than predicted mortality rates and it correlated negatively with the intensity and frequency of nurse-physician collaboration, also a correlate of burnout. In other words, the closer the collaboration, the lower the mortality rates.

Table 1 presents some idea of the possible impact of burnout on the care provider, the organization, and the client, but it is probably not complete. The true, total impact can only be grossly approximated at this time. Muldary (1982) accuses administrators and managers of not even trying to assess the cost of a simple statistic such as staff turnover. They like to talk about the "bottom line" when discussing organizational issues. For them, the bottom line means costs and revenues. But it is not possible to provide an accurate estimate of the bottom-line costs of burnout in health care. These costs encompass such factors as tardiness, absenteeism, accidents, sick leave, training of new personnel, increased overhead from inefficient use of materials and

equipment, performance inefficiency and task repetition, advertising for new employees, administrative costs of recruiting, interviewing, and hiring new employees, processing, compensation benefits, and numerous other factors that serve to *raise the dollar cost of stress and burnout* among health professionals. Muldary offers a simple method of calculating turnover rate alone, charging administrators to make more encompassing efforts. He further offers the opinion that if the true cost of burnout could be calculated for one organization it would be shocking. Moreso, if the cost were to be calculated to include the national work force, that figure would be staggering.

Locus of Control

Locus of control studies abounded after Rotter presented his *Social Learning Theory* and the literature has indicated a continued interest in this topic (Averill, 1973; Caron, Cocoran, and Simcoe, 1983). There are currently nine scales developed to measure locus of control, fashioned after Rotter's initial scale and purporting to correct critics' perceived deficits in the Rotter LOC scale (Lefcourt, 1976), but the Rotter LOC scale continues to be employed most often.

Like coping, few authors speak of burnout without also referring to such concepts as autonomy, adaptation, power and influence, or other such ideation as may be equated with or part of the larger construct of *control*. Some degree of control, over one's own personal responses, peer responses, the environment, or the organization is inherently related to coping successfully. As stated by Rotter (1966), locus of control refers to an individual's belief about whether a contingency relationship exists between self-behavior and the outcomes of that behavior. With a perceived complete lack of control over outcomes in any sphere or arena of activity, the individual is left feeling powerless and at the mercy of fate or powers beyond their one's to influence or change.

Numerous studies have related the concept of locus of control to the generation of stress (Lefcourt, Hogg, Struthers and Holmes, 1970; Glass and Singer, 1969; Glass and Singer, 1973; Wortman, 1975; Shillinger, 1983; Averill, 1973); job satisfaction (Frost and Wilson, 1983; Lefcourt, 1966); aggression and hostility (Joe, 1971; Sadowski and Wenzel, 1982); causal ascription and achievement behavior (Weiner, 1973; Lefcourt and Steffy, 1970); complex learning (Rotter, 1966); depression (Rotter, 1966; Glass and Singer, 1973); cognitive deficits (Averill, 1973; Shillinger, 1983); adaptive responses and

coping behavior (Glass and Singer, 1973; Lowery, 1981; Maslach, 1982; Muldary, 1982; Jones, 1981; Cherniss, 1980a & b); in-patient health care (Tadmor and Hofman, 1985); strike attitudes and nurses' intent to join a union (Beutell and Biggs, 1984); and learned helplessness (Thornton, 1982).

All of these factors have also been related to burnout, and it was only plausible that some reports investigating a link between locus of control and burnout should emerge. Frost and Wilson (1983), using nurses as subjects, confirmed earlier studies indicating that internalized control correlated with increased job satisfaction. Cronin-Stubbs and Rooks (1985) found a correlation between increased stress and externalized control in a population of nurses from a variety of clinical settings. Caron, Cocoran, and Simcoe (1983) discovered a significant correlation between externalized locus of control, burnout, and lowered self-esteem in a group of masters-level prepared nursing instructors. Maslach and Jackson (1981) also related burnout to externalized control. McDermott (1984) found a positive, significant correlation between high level burnout, externalized control, and reduced job satisfaction, and low level burnout, internal control, and increased satisfaction in a group of staff nurses. Yasko (1983) also noted similar variables in a

group of oncology nurse specialists. Those individuals who experienced a greater degree of burnout evidenced reduced autonomy, high stress levels, ineffective social coping strategies, and the personal feelings of apathy and withdrawal. All of these have been related to control.

Learned Helplessness

The literature contains hundreds of papers, nearly all research based, on learned helplessness. For the first few years after the publication of Seligman's theory, most of this research was performed using animal models for the sake of convenience and control. Later, once methodologies had been established, human subjects became the focus of interest, primarily in the psychological and sociological fields. The nursing literature contains only a few anecdotal articles briefly introducing the theory with some suggestions for application as drawn from the socio-psychological research (Lambert and Lambert, 1981; Stoner, 1985; Murphy, 1982).

In all previous studies on learned helplessness, it was necessary for the researcher to induce a state of helplessness in the subjects, by various means, before being able to conduct the study. But in 1982, Thornton developed the *Learned Helplessness Inventory* (LHI) that

postulated the assessment of the degree of helplessness in human subjects (Thornton, 1982). To this date, no published study has attempted to connect learned helplessness with burnout and no study other than Thornton's has employed the LHI. Several authors, notably Cherniss (1982), and Greer and Wethered (1984), have proposed a specific relationship between the two concepts. Several others have inferred such a relationship by way of reasoning (Jones, 1981; Muldary, 1982; McConnell, 1982), and as in the case of coping or locus of control, nearly every author or case study has made reference to words such as powerlessness or helplessness when discussing burnout.

A number of correlates with learned helplessness overlap, or would seem to be related to, the concepts of *control* or *burnout*. An examination of the literature finds the same emotions or behaviors or extra-personal factors being repeatedly incorporated into the flow of ideas, results, or conclusions of numerous studies. The three concepts would appear to be distinct yet not fully separable from each other.

Steptoe (1983), Thompson (1981), Peterson (1982), and Santora and Steiner (1982) all found significant positive correlations between learned helplessness and stress formation in a variety of subjects. Lambert and Lambert

(1981) suggested a relationship between ill health and powerlessness. Santora and Steiner (1982) noted a correlation between powerlessness and work overload in school nurses. Stoner (1985) investigated learned helplessness and personal control in cancer patients, suggesting that the presence of either or both contributed to a worsening of the patient's condition. Altmaier and Happ (1985) studied the relationship of learned helplessness, locus of control, and coping skills training in a group of students, finding that coping skills training had an immunizing effect against the onset of helplessness or perceived externalized control. Burger and Arkin (1980) discovered a reduction in helplessness among subjects having an increased perception of personal control. Maier and Seligman (1976), in reviewing the evidence for learned helplessness, found many factors that positively correlated with the concept including stress, cognitive impairment, loss of motivation, depression, physical illness (such as hypertension, insomnia, or gastric ulcers), maladaptive behavior, neurosis, motor impairment, aggression and hostility, low feelings of self-esteem and loss of self-worth, and perceived externalized locus of control.

According to Seligman (1975), learned helplessness has three deleterious effects on a person. First, motivation

is impaired: the desire to initiate action, to solve problems, and to overcome obstacles declines sharply. Second, the ability to believe that a response has worked is impeded; in other words a person who has frequently experienced helplessness in a situation will miss or deny information suggesting that control is now possible. Third, lack of control disturbs one's emotional balance, causing depression, anger, and anxiety.

Intelligent organisms, says Seligman, automatically know how to help themselves: they keep trying; they have hope. Moreover, this healthy tendency does not have to be learned. It is so built-in, states Seligman, that even special training does not influence it (1980). But *helplessness*, he is convinced, *must be taught*.

Thus when prolonged helplessness leads to *learned* helplessness, an individual's coping behavior will be drastically affected. Specifically, those who believe that they can control a situation will be less likely to resort to intrapsychic defenses associated with burnout (such as the irrational or repeated use of ego defenses), and those who believe that they cannot, will likely proceed toward a burnout condition. Maslach (1982) opines that when a person reaches a state of "terminal burnout," a situation Seligman and Johnson demonstrated with their studies using animal models (1974), they are probably incapable of

change and probably beyond retrieval. Learned helplessness may thus be the ultimate source and expression of burnout in human service workers.

Attribution Theory

The reformulation of Seligman's initial theory by Abramson, Seligman, and Teasdale (1978) added the framework of *attribution*, making a more complete definition of the original theory. Attribution processes can be loosely defined as how persons come to identify causes and consequences of their behavior (Berkerian, 1984). It is not enough to state that a subject has entered a state of learned helplessness when speaking of humans . The question immediately arises as to how or why the individual has learned to become helpless. The deficit in the original theory became evident when the focus of interest changed from animal to human subjects.

There are three dimensions within Seligman's original theory that are subject to attribution processes. The first concerns the controllability or the internal/external features of the helplessness situation. That is, is the uncontrollability due to factors inherent in the individual or do others also experience from uncontrollability; can anyone control the outcomes or am I

the only person who cannot? This is termed the *personal-universal* attribution. The second dimension concerns the situational specificity of the helplessness. In this case the person asks am I helpless because of the situation I am in, or would I be helpless in any situation? This attribution is called the *global-specific* dimension. The third and last dimension refers to the stability of the helplessness condition; that is, is my helplessness likely to change or will I always be helpless? This third dimension is termed *stable-unstable*.

An individual will or will not show helplessness deficits depending on the attributions made as a consequence of behavior. The nature of the attributions will impact the nature of the deficits and will be contingent on what dimensions the individual identifies as being causative. For the purposes of exacerbating burnout, the worst combination of dimensions would be personal-global-stable, and the best chance for preventing burnout would theoretically be the universal-specific-unstable combination (Berkerian, 1984). An individual having the personal-global-stable combination of attributional dimensions is all but certain to be in a state of burnout and extremely resistant to unlearning maladaptive coping and to learning positive coping mechanisms (Seligman and Weiss, 1980). The personal-global-stable combination of

attributions may be identical to or very similar to the state of "terminal burnout" as described by Maslach (1982).

Models of Burnout

Several of the leading researchers in the field of burnout have offered tentative models of the burnout phenomenon, but at this time, none have undergone specific testing. A lack of such inquiry is doubtlessly one of the reasons MacNeill (1980) casted doubt on whether the burnout process was real and distinct from occupational stress theories and models which have received extensive testing.

Cherniss (1980a) presented a three-staged schematic model based on the work of Lazarus and Lanier (1978) indicating the theoretical relationships of stress, strain, coping, and burnout characterized by high ambiguity, conflict, and powerlessness. The emphasis for development is placed on conditions frequently occurring in bureaucratically organized human service programs. Cherniss modified this model to one of four stages, adding active problem solving and intrapsychic defenses. Burnout occurs in the absence of adaptive coping and with the onset of psychological withdrawal.

MacNeill (1980) offers a general model of stress followed by a more detailed occupational stress model, both based on Selye's *General Adaptation Syndrome* (1964). He states that the burnout phenomenon can be explained by these models which lead to psycho-social strain and illness (i.e., burnout) derived from job intrinsic and job extrinsic factors, personal perception, and person-environment fit. These concepts may represent Maslach's (1982) personal-environmental-organizational variables in the burnout process.

Kamis (1980) proposes a four-stage model related to mental health factors; that is, that burnout may be viewed as a form of behavioral disorder and may develop in much the same way as some mental illnesses. The first stage consists of predisposing risk factors for the development of mental disorders; the second stage represents precipitating determinants which add to the factors in stage one; subtract the negating variables of skills in coping, support, and strength for stage three; and the outcome, stage four, is burnout.

Muldary (1982) employs a four-stage model, not specifically of burnout but of psychological balance (implied burnout). Psychological balance is the fulcrum supporting a beam of two scales; accurate perceptions and appraisals, and adequate coping responses. The balance of

the beam is influenced by the load of environmental and organizational variables outlined earlier. Too many of these variables, weighted negatively, may overload and tip the beam. Or, the beam may be tilted by inadequacy in the personal factors from which it is composed.

Chiriboga and Bailey (1986) used their Nursing Stress Model in a comparative study of burnout between ICU nurses and medical-surgical nurses. In this model, antecedant conditions, such as sociodemographic characteristics of nurses, are seen as laying the groundwork for the stress that results in conditions such as burnout. Sociostructural (environmental) and work situation (organizational) factors are viewed as second and third level factors, respectively, influencing the stress response. This model varies from many others in that it places emphasis on the individual rather than the environment or the organization in burnout development.

Maslach (1982) proposes a non-schematic model of burnout, that describes its development in terms of symptomatology along three stages. The first stage is *emotional exhaustion* - the person feels drained, used up, unable to garner the energy to face another day. The person's emotional resources are depleted and without sources of replenishment. The second stage is chacterized by *depersonalization* - the person finds him/herself caring

less about people, both clients and co-workers. The person becomes hostile, aggressive, discourteous, and derogatory to others, even in the face of requests or pleas. The third and final stage is *reduced personal accomplishment* - the person has a sense of inadequacy about his/her own abilities with a self-imposed verdict of failure. The person's self-esteem crumbles and depression sets in, and it is at this time that the individual often leaves work, feeling that he/she was never meant to be a human service professional. Maslach's model has the advantage of being specifically fit to the burnout phenomenon, and free of ambiguity or conflict with similar stress phenomena. However, it is deficient in that it offers no explanatory cause(s) for the condition.

An examination of the literature on burnout and on the models of the burnout phenomenon consistently reveals the use of very similar concepts and structure. Nearly all focus on stress as the immediate precursor, and nearly all incorporate personal, environmental, and organizational variables, coping, powerlessness, and control as the major determinants or mediators of burnout. Some variation exists in how these factors are staged in a cause and effect relationship, but there seems to be general agreement that all are considered as determinants of the final outcome.

A Conceptual Model of Burnout

Figure 1 depicts the conceptual framework for this study. In nursing, burnout is theorized to begin when the nurse graduates and enters the community of practicing professionals having motivation, a strong sense of idealism, optimism, client and organizational commitment, solid feelings of self-worth, self-esteem, and the confidence that he/she will make a positive, significant impact.

The new graduate first discovers that school-bred roles and values conflict with work-world values, and the reaction to this discovery is a disillusionment with values, ideals, and expectations. This discrepancy between values learned in school and those required at work demand that the graduate nurse make some kinds of concessions and engage in a role transformation. In an effective transformation, the newcomer changes some conceptions and role performance behaviors (coping) to take on some of the new work-valued behaviors and yet not relinquish the school-bred idealism. Scmalenberg and Kramer (1979) label this type of role transformation "biculturalism." It signals adaptation, an effective coping effort, and a first step toward professional growth. As used by

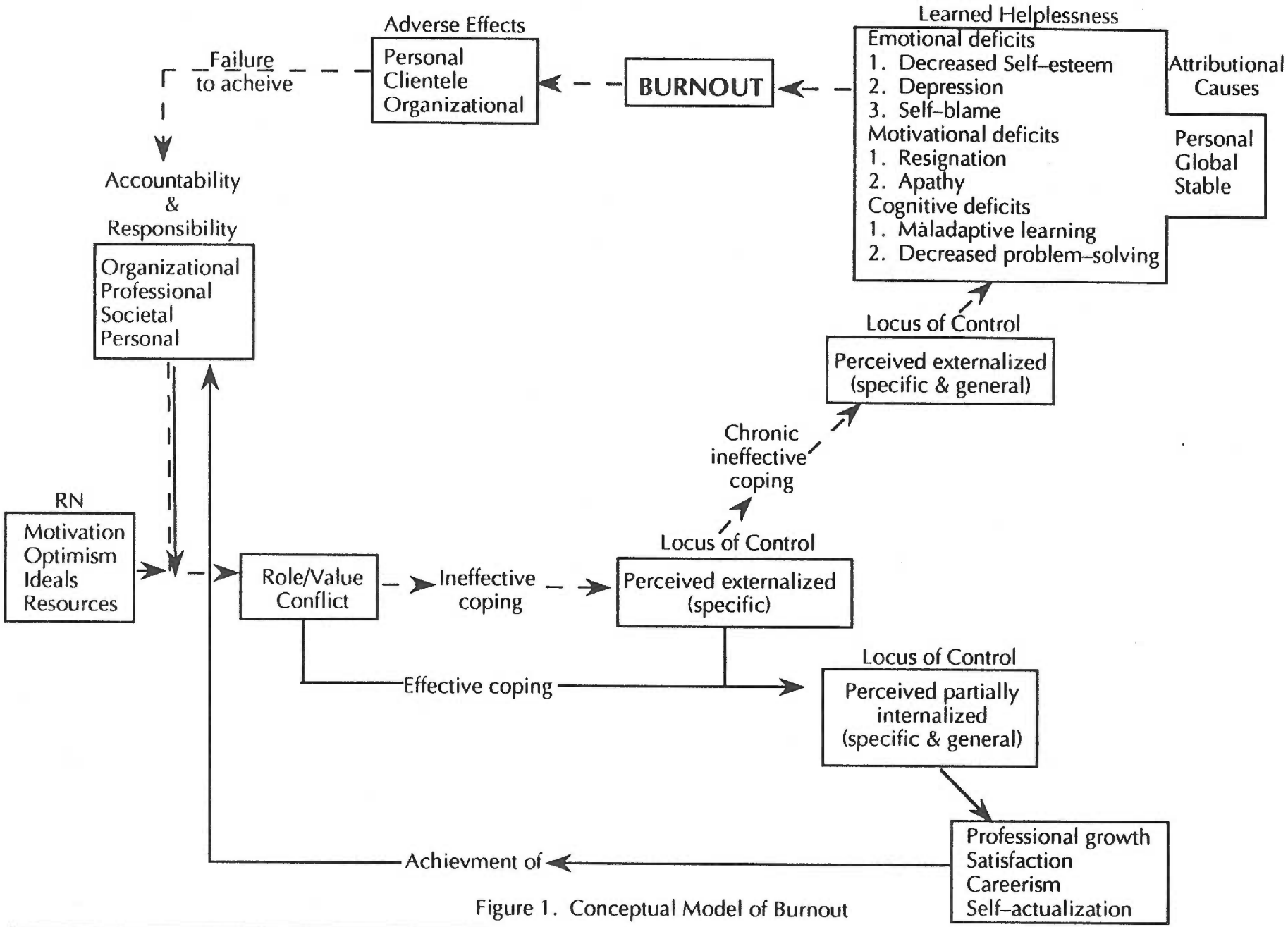


Figure 1. Conceptual Model of Burnout

Positive feedback channel ——————
Negative feedback channel — — — — — —

Scmalenburg and Kramer, biculturalism is a type of coping applicable only to the new graduate. Coping mechanisms by experienced nurses would be identified by some other title.

Not all new graduates or experienced nurses are able to make this transformation, however. In their efforts to cope with the reality of their work, they become aware that efforts on their part to influence outcomes related to patient care, staffing assignments, and time off duty are of little effect. This leads to an initial sense of externalized control. Typically, the nurse persists by using various coping strategies, again failing to perceive any personal influence or personal control regarding outcomes. Given a chronicity of such experiences, a more convincing feeling of externalized control is seeded. At first this feeling may be confined to a specific focus, such as the immediate area of practice, but as experience and events continue without positive feedback, the focus broadens to encompass elements from the environment and the organization. At this point, the nurse has generalized external control and is convinced that he/she cannot influence outcomes in any arena. Also at this point, the nurse may begin to experience some of the early symptoms of burnout, such as fatigue, irritability, anger, resentment, and frustration. This stage equates with

Maslach's first stage of burnout - *emotional exhaustion.*

Continuing in this fashion, with an occasional effort at some new coping strategy only to fail once more, the nurse begins to feel helpless, fully at the mercy of factors beyond his/her control. Stronger negative emotions emerge. The nurse begins to project anger and frustration toward clients, co-workers, or the organization. The nurse begins to withdraw from client demand and job responsibility or loyalty, caring less about people. This stage is similar in description to Maslach's second stage of burnout - *depersonalization.*

Without some effective personal or supportive intervention, the burnout process continues and the nurse actually *learns* to become helpless, attributing the cause of his/her feelings and the situation to environmental or organizational factors more than personal ones. The nurse has failed; self-esteem and self-worth crumble; a sense of inadequacy and depression sets in. Maslach would label this the third stage, or "terminal burnout" - *reduced personal accomplishment.* At this point, there is no doubt that an individual is not only burned out, but burned out to a point where return to a more positive outlook may not be very probable (Maslach, 1982).

