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RELATIONSHIP OF BURNOUT TO PERSONALITY AND DEMOGRAPHIC TRAITS IN NURSES

City University of New York PH.D 1983

RELATIONSHIP OF BURNOUT TO PERSONALITY AND DEMOGRAPHIC TRAITS IN NURSES

KENNETH A. DAMES

A dissertation submitted to
the Graduate Faculty in Psychology
in partial fulfillment of the requirements
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This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

RELATIONSHIP OF BURNOUT TO PERSONALITY
AND DEMOGRAPHIC TRAITS IN NURSES

by

Kenneth A. Dames

Advisor: Harold Wilensky, Ph.D.

The study explored the relationship between selected personality characteristics, demographics and burnout. It was hypothesized that autonomy, abasement, nurturance, intraception, anxiety and aggression, along with specific personal and work variables, serve to significantly heighten or offset the effects of burnout among nurses. The study further developed a quantitative, single score measure of Burnout from subscale scores of the Maslach Burnout Inventory (MBI).

A mail survey of 685 female graduates of a university nursing school was conducted, with a return of 16% (109), to assess the personality and demographic characteristics and levels of Burnout. Respondents completed the MBI, the Spielberger Trait Anxiety Inventory, the Gough Adjective Check List, and a social and work history inventory. The analysis of the data used a canonical multivariate correlational model. The personality measures and social and work demographic variables were treated as predictor variables. Burnout scores served as the criterion or predicted variable. The canonical multiple regression analysis

determined the relative weights of each predictor variable towards maximum correlational with the criterion measure.

In accord with the hypotheses regarding personality traits, Burnout was found to be negatively correlated with nurturance and intraception, while positive correlations were found between Burnout and anxiety, abasement and aggression. Regarding social and work characteristics, age, marital status, years in nursing full-time, income and the percentage of time spent working with patients with good prognoses negatively correlated with Burnout. Positively related to Burnout were the percentage of time respondents worked in close proximity to terminally ill patients, length of time at current institution, and work at institutions and assignments requiring close and continuous patient contact, as hypothesized. Anxiety consistently manifested the highest relation to Burnout.

The study's findings suggest methods of assessing nurses' compatability for various institutional and work assignments, propensities for burnout and career advisements. With further validation, the methods developed may be used to assess levels of burnout in other homogeneous work groups.

Dedicated to

Phyllis J. Martin, Ph.D.

and our children, Kevin M. and Billie J.,

without whom I would not have even made the effort

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INTRODUCTION

The importance of the attitudes and morale of health care workers (both professionals and para-professionals) in the treatment of patients or clients has been recognized for many years (Buck, 1977; Whiting, 1958; Barrell, et al, 1966; Weller and Miller, 1977). Health care workers' attitudes and morale have been shown to be factors in the overall quality of services available to recipients. The affected quality of services extends to the most critical of health services, namely, the rehabilitative and recovery processes of patients (Gunther, 1971, 1977; Shapiro and McMahon, 1966) and the clinical performance of health care workers (Liske, 1964).

Negative attitudes and low morale among members of the health services have been linked to the high cost of health services through absenteeism and poor service delivery (Maslach, 1978, 1979; Emener, 1979), increased personnel turnover in the field (Kermish and Kushin, 1969), and patient attitudes toward both health care and those who administer that care (Artis and Levine, 1973; Maslach, 1979). These negative attitudes and depleted morale are often symtomatic of the complex process of burnout among the providers of health services.

Burnout is a recent popularized term used to describe a serious problem of increasing hopelessness, low morale, absenteeism and high job turnover among a wide range of professionals which leads to poor client service and job inefficiency. It is only in the past decade that the concept of burnout has been introduced to describe the process of increasing hopelessness among the staff who care for patients. This early work (Freudenberger, 1974, 1975, 1977) was quite limited in scope and offered no clear picture of the nature or extent of burnout. More recently, Edelwich (1980) described burnout as "a progressive loss of idealism, energy, and purpose experienced by people in the helping professions as a result of the conditions of their work". Christina Maslach, who has been a principal investigator of the burnout syndrome, found that "burnout can lead to a deterioration in the quality of care or service that is provided by the staff. It also appears to be a factor in low worker morale, absenteeism and job turnover (1978)".