As depicted in the conceptual model, burnout is viewed as a continuum, not an all-or-none phenomenon. An

individual may display various degrees or symptoms of burnout, as listed in Table 1, depending on the location in the model and personal idiosyncracy. The model depicts burnout as a consequence of a maladaptive learned state in an individual developed through repeated negative or negatively-perceived stimuli coupled with personal inefficacy in coping. Three stages are identified as precursors of burnout; role/value conflict, generalized external locus of control, and learned helplessness.

Operational Definition of Terms

Several of the terms used in this study, do not as yet have operational definitions that enjoy universal acceptance. Thus, the following definitions were selected for the purposes of the study.

1. *Burnout* - The process by which a once-committed health professional becomes ineffective in managing the stress of frequent emotional contact with others in the helping context, experiences exhaustion, and, as a result, disengages from patients, colleagues, and the organization (Muldary, 1982).

2. *Locus of Control* - The belief of an individual about whether or not a contingency relationship exists between self behavior and the outcomes of that behavior (Rotter,

1966).

3. *Learned Helplessness* - The belief of an individual that there is no apparent connection between responses and outcomes in the environment, which produces an expectation that outcomes are uncontrollable, leading to motivational, cognitive, and emotional deficits (Seligman, 1974).

4. *Attribution* - The process by which individuals come to identify the causes and consequences of their behavior (Berkerian, 1984).

5. *Coping* - An individual's efforts to master conditions of harm, threat, or challenge when a routine or automatic response is not readily available (Monat and Lazarus, 1977).

Hypotheses

1. As depicted by the conceptual model, significant correlations will be found in a staged increase from externalized locus of control to learned helplessness to burnout.

2. Burnout will positively and significantly correlate with younger ages, lesser experience in nursing, greater education, and single marital status.

3. Burnout will positively and significantly correlate with absenteeism and staff turnover.

4. Attributions will have the greatest frequency in salary, workload, nursing management, time off duty, peer recognition, and autonomy. Nurses categorized as in a state of burnout will attribute their condition to different causes than those who are not burned out.

5. Subjects categorized as in a condition of burnout will positively and significantly correlate with a 1-2-2-1 pattern on the four-point job satisfaction questionnaire.

CHAPTER II

Methodology

Design and Procedure

This study is descriptive, correlational research. Intensive care nurses having the same or similar units of assignment from two hospitals of approximately equal size offering similar services were selected. One hospital is a university-based facility and the other is a government funded agency. The nurses were assessed for their degree of burnout, internalized or externalized locus of control, and state of learned helplessness using the standardized psychometric scales. Demographic and organizational data were also collected. In addition, the subjects were asked to complete an 11-item attributional factor scale and a 4-item job satisfaction questionnaire.

Description of the Sample

The subjects comprised a convenience sample of all of the intensive care nurses employed at the time of data collection in the medical intensive care unit (MICU), surgical intensive care unit (SICU), and the coronary care

unit (CCU) in the two hospitals. Excluded from the sample were nurse managers, orientees, and agency nurses because their roles are typically different from those of the regular staff nurse. The sample size from each hospital was 82 and 41, respectively.

Description of the setting

Two hospitals in a large urban area, divergent in operation and clientele, were selected to compare the impact of different environmental and organizational influences on a sample population that is fundamentally homogeneous.

Description of the Data Collection Instruments

Rotter's Locus of Control Scale (LOC)

This is a 29-item forced choice questionnaire that presents the respondent with two statements per item, one internally phrased and the other externally phrased. For each item, the respondent chooses the statement that he/she feels is most true. There are six filler items in the scale that are not scored.

This scale purports to measure a person's perception of a contingency relationship between his/her own behavior

and events that follow that behavior, and whether that behavior was under internal (personal) or external (extrapersonal) control. One point is given for each external statement selected. Scores can range from zero (most internal) to 23 (most external), and are arranged along a continuum. The **LOC** scale has been used with a wide variety of populations with a mean of approximately 9.0 and a standard deviation (SD) of about 2.0. It has a reliability coefficient of .83 for females and .60 for males (Lefcourt, 1976). Rotter's scale was selected because it has been the one most frequently employed in research and because it was used by Thornton in his field testing of the **LHI** (see below).

The rather large difference in reliability coefficients for females (.83) vs males (.60) on the **LOC** was noted but unheeded because of the relatively small population of males in the samples. Their number was considered insufficient to sway results significantly. Appendix A contains a copy of Rotter's **LOC** scale.

Thornton's Learned Helplessness Inventory (**LHI**)

The inventory initially consisted of 140 true-false questions including 102 drawn from the **MMPI, CPI,** Rotter's **LOC,** and 38 developed by Thornton. A factor analysis on the data from a validation study of 600 students revealed

that 70 of the items accounted for 80% of the variance, and thus the inventory was reduced to its present 70 items designed to assess the state of learned helplessness.

The **LHI** has a mean of 28.7 and a SD of 6.5 from the validation study. It is scored on a continuum and evaluated on the basis of a single score ranging from zero to 70, with zero representing a very low predisposition to helplessness and 70, a very high predisposition to helplessness. The reliability coefficient of the **LHI** is reported as .92. Pearson's correlation between the **LHI** and the **LOC** was found to be .73 using the 70-item inventory (Thornton, 1982). Appendix B contains a copy of Thornton's **LHI**.

Jone's Staff Burnout Scale for Health Professionals (**SBS-HP**)

Jones (1980d) developed the **SBS-HP** from *Maslach's Burnout Inventory* (**MBI**) (1978) by concentrating his interest on health care providers. Jones noted a significantly different profile of burnout in his populations of health care providers. By conducting a factor analysis of the **MBI** using his samples, he selected the twenty items from that scale most applicable to workers in the health care industry.

The **SBS-HP** is a 30-item Likert scale with a range of

six responses per item, from "agree very much" to "disagree very much." Having an even number of choices prevents the respondent from taking a middle position. Only twenty of the items assess the burnout syndrome. The remaining ten items form a Lie scale to detect tendencies to "fake good." The scale assess adverse cognitive, affective, behavioral, and psychophysiological reactions common to burnout.

The **SBS-HP** has a four-factor structure consisting of: 1) a 7-item general *Dissatisfaction with Work* factor; 2) a 7-item *Psychological and Interpersonal Tension* factor; 3) a 3-item *Physical Illness and Distress* factor; and, 4) a 3-item *Unprofessional Patient Relationships* factor. Scores are arranged along a continuum from a low of 20, indicating no burnout, to 140, suggesting severe burnout. The reliability coefficient for this scale, using health care providers as samples in validation studies, (many of whom were nurses), was .93 (Jones, 1980d). Jones found a mean burnout score of 57.5 with a SD of 10.8 in a study of general staff nurses. Appendix C contains a copy of Jone's **SBS-HP**.

Demographic Data Form

This 13-item form asks for personal information from the respondent which may correlate with burnout. Prior

studies (McCarthy, 1985; Bartz and Maloney, 1986; Chiriboga and Bailey, 1986;) have indicated positive connections between burnout and some of the demographic variables listed. Replication of studies using demographics may be sufficiently cumulative to utilize demographic background to predict candidates who are likely to develop burnout. Appendix D contains a copy of the Demographic Data Form.

Attributional Questionnaire

This 12-item questionnaire asks the respondents to rank several personal, environmental, and organizational factors in order of importance to them, given that they had the authority or control to change the factors. All three dimensions of attribution in Seligman's reformulated *Learned Helplessness Theory* are represented. Selection of the items was influenced by empiricism and reasoning and by the the results of several national polls taken from the literature on why nurses leave the profession (Funkhouser, 1977; Schaefer, 1977; Godfrey, 1978; Savage, 1979; Oregon Nurses Association, 1987). Eleven items are listed and a twelfth "wild card" slot is offered to cover any perceived important factor that may have been excluded. The scale is designed to reveal the causes or attributions that nurses make when they develop a

condition of burnout. The scale is scored by giving a value of 11 to the attribute ranked as number one, a value of 10 to the number two ranking, and so on through number eleven which is given a value of 1. The score for a given attribute is the sum of values for that attribute from a given group. The attributes are then ranked from highest to lowest based on the total scores. The score for a given attribute could thus range from 123-1353 for the sample (n=123).

A 4-item job satisfaction questionnaire is attached to the attribution scale. This form is designed to be a verification of self-perception and insight. A nurse who is categorized as burned out by the **SBS-HP** may still indicate that he/she is satisfied with the job. Questions answered "yes" are assigned a 1, and questions answered "no" are assigned a 2. A pattern of 1-1-1-2 should signify greatest satisfaction. A pattern of 2-2-2-1 should indicate a person who was never satisfied with ICU nursing. The nurse who began optimistically and then burned out should have a 1-2-2-1 pattern. All other patterns should represent a mixed group about whom little could be collectively stated. Appendix E contains a copy of the Attribution Scale and the Job Satisfaction Questionnaire.

Organizational Data Form

Several studies have indicated that burnout is associated with turnover and absenteeism (Jones 1980b, 1981; Maslach, 1982; Bartz and Maloney, 1986). The Organizational Data Form examines this information from each hospital as applicable to the sample groups. It also asks for data that would permit the assessment of workload, such as average client census, number of beds per unit, and staffing numbers. Organizational data are collected from hospital administration and are stated as an average (per unit) for the twelve months preceding the sample testing. Using a lesser period of time may give erroneous results due to seasonal variations. Most of the sample worked during all or part of this twelve month period. Appendix F contains a copy of the Organizational Data Form.

Scoring

Rotter's LOC - Subjects scoring a figure equal to the mean plus the SD or greater were categorized as "externals" (high-scoring group). Subjects scoring a figure less than this were categorized as not having externalized locus of control. Subjects scoring a value equal to the mean minus the SD or less were categorized as

"internals" (low-scoring group).

Thornton's **LHI** - Subjects scoring a figure equal to the mean plus the SD or greater were categorized as having learned helplessness (high-scoring group). Subjects scoring a value less than this were categorized as not having learned helplessness. Those scoring a figure equal to the mean minus the SD or less were categorized as *clearly* not having learned helplessness (low-scoring group).

Jone's **SBS-HP** - Subjects scoring a figure equal to the mean plus the SD or greater were categorized as being in a state of burnout (high-scoring group). Those scoring a value less than this were categorized as not being in a state of burnout. Subjects scoring a figure equal to the mean minus the SD or less were categorized as *clearly* not being in a state of burnout (low-scoring group).

A subject having a score within the range equal to the mean plus the SD minus 1 and equal to the mean minus the SD plus 1 on any of the three scales is considered to be in the "grey area" of the given scale and belongs to neither the low-scoring group nor the high-scoring group of the scale, which are also referred to as the extreme groups of the scale. The subject is leaning toward the low-scoring group or the high-scoring group to various degrees, as indicated by the individual score, unless the

score is exactly equal to the mean score. A subject is interpreted as having a predisposition toward an extreme group depending on the individual score. The closer the score to the extreme group score, the greater is the disposition to join that group. Extreme groups were categorized for purposes of comparison in the analysis.

Data Collection

After receiving permission to conduct the study, the subjects were approached and asked to participate. Because a personal approach to each subject was not feasible due to varying shifts or absence due to time off, a written orientation to the study was posted prior to data collection, not mailed to each nurse. This orientation revealed the title of the study and informed the subjects of what their participation would entail and how long it would take. It noted that participation was voluntary but requested a 100% response. Full confidentiality was guaranteed by identifying each subject through code numbers, accessible only to the primary investigator, and by providing an unmarked envelop for the return of the test packet. The subjects were given the opportunity to ask questions, through personal contact, by written message, or by phone prior to participation. The

announcement was posted in a prominent area two weeks before the test packets and collection boxes were provided. Each test packet was identified by a peel-off name sticker.

Each respondent signed a consent form before participating (see Appendix G) and was asked to complete the three standardized scales, the demographic data form, and the attributional and job satisfaction scales, which required approximately 40 minutes. Incomplete packets were returned once to the subject for completion. Those that remained incomplete were not included in the study. Completion of the questionnaire was requested to be done either on duty at or near the work station, after having worked at least four hours, or immediately thereafter. This was to keep work-related events fresh in the mind of the subject.

After two weeks, the completed data forms were collected and a follow up request was made to those who had not yet participated. This was repeated a second time three weeks later. The first request garnered the greatest return. Follow up requests evidenced a steadily diminishing rate of return. Thus, at eight weeks, data collection was considered complete. The style and time of data collection was identical for both hospitals and sample groups.

Data Analysis

All nurses from the government funded agency were identified as sample group **A**, and all nurses from the private facility were designated as sample group **B**. The groups were analyzed in combination. Descriptive statistics were tabulated, such as the means and SDs of the variables, relative frequency distributions, scatterplots, and regression equations. Pearson's product moment correlations with two-tailed tests of significance set at $p < .05$ were used for all correlations except for those cases in which a direction was predicted. Predicted correlations employed a one-tailed test also setting significance at $p < .05$. Correlation matrices were employed comparing all combinations of variables with the **LOC**, **LHI**, and **SBS-HP** scores.

The t-test was applied to comparisons made between groups. The t-test was also employed for comparison of ordinal variables. Chi-square was used in comparing nominal variables.

CHAPTER III

Results

1. *The standarized scales* - Table 2 summarizes the descriptive statistics of the scores of combined groups on the **LOC, LHI** and **SBS-HP**. The mean score on the **LOC** was 8.85 with a SD of 4.2, very comparable to the averaged mean of 9.0 and SD of 2.0 found by Lefcourt (1976) in a compilation of studies using Rotter's scale. The mean score of the **LHI** was 17.5 with a SD of 11.5. Using a population of graduate students, Thornton found a mean score of 28.7 and SD of 6.5. The values are notably lower in this study and may represent differences between two samples of distinctly separate populations. The mean score of the **SBS-HP** was found to be 51.4 with a SD of 18.4. This compares very favorably with Jones' mean of 57.5 and SD of 10.5 when testing samples of nurses. The complete frequency distributions appear in Appendix H.

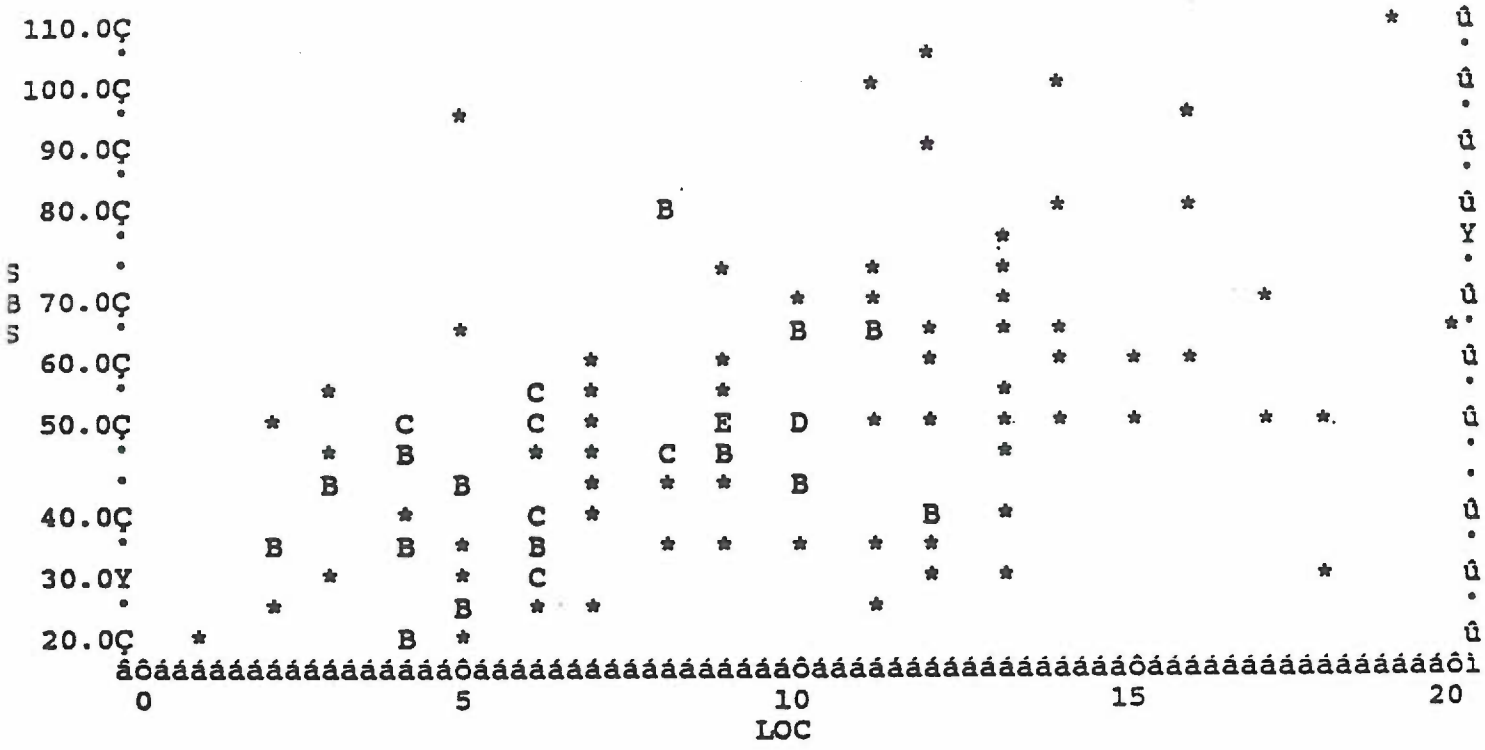
The Conceptual Model of Burnout - Tables 3, 4, and 5 illustrate the results of the scatterplot, two-tailed correlation, and regression line for **LOC/SBS, LOC/LHI**, and **LHI/SBS** for groups **A** and **B** (combined groups), respectively. The three respective values of Pearson's *r* for the combined groups was $r=.575$, $r=.601$, and $r=.723$,

Table 2 Descriptive data: LOC, LHI, SBS-HP.

	LOC	LHI	SBS-HP
N	123	123	123
Mean score	8.846	17.472	51.439
SD	4.180	11.453	18.396
Range	1 - 20	1 - 57	20 - 108
Median	9.000	15.000	51.000
Variance	17.476	131.169	338.429

Table 3. Conceptual model data: LOC vs SBS-HP.