In a later work Maslach (1979) pointed out the far reaching detrimental effects of burnout:

> Burn-out involves the loss of concern for the people with whom one is working. In addition to physical exhaustion (and sometimes even illness), burn-out is characterized by an emotional exhaustion in which the professional person no longer has any positive feelings, sympathy or respect for patients or clients. The health worker experiencing burn-out often develops a very cynical and dehumanized perception of these people.... Burn-out plays a primary role in the poor delivery of health and social services.... [It] may well be implicated in the increasing number of malpractice suits.... Fur-

> thermore, burn-out correlates with other indices of personal stress. Professionals experiencing burn-out often increase their use... of alcohol and drugs as a way of reducing tension and blotting out strong emotional feelings. They report more mental illness... and some seek counseling and psychiatric treatment for what they believe to be their personal failings (p. 113).

All of the investigators of burnout agree that the burnout syndrome is not restricted to health care personnel, but can be found in almost all professions. Yet, as Edelwich (1980) points out, "burnout does not occur with anything like the same regularity or carry with it the same social costs in business as it does in the human services, where it takes on a special character and a special intensity".

Pervasiveness of the syndrome

The burnout syndrome is more pervasive in the human services, according to Maslach (1976, 1978), because of the strong emotional feeling and attendant stress experienced by health and social services professionals resulting from their necessarily intimate and intense work with their patients or clients. There is much support in the literature for her findings (Ford, Liske and Ort, 1962; Hay and Oken, 1972; Artiss and Levine, 1973; Tucker, 1980; Freudenberger, 1974, 1975; Edelwich, 1980).

Recent investigation has shown that burnout is particularly high among health care staff who care for patients with poor prognoses (Maslach, 1979; Storlie, 1979; Emener, 1979; Zalewski, 1979). Maslach noted:

> The emotional stress of patient care is even greater when the patient is dying. If nurses or physicians should start to develop negative feelings about a patient... it is likely that they will also experience guilt (because of these feelings). At times this guilt will be followed by anger at the patient for causing the person to feel guilt.

Gunther (1971, 1977), after extensive work as a psychiatric consultant in a physical and rehabilitation hospital, pointed to the psychological stresses and challenges experienced by staff who work closely with rehabilitating severely damaged patients. He spoke of the staff's "inherently high disposition to anxiety" as a result of it's own latent body fears, the constant demand for empathy and narcissitic vulnerability.

The nursing occupation, largely because of the nature and extent of patient contact involved, ranks high among the occupations that provide the most susceptibility to burnout. It is related to the client population, severity of illness, prognosis, and chronicity. There has been much evidence to suggest, because of nurses' ongoing intimate interactions (both physically and interpersonally) with patients whose psychological damands and needs are intensified by the impact of their conditions, the nursing personnel who work with patients who have poor prognoses and/or are severely injured is particularly vulnerable to the experience of burnout. It is most intensive with ICU nurses and progressively less intense with nurses who work with less severely ill patients (Freeland and Geraldine, 1969; Hay and Oken, 1972; Storlie, 1979; Maslach, 1979; Scully, 1980).

Investigation of the syndrome

In spite of the attention given to burnout among health care workers there has in fact been very little research done to investigate the relevant personality and demographic characteristics that serve to mediate the burnout syndrome. In an effort to "define the social and psychological dimensions of burnout" Pines and Maslach (1978) used a specially designed questionnaire to correlate demographic, job characteristics, work attitudes and self perception data of mental health workers. The study did much to shed light on institutional variables that contribute to the stresses that lead to burnout. From this same set of data the authors were able to develop a list of recommendations for reducing staff stress and subsequent burnout. The study focused on psychosocial factors, such as employment rank, feelings of job control and success, and relationships with patients. There was no attempt to ascertain a relationship between individual personality traits and the burnout process.

Liske, et al (1964) compared the colleague rated clinical performance of students and faculty physicians with psychological test scores, biographical data, and ideas about medical care. Clinical performance was found to be related to the attitudinal perspectives of both students and faculty doctors, with higher clinical ratings found among doctors

who viewed problems in the doctor-patient relationship in terms of the attributes and limitations of the doctor (as opposed to the attributes and limitations of the patients). Additionally, among the student physicians higher performance ratings were found to be associated with the occupational catagory of the students' fathers (professional or non-professional). Sons of small business and skilled workers tended to receive higher ratings in "providing comprehensive care" than the sons of professional men and executives. The study was not directly related to the burnout syndrome, but it served to point out the importance of an introspective attitude and parental occupation to the job performance of health care professionals.