Scatterplot



X Variable: LOC
Y Variable: SBS

	SBS	LOC
Mean:	51.439	8.846
Standard deviation:	18.396	4.180
Minimum:	20.000	1.000
Maximum:	108.000	20.000
N:	123	
N Missing:	0	

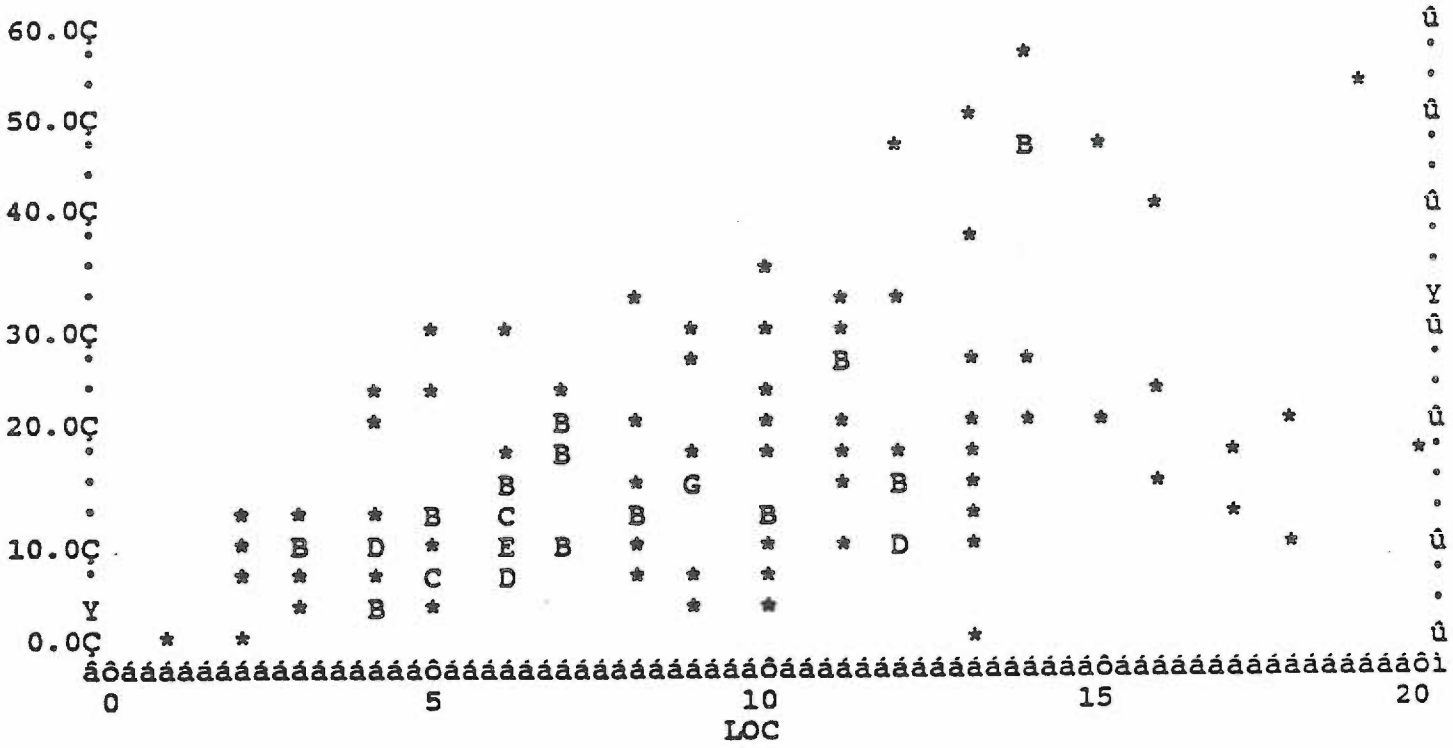
Std dev of Y given X: 16.179

Correlation and two-tailed P-value: 0.4825 (P<0.0000)

Regression line for predicting SBS from LOC:		INTERCEPT	SLOPE
	SBS =	32.65596 +	2.12345 * LOC
Std Errors:		3.42563	0.35040

Table 4. Conceptual model data: LOC vs LHI.

catterplot



Variable: LOC
Variable: LHI

	LHI	LOC
Mean:	17.472	8.846
Standard deviation:	11.453	4.180
Minimum:	1.000	1.000
Maximum:	57.000	20.000
N:	123	
N Missing:	0	

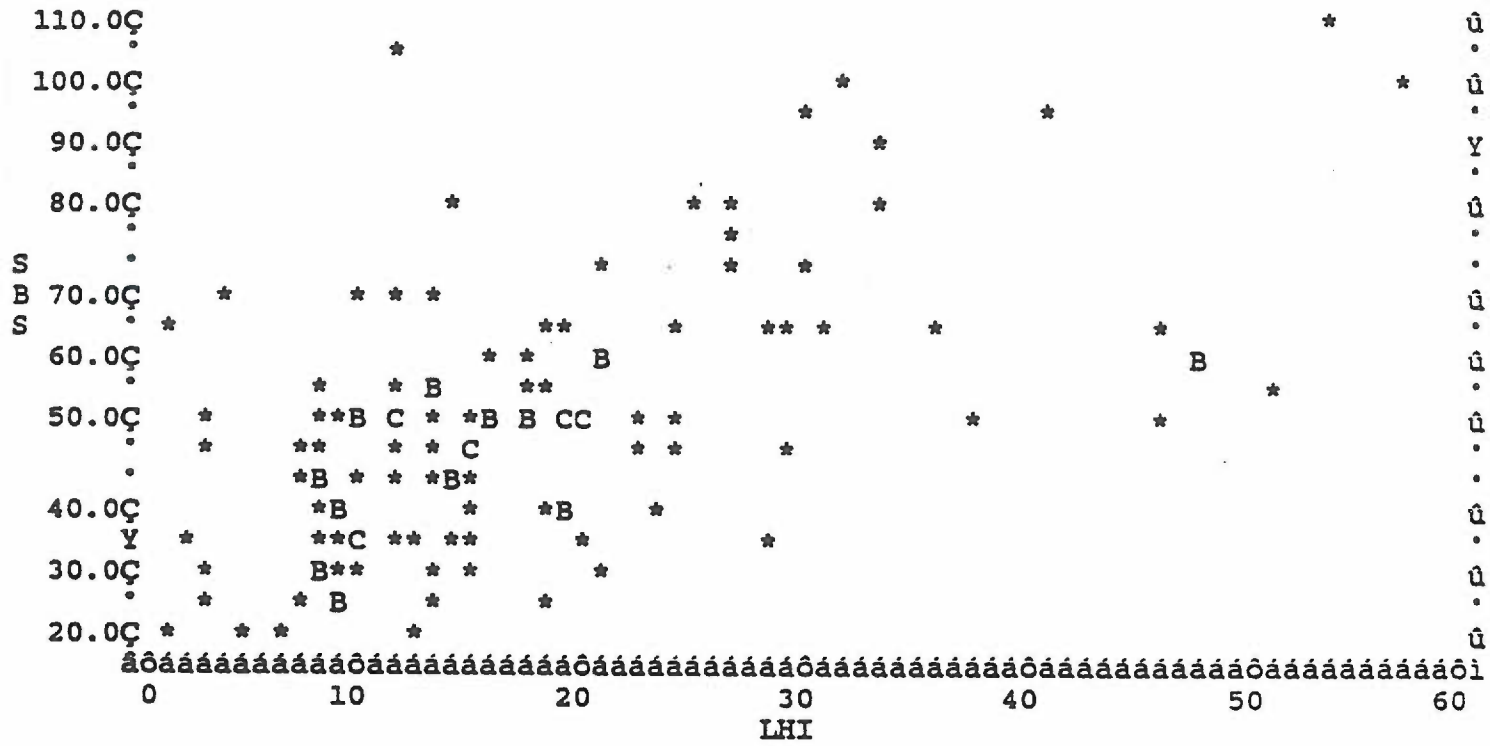
Std dev of Y given X: 9.950

Correlation and two-tailed P-value: 0.5014 (P<0.0000)

Regression line for predicting LHI from LOC:		INTERCEPT	SLOPE
	LHI =	5.31985 +	1.37377 * LOC
Std Errors:		2.10666	0.21548

Table 5 . Conceptual model data: LHI vs SBS-HP.

Scatterplot



X Variable: LHI
Y Variable: SBS

	SBS	LHI
Mean:	51.439	17.472
Standard deviation:	18.396	11.453
Minimum:	20.000	1.000
Maximum:	108.000	57.000
N:	123	
N Missing:	0	

Std dev of Y given X: 15.120

Correlation and two-tailed P-value: 0.5745 (P<0.0000)

Regression line for predicting SBS from LHI:

		INTERCEPT	SLOPE
SBS =		35.31597 +	0.92282 * LHI
Std Errors:		2.49382	0.11952

all having a $p < 0.0001$.

The Lie scale, a 10-item sub-scale of the **SBS-HP** which is scored separately, was included by Jones (1980d) to detect attempts to "fake good." Jones does not specify how this scale is to be used, but suggests that a score of 5 or more should cast some doubt on the truthfulness of response (no validation data supplied). Scores can range from 0-10. On combined groups, 88.6% of the respondents (n=109) had scores of less than 5, with range=0-7, mean=2.2, SD=1.8. The 11.4% (n=14) responding with scores of 5 or more on the Lie scale should theoretically have shown lower scores on the **SBS-HP** if their answers were untruthful. Because no data gave a clear reason to reject these responses, they were not excluded.

2. *Demographics* - Table 6 illustrates a summary of the demographic data. Of the 173 intensive care nurses available for testing from both hospitals, 123 (71.1%) returned completed test packets. The non-response rate was 28.9%. Three items that appeared on the data sheet were deleted from the table. *Job title* was eliminated because all respondents were staff nurses. *Entry level education* was eliminated because only two respondents had increased their level of education from that of entry level. *Current assignment* was eliminated because no differentiation was made between medical and surgical nurses.

Table 6. Demographic data - groups A and B.

Descriptive statistics:

Variable	N	Mean	Range	Percent
Age (years)	123	34.1	22-68	----
Time in nursing (months)	123	99.8	4-516	----
Time in ICU (months)	123	58.2	2-230	----
Time in current ICU (months)	123	32.0	1-230	----
Sex (female)	103	-----	------	83.7
Sex (male)	20	-----	------	16.3
Married	82	-----	------	66.7
Married (months)	82	110.4	1-438	----
Not married	41	-----	------	33.3
Education (MSN, BSN)	61	-----	------	49.6
Education (AD)	50	-----	------	40.7
Education (diploma)	12	-----	------	9.7
Salary (x 1000)	123	26.1	12-40	----
Employed 100%	93	-----	------	75.6
Employed <100%	30	-----	------	24.4
Confidante (yes)	103	-----	------	83.7
Confidante (no)	20	-----	------	16.3
Medical ICUs	65			52.8
Surgical ICUs	58			47.2
Response rate - (n=123 of possible 173)				71.1

The nonrespondents cannot be ignored. They differ from respondents in at least one obvious way; they did not respond. Freedman, Pisani and Purves (1978) note that if a large number of a sample does not respond, it can create a serious distortion called a *nonresponse bias.* Nonrespondents are important because they nearly always represent a significant departure from the sample and the population (Parton, 1950). Reasons for not responding may include the form of approach, the type of information being requested, group affiliations of the respondent, the respondent's attitude toward the investigator, and the efforts made to overcome resistance.

In this study, the nonrespondents may have chosen not to participate because they were burned out and disinterested, because they were not burned out but still disinterested, or for any number of other reasons. Random sampling was not a design of the study, and there are no means to account for the possible influences of nonrespondents.

3. *Organizational data* - Table 7 summarizes the organizational data. The first three items on the data form; *the number of nurses, the number of beds,* and the *average annual census* were planned for estimating the workload of the ICU nurse. This part of the data form was poorly designed because patient acuity was not taken into

account. In addition, neither organization could provide average annual census figures. Therefore, estimated workload was eliminated from the results. In general, however, both organizations aimed at 2:1 coverage for a very acute patient, 1:1 coverage for an acute patient, and a maximum of 1:2 coverage for sub-acute patients. Rarely was a nurse assigned to three (relatively stable) patients.

For both groups **A** and **B** (n=123), unplanned absenteeism among the six intensive care units for the year preceding data collection ranged from 7.1-9.3 days averaged annually, with a mean of 8.2 and a SD of 0.5. The average turnover rate for both groups during the year preceding data collection was 26.2% with a SD of 15.4.

A correlation matrix comparing the mean **SBS** scores with the respective mean values of the combined groups on both turnover and absenteeism is also shown in Table 7. Absenteeism/**SBS** indicated an r=0.6896, a high correlation, at p=0.1296. However, this p value comes from a two-tailed test. Because the prediction was that absenteeism would increase as **SBS** increases, a one-tailed test is more appropriate, and dividing p by 2 gives 0.0648, the value for a one-tailed test and close to the 0.05 per cent level of significance. In contrast, turnover/**SBS** showed an r=0.3241 with p=0.5309.

Table 7. Organizational Data

Data listing: Absenteeism (average in days per year, prior year)
Turnover (average in % per year, prior year)

Hospital	ICU Unit	SBS (mean score)	Absenteeism	Turnover
A	CCU	40.9	7.6	16.0
A	MICU	51.1	7.1	15.4
A	SICU	51.6	8.1	42.8
B	MICU	55.3	8.3	13.0
B	SICU	56.3	9.3	43.2
B	CRU	60.5	8.9	26.8

Absenteeism (A + B): Mean = 8.22, SD = 0.50
Turnover (A + B): Mean = 26.20, SD = 15.38

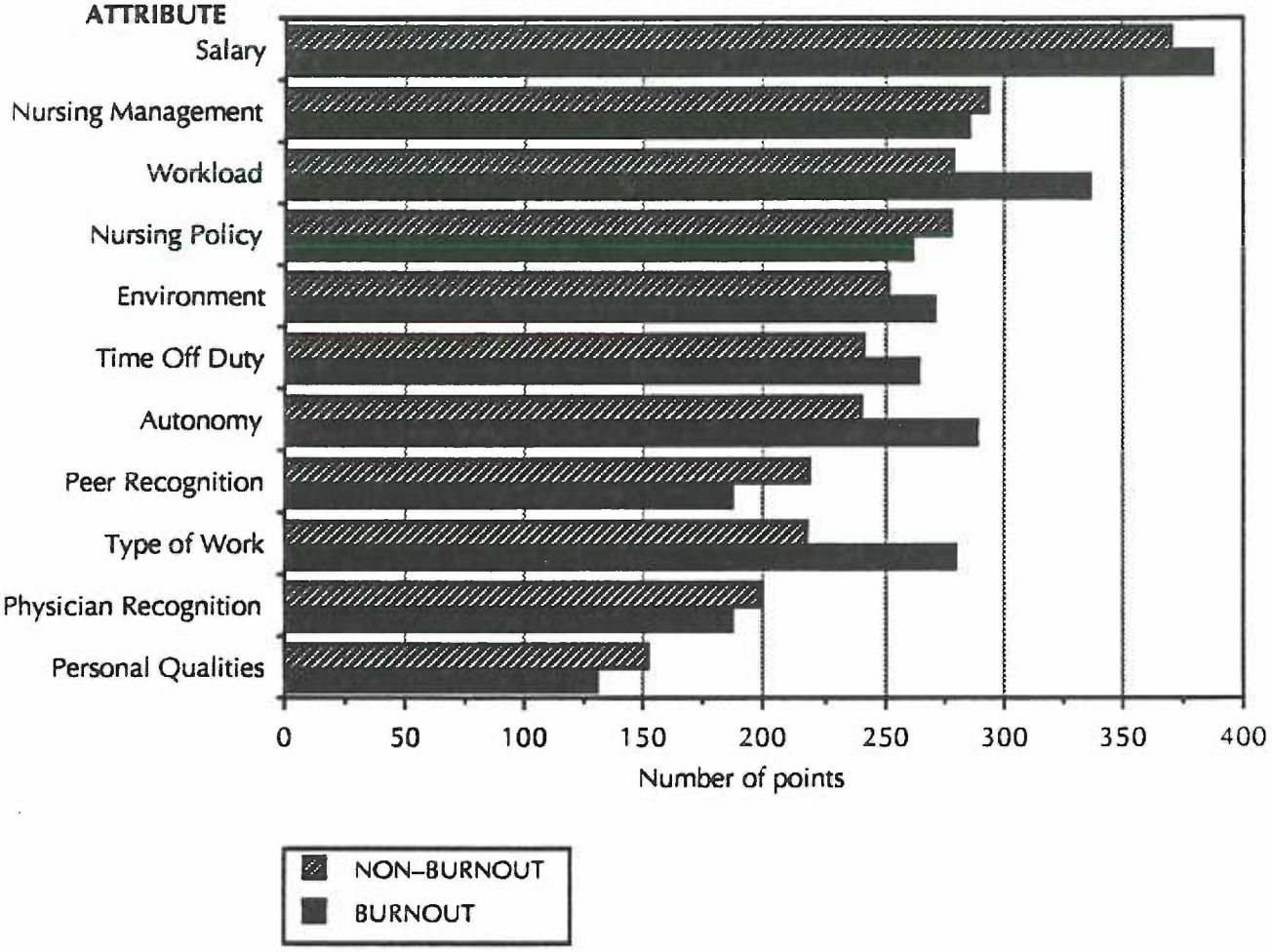
Correlation matrix: Combined groups (n=6)
(*p* values shown are 2-tailed values)

	SBS-HP	Absenteeism	Turnover
SBS-HP	1.0000	0.6896	0.3241
	0.0000	*0.1296*	*0.5309*
Absenteeism	0.6896	1.0000	0.6077
	0.1296	*0.0000*	*0.2007*
Turnover	0.3241	0.6077	1.0000
	0.5309	*0.2007*	*0.0000*

4. *Attribution* - The concept of attribution processes was developed by Weiner (1976) to explain how persons arrive at cause and effect relationships in their everyday lives. The "wild card" slot was used by only two respondents and so was disregarded, leaving eleven attributes. Table 8 compares the rankings of the eleven attributes for the burnout group and for the group that comprised the remainder of the sample. The totaled scores of the burnout group (n=18) were subtracted from the totaled scores of the entire sample (n=123) for each attribute. The remainder of the sample numbered 123-18=105. Equivalency for both groups was reached by dividing the sum of the scores of the larger group for each attribute by a factor of 0.1714 (18 ÷ 105).

Total sample scores ranged from 152-370. The burnout group scores ranged from 130-387. Both groups were comparable in ranking all but four of the attributions. *Salary* ranked first and *personal qualities* ranked last in both groups. However, in the burnout group, *autonomy* (#3) and *type of work* (#5) are ranked higher than in the larger sample (#7 and #9, respectively). The larger sample also ranked *nursing management* (#2) and *nursing policy* (#4) higher than the burnout group (#4 and #8, respectively). All other attributions were equivalent or within one rank order.

Table 8. ATTRIBUTION RANKINGS



As seen in Table 8, however, differences in rank order alone is not so dramatic as differences in scores. The burnout group illustrated clearly higher scores in *type of work*, *workload*, and *autonomy* than the respective scores of the remainder of the sample.

Stephan and McCarthy (1958) report that on rank order questionnaires of ten items or more, the first five items commonly account for the greatest interest among respondents. Thereafter, rankings tend to be more arbitrary except for the last ranking which also tends to reflect accuracy in rank. The first five ranked items of the larger group, in order, were *salary*, *nursing management*, *workload*, *nursing policy*, and *environment*. In the burnout group, the first five ranked items were *salary*, *workload*, *autonomy*, *nursing management*, and *type of work*.

Using a rank order scale for the attributions may not have been the best choice for a design. If, for example, a subject wanted to give equal weight to three items, only one could fit in first place. A Likert scale would indicate the equal weight attached to the three items as well as the varying weights associated with the other attributions over a broader range than could be provided by a rank order questionnaire. Although the two groups were quite similar in their rankings, the Likert scale may

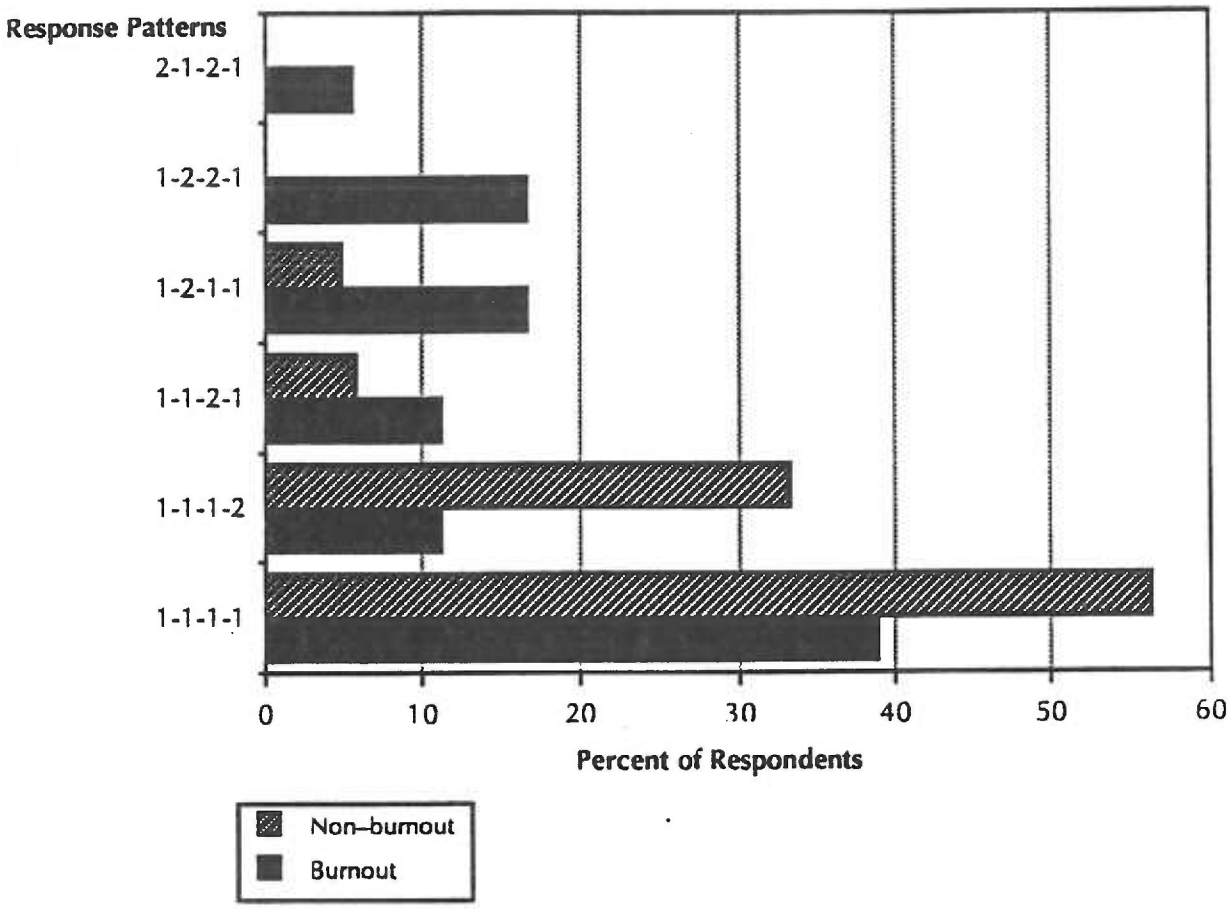
have provided greater accuracy in reflecting the priority of attributions.

A second design consideration of the attributional data form that may have been improved was the phrasing of the attributions. *Autonomy in Nursing Practice*, for example, has a more definitive meaning than simply *Autonomy*. *Environment* could have one definition to one person and a different definition to another; *ICU environment* is clearer. Permitting such chance variation in the interpretation of terms can affect internal consistency. A more careful and clearer phrasing of the attributional factors would have reduced the possibilities of any such error.

5. *Job satisfaction* - Table 9 illustrates the patterns of responses to the 4-item questionnaire. In the group that was not burned out (n=105), 35 respondents (33.3%) answered in the 1-1-1-2 pattern, indicating a high level of satisfaction with their work. Curiously, 59 respondents (56.2%) held the 1-1-1-1 pattern, indicating satisfaction with their work, although they would leave ICU given a reasonable alternative. The remaining patterns, equaling 10.5%, also end in a - - - 1 pattern. None of the group answered in the 1-2-2-1 pattern predicted of the nurse who had burned out.

In the burnout group (n=18), the 1-1-1-1 pattern also

Table 9. Job Satisfaction



accounted for the largest percentage (38.9%). Only 11.1% held the 1-1-1-2 pattern. It is of significance that all of the 1-2-2-1 patterns (predicted for the burned out nurse) are found in this group (16.7%). No respondent answered in the 2-2-2-1 pattern.

Correlation matrix - In order to determine if a factor analytic procedure would be of benefit in demonstrating demographic and attributional patterns associated with burnout, a two-tailed correlational matrix was performed. **LOC** and **LHI** correlations had already been calculated and these were excluded from the matrix. Organizational data were also excluded because the data are not characteristic of the individual respondent. The matrix employed combined groups to maximize the sample size and to increase the probability of recognizing significance.

Munro, Visintainer, and Page (1986) state that in samples of 100 subjects or more, an *r* of 0.20 is statistically significant at the 0.05 level in a two-tailed test. As can be seen from the 23-item by 23-item matrix illustrated in Table 10, there were only 14 correlations (=5.5%) with an *r* of about 0.20 or more having significance at p=0.05 out of the 253 combinations. Of these, several are obviously expected, such as *age* vs *time in nursing*. Others, such as *physician recognition* vs the *Lie scale* on the **SBS-HP**, are more difficult to

Table 10. Correlation matrix: significant data.

Variables	*r* value	*p* value
SBS/Age	0.20	0.03
SBS/Type of work	-0.20	0.019
SBS/Nursing policy	0.18	0.047
Percent employment/Time in nursing	-0.32	0.0003
Percent employment/Time in ICU	-0.42	0.0000
Education/Salary	-0.29	0.001
Education/Type of work	0.25	0.006
Autonomy/Time in nursing	-0.20	0.024
Autonomy/Percent employed	0.20	0.023
Age/Salary	0.27	0.002
Age/Time in nursng	0.65	0.0000
Age/Nursing management	-0.21	0.023
Nursing management/Nursing policy	0.36	0.0000
Physician recognition/Lie scale	-0.22	0.013

comprehend. Of the fourteen, correlations listed, probably only *nursing management* vs *nursing policy* (r=.365, p=0.000) and perhaps a few others offer any useful data. Because of the scant number of significant correlations, no factor analytic procedures were deemed likely to be useful.

Extreme scores - It was decided that one possible reason for an absence of correlations using the matrix may have been due to a cancelling out tendency of the lowest-scoring and higest-scoring groups. Added to the large group of middle-ranked scores on the continuum, significant correlations may have been overlooked. Different results might be seen comparing the extreme scores of the groups. The *t*-test and Chi-square were selected to compare extreme scoring groups.

Scores equal to or higher/lower than the mean score ± the SD on all three scales were tabulated for combined groups. Higher/lower scoring respondents for the **LOC** numbered 16/29, for the **LHI** they were 18/10, and for the **SBS-HP**, the figures were 18/19, respectively. The higher scores on each scale operationally define **LOC**, **LHI**, and **SBS-HP** (burnout), respectively.

t-tests - Independent groups *t*-tests were calculated on the ordinal variables of the extreme scores groups on all three instruments. Summaries of the results of the **LOC**,

the **LHI**, and the **SBS-HP** *t*-tests are itemized in Table 11. See Appendix I for a complete itemization of *t*-tests.

Only one item, *environment* (*t*=2.42, p=0.02), had significance on the **LOC** scale. No items had significance on the **LHI** scale. Two items, *age* (*t*=3.01, p=0.005) and *type of work* (*t*=4.31, p=0.000), held significance for the **SBS-HP**. The sample size in calculating these figures is much reduced from those used in the correlation matrix, however. To be accurate, the *t*-test, must assume an approximation of a normal distribution in the sample, and serious skewing, outliers, or small sample size (< 20) can adversely affect outcomes (Polit and Hungler, 1983). Factors having significance may have been excluded due to the limits imposed by the sample characteristics.

Chi square - A crosstabulation was performed for the nominal variables of *marriage, sex, education, and confidante* for each of the three instruments. No items were demonstrated to be of significance. Because of the much smaller sample size using extreme scores, some of the cells did not have minimum expected frequencies, which must number 5 or more when the degrees of freedom (*df*) are greater than one (Munro, Visintainer, and Page, 1986), otherwise p becomes of questionable reliability. Two additional rules of thumb in assessing Chi square outcomes are that the greatest discrepancies in Chi square occur in

Table 11. Extreme groups: *t*-tests of scales vs ordinal variables.

Significant data

	Variable	*t* value	*p* value
LOC:	Environment	2.42	0.020
SBS-HP:	Age	3.010	0.005
	Type of work	4.310	0.000
LHI:	No significant data		

cases with small *df* (here, *df*=2-6), and that the larger the sample size, the greater the accuracy. The samples chosen do not represent these qualifications, and the results must be questioned because minimum expected cell frequencies were not met. The Chi square crosstabulations are itemized in Appendix J.

CHAPTER IV

Discussion and Conclusions

Hypothesis # 1: The Conceptual Model of Burnout

As depicted by the conceptual model, significant correlations will be found in a staged increase from externalized locus of control to learned helplessness to burnout.

The conceptual model of burnout was investigated only to the extent of examining the relationships of the three standardized scales of **LOC, LHI,** and **SBS-HP** plus attribution. Attributions are not standardized and the attributes in this study were selected on the basis of other research (see literature review). Absenteeism and turnover, organizational correlates of burnout, (Jones, 1980b), were also investigated, but these are not depicted specifically in the model. They would fall under the general category of adverse organizational effects (of burnout).

Individual scores for the three scales, Rotter's **LOC,** Thornton's **LHI,** and Jones' **SBS-HP** were analyzed and indicate a positive correlation among all three concepts

at much less than the level of significance selected, which was ($p < 0.05$). What offered the most support for the conceptual model is not that the three concepts showed positive correlations, but that there was a *staged increase* in values of Pearson's *r* from the **LOC** to **the LHI** to the **SBS-HP**, as predicted, for combined groups. The values ranged from a low of $r=.403$ to a high of $r=.723$, all at $p < 0.001$.

Munro, Visitainer, and Page (1986), on assigning the strength of an *r* value, note that what is being correlated is important. Instruments should have an *r* of at least 0.70 with a higher value being desirable. For human behavior, they suggest an *r* of 0.20 as significant and an *r* of 0.50 as highly significant. By this token, and at the very low p values, the supporting values for the conceptual model are accepted as highly significant. Human behavior is subject to much individualism, and considerable variation should be expected when measuring cognitive values among people. If the *r* values were much higher, on the order of 0.85 or more, one might suspect that the same concepts were being tested.

A factor indigenous to the scales that may have reduced the correlation is that the **SBS-HP** is work-specific and the **LOC** and **LHI** are directed toward life-in-general. It is perfectly feasible for a nurse to have a sense of

externalized control, feelings of helplessness, and/or a condition of burnout while at work, but a much less or even an absent sense of these same outlooks in the private, non-working life. For this reason, respondents were asked to complete the test packet on the clinical unit after having worked four or more hours. It was hoped that the proximity of experience would tend to shift the focus of the **LOC** and the **LHI** to the work arena and reduce the influence of different responses to these two concepts outside the work experience. No factors were identified that might have inflated the values obtained.

Using the means reported for a variety of samples from numerous studies (N=4,433), Lefcourt (1976) reported a combined mean score of 9.0 and an SD of 2.0 for the **LOC**. The combined mean score for this sample (N=123) was 8.85 with an SD of 4.2, which is slightly higher and may be attributable to the predominance of female respondents (83.74%). Females, as well as black males, generally have higher scores on the **LOC** than do white males (Haan, 1982).

The **LHI** was found to have been used only by Thornton (1982) in his validation study of the **LHI** with psychology students (N=200). No other published study employing the **LHI** was discovered in the literature, and comparison can only be made with Thornton's work. He found a mean of 28.67 and an SD of 6.58 in his sample. Simultaneously, he

tested his sample with Rotter's **LOC**, noting a correlation of Pearson's r=.73. The combined groups sample of this study had a much lower mean of 17.47 and a much higher SD of 11.45. However, the groups are very divergent. Thornton's sample was college sophomores, average age probably 20 ± 1.0, of mixed gender, and living in a distinctively unique environment. This disparity between groups may have accounted for the difference in scores. Pearson's r for the **LOC/LHI** of combined groups in this study was .60, lower than that found by Thornton in his sample. This difference is likely within the margin of variation for the **LOC**, which has demonstrated reliabilities ranging from .49 to .83 (Rotter, 1966).

The **SBS-HP** has been used numerous times as noted in the literature review. Where six studies tested nurses as subjects, the mean values ranged from 51.1 to 62.6 with SD ranging from 15.8 to 28.3 (Jones, 1981). In this study, the mean score of combined groups was 51.4 with an SD of 18.4., comparing very well with results found in these other studies. Caron, Corcoran, and Simcoe (1983) used two sub-scales from Maslach's **MBI** (from which the **SBS-HP** was drawn) and Rotter's **LOC** in a study of Master's-level nursing school instructors, finding r values of .293 and .32, respectively, between the sub-scales of emotional exhaustion and depersonalization vs **LOC**. The **SBS/LOC**

correlation for combined groups in the current study was much greater at r=.575.

The data are accepted as highly significant, directional, and supportive of the conceptual model as predicted. The first research question, of whether there is significant and positive correlation among the three concepts of externalized locus of control, learned helplessness, and burnout, is answered in the affirmative. Hypotheses #1 is accepted.

Hypothesis # 2: Demographic Data

Burnout will positively and significantly correlate with younger ages, lesser experience in nursing, greater education, and single marital status.

Correlations, t-tests, and Chi square were employed to determine whether the demograhic data were associated with burnout. Using these criteria, only *age* (r=.20, p=0.03) showed a significant correlation using combined groups. Age was also significant in the extreme groups t-tests (t=3.01, p <.01). None of the remaining demographic data were established as being significant in association with burnout.

Prior studies had indicated significant associations between burnout and higher education, lesser experience in

nursing, and single marital status. Bartz and Maloney (1986), using the **MBI**, found significance in a sample of 89 ICU nurses between *mean sub-scale* scores of the **MBI** and lesser age, greater education, gender (females > than males), and lesser length of time in nursing. Of the 30 possible combinations between the 6 sub-scales and the 5 demographic variables, 14 instances of significance, all negative, were noted at a range of r=-.21 to r=-.41. The remaining 16 combinations were not significant. No demographic variable was significant for all six sub-scales, and no demographics were compared to the total **MBI** score. Yasko (1983) used the **SBS-HP** with a sample of 185 female oncology clinical nurse specialists and recognized significant correlations with age (r=-.21) and number of children (r=-.21) but not marital status, education, or salary. She used the median score or greater to operationally define burnout. McCarthy (1985) tested 31 psychiatric nurses (33% male) using the **SBS-HP** also noting significance between burnout and age (Chi-square=328, p=0.07) but not gender. He also used median scores or greater to operationally define burnout. These studies are noted to define burnout with greater latitude than was permitted here. McDermott (1984), using unvalidated instruments, found no significant associations between burnout and age, gender, marital status, dependents, or

number of hours worked.

The comparisons of studies can be difficult to interpret when instruments, analyses, and operational definitions vary greatly. What would facilitate amassing results from multiple studies on burnout is an agreed upon operational definition. Utilizing the median score would mean that 50% of any sample would be categorized as burned out, a figure that seems unreasonably high. Using that approach in this study would mean that 61 nurses were in a state of burnout rather than the 14.6% (n=18) determined by adding the SD to the mean score, an approach which should clearly define the burned out nurse.

Another item noted on the other studies is that the significant correlations between burnout and demographic factors are nearly at the lowest end of the scale of acceptance. The SBS-HP would appear to consistently correlate with age, but correlation with other demographic factors should be accepted with caution. At this time, there are insufficient replications of burnout studies to permit a firm stance on the association of burnout and demographic characteristics with the possible exception of age.

Hypothesis #2, predicting a correlation of burnout with younger age, lesser experience in nursing, greater

education, and single marital status was found to hold only for age. Hypothesis #2 is rejected.

Hypothesis # 3: Organizational Data

Burnout will positively and significantly correlate with absenteeism and staff turnover.

As previously stated, staff workload could not be calculated. Turnover and absenteeism figures were available only on an annual basis which reduced the number of respondent variables to a total of six (= 6 IC units), greatly restricting the variance. Turnover was found not to have significant correlation with burnout as measured by the **SBS-HP** (r=.324, p=.265). Absenteeism, however, indicated a high r value (.689) at p=.065 using a one-tailed test. This p value is not significant. On the t-test, **SBS**/absenteeism had a significant difference at t=-3.01, p=.0395, which is supportive of the correlation .

Jones (1980a, b, d; 1981; 1983) acknowledged several organizational correlates with the **SBS-HP** including heavy patient-to-staff ratios, tardiness, disciplinary action received, alcohol use at work, employee theft, and serious mistakes on-the-job. For absenteeism, Jones (1980b) found r=.52, p=<0.01 in a study of nursing staff. *Searches* for new employment undertaken (but not turnover *per se*) had an

r of .49, p=<0.01 for the same nursing staff.

Research question number two - regarding whether there was significant correlation of the demographic and/or organizational variables and burnout, - has mixed positive and negative results and cannot be answered definitively. However, considering the number of variables (twelve), and the number that were supportive (two; age and absenteeism), the argument against the correlations is much stronger than the support for them. Similarly, research question number four, - do the organizational and/or demographic variables demonstrate a characteristic profile of the nurse who is burned out, - must be answered with a firm negative. Possibly, such a profile may emerge, but it would likely have to come from studies of very large samples or from the accumulated results of several comparable studies. The available research approximates a direction toward such a profile, but results at this point are insufficient to make an assertive statement.

Half of hypothesis #3 (absenteeism) is accepted and half (turnover) is rejected.

Hypothesis # 4: Attribution Data

Attributions will have the greatest frequency in salary, workload, nursing management, time off duty, peer

recognition, and autonomy. Nurses categorized as in a state of burnout will attribute their condition to different causes than those who are not burned out.

There were some differences in attributions as noted, probably reflective of differences in environmental and/or organizational factors, but on the whole, attributions were very comparable. *Salary* was ranked first in all cases. It might be argued that salary should not influence burnout. Highly paid nurses, such as nursing directors, and physicians normally enjoy high salaries yet still experience burnout. However, salary may also be construed as an organizational recognition of personal worth and it may be used by some as a yardstick of prestige, hence, increased self-esteem and lower burnout.

Nursing management commonly bears the immediate brunt of blame for dissatisfied nurses and, as expected, was ranked higher than *nursing policy* which is more remote but may be more responsible than management for organizational factors. An exception might be the management style of the immediate superior (Duxbury, Armstrong, Drew, and Henly, 1984).

Workload has been commonly cited by nurses as a great source of stress (Oregon Nurses Association, 1987; AACN, 1988; Alspach, 1988) and ranked third in combined groups as might be expected. *Environment*, ranked fifth,

was something of a surprise. This was a rather ambiguously worded phrase that could have had a wide range of meaning. It includes not only the physical environment, which is probably how it was interpreted, but also entails client contact, client demand, and non-nursing functions, which many nurses may not have realized (Maslach, 1982).

Personal qualities was universally ranked last. This fact tends to support the implication that nurses, when they perceive job dissatisfaction, look for reasons other than their own inadequacy as the cause. Muldary (1982) and Seligman (1975) agree that organizations have a greater role in promoting burnout and helplessness than individuals, yet they temper this statement with an admonition that individuals are also at fault because while they may be victimized, they also permit it to happen and must accept their share of responsibility for the outcome.

Physician recognition was expected to have a higher ranking than ninth. Knauss, Draper, Wagner, and Zimmerman (1986), in a large national survey of 13 hospitals, found nurse-physician collaboration to be the primary influential factor in client mortality rates in the ICU; the closer and more frequent the collaboration, the lower the mortality rates. *Peer recognition* was also expected to rank higher. Bailey, Steffen, and Grout (1980) noted that

ICU nurses found their peers to be both a strong source of satisfaction (good relationships, mutual support) as well as a primary source of stress (poor relationships, interpersonal conflict). *Autonomy* was also anticipated to rank higher than seventh, because it means control of many of those components causing stress. This connection may not have been evident due to the phrasing of the attribution. *Type of work* was ranked eighth, surprisingly low considering the large number of nurses who answered that they would leave ICU given a reasonable alternative. *Time off duty* came in at the sixth rank. This is reasonable because time away from work is often given as a need to reduce stress (Cherniss, 1980; Maslach, 1982).

The rankings of the attributions may well have been restricted by using the rank order scale, as previously stated. A Likert scale may have given a distinctly more accurate accounting of the attributions.

The number of nurses categorized as burned out in combined groups was 18 (14.6%). Their attributions differed from those of the total sample. It might be argued whether it would be more appropriate to compare the burnout group attribution rankings to the non-burnout group (n = 123-18, or 105) rankings, rather than to the total sample because the burnout group rankings are included in the total sample. However, the total sample

was used as the basis for comparison in all calculations and was used here as well. As a check, the possibility of important rank order changes in the total sample was investigated by subtracting the values of the burnout group rankings from those of the total sample. Only two attributions of the total sample changed order by one rank. This was not considered significant.

The biggest differences in rankings in the burnout group compared to the total sample came in *autonomy* (#3 vs #7), *type of work* (#5 vs #8), and *nursing policy* (#8 vs #4). All other attributions were at the same rank or within one rank of each other. The high value on autonomy might reflect a perceived need for greater control. This is supported by the higher levels of externalized locus of control and greater feelings of helplessness in the burnout group as evidenced by the conceptual model of burnout. The higher rating given to type of work also tends to indicate that ICU nursing, in particular, was being perceived as negative. The lower ranking given to nursing policy might be an indication that individuals in the burnout group are more attuned to immediacy in their needs and that factors more removed from their microcosm earn less concern and attention.

Taken as a whole, the three attributions suggest a greater concentration on personal need fulfillment and a

decreased concern about larger or more distant, indirect issues than is seen in the total sample. This is in keeping with Maslach's description of the burnout victim (1982), and the characteristics itemized in Table 1.

Hypothesis number four - whether nurses categorized as burned out attribute their condition to different causes than nurses who are not burned out - is answered in the affirmative. This may be subject to some argument because only three of the attributional factors differed by more than one order of rank. However, the *magnitude* of the differences were considerable compared to combined groups, making the burnout group unique. In addition, the *character* of the differing attributions tend to support this conclusion. That is, another conclusion would have been made if the differing attributions were in peer recognition, nursing policy, and physician recognition. Other interpretations could have been made, but those outlined would appear to be the most logical.

Hypothesis #4 predicted the greatest frequency in attributions would be seen in salary, workload, nursing management, time off duty, peer recognition, and autonomy. This prediction held true for four of the first six attributions chosen by combined groups. It held true for four of the first six attributions chosen by the burnout group. Five of the first six predicted attributions were

chosen if both groups are considered. Hypothesis #4 is accepted.

Hypothesis # 5: Job Satisfaction

Subjects categorized as in a condition of burnout will positively and significantly correlate with a 1-2-2-1 pattern on the four-point job satisfaction questionnaire.

In combined groups, 33.3% (n=35) of the nurses answered that they were very satisfied with their work (pattern 1-1-1-2). Only 11.1% of the burnout group (n=2) answered in this pattern. The groups, respectively, had increasing burnout percentages that associate directly with declining job satisfaction. The groups also answered in patterns registering distinct dissatisfaction of 10.5%, and 50.0%, respectively, congruent with the increasing level of burnout.

Curiously, the remaining percentages of each group and by far the majority, (respectively, 66.6% and 88.9%) indicated that they would accept a reasonable alternative to ICU nursing. The largest percentages of each group answered in the 1-1-1-1 pattern (respectively, 56.2% and 38.9%), which affirms satisfaction, yet these nurses would leave ICU if given the chance. This suggests that either; a) the respondents are not answering truthfully; or, b)

that ICU is more or less satisfactory, but that they would prefer other work; or possibly, c) they are dissatisfied with their ICU practice but may be consciously unaware of it. Given the brevity of the 4-item questionnaire, there is no way of knowing the reason(s) for these contradictory patterns. It can possibly be assumed that if these high percentages of nurses would entertain a reasonable alternative to ICU, they are very likely thinking of such alternatives. This coincides with turnover rates as high as 26.2 % in the combined groups.

Only individuals in the burnout group answered in the 1-2-2-1 pattern predicted of the burned out nurse. Hypothesis #5 is accepted.

CHAPTER V

Summary

Two groups of ICU nurses (N=123) having similar units of assignment from two hospitals of approximately equal size that offered similar services were selected for correlational research. One hospital was a university-based facility and the second was a government funded facility. The nurses were assessed for their internalized or externalized locus of control using Rotter's *Locus of Control* (**LOC**) *Scale*, for their state of learned helplessness using Thornton's *Learned Helplessness Inventory* (**LHI**), and for their condition of burnout using Jones' *Staff Burnout Scale for Health Professionals* (**SBS-HP**).

Demographic data were also collected from each subject. In addition, the respondents were asked to complete an 11-item attributional factor scale and a 4-item job satisfaction questionnaire. Organizational data were collected on both groups from their respective hospitals.

The primary focus of the study was to determine the relationship between locus of control, learned helplessness, and burnout. A conceptual model was configured that hypothesized the development, in order, of

role/value conflicts, externalized locus of control, learned helplessness, and finally burnout through a process of ineffective coping.

Certain demographic and organizational factors and job satisfaction had been investigated in other studies and were found to correlate with burnout. These were included in the present study for purposes of replication. Attribution, a process by which individuals come to identify the causes and consequences of their behavior, and an integral part of learned helplessness theory, was added to assess the perceptions nurses recognized as being responsible for their feelings about their practice, whether positive or negative.

The results of the study were significant and strongly supportive of some of the components of the conceptual burnout model. As predicted, staged increases occurred from **LOC** to **LHI** to **SBS-HP**.

Only the demographic variable of younger age was found to correlate with burnout. Level of education, marital status, salary, gender, time in nursing, percent of time employed and having or not having a confidante did not show significant correlation.

Absenteeism was an organizational variable having a significant correlation with burnout but turnover did not. These were the only organizational variables measured.

The scale of the attributional factors held salary, nursing management, workload, nursing policy, environment, and time off duty as being ranked in order of highest concern to the total sample. Nurses categorized as burned out ranked salary, workload, autonomy, nursing management, type of work, and environment, in order, as those factors they would most like to change. This represented an important difference.

A surprising result was the high percentage of the sample groups from each of the two hospitals that responded positively to the job satisfaction questionnaire, yet would accept a reasonable alternative to ICU nursing. The pattern of responses was correctly predicted for the burnout group, who indicated a high level of job dissatisfaction, which is consistent with prior studies on burnout.

Utilization of Results

This study explored the relationships between components of a conceptual model of burnout. The available literature does not indicate much in the way of concern about burnout from health care organizations. This may well be a fatal mistake. The trends of progress all point to a national crisis in health care in the coming years.

If means to correct burnout or to prevent its onset can be reliably identified and utilized, the impact on the increase of the needs of health care in society may be significantly reduced by more able professionals.

Nursing is not free of having some responsibility for the current state of burnout. Many nursing administrators share the jaded outlook commonly attributed to large organizations. Nonsupport of the staff nurse by nursing management is a common complaint. The staff nurse is the client of the nursing administrator, and this client, too, needs a unique type of care to remain healthy and viable.

Implications for Practice

Individual nurses can attempt to effect positive change in themselves by assessing their own tendency toward burnout. They can match the applicable signs and symptoms of burnout as outlined on Table 1 to their own behavior and their own feelings. If they appear to be at risk, they can make self-interventions to attempt to ward off an exacerbation of the phenomenon. In addition, they can try to identify peers who share the same feelings and form a mutual support group. Thereafter, these concerns could be brought to the attention of nursing superiors for consideration of a program of interventions on a larger

scale, if needed.

Finally, nursing administrators and managers should also be acutely aware of the impact of burnout and be prepared to intervene. One such intervention might be to routinely plan regular follow up contact with new nursing staff at the critical intervals of three months, six months, one year, eighteen months, and two years. Follow up may not need to be more than a few minutes conversation regarding the nurse's well-being. It shows management's concern and support and should have significant, positive impact on the new staff member. It would not be an exaggeration of concern for management to designate a nurse as a specialist in burnout. This person would regularly make holistic assessments of burnout potential, implement strategies to minimize the intensity of predictor variables, and plan educational experiences to assist others in developing effective coping methods and support systems.

The alternative, ignoring burnout and all its adverse effects, can only worsen an issue that is already seriously problematic. No one benefits from burnout. Indeed, the health care professional, the health care organization, and especially the client seeking high quality health care services, may all experience the consequences of burnout.

Recommendations for Further Research

What is it about human service that is so stressful? Basic research on this question would prove most helpful. Not every person providing human services burns out. Indeed, many seem to thrive on it (the lowest burnout score found in this study, 24, with 20 being the minimum score, was from a 58 year-old nurse with 15 years in ICU alone). A large scale burnout study with a sample of several hundred should provide a sufficient number of low-scoring subjects who might then be examined in greater depth to determine why they did not experience burnout. Identifying the reasons for their success may offer knowledge that could be transposed to others.

The evidence associating burnout with demographic or organizational predictor variables is still substantially insufficient. Studies using larger and more diversified samples need to be conducted if the susceptible individual is to be identified with any measure of confidence.

A study has yet to be conducted on the efficacy of various suggested interventions in burnout. Research in this area is strongly needed. Burnout can be reversed (Freudenberger, 1980), but the means to accomplish this have not been evaluated.

Some components of the conceptual model of burnout employed in this study were found to be significant. Yet, the model identifies three theoretical stages of burnout only in part and has not been tested in its entirety. Further testing of the model is required.

Is there a burnout curve? A purely subjective impression gained from reading the literature suggests that the line on a graph of burnout vs time would not be linear but parabolic. That is, burnout gradually rises over time and then strikes a critical point when it abruptly climbs. This would appear to be about 18 - 24 months after beginning practice, given the sparse evidence available. Knowing when a person is most susceptible to burnout would permit intervention before this time was reached. Longevity studies, which have yet to be conducted, would be required for such an investigation.

Jones (1981) is correct in his appraisal that burnout research is still in a state of infancy. The *major* problem with the current state of burnout research is the paucity of studies. There is simply not enough solid evidence on the burnout phenomenon to make any but the most approximate conclusions about what to do about it. Perhaps more important is the apparent decline in burnout interest, if the literature is any indicator. The

appropriate time for studying the burnout phenomenon is now. Prevention is always easier than cure.

REFERENCES

AACN (1988). Newsletter. Newport Beach, CA., August

Abramson, L., Seligman, M., and Teasdale, J. (1978). Learned helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology, 87(1), 49-74.

Aiken, M. and Hage, J. (1966). Organizational alienation: A comparative analysis. American Sociological Review, 31, 497-507.

Alspach, J. (1988). The shortage of critical care nurses: Readership survey results. Critical Care Nurse, 8(3), 19-22.

Altmeier, E. and Happ, D. (1985). Coping skills training's immunization effects against learned helplessness. Journal of Social and Clinical Psychology, 3(2), 181-189.

Averill, J. (1973). Personal power over aversive stimuli and its relationship to stress. Psychological Bulletin, 80(4), 286-303.

Bailey, J., Steffen, S., and Grout, J. (1980). The stress audit: Identifying the stressors of ICU nursing. Journal of Nursing Education, 19(6), 15-25.

Barad, C. (1979). Study of burnout syndrome among Social Security Administration public contact employees. Unpublished manuscript. Washington, D.C.: Social Security Administration.

Bartz, C. and Maloney, J. (1986). Burnout among intensive care nurses. Research in Nursing & Health, 9, 147-53.

Berkerian, D. (1984). The learned helplessness hypothesis: A framework in disguise. Current Psychological Research & Reviews, Spring, 19-37.

Beutell, N. and Biggs, D. (1984). Behavioral intentions to join a union: Instrumentality X valance, locus of control, and strike attitudes. Psychological Reports, 55, 215-222.

Bramhall, M. and Ezell, S. How burned out are you? Public Welfare, 39(1), 23-27.

Brickman, p., Rabinowitz, V., Karuza, J., Coates, D., Cohn, E., and Kidder, L. (1982). Models of helping and coping. American Psychologist, 37(4), 368-384.

Burger, J. and Arkin, R. (1980). Prediction, control and learned helplessness. Journal of Personality and Social Psychology, 38, 482-491.

Caron, C., Corcoran, K., and Simcoe, F. (1983). Interpersonal correlates of burnout: The role of locus of control in burnout and self-esteem. The Clinical Supervisor, 1(4), 53-61.

Cherniss, Cary (1980a). Professional burnout in human service organizations. New York: Praeger, pp. 56-123.

Cherniss, Cary (1980b). Staff burnout: Job stress in the human services. Beverly Hills, CA.: Sage Publications, pp. 6-189.

Cherniss, C. (1982). "Job burnout": Growing worry for workers, bosses. In E. McConnell (Ed.), Burnout in the nursing profession. St. Louis: C.V. Mosby, pp. 78-81.

Chiriboga, D. and Bailey, J. (1986). Stress and burnout among critical care and medical surgical nurses: A comparative study. Critical Care Quarterly, 9(3), 84-92.

Constable, J. and Russell, D. (1986). The effect of social support and the work environment upon burnout in nurses. Journal of Human Stress, Spring, 20-26.

Cronin-Stubbs, D., and Rooks, C. (1985). The stress, social support and burnout of critical care nurses: The results of research. Heart & Lung, 14(1), 31-39.

Duxbury, M., Armstrong, G., Drew, D., and Henly, S. (1984). Head nurse leadership style with staff nurse burnout and job satisfaction in neonatal intensive care units. Nursing Research, 33(2), 97-101.

Edelwich, J. and Brodsky, A. (1980). Burnout: stages of disillusionment in the helping professions. New York: Human Services Press.

Einsiedel, A. and Tully, H. (1980). Methodological considerations in studying the burnout phenomenon. In J. Jones (Ed.), The burnout syndrome. Park Ridge, IL: London House Management Press, pp. 89-107.

Freudenberger, H.J. (1974). Staff burn-out. Journal of Social Issues; 30: 159-165.

Freudenberger, H.J. and Richelson, G. (1980). Burnout: The melancholia of high achievement. Boston: Anchor Press.

Friel, M. and Tehan, C. (1980). Counteracting burn-out for the hospice caregiver. Cancer Nursing, 3(4), 285-293.

Frost, T. and Wilson, H. (1983). Effects of locus of control and A-B personality type on job satisfaction within the health care field. Psychological Reports, 53, 399-405.

Funkhouser, G.R. (1977). Quality of Care: Why nurses quit nursing (Part Two). Nursing 77, January, 27-33.

Gaudinski, M. (1982). Coping with expanding nursing practice, knowledge, and technology. In E. McConnell (Ed.) Burnout in the nursing profession. St. Louis: C.V. Mosby, pp. 146-150.

Gentry, W., Foster, S., and Froehling, S. (1972). Psychological response to situational stress in intensive and nonintensive nursing, Heart & Lung, 1, 793-796.

Glass, D. and Singer, J. (1969). Psychic cost of adaptation to an environmental stressor. Journal of Personality and Social Psychology, 12, 200-212.

Glass, D. and Singer, J. (1973). Stress and adaptation: Experimental studies of behavioral effects of exposure to aversive events. New York: Academic Press.

Godfrey, M.A. (1978). Job satisfaction - or should that be job dissatisfaction? How nurses feel about nursing. Nursing 78, April, 105-110.

Greer, J. and Wethered, C. (1984). Learned helplessness: A piece of the burnout puzzle. Exceptional Children, 50(6), 524-530.

Hackman, J. and Suttle, J. (1975). Improving life at work. Santa Monica, CA: Goodyear Publishing Co.

Hagemaster, J.N. (1983). Job stress vs. nurse burnout. Are you caught in the middle? Occupational Health Nursing, 31, 38-40.

Hann, N. (1982). The assessment of coping, defense, and stress. In L. Goldberger and S. Breznitz (Eds.), Handbook of stress: Theoretical and clinical aspects. New York: The Free Press, 254-270.

Jacobsen, M. (1982). Stressful situations for neonatal intensive care nurses. MCN 3, 144-150.

Joe, V. (1971). Review of the internal-external control construct as a personality variable. Psychological Reports, 28, 619-640.

Jones, J. (1980a). Diagnosing and treating staff burnout among health professionals. In J. Jones (Ed.), The burnout syndrome. Park Ridge, IL: London House Press, 107-126.

Jones, J. (1980b). Staff burnout and employee counterproductivity. In J. Jones (Ed.), The burnout syndrome. Park Ridge, IL; London House Press, 126-139.

Jones, J. (1980c). Postscript on the burnout syndrome. In J. Jones (Ed.), The burnout syndrome. Park Ridge, IL: London House Press, 177-201.

Jones, J. (1980d). A measure of staff burnout among health professionals. Paper presented at the 88th Annual Conference of the American Psychological Association, Montreal, Quebec, Canada, September, 1980.

Jones, J. (1981). Attitudinal correlates of employee theft of drugs and hospital supplies among nursing personnel. Nursing Research, 30, 349-351.

Jones, J. (1983). Dishonesty, staff burnout, and unauthorized work break extensions. Technical Report No. 11, Park Ridge, Il: London House Publications.

Kafry, D., Kanner, A., and Pines, A. (1980). Conspicuous in its absence: The lack of positive conditions as a source of stress. Journal of Human Stress, 4, 33-39.

Kamis, E. (1980). Staff burnout: An epidemiological analysis. In J. Jones (Ed.) The burnout syndrome. Park Ridge, IL: London House Management Press, pp. 54-68.

Keane, A., Ducette, J., and Adler, D. (1985). Stress in ICU and non-ICU nurses. Nursing Research, 34(4), 231-236.

Kramer, M. (1974). Reality shock: Why nurses leave nursing. St. Louis: C.V. Mosby.

Klagsburn, S. (1976). Cancer, emotions and nurses. American Journal of Psychiatry, 126, 1237-1244.

Knauss, W., Draper, E., Wagner, D., and Zimmerman, J. (1986). An evaluation of outcome from intensive care in major medical centers. Annals of Internal Medicine, 104, 410-418.

Lambert, V. and Lambert, C. (1981). Role theory and the concept of powerlessness. Journal of Mental Health, 19(9), 11-14.

Lazarus, R. (1974). The psychology of coping: Issues of research and assessment. In G.Coelho, D. Hamburg, and J. Adams (Eds.), Coping and adaptation. New York: Basic Books.

Lazarus, R. and Launier, R. (1978). Stress-related transactions between person and environment. In L. Perlin and M. Lewis (Eds.) Interaction between internal and external determinants of behavior. New York: Plenum.

Lefcourt, H. (1966). Internal vs external control of reinforcement: A review. Psychological Bulltin, 65, 206-220.

Lefcourt, H., Hogg, E., Struthers, S., and Holmes, C. (1970). Causal attributions as a function of locus of control, initial confidence, and performance outcomes. Journal of Personality and Social Psychology, 32, 391-397.

Lefcourt, H. (1972). The function and illusion of control and freedom. American Psychologist, 20, 417-423.

Lefcourt, Herbert (1976). Locus of control: Current trends in theory and research. New York: John Wiley & Sons, 157-195.

Lowery, B. (1981). Misconceptions and limitations of locus of control and the I-E Scale. Nursing Research, 30(5), 294-298.

MacNeill, David (1980). The relationship of occupational stress to burnout. In J. Jones (Ed.), The burnout syndrome. Park Ridge, IL: London House Management Press, 68-89.

Maier, S. and Seligman, M. (1976). Learned helplessness: Theory and evidence. Journal of Experimental Psychology: General, 105, 3-46.

Maslach, Christina (1976). Burned out. Human Behavior; 5, 16-22.

Maslach, C., and Jackson, S.E. (1978). Maslach Burnout Inventory. Palo Alto, CA: Consulting Psychologists Press Inc.

Maslach, C. and Jackson, S.E. (1981). The measurement of experienced burnout. Journal of occupational behavior, 2, 99-113.

Maslach, Christina (1982). Burnout: The cost of caring. Englewood Cliffs, NJ: Prentice-Hall.

McCarthy, Paul (1985). Burnout in psychiatric nursing. Journal of Advanced Nursing, 10, 305-310.

McConnell, Edwina (1982). Burnout in the nursing profession. E, McConnell, (Ed.), St. Louis: C.V. Mosby.

McDermott, D. (1984). Professional burnout and its relation to job characteristics, satisfaction, and control. Journal of Human Stress, Summer, 79-85

Mendel, W. (1978). Staff burn-out: Diagnosis, treatment and prevention. New directions for mental health systems, 2, 75-83.

Mohl, P., Denny, N., Mote, T., Coldwater, C. (1980). Hospital unit stressors that affect nurses: Primary task vs social factors. Psychosomatics, 23, 366-373.

Monat, A. and Lazarus, R. (1977). Introduction. Stress and coping. New York: Columbia University Press.

Muldary, Thomas (1982). Burnout and health professionals. Garden Grove, CA: Capistrano Press, Ltd.

Munro, B., Visitainer, M., and Page, E. (1986). Statistical methods for health care research. Philadelphia: J.B. Lippincott Co.

Murphy, S. (1982). Learned helplessness: From concept to comprehension. The Journal of School Health, 20(1), 27-32.

Oregon Nurses Association. (1987). Opinion poll. Salem, OR., October.

Paine, W.S. (1980). The burnout syndrome in context. In J. Jones (Ed.), The burnout syndrome. Park Ridge, IL: London House Press.

Parten, M. (1950). Surveys, polls, and samples. New York: Harper & Row.

Patrick, P. (1979). "Burnout: Job hazard for health workers." Hospitals, November 18, 87-90.

Pearlin, L. (1967). Alienation from work: A study of nursing personnel. In M. Abrahamson (Ed.), The professional in the organization. Chicago: Rand McNally.

Pearlman, J., Stotsky, B., and Dominick, J. (1969). Attitudes toward death among nursing home personnel. Journal of Genetic Psychology, 114(1), 63-75.

Peterson, C. (1982). Learned helplessness: Fundamental issues in theory and research. Point-Counterpoint, 248-254.

Pines, A. and Aronson, E. (1981). Burnout: From tedium to personal growth. New York: Free Press.

Pines, A. and Kafry, D. (1978). Occupational tedium in social service professionals. Social Work, 23(6), 499-507.

Pines, A. and Kanner, A. (1982). Nurses' burnout: Lack of positive conditions and presence of negative conditions as two independent sources of stress. Journal of Psychiatric Nursing, 20, 30-35.

Polit, D. and Hungler, B. (1983). Nursing research: Principles and methods. 2nd Ed., Philadelphia: J.P. Lippincott Co.

Potter, B. (1980). Beating job burnout. San Francisco: Harbor Publishing Co., Distributed by Putnam Sons: New York.

Price, J. and Cherniss, C. (1976). The correlates of turnover. Working paper,series #73-1, Department of Sociology, University of Iowa.

Rotter, Julian (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs: General and Applied, 80(1), Whole No.609, 1-28.

Sadowski, C. and Wenzel, D. (1982). The relationship of locus of control dimensions to reported hostility and aggression. The Journal of Psychology, 112, 227-230.

Santora, D. and Steiner, H. (1982). School nurses and powerlessness. The Journal of School Health, September, 428-431.

Sarason, S.(1971). The culture of the school and the problem of change. Boston: Allyn & Bacon.

Sarason, S., Sarason, E., and Cowden, P. (1975). Aging and the nature of work. American Psychologist, 30, 584-593.

Sarata, B. and Jepperson, J. (1977). Job design and staff satisfaction in human service settings. American Journal of Community Psychology, 5, 229-236.

Savage, J. (1979). A crisis of morale?...some of the root causes which lead to a nurse's decision to quit nursing. Nursing Mirror; 149, 14-21.

Schaefer, M.J. (1977). The knowledge worker. Journal of Nursing Administration, April, 7, 7-11.

Schmalenburg, C. and Kramer, M. (1979) Bicultural training: A cost-effective program. Journal of Nursing Administration, December, 10-16.

Selye, H. (1964). The stress of life. New York: McGraw-Hill.

Seligman, M.E.P. and Johnston, J.C. (1974). A cognitive theory of avoidance learning. In F. J. McGuigan and D. B. Lumsden (Eds.), Contemporary approaches to learning and conditioning. Washington, D.C.: V.H. Winston.

Seligman, M.E.P. (1975). Helplessness. On depression, development, and death. San Francisco: W.H. Freeman.

Seligman, M. and Weiss, J. (1980). Coping behavior: Learned helplessness, physiological change, and learned activity. Behavior Research and Therapy, 18, 457-512.

Shillinger, F. (1983). Locus of control: Implications for clinical nursing practice. Image: The Journal of Nursing Scholarship, Vol. XV No.2, 58-63.

Shubin, S. (1978). "Burnout: The professional hazard you face in nursing. Nursing '78, July, 22-27.

Stephan, F. and McCarthy, P. (1958). Sampling opinions. New York: J. Wiley & Sons.

Steptoe, A. (1983). Stress, helplessness, and control: The implications of laboratory studies. Journal of Psychosomatic Research, 27(5), 361-367.

Stoner, C. (1985). Learned helplessness: Analysis and application. Oncology Nurse Forum, 12(1), 31-35.

Tadmor, C. and Hofman, J. (1985). Measuring locus of control in a hospital setting. Psychological Reports, 56, 525-526.

Thompson, J. (1981). "Burnout" in group home house parents. American Journal of Psychiatry, 137(6), 710-714.

Thornton, Jerry (1982). Predicting learned helplessness in human subjects. The Journal of Psychology, 112, 251-257.

Truch, S. (1980). Teacher burnout and what to do about it. New York: Academic Therapy Publications.

Vash, C.L. (1980). The burnt-out administrator. New York: Springer.

Veningo, R.L. and Spradley, J.P. (1981). Work stress connection: How to cope with job burnout. Boston: Little Brown Book.

Vreeland, R. and Ellis, G. (1982). Stresses on the nurse in an intensive care unit. In E. McConnell (Ed.), Burnout in the nursing profession. St. Louis: C.V. Mosby, pp. 250-253.

Weiner, B. (1976). Some methodological pitfalls in attributional research. Journal of Educational Psychology, 75, 530-543.

White, W. (1980). A systems approach to staff burnout. Rockville, MD: HCS, Inc.

Wortman, C. (1975). Some determinants of perceived control. Journal of Personality and Social Psychology, 31(2), 282-294.

Yasko, J.M. (1983). Variables which predict burnout experienced by oncology clinical nurse specialists. Cancer Nursing, April, 109-16.

APPENDIX A

Rotter's Internal-External Locus of Control Scale

ROTTER'S INTERNAL-EXTERNAL LOCUS OF CONTROL SCALE
(Rotter 1966)

Variable

Rotter (1966) defines internal-external locus of control in the following way:

> "...an event regarded by some persons as a reward or reinforcement may be differently perceived and reacted to by others. One of the determinants of this reaction is the degree to which the individual perceives that the reward follows from, or is contingent upon, his own behavior or attributes versus the degree to which he feels the reward is controlled by forces outside of himself and may occur independently of his own actions. ...a perception of causal relationship need not be all or none but can vary in degree. When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control."

In view of recent concerns about the multidimensional nature of the IE construct, the reader may wish to note that Rotter's definition of the construct deals only with a person's perception of contingency relationships between his own behavior and events which follow that behavior.

Description

The history of the development of the test is detailed in Rotter's (1966) monograph. In its present form, it consists of 23 question pairs, using a forced-choice format, plus six filler questions.

Internal statements are paired with external statements. One point is given for each external statement selected. Scores can range from zero (most internal) to 23 (most external).

The items are presented below along with their correlation to the total test score minus that item. The correlations were reported by Rotter (1966) for a sample of 400 subjects, 200 of each sex.

coefficients (Altrocchi et al., 1968; Feather, 1967; Hjelle, 1971; MacDonald, 1972)--ranging from -.20 to -.42. Additionally, correlations with Edward's Social Desirability Scales have been found to range between -.23 and -.70 (Berzins et al., 1970; Cone, 1971).

Correlations with measures of intelligence have ranged from .03 to -.22 (Rotter, 1966).

Location

Rotter, J. B. Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 1966, 80 (1 Whole No. 609).

Administration

The scale is self-administered and can be completed in about 15 minutes. The scale has been most frequently used with college students, but has been used with adolescent and older subjects. No upper or lower age limits have been established.

Comments

The scale has been used in a number of interesting and important studies. The recent group of studies that find significant correlations with measures of social desirability response bias, along with those which have found the scale tapping more than one factor, have called the validity of the scale into question. However, when one considers that (a) the correlations with measures of social desirability response bias are typically low, and (b) results of factor analyses are varied and difficult to compare (e.g., the analysis performed by Gurin et al. [1969] included a number of items not found in Rotter's scale; it is difficult to assess the effect of those items on the analysis), one must conclude that methodological questions have been more effectively raised than answered.

As mentioned above, factor analyses have uncovered one factor (named "personal control") on which the items with the highest loadings are phrased in the first person. This group of items would appear to be reflecting and measuring the construct as it has been defined by Rotter (see the definition under "Variable" above).

Although this factor tends to account for most of the scale variance, a second factor--"control ideology" (which could as easily be called "control attribution"), in which the items are phrased in the third person--appears with some frequency. This factor seems to be indeed different from IE as defined by Rotter and does seem to be important in its own right.

It is clear that there are methodological problems to be resolved in the IE area and that Rotter's scale is not as "pure" as it was believed to be. However, until such time as the issues are resolved, Rotter's scale is still to be recommended as a measure of generalized IE expectancy.

Normative data are reported by Rotter (1966). Using the means rèported for a variety of samples, and those from samples not reported by Rotter (for a total N of 4,433), Owens computed the overall means for all groups combined: males, mean = 8.2 (SD = 4.0); females, mean = 8.5 (SD = 3.9); combined, mean = 8.3 (SD = 3.9).

Rotter (1966) reported that two factor analyses had been completed; one by himself and the other by Franklin (1963). The results were much the same. Each revealed one general factor which accounted for much of the total scale variance (53 percent in Franklin's analysis) and several additional factors which involved only a few items and which accounted for very little variance. More recent factor analyses (Gurin, et al., 1969; MacDonald and Tseng, 1971; Minton, 1972; Mirels, 1970) have shown the Rotter scale to be more multidimensional than the analyses of Rotter and Franklin. (Still, there is generally one factor that accounts for most of the variance, and often this factor has to do with one's belief in his own control—with items worded in the first person; a second factor that often emerges has to do with one's belief that people have control generally--items worded in the third person.)

Sample

The Rotter IE scale has been administered to numerous samples. For details, see Joe (1971), Lefcourt (1966, 1972), and Rotter (1966).

Reliability/ Homogeneity

An internal consistency coefficient (Kuder-Richardson) of .70 was obtained from a sample of 400 college students (Rotter, 1966).

For two subgroups of Rotter's (1966) sample test-retest reliability coefficients were computed, with a value of .72 for 60 college students, after one month (for males, r = .60; for females, r = .83). After two months, an r of .55 was obtained for 117 college students (for males, r = .49; for females, r = .61). Rotter suggests that part of the decrease after the two month period is due to differences in administration (group vs. individual).

Validity

Convergent: Over 50 percent of the internal-external locus of control investigations have employed the Rotter scale. It is not possible to list all of the findings here. Detailed literature reviews are available (Joe, 1971; Lefcourt, 1966, 1972; Minton, 1967; Rotter, 1966). The literature does indicate that there are individual differences in perception about one's control over one's destiny and that the Rotter scale is sensitive to these differences.

Discriminant: Rotter reports that correlations with the Marlowe-Crowne Social Desirability Scale range from -.07 to -.35. More recent studies have uncovered higher

INTERNAL VS. EXTERNAL CONTROL

(Correlations are those of each item with total score, excluding that item.)

1.a.	Children get into trouble because their parents punish them too much.	
b.	The trouble with most children nowadays is that their parents are too easy with them.	Filler
2.a.	Many of the unhappy things in people's lives are partly due to bad luck.	.26
b.	People's misfortunes result from the mistakes they make.	
3.a.	One of the major reasons why we have wars is because people don't take enough interest in politics.	
b.	There will always be wars, no matter how hard people try to prevent them.	.18
4.a.	In the long run people get the respect they deserve in this world.	
b.	Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.	.29
5.a.	The idea that teachers are unfair to students is nonsense.	
b.	Most students don't realize the extent to which their grades are influenced by accidental happenings.	.18
6.a.	Without the right breaks one cannot be an effective leader.	.32
b.	Capable people who fail to become leaders have not taken advantage of their opportunities.	
7.a.	No matter how hard you try some people just don't like you.	.23
b.	People who can't get others to like them don't understand how to get along with others.	
8.a.	Heredity plays the major role in determining one's personality.	
b.	It is one's experiences in life which determine what one is like.	Filler
9.a.	I have often found that what is going to happen will happen.	.16
b.	Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.	
10.a.	In the case of the well prepared student there is rarely if ever such a thing as an unfair test.	

	b. Many times exam questions tend to be so unrelated to course work that studying is really useless.	.24
11.a.	Becoming a success is a matter of hard work, luck has little or nothing to do with it.	
b.	Getting a good job depends mainly on being in the right place at the right time.	.30
12.a.	The average citizen can have an influence in government decisions.	
b.	This world is run by the few people in power, and there is not much the little guy can do about it.	.27
13.a.	When I make plans, I am almost certain that I can make them work.	
b.	It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.	.27
14.a.	There are certain people who are just no good.	
b.	There is some good in everybody.	Filler
15.a.	In my case getting what I want has little or nothing to do with luck.	
b.	Many times we might just as well decide what to do by flipping a coin.	.29
16.a.	Who gets to be the boss often depends on who was lucky enough to be in the right place first.	.31
b.	Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.	
17.a.	As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.	.36
b.	By taking an active part in political and social affairs the people can control world events.	
18.a.	Most people don't realize the extent to which their lives are controlled by accidental happenings.	.31
b.	There really is no such thing as "luck."	
19.a.	One should always be willing to admit mistakes.	
b.	It is usually best to cover up one's mistakes.	Filler
20.a.	It is hard to know whether or not a person really likes you.	.27
b.	How many friends you have depends on how nice a person you are.	
21.a.	In the long run the bad things that happen to us are balanced by the good ones.	.15
b.	Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.	

22.a.	With enough effort we can wipe out political corruption.	
b.	It is difficult for people to have much control over the things politicians do in office.	.23
23.a.	Sometimes I can't understand how teachers arrive at the grades they give.	.26
b.	There is a direct connection between how hard I study and the grades I get.	
24.a.	A good leader expects people to decide for themselves what they should do.	
b.	A good leader makes it clear to everybody what their jobs are.	Filler
25.a.	Many times I feel that I have little influence over the things that happen to me.	.48
b.	It is impossible for me to believe that chance or luck plays an important role in my life.	
26.a.	People are lonely because they don't try to be friendly.	
b.	There's not much use in trying too hard to please people, if they like you, they like you.	.20
27.a.	There is too much emphasis on athletics in high school.	
b.	Team sports are an excellent way to build character.	Filler
28.a.	What happens to me is my own doing.	
b.	Sometimes I feel that I don't have enough control over the direction my life is taking.	.24
29.a.	Most of the time I can't understand why politicians behave the way they do.	.11
b.	In the long run the people are responsible for bad government on a national as well as on a local level.	

Note: Score is the total number of underlined choices (i.e., external items endorsed).

APPENDIX B

Thornton's Learned Helplessness Inventory

Note to users of the LHI

Since the study "Predicting Helplessness in Human Subjects" was published in 1982 the LHI has been renormed for a shorter form. The form now only contains the origional 70 items and not the 140 stated in the article enclosed. In order to shorten the test the additional 70 items which were used for other subscales (other than for a measure of helplessness) were removed. A new norming based on an N of 200 was completed. The mean was shown to be 23.24 and the standard deviation was 11.01.

The copy of the LHI enclosed is of the shorter form which should take approximately10 to 15 minutes to administer. You should find enclosed the origional published article, a copy of the test, the answer sheet, and a scoring key.

If I can be of further assistance please call on me.

Sincerely,

Jerry W. Thornton, PH.D.
(915) 942-2208
Department of Psychology
Angelo State University
San Angelo, Texas 76909

PERSONALITY TEST

Instructions

This inventory consists of numbered statements. Read each statement and decide whether it is true as applied to you or false as applied to you.

You are to mark your answers on the answer sheet. If a statement is true or mostly true, as applied to you, blacken between the lines in the column headed T. If a statement is false or not usually true, as applied to you blacken between the lines in the column headed F.

Your choice, on these items, would be in terms of what you like and how you feel at the present time and not in terms of what you think you should like or how you think you should feel.

Remember to give your own opinion of yourself. Do not leave any blank spaces.

In marking your answers on the answer sheet, be sure that the number of the statement agrees with the number on the answer sheet. Make your marks heavy and black. Erase completely any answer you wish to change. Do not make any marks on the booklet.

1. My daily life is full of things that keep me interested.
2. It seems that people used to have more fun than they do now.
3. I find it hard to keep my mind on a task or job.
4. When in a group of people I usually do what the others want rather than make suggestions.
5. A great deal that happens to me is probably a matter of chance.
6. I am very slow in making up my mind.
7. I am happy most of the time.
8. Most any time I would rather sit and daydream than to do anything else.
9. I feel like giving up quickly when things go wrong.
10. I sometimes find it hard to stick up for my rights because I am so reserved.
11. Several times a week I feel as if something dreadful is about to happen.
12. I have had periods of days, weeks, or months when I couldn't take care of things because I couldn't "get going."
13. It scares me to be left alone to do something for the first time.
14. When I was young (before 15) my parents let me make many of the decisions.
15. It often seems that my life has no meaning.
16. I wish I could be as happy as others seem to be.
17. It makes me feel like a failure when I hear of the success of someone I know well.
18. I am an important person.
19. I am apt to pass up something I want to do because others feel that I am not going about it in the right way.
20. I doubt whether I would make a good leader.
21. Most of the time I feel blue.
22. Once I have my mind made up I seldom change it.
23. Marriage is largely a gamble.
24. At times I think I am no good at all.
25. I have very few fears compared to my friends.

26. I am certainly lacking in self-confidence.

27. I have sometimes felt that difficulties were piling up so high that I could not overcome them.

28. It is hard for me to start a conversation with strangers.

29. It is only wishful thinking to believe that one can really influence what happens in society at large.

30. I am often confronted with problems so full of possibilities that I am unable to make up my mind about them.

31. The future is too uncertain for a person to make serious plans.

32. It's no use worrying my head about public affairs; I can't do anything about them anyhow.

33. My plans have frequently seemed so full of difficulties that I have had to give them up.

34. I would be willing to describe myself as a pretty "strong" personality.

35. I don't think I'm quite as happy as others seem to be.

36. I find it hard to keep my mind on a task or job.

37. I have several times given up doing a thing because I thought too little of my ability.

38. I get very tense and anxious when I think other people are disapproving of me.

39. I very seldom have spells of the blues.

40. I certainly feel useless at times.

41. I feel that I have often been punished without cause.

42. I have more trouble concentrating than others seem to have.

43. People pretend to care more about one another than they really do.

44. I have often lost out on things because I couldn't make up my mind soon enough.

45. I am not unusually self-conscious.

46. I often get disgusted with myself.

47. I have certainly had more than my share of things to worry about.

48. I feel anxiety about something or someone almost all the time.

49. I often feel as if the world is just passing me by.

50. I must admit I feel sort of scared when I move to a strange place.

51. I usually take an active part in the entertainment at parties.

52. I cannot keep my mind on one thing.

53. I brood a great deal.

54. I like challenging, novel situations.

55. Even when I am with people I feel lonely much of the time.

56. People often expect too much of me.

57. I sometimes feel that I am a burden to others.

58. Life is a strain for me much of the time.

59. With things going as they are, it's pretty hard to keep up hope of amounting to something.

60. Most of the time I feel happy.

61. I get pretty discouraged sometimes.

62. My way of doing things is apt to be misunderstood by others.

63. When in a group of people I have trouble thinking of the right things to talk about.

64. I am entirely self-confident.

65. I have difficulty in starting to do things.

66. In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well.

67. I have a tendency to give up easily when I meet difficult problems.

68. When I meet a stranger I often think that he is better than I am.

69. I am inclined to take things hard.

70. I commonly wonder what hidden reason another person may have for doing something nice for me.

Name_____
Last First Middle

Age_____Sex_____

Date of Testing_____

GPA_____

Score_____z_____

Validity Score_____

PERSONALITY TEST

ANSWER SHEET

	T	F		T	F		T	F		T	F		T	F
1.	::	●	15.	●	::	29.	●	::	43.	●	::	57.	●	::
2.	●	::	16.	●	::	30.	●	::	44.	●	::	58.	●	::
3.	●	::	17.	●	::	31.	●	::	45.	::	●	59.	●	::
4.	●	::	18.	::	●	32.	●	::	46.	●	::	60.	::	●
5.	●	::	19.	●	::	33.	●	::	47.	●	::	61.	●	::
6.	●	::	20.	●	::	34.	::	●	48.	●	::	62.	●	::
7.	::	●	21.	●	::	35.	●	::	49.	●	::	63.	●	::
8.	●	::	22.	::	●	36.	●	::	50.	●	::	64.	::	●
9.	●	::	23.	●	::	37.	●	::	51.	::	●	65.	●	::
10.	●	::	24.	●	::	38.	●	::	52.	●	::	66.	::	●
11.	●	::	25.	::	●	39.	::	●	53.	●	::	67.	●	::
12.	●	::	26.	●	::	40.	●	::	54.	::	●	68.	●	::
13.	●	::	27.	●	::	41.	●	::	55.	●	::	69.	●	::
14.	::	●	28.	●	::	42.	●	::	56.	●	::	70.	●	::

APPENDIX C

Jone's Staff Burnout Scale for Health Professionals

SBS-HP©

by John W. Jones, Ph.D.

Preliminary Test Manual*
The Staff Burnout Scale for Health Professionals (SBS-HP)

By John W. Jones, Ph.D.

Published By:

London House, Inc.
Work Stress Series
1550 Northwest Highway
Park Ridge, IL 60068

urpose of the SBS-HP

Staff "burnout" among health professionals is typically efined as a syndrome of physical and emotional ex- - iustion involving the development of negative job titudes, a poor self-concept, and loss of concern for ents being serviced. Examples of such negative changes mmonly reported by health professionals are: increasing elings of discouragement, pessimism, and fatalism th one's work; frequent irritation and anger with tients; a tendency to rationalize poor work performance blaming the clients or the "system"; resistence to any ogram change; a loss of creativity on the job; and tual withdrawal manifested psychologically and/or havioralIy from client contact and job duties. In short, aff burnout appears to be an adverse work stress action with both psychological, psychophysiological, id behavioral components. The Staff Burnout Scale for ealth Professionals (SBS-HP) was developed to provide empirical measure of this work stress syndrome.

dministration Instructions

The SBS-HP is an easily administered and scored ventory. Instructions for examinees are printed on the p of the inventory. The SBS-HP can be administered to dividuals or groups. While there is no time limit, the BS-HP can be completed in 5-15 minutes. A simple peal for full cooperation is desirable. Examinees ould only be told that the examiner is interested in rtain attitudes and feelings they currently hold toward rk and that truthful responses are needed in order to prove the work environment.

alidity of the SBS-HP

In a series of validity studies reviewed by Jones 981), the SBS-HP scores have reliably correlated with:) turnover, absenteeism and tardiness rates; (b) indices physical illness; (c) measures of serious on-the-job istakes and patient neglect; (d) various forms of nployees' deviance (e.g., employee theft); (e) job ssatisfaction; (f) alcohol and prescription drug use tes; and (g) the degree of stress that accompanies a rson's work shift (e.g., day shift *vs.* night/rotating ift) or job assignment (e.g., emergency room nurse *vs.* neral duties nurse.) These studies are available upon quest from London House, Inc.

reliminary Norms

Means and standard deviations on the SBS-HP data e presented below. Z-scores can be computed to etermine an examinee's precentile rank in relation to other test takers. It is suggested that local norms be developed whenever possible.

Sample	*M*	*SD*
Hospital-based Health Professionals (e.g., nurses, mental health technicians, alcoholism counselors) N=49	59.0	28.3
Hospital-based nurses (heterogenous sample) N=36	52.9	23.9
Hospital-based Emergency Room nurses N=34	62.6	20.2
Geriatric counselors and service workers N=71	55.5	15.8
Hospital-based nurses (heterogenous sample) N=38)	57.5	17.5
Master's Level nurses functioning in the role of Oncology Clinical Nursing Specialists N=185	51.1	16.8

Scoring Key

The SBS-HP contains 20 items that assess the "burnout" syndrome and 10 Lie Scale items that provide some gauge on attempts to "fake good" in self-reporting. Items 1, 2, 5, 6, 8, 10, 11, 13, 14, 16, 17, 18, 21, 22, 25, 26, 27, 28, 29, 30 comprise the Burnout Scale. Items 3, 4, 7, 9, 12, 15, 19, 20, 23, 24 make up the Lie Scale.

Burnout Items In scoring the 20 burnout items, the following key is used:

Checked Response		**Numerical Score**
Agree Very Much	=	7
Agree Pretty Much	=	6
Agree A Little	=	5
Disagree A Little	=	3
Disagree Pretty Much	=	2
Disagree Very Much	=	1

ıe scores for all responses are then summed to yield a tal burnout score. This score can range from 20 (no ırnout) to 140 (severe burnout.) Jones (1980 a, b) und a Spearman-Brown split-half reliability coefficient .93 for the SBS-HP. Moreover, all items significantly ɔrrelated with the total SBS-HP score at the .001 level of ɔnfidence or less. The average item-with-total SBS-HP ɔre correlation coefficient equaled .71. These coef-ɔients ranged from .59 to .82. These relatively high ɔrrelations among these items suggest that an all ıcompassing construct called staff "burnout" is being ɔsessed.

Lie Scale Items. The Lie Scale is a new addition to the 3S-HP and adequate reliability and validity data are not ɔt available. All Lie Scale items are *initially* scored using e aforementioned burnout scale criteria (i.e., an "Agree ɔry Much" response equals 7.) These numerical scores e then *transformed* as follows:

Item No.	Raw Score	Transformed Score
3	1=1	Other=0
4	7=1	Other=0
7	7=1	Other=0
9	7=1	Other=0
12	1=1	Other=0
15	1=1	Other=0
19	7=1	Other=0
20	7=1	Other=0
23	1=1	Other=0
24	1=1	Other=0

The transformed scores are then summed to yield a total Lie Scale score. This score can range from 0 to 10. Higher scores mean an increased tendency to "fake good." The "extreme response" scoring strategy is used based on the assumption that *extreme* responses (e.g., Agree Very Much; Disagree Very Much) that deny actions, beliefs and feelings that nearly everyone has had at work at one time or another constitutes an attempt to "fake good." Based on one sample of 80 employees, the average Lie Scale score equaled 2.74 (*SD*=2.12). An obtained score that is significantly higher than this mean suggests an attempt at dishonesty in responding. Persons scoring seven or more on this scale are more than likely "faking good" on the SBS-HP and therefore their scores are in question.

References

Jones, J. W. The Staff Burnout Scale: A Validity Study. Paper presented at the Midwestern Psychological Association Conference, 1980. *a*

Jones, J. W. A Measure of Staff Burnout among Health Professionals. Paper presented at the American Psychological Association Conference, 1980. *b*

Jones, J. W. Diagnosing and treating staff burnout among health professionals. In John Jones' (Ed.), *The Burnout Syndrome: Current Research, Theory, Interventions.* Park Ridge, IL: London House Press, 1981.

(Note: Research conducted on the SBS-HP can be sent to London House, Inc. to be included in an on-going bibliography of studies on burnout. Send research to John Jones, Ph.D., London House, Inc., 1550 Northwest Highway, Park Ridge, Illinois 60068)

urvey Items

r each statement check the one answer which best reflects how much you agree or disagree with each statement. Answer cording to how you currently feel in each case.

	Agree Very Much	Agree Pretty Much	Agree a Little	Disagree a Little	Disagree Pretty Much	Disagree Very Much
. I feel fatigued during the workday	☐	☐	☐	☐	☐	☐
. Lately, I have missed work due to either colds, the flu, fever, or other illnesses	☐	☐	☐	☐	☐	☐
. Once in a while I lose my temper and get angry on the job	☐	☐	☐	☐	☐	☐
. All my work habits are good and desirable ones	☐	☐	☐	☐	☐	☐
. I experience headaches while on the job	☐	☐	☐	☐	☐	☐
. After work I often feel like relaxing with a drink of alcohol	☐	☐	☐	☐	☐	☐
. I never gossip about other people at work	☐	☐	☐	☐	☐	☐
. I feel that the pressures of work have contributed to marital and family difficulties in my life	☐	☐	☐	☐	☐	☐
. I am never late for an appointment	☐	☐	☐	☐	☐	☐
. I often have the desire to take medication (e.g., tranquilizer) to calm down while at work	☐	☐	☐	☐	☐	☐
. I have lost interest in my patients and I have a tendency to treat these people in a detached, almost mechanical fashion	☐	☐	☐	☐	☐	☐
. At work I occasionally think of things that I would not want other people to know about	☐	☐	☐	☐	☐	☐
. I often feel discouraged at work and often think about quitting	☐	☐	☐	☐	☐	☐
. I frequently get angry and irritated with patients	☐	☐	☐	☐	☐	☐
. I am sometimes irritable at work	☐	☐	☐	☐	☐	☐
. I have trouble getting along with my fellow employees	☐	☐	☐	☐	☐	☐
. I am very concerned with my own comfort and welfare at work	☐	☐	☐	☐	☐	☐
. I try to avoid my supervisor(s)	☐	☐	☐	☐	☐	☐
. I truly like all my fellow employees	☐	☐	☐	☐	☐	☐
. I always do what is expected of me at work, no matter how inconvenient it might be to do so	☐	☐	☐	☐	☐	☐
. I am having some work performance problems lately due to uncooperative patients	☐	☐	☐	☐	☐	☐
. All the rules and regulations at work keep me from optimally performing my job duties	☐	☐	☐	☐	☐	☐
. Sometimes at work I put off until tomorrow what I ought to do today	☐	☐	☐	☐	☐	☐
. I do not always tell the truth to my supervisor or co-workers	☐	☐	☐	☐	☐	☐
. I find my work environment depressing	☐	☐	☐	☐	☐	☐
. I feel uncreative and understimulated at work	☐	☐	☐	☐	☐	☐
. I often think about finding a new job	☐	☐	☐	☐	☐	☐
. Worrying about my job has been interfering with my sleep	☐	☐	☐	☐	☐	☐
. I feel there is little room for advancement at my place of employment	☐	☐	☐	☐	☐	☐
. I avoid patient interaction when I go to work	☐	☐	☐	☐	☐	☐

Appendix D

Demographic Data for Intensive Care Nurses

Demographic Data for Intensive Care Nurses

Age (years)_____

Time in nursing (months)_____

Time in Intensive Care Nursing (months)_____

Time in current position (months)_____

Gender: Female_____ Male_____

Marital status: Married (months)_____ Unmarried_____

Highest level of education: MS____ BSN____ AD____ Diploma____

Entry level education: Diploma____ AD____ BSN____

Current assignment: SICU____ MICU____ CICU____ Other (specify)_____

Job title_____

Annual salary (nearest $1000)_____

Full-time_____ Part-time (%)_____

Do you have a confidante.? Yes____ No____

Appendix E

Attributional Questionaire for ICU Nurses

Attribution Questionaire for ICU Nurses

Please read the list of items below and consider them carefully. In your current practice, if you had the authority to change any one of the items with the intent of correcting that aspect of your practice that most bothers you, which would you choose to change first? Second?

Please number the items in order of priority, 1 being highest, as you consider them important to you in a satisfactory practice. A write-in wild card slot is provided should you care to use and rank it.

1. Salary_____
2. Workload_____
3. Type of work_____
4. Peer recognition_____
5. Physician's recognition_____
6. Nursing service policies_____
7. Personal qualities_____
8. Nursing management_____
9. Time off duty_____
10. Environment_____
11. Autonomy_____
12. Wild card_____

A. In your best experience, did you enjoy ICU nursing? Yes____No___

B. Given your best experience, would you stay with ICU? Yes___No___

C. Are you enjoying it now? Yes____No____

D. Given a reasonable alternative, would you leave ICU? Yes___No___

Appendix F

Organizational Data for ICU Nurses

Institutional Data for Intensive Care Nurses

Number of beds: CICU_____ MICU_____ SICU_____ (A)

Number of nurses: CICU_____ MICU_____ SICU_____ (A)

Number of beds: CICU_____ CRR_____ SICU_____ (B)

Number of nurses: CICU_____ CRR_____ SICU_____ (B)

Average annual census (%) CICU_____ MICU_____ SICU_____ (A)

Average annual census (%) CICU_____ CRR_____ SICU_____ (B)

Unplanned absenteeism (in days, last twelve months):

CICU_____ MICU_____ SICU_____ (A)

Unplanned absenteeism (in days, last twelve months):

CICU_____ CRR_____ SICU_____ (B)

Turnover rate (%, last twelve months):

CICU_____ MICU_____ SICU_____ (A)

Turnover rate (%, last twelve months):

CICU_____ CRR_____ SICU_____ (B)

APPENDIX G

Informed Consent Form

INFORMED CONSENT FORM

I, _____, herewith agree to participate in a study entitled *Burnout, Locus of Control, and Learned Helplessness in Intensive Care Nurses* by Lee W. Little, CCRN, under the supervision of Dr. Charold Baer, RN. The study is proposed to investigate whether a correlation exists among these three concepts as measured by Jone's Staff Burnout Scale for Health Professionals, Rotter's Locus of Control Scale, and Thornton's Learned Helplessness Inventory. A demographic data sheet is included to determine if any/all the three concepts correlate with personal or environmental or institutional factors.

My participation in the study entails answering the three scales and the demographic data sheet which should take approximately one hour. I may not personally benefit from this study, but the study may contribute to knowledge in this area of interest. Participation in the study will not involve any known risk to me personally or to my employment.

Information obtained from this study will be confidential. My name will not appear on any records and anonymity will be assured by the use of code numbers. Aggregate findings will be presented to both institutions involved at the completion of the study.

Lee W. Little, CCRN, has offered to answer any questions that I might have about my participation in this study. I understand that I am free to refuse to participate or to withdraw from participation in the study at any time without effect on my relationship with and my employment at _____.

_____
(Signature)

I have read the foregoing.

_____ _____
(Date) (Witness' signature)

PART I-AGREEMENT TO PARTICIPATE IN RESEARCH
BY OR UNDER THE DIRECTION OF THE VETERANS ADMINISTRATION

DATE

1. I, _____ (Type or print subject's name) voluntarily consent to participate as a subject in the investigation entitled The Relationship of Burnout, locus of Control, and Learned Helplessness in Intensive Care Nurses (Title of study)

2. I have signed one or more information sheets with this title to show that I have read the description including the purpose and nature of the investigation, the procedures to be used, the risks, inconveniences, side effects and benefits to be expected, as well as other courses of action open to me and my right to withdraw from the investigation at any time. Each of these items has been explained to me by the investigator in the presence of a witness. The investigator has answered my questions concerning the investigation and I believe I understand what is intended.

3. I understand that no guarantees or assurances have been given me since the results and risks of an investigation are not always known beforehand. I have been told that this investigation has been carefully planned, that the plan has been reviewed by knowledgeable people, and that every reasonable precaution will be taken to protect my well-being.

4. In the event I sustain physical injury as a result of participation in this investigation, if I am eligible for medical care as a veteran, all necessary and appropriate care will be provided. If I am not eligible for medical care as a veteran, humanitarian emergency care will nevertheless be provided.

5. I realize I have not released this institution from liability for negligence. Compensation may or may not be payable, in the event of physical injury arising from such research, under applicable federal laws.

6. I understand that all information obtained about me during the course of this study will be made available only to doctors who are taking care of me and to qualified investigators and their assistants where their access to this information is appropriate and authorized. They will be bound by the same requirements to maintain my privacy and anonymity as apply to all medical personnel within the Veterans Administration.

7. I further understand that, where required by law, the appropriate federal officer or agency will have free access to information obtained in this study should it become necessary. Generally, I may expect the same respect for my privacy and anonymity from these agencies as is afforded by the Veterans Administration and its employees. The provisions of the Privacy Act apply to all agencies.

8. In the event that research in which I participate involves certain new drugs, information concerning my response to the drug(s) will be supplied to the sponsoring pharmaceutical house(s) that made the drug(s) available. This information will be given to them in such a way that I cannot be identified.

I _____
NAME OF VOLUNTEER

HAVE READ THIS CONSENT FORM. ALL MY QUESTIONS HAVE BEEN ANSWERED, AND I FREELY AND VOLUNTARILY CHOOSE TO PARTICIPATE. I UNDERSTAND THAT MY RIGHTS AND PRIVACY WILL BE MAINTAINED. I AGREE TO PARTICIPATE AS A VOLUNTEER IN THIS PROGRAM.

9. Nevertheless, I wish to limit my participation in the investigation as follows:

VA FACILITY	SUBJECT'S SIGNATURE
PVAMC	
WITNESS'S NAME AND ADDRESS (Print or type)	WITNESS'S SIGNATURE
INVESTIGATOR'S NAME (Print or type) Lee W. Little, CCRN	INVESTIGATOR'S SIGNATURE

☐ Signed information sheets attached. ☐ Signed information sheets available at:

SUBJECT'S IDENTIFICATION (I.D. plate or give name - last, first, middle)

SUBJECT'S I.D. NO. | WARD

AGREEMENT TO PARTICIPATE IN RESEARCH BY OR UNDER THE DIRECTION OF THE VETERANS ADMINISTRATION

VA FORM 10-1086 SEP 1979

SUPERSEDES VA FORM 10-1086 JUN 1975, WHICH WILL NOT BE USED.

Appendix H

Frequency distributions: LOC, LHI, SBS-HP

Frequency distribution - LOC - groups A & B.

quency distribution File: burnout

ER: None

able: LOC

Label	Value	Frequency	Cumulative Frequency	Percent	Cumulative Percent
	1	1	1	0.81	0.81
	2	4	5	3.25	4.07
	3	5	10	4.07	8.13
	4	10	20	8.13	16.26
	5	9	29	7.32	23.58
	6	16	45	13.01	36.59
	7	7	52	5.69	42.28
	8	7	59	5.69	47.97
	9	12	71	9.76	57.72
	10	10	81	8.13	65.85
	11	8	89	6.50	72.36
	12	9	98	7.32	79.67
	13	9	107	7.32	86.99
	14	5	112	4.07	91.06
	15	2	114	1.63	92.68
	16	3	117	2.44	95.12
	17	2	119	1.63	96.75
	18	2	121	1.63	98.37
	19	1	122	0.81	99.19
	20	1	123	0.81	100.00

Number missing (-9) = 0 (0.00 percent of observations)

Statistics on 123 observations with non-missing data:

Mean =	8.846	Standard deviation=	4.180
Median=	9.000	Variance=	17.476

uency distribution File: burnout

ER: None

able: LHI

Label	Value	Frequency	Cumulative Frequency	Percent	Cumulative Percent
	1	2	2	1.63	1.63
	2	1	3	0.81	2.44
	3	4	7	3.25	5.69
	4	1	8	0.81	6.50
	5	1	9	0.81	7.32
	6	1	10	0.81	8.13
	7	3	13	2.44	10.57
	8	9	22	7.32	17.89
	9	7	29	5.69	23.58
	10	8	37	6.50	30.08
	11	9	46	7.32	37.40
	12	2	48	1.63	39.02
	13	8	56	6.50	45.53
	14	4	60	3.25	48.78
	15	8	68	6.50	55.28
	16	3	71	2.44	57.72
	17	4	75	3.25	60.98
	18	4	79	3.25	64.23
	19	6	85	4.88	69.11
	20	4	89	3.25	72.36
	21	4	93	3.25	75.61
	22	2	95	1.63	77.24
	23	1	96	0.81	78.05
	24	3	99	2.44	80.49
	25	1	100	0.81	81.30
	27	3	103	2.44	83.74
	28	2	105	1.63	85.37
	29	2	107	1.63	86.99
	30	2	109	1.63	88.62
	31	1	110	0.81	89.43
	32	1	111	0.81	90.24
	33	2	113	1.63	91.87
	36	1	114	0.81	92.68
	38	1	115	0.81	93.50
	41	1	116	0.81	94.31
	46	2	118	1.63	95.93
	48	2	120	1.63	97.56
	51	1	121	0.81	98.37
	54	1	122	0.81	99.19
	57	1	123	0.81	100.00

Number missing (-9) = 0 (0.00 percent of observations)

Statistics on 123 observations with non-missing data:

Mean = 17.472 Standard deviation= 11.453
Median= 15.000 Variance= 131.169

uency distribution File: burnout

ER: None

able: SBS

Label	Value	Frequency	Cumulative Frequency	Percent	Cumulative Percent
	20	1	1	0.81	0.81
	22	2	3	1.63	2.44
	24	1	4	0.81	3.25
	25	1	5	0.81	4.07
	26	1	6	0.81	4.88
	27	2	8	1.63	6.50
	28	2	10	1.63	8.13
	30	4	14	3.25	11.38
	31	2	16	1.63	13.01
	32	2	18	1.63	14.63
	33	1	19	0.81	15.45
	34	3	22	2.44	17.89
	35	6	28	4.88	22.76
	36	1	29	0.81	23.58
	37	1	30	0.81	24.39
	38	3	33	2.44	26.83
	40	2	35	1.63	28.46
	41	3	38	2.44	30.89
	42	3	41	2.44	33.33
	44	3	44	2.44	35.77
	45	3	47	2.44	38.21
	46	3	50	2.44	40.65
	47	1	51	0.81	41.46
	48	5	56	4.07	45.53
	49	2	58	1.63	47.15
	50	2	60	1.63	48.78
	51	10	70	8.13	56.91
	52	3	73	2.44	59.35
	53	6	79	4.88	64.23
	54	3	82	2.44	66.67
	55	3	85	2.44	69.11
	56	1	86	0.81	69.92
	57	2	88	1.63	71.54
	58	1	89	0.81	72.36
	59	1	90	0.81	73.17
	60	3	93	2.44	75.61
	61	1	94	0.81	76.42
	62	1	95	0.81	77.24
	63	1	96	0.81	78.05
	64	4	100	3.25	81.30
	65	2	102	1.63	82.93
	66	2	104	1.63	84.55
	69	1	105	0.81	85.37
	70	2	107	1.63	86.99
	71	1	108	0.81	87.80
	73	1	109	0.81	88.62
	74	2	111	1.63	90.24
	79	1	112	0.81	91.06
	80	2	114	1.63	92.68
	82	1	115	0.81	93.50
	84	1	116	0.81	94.31
	90	1	117	0.81	95.12
	93	1	118	0.81	95.93

Frequency distribution - SBS-HP - groups A & B.

Label	Value	Frequency	Cumulative Frequency	Percent	Cumulative Percent
	97	1	119	0.81	96.75
	100	1	120	0.81	97.56
	101	1	121	0.81	98.37
	104	1	122	0.81	99.19
	108	1	123	0.81	100.00

Number missing (-9) = 0 (0.00 percent of observations)

Statistics on 123 observations with non-missing data:

Mean =	51.439	Standard deviation=	18.396
Median=	51.000	Variance=	338.429

Appendix I

Extreme groups *t*-tests: Scale scores vs ordinal variables

lependent groups t-tests File: burn2

LTER: None

)up 1 is LOC3 = 1
)up 2 is LOC3 = 3

)endent :iable		Group 1	Group 2		Separate Variances	Pooled Variances
EYRS						
	N	29	16	T	1.84	1.77
	Mean	35.793	31.875	DF	34.95	43
	S.D.	7.437	6.459	P	0.0737	0.0840
MONTH						
	N	29	16	T	0.06	0.06
	Mean	110.621	108.750	DF	41.47	43
	S.D.	116.063	76.495	P	0.9485*	0.9542
MO						
	N	29	16	T	0.00	0.00
	Mean	53.103	53.063	DF	39.27	43
	S.D.	65.065	47.920	P	0.9983	0.9982
MO						
	N	29	16	T	0.33	0.28
	Mean	29.310	25.625	DF	42.98	43
	S.D.	49.376	26.232	P	0.7453*	0.7832
L1000						
	N	29	16	T	-0.71	-0.69
	Mean	26.517	27.563	DF	33.86	43
	S.D.	5.033	4.546	P	0.4823	0.4942
L						
	N	29	16	T	0.14	0.14
	Mean	3.448	3.313	DF	31.41	43
	S.D.	3.112	3.071	P	0.8885	0.8887
LD						
	N	29	16	T	0.50	0.50
	Mean	5.276	4.813	DF	31.29	43
	S.D.	2.975	2.949	P	0.6185	0.6185
PEW						
	N	29	16	T	0.20	0.21
	Mean	6.931	6.750	DF	29.10	43
	S.D.	2.698	2.910	P	0.8390	0.8350
ER						
	N	29	16	T	0.24	0.25
	Mean	6.586	6.375	DF	26.30	43
	S.D.	2.472	3.008	P	0.8124	0.8008
YS						
	N	29	16	T	-1.36	-1.28
	Mean	7.345	8.438	DF	36.85	43

›endent :iable		Group 1	Group 2		Separate Variances	Pooled Variances
;POL						
	N	29	16	T	-1.50	-1.55
	Mean	4.759	6.188	DF	28.25	43
	S.D.	2.837	3.167	P	0.1441	0.1280
?SQ						
	N	29	16	T	-0.26	-0.24
	Mean	8.621	8.813	DF	39.97	43
	S.D.	2.859	2.040	P	0.7958	0.8140
;MAN						
	N	29	16	T	0.28	0.29
	Mean	4.690	4.438	DF	28.59	43
	S.D.	2.714	2.988	P	0.7816	0.7748
›						
	N	29	16	T	-1.87	-1.83
	Mean	5.000	6.875	DF	33.00	43
	S.D.	3.370	3.138	P	0.0706	0.0743
/IR						
	N	29	16	T	2.46	2.42
	Mean	6.759	4.813	DF	32.74	43
	S.D.	2.641	2.482	P	0.0193	0.0200
ΓO						
	N	29	16	T	1.18	1.11
	Mean	6.207	5.188	DF	36.51	43
	S.D.	3.121	2.562	P	0.2455	0.2714

ependent groups t-tests File: burn2

TER: None

up 1 is LHI3 = 1
up 2 is LHI3 = 3

endent iable		Group 1	Group 2		Separate Variances	Pooled Variances
YRS						
	N	10	18	T	0.71	0.66
	Mean	35.400	33.556	DF	23.03	26
	S.D.	5.873	7.617	P	0.4823	0.5137
ONTH						
	N	10	18	T	0.58	0.62
	Mean	139.700	118.944	DF	15.56	26
	S.D.	96.791	77.828	P	0.5691	0.5406
O						
	N	10	18	T	0.56	0.66
	Mean	76.200	60.278	DF	12.36	26
	S.D.	82.274	47.083	P	0.5835*	0.5179
O						
	N	10	18	T	0.77	0.94
	Mean	51.200	33.278	DF	10.99	26
	S.D.	70.228	31.033	P	0.4594*	0.3558
1000						
	N	10	18	T	-0.33	-0.40
	Mean	27.400	28.222	DF	11.06	26
	S.D.	7.545	3.388	P	0.7498*	0.6927
	N	10	18	T	0.79	0.84
	Mean	5.800	4.778	DF	15.62	26
	S.D.	3.490	2.819	P	0.4393	0.4059
D						
	N	10	18	T	1.72	1.77
	Mean	6.300	4.222	DF	17.16	26
	S.D.	3.164	2.861	P	0.1030	0.0877
EW						
	N	10	18	T	0.96	1.00
	Mean	7.000	5.722	DF	16.37	26
	S.D.	3.559	3.045	P	0.3523	0.3254
R						
	N	10	18	T	1.54	1.42
	Mean	6.800	5.278	DF	23.60	26
	S.D.	2.201	2.967	P	0.1362	0.1687
S						
	N	10	18	T	-0.94	-0.97
	Mean	6.400	7.556	DF	16.64	26

endent iable		Group 1	Group 2		Separate Variances	Pooled Variances
POL						
	N	10	18	T	-0.83	-0.82
	Mean	5.700	6.722	DF	19.35	26
	S.D.	3.093	3.214	P	0.4187	0.4214
SQ						
	N	10	18	T	-0.49	-0.54
	Mean	8.000	8.611	DF	13.86	26
	S.D.	3.528	2.429	P	0.6335	0.5922
MAN						
	N	10	18	T	-1.12	-1.02
	Mean	3.900	5.111	DF	24.03	26
	S.D.	2.378	3.306	P	0.2744	0.3181
)						
	N	10	18	T	-1.73	-1.69
	Mean	4.400	6.722	DF	19.95	26
	S.D.	3.307	3.561	P	0.0987	0.1022
IR						
	N	10	18	T	1.64	1.73
	Mean	6.500	4.833	DF	16.12	26
	S.D.	2.718	2.282	P	0.1196	0.0954
O						
	N	10	18	T	-1.45	-1.49
	Mean	4.900	6.833	DF	17.13	26
	S.D.	3.510	3.167	P	0.1664	0.1483

lependent groups t-tests File: burn2

LTER: None

)up 1 is SBS3 = 1
)up 2 is SBS3 = 3

)endent :iable		Group 1	Group 2		Separate Variances	Pooled Variances
EYRS						
	N	19	18	T	3.03	3.01
	Mean	38.211	31.389	DF	34.77	35
	S.D.	7.323	6.381	P	0.0047	0.0048
MONTH						
	N	19	18	T	0.10	0.10
	Mean	106.842	103.944	DF	33.57	35
	S.D.	94.786	72.637	P	0.9172	0.9178
MO						
	N	19	18	T	0.38	0.37
	Mean	57.632	50.889	DF	30.78	35
	S.D.	65.284	41.651	P	0.7091*	0.7120
MO						
	N	19	18	T	0.21	0.21
	Mean	29.684	27.111	DF	33.05	35
	S.D.	41.903	30.887	P	0.8323	0.8336
L1000						
	N	19	18	T	-0.89	-0.89
	Mean	26.684	27.944	DF	34.97	35
	S.D.	4.473	4.108	P	0.3778	0.3789
L						
	N	19	18	T	-0.12	-0.12
	Mean	3.526	3.667	DF	34.99	35
	S.D.	3.596	3.361	P	0.9030	0.9032
LD						
	N	19	18	T	1.41	1.41
	Mean	6.105	4.722	DF	34.99	35
	S.D.	3.089	2.866	P	0.1666	0.1675
PEW						
	N	19	18	T	4.26	4.31
	Mean	8.579	5.444	DF	28.40	35
	S.D.	1.677	2.662	P	0.0002*	0.0001
ER						
	N	19	18	T	-1.71	-1.71
	Mean	6.368	7.833	DF	34.52	35
	S.D.	2.521	2.684	P	0.0965	0.0958
YS						
	N	19	18	T	-0.23	-0.23
	Mean	6.895	7.111	DF	34.99	35

›endent ·iable		Group 1	Group 2		Separate Variances	Pooled Variances
;POL						
	N	19	18	T	-1.70	-1.71
	Mean	4.263	5.667	DF	32.22	35
	S.D.	2.182	2.787	P	0.0989	0.0959
‹SQ						
	N	19	18	T	-0.58	-0.58
	Mean	8.421	8.944	DF	33.08	35
	S.D.	3.133	2.313	P	0.5657	0.5686
;MAN						
	N	19	18	T	-0.75	-0.76
	Mean	4.474	5.222	DF	32.13	35
	S.D.	2.611	3.353	P	0.4558	0.4523
)						
	N	19	18	T	-1.05	-1.05
	Mean	4.842	6.056	DF	34.63	35
	S.D.	3.420	3.589	P	0.3002	0.2995
/IR						
	N	19	18	T	0.65	0.65
	Mean	6.105	5.556	DF	34.49	35
	S.D.	2.470	2.640	P	0.5179	0.5171
?O						
	N	19	18	T	0.03	0.03
	Mean	6.421	6.389	DF	34.41	35
	S.D.	2.969	3.202	P	0.9749	0.9749

Appendix J

Chi square crosstabulations: Scale scores vs nominal variables

Chi square - LOC3 - burnout vs nominal variables.

Crosstabulation File: BURN2

FILTER: None

Row variable: LOC3
Col variable: EDUC
Cell contents: Frequency/Exp. Freq.

	1	2	3	4	
1	0	15	10	4	29
	0.24	14.15	11.79	2.83	23.58
2	1	34	38	5	78
	0.63	38.05	31.71	7.61	63.41
3	0	11	2	3	16
	0.13	7.80	6.50	1.56	13.01
	1	60	50	12	123
	0.81	48.78	40.65	9.76	

Statistics for table of LOC3 by EDUC

Chi-square (6 df) = 9.7126 (P<0.1371)
WARNING: P-value may not be accurate
Minimum expected frequency is 0.130
5 cells have expected frequencies less than 5.

Crosstabulation File: BURN2

FILTER: None

Row variable: LOC3
Col variable: MAR
Cell contents: Frequency/Exp. Freq.

	1	2	
1	19	10	29
	19.33	9.67	23.58
2	54	24	78
	52.00	26.00	63.41
3	9	7	16
	10.67	5.33	13.01
	82	41	123
	66.67	33.33	

Statistics for table of LOC3 by MAR

Chi-square (2 df) = 1.0293 (P<0.5977)

Crosstabulation File: BURN2

FILTER: None

Row variable: LOC3
Col variable: CONFID
Cell contents: Frequency/Exp. Freq.

	1	2	
1	25	4	29
	24.28	4.72	23.58
2	65	13	78
	65.32	12.68	63.41
3	13	3	16
	13.40	2.60	13.01
	103	20	123
	83.74	16.26	

Statistics for table of LOC3 by CONFID

Chi-square (2 df) = 0.2119 (P<0.8995)
WARNING: P-value may not be accurate
Minimum expected frequency is 2.602
2 cells have expected frequencies less than 5.

Crosstabulation File: BURN2

FILTER: None

Row variable: LOC3
Col variable: SEX
Cell contents: Frequency/Exp. Freq.

	1	2	
1	22	7	29
	24.28	4.72	23.58
2	66	12	78
	65.32	12.68	63.41
3	15	1	16
	13.40	2.60	13.01
	103	20	123
	83.74	16.26	

Statistics for table of LOC3 by SEX

Chi-square (2 df) = 2.5431 (P<0.2804)
WARNING: P-value may not be accurate
Minimum expected frequency is 2.602
2 cells have expected frequencies less than 5.

Chi square - LHI3 - burnout vs nominal variables.

Crosstabulation File: BURN2

FILTER: None

Row variable: LHI3
Col variable: EDUC
Cell contents: Frequency/Exp. Freq.

	1	2	3	4	
1	0	4	5	1	10
	0.08	4.88	4.07	0.98	8.13
2	1	45	40	8	95
	0.77	46.34	38.62	9.27	77.24
3	0	10	5	3	18
	0.15	8.78	7.32	1.76	14.63
	1	60	50	12	123
	0.81	48.78	40.65	9.76	

Statistics for table of LHI3 by EDUC

Chi-square (6 df) = 2.6782 (P<0.8712)
WARNING: P-value may not be accurate
Minimum expected frequency is 0.081
7 cells have expected frequencies less than 5.

Crosstabulation File: BURN2

FILTER: None

Row variable: LHI3
Col variable: MAR
Cell contents: Frequency/Exp. Freq.

	1	2	
1	9	1	10
	6.67	3.33	8.13
2	63	32	95
	63.33	31.67	77.24
3	10	8	18
	12.00	6.00	14.63
	82	41	123
	66.67	33.33	

Statistics for table of LHI3 by MAR

Chi-square (2 df) = 3.4553 (P<0.1777)
WARNING: P-value may not be accurate
Minimum expected frequency is 3.333
1 cells have expected frequencies less than 5.

Crosstabulation File: BURN2

FILTER: None

Row variable: LHI3
Col variable: SEX
Cell contents: Frequency/Exp. Freq.

	1	2	
1	8	2	10
	8.37	1.63	8.13
2	80	15	95
	79.55	15.45	77.24
3	15	3	18
	15.07	2.93	14.63
	103	20	123
	83.74	16.26	

Statistics for table of LHI3 by SEX

Chi-square (2 df) = 0.1284 (P<0.9416)
WARNING: P-value may not be accurate
Minimum expected frequency is 1.626
2 cells have expected frequencies less than 5.

Crosstabulation File: BURN2

FILTER: None

Row variable: LHI3
Col variable: CONFID
Cell contents: Frequency/Exp. Freq.

	1	2	
1	9	1	10
	8.37	1.63	8.13
2	82	13	95
	79.55	15.45	77.24
3	12	6	18
	15.07	2.93	14.63
	103	20	123
	83.74	16.26	

Statistics for table of LHI3 by CONFID

Chi-square (2 df) = 4.6042 (P<0.1000)
WARNING: P-value may not be accurate
Minimum expected frequency is 1.626
2 cells have expected frequencies less than 5.

Chi square - SBS3 - burnout vs nominal variables.

rosstabulation File: BURN2

ILTER: None

ow variable: SBS3
ol variable: EDUC
ell contents: Frequency/Exp. Freq.

	1	2	3	4	
1	0	7	10	2	19
	0.15	9.27	7.72	1.85	15.45
2	1	42	34	9	86
	0.70	41.95	34.96	8.39	69.92
3	0	11	6	1	18
	0.15	8.78	7.32	1.76	14.63
	1	60	50	12	123
	0.81	48.78	40.65	9.76	

tatistics for table of SBS3 by EDUC

Chi-square (6 df) = 2.8622 (P<0.8423)
WARNING: P-value may not be accurate
Minimum expected frequency is 0.146
5 cells have expected frequencies less than 5.

Crosstabulation File: BURN2

FILTER: None

Row variable: SBS3
Col variable: SEX
Cell contents: Frequency/Exp. Freq.

	1	2	
1	17	2	19
	15.91	3.09	15.45
2	70	16	86
	72.02	13.98	69.92
3	16	2	18
	15.07	2.93	14.63
	103	20	123
	83.74	16.26	

Statistics for table of SBS3 by SEX

Chi-square (2 df) = 1.1564 (P<0.5609)
WARNING: P-value may not be accurate
Minimum expected frequency is 2.927
2 cells have expected frequencies less than 5.

Crosstabulation File: BURN2

FILTER: None

Row variable: SBS3
Col variable: MAR
Cell contents: Frequency/Exp. Freq.

	1	2	
1	15	4	19
	12.67	6.33	15.45
2	58	28	86
	57.33	28.67	69.92
3	9	9	18
	12.00	6.00	14.63
	82	41	123
	66.67	33.33	

Statistics for table of SBS3 by MAR

Chi-square (2 df) = 3.5627 (P<0.1684)

Crosstabulation File: BURN2

FILTER: None

Row variable: SBS3
Col variable: CONFID
Cell contents: Frequency/Exp. Freq.

	1	2	
1	18	1	19
	15.91	3.09	15.45
2	71	15	86
	72.02	13.98	69.92
3	14	4	18
	15.07	2.93	14.63
	103	20	123
	83.74	16.26	

Statistics for table of SBS3 by CONFID

Chi-square (2 df) = 2.2456 (P<0.3254)
WARNING: P-value may not be accurate
Minimum expected frequency is 2.927
2 cells have expected frequencies less than 5

ABSTRACT

Two groups of ICU nurses (N=123) having similar units of assignment from two hospitals of approximately equal size were selected for a correlational research study. One hospital was a university-based facility and the second was a government funded facility. The nurses were examined for locus of control using Rotter's *Locus of Control Scale* (**LOC**); for their state of learned helplessness using Thornton's *Learned Helplessness Inventory* (**LHI**); and for their condition of burnout using Jones' *Staff Burnout Scale for Health Professionals* (**SBS-HP**).

Demographic data were also collected from each subject. In addition, the subjects were asked to complete an 11-item attributional factor scale and a 4-item job satisfaction questionaire. Organizational data were collected on both groups from their respective hospitals.

The primary focus of the study was to explore the component parts of a conceptual model of burnout that postulated burnout as becomming manifest after three basic stages had been reached, in order; role/value conflicts, externalized locus of control, and learned helplessness, all in the presence of chronic ineffective coping.

The results of the study were significant and strongly

supportive of the conceptual burnout model. As predicted, staged increases occurred from **LOC** to **LHI** to **SBS-HP**. Younger age was the only demographic variable to correlate with burnout. Absenteeism was the only organizational variable to correlate with burnout. Correlations with salary, education, marital status, gender, time in nursing, percent of time employed, having a confidante, and staff turnover were not significant in this study.

Nurses categorized as burned out attributed their condition to significantly different factors than the total sample. Salary, nursing management, workload, nursing policy, environment and time off duty, in order, were identified as the most important attributions in the total sample. The burnout nurse group substituted autonomy and type of work for nursing policy and time off duty.

A surprising result was the high percentage of nurses who responded positively to the job satisfaction questionnaire, yet would accept a reasonable alternative to ICU nursing. A certain pattern of responses on the questionnaire was correctly predicted for the burnout nurse group, who indicated a high level of job dissatisfaction. This is consistent with prior studies on burnout.