An important development in the investigation of the burnout syndrome was the Maslach Burnout Inventory (Maslach and Jackson, 1978). In administration to 1025 subjects from a wide variety of health care and service disciplines, the MBI had both high reliability and validity as a measure of burnout. The sample included teachers, nurses, police, social workers, probation officers, attorneys, psychologists, psychiatrists, counselors, mental health workers and agency administrators. The MBI is the most systematic inventory reported in the literature to date. Internal consistancy yielded reliability coefficiency as high as .81 and no lower than .76. Concurrent validity was obtained by correlating subjects' MBI scores with behavioral ratings made inde-

pendently by the subjects' spouses and co-workers. Discriminant validity was obtained by distinguishing the MBI from measures of other psychological constructs that might be presumed to be confounded with burnout. Less than 13% of the variance was accounted for by any one of these correlations. Construct validity was confirmed by comparing hypothesized relationships between experienced burnout and various behavioral responses and feeling states. In all cases the correlations between the MBI and these other variables were in line with predictions.

MBI factor analyses yielded 4 orthogonal factors rated on two dimensions, frequency and intensity, which accounted for 100% of the variance. Three of the factors are considered subscales of the MBI. They are:

1) Emotional Exhaustion - 9 items describing feelings of being emotionally overextended and exhausted as a result of one's work.

2) Depersonalization - 5 items describing unfeeling and impersonal responses toward patients in one's care.

3) Personal Accomplishment - 8 items describing feelings of competence and success in one's work.

With the Emotional Exhaustion and Depersonalization subscales, higher mean scores correlated with higher burnout. With the Personal Accomplishment subscale, lower mean scores correlated with higher burnout. Moderate correlations existed between the frequency and intensity dimensions of

Emotional Exhaustion and Depersonalization, while no correlations were found between these factors and Personal Accomplishment.

The fourth factor, Involvement, was comprised of 3 items and described "a dimension of personal involvement with people, which could be a variable related to high emotional exhaustion". The Involvement factor was deemed "optional" in administration of the MBI.

Personality variables

Like other studies cited, the MBI did not investigate the personality characteristics that may be related to the burnout syndrome as either coping mechanisms against the burnout process or acting as facilitators of the syndrome. In fact the literature, which is largely anecdotal, indicated personality variables hypothesized to be associated with burnout but offered little systematic data.

Edelwich (1980), for example, citing Wolf's (1974) ten dimensions of effective interpersonal relations, suggested that "a person who has certain key character traits will be an effective counselor, whereas one who does not have those traits will be ineffective". Hay (1972), speaking of the stresses of ICU nursing, cited "grief, anxiety, rage, exhausted overcommitment, over stimulation" along with transferential object identification and object loss. Gunther (1977) spoke of "an inherently high disposition to anxiety",

"the constant demand for empathy", and "narcissistic vulnerability". Maslach (1979) pointed to guilt, anger, over identification, threatened self esteem, denial and negative withdrawal. These studies and others, though offering little hard data, do provide a basis for more systematic investigation of the burnout syndrome as a function of personality and social traits.

Maslach, for example, noted that in the complex psychodynamics of patient-staff interactions patients often stimulated in the nursing and physician staffers a need to detach her or him self from patients in order to offset the flood of "attendant feelings of frustration, exhaustion and anxiety [which] could... find expression in negative attitudes towards those who require care and treatment (because, in a sense, they are the source of 'the problem')". She cited this as "the psychological process by which health professionals often keep themselves at a distance from their patient".

Maslach further pointed out that "in maintaining a psychologic distance [health care professionals] may behave in ways that typify the most frequent patient complaints about health care professionals: they are too impersonal and too busy; they fail to give adaquate explanations; they lack personal respect or care for patients; they treat the patient more as an object than as a human being".

The essential personality characteristics outlined here by Maslach as significant to this defensive distancing --

and, importantly, significant to the burnout process -- are anxiety, guilt and anger.

Weller and Miller (1977), in addressing significant psychological stages of patients in the acute care phase of spinal cord injury and the commensurate staff reactions, noted that "an understandable human response [by staff to the patients' anger] is to take the attack personally, with feelings of guilt or inadaquacy, or of indignation and irritation, reflecting the patients' anger.... Staff members may also experience their own anger in reaction to the injury as they identify with the patients' feelings of outrage". They further speak of "survivor's guilt (the reflection of the patients' resentment of the healthy 'whole' ones around him)" and point out that "most staff working directly with spinal cord injured patients are in the same young-adult age range, and the identification is strong". The attendant anxiety experienced by professional staffers working closely with such patients is apparent. Though Weller and Miller were not specifically addressing the burnout process, the emotional processes they attribute to staff in their intimate interactions with severely damaged patients correspond with the psychological factors hypothesized by Maslach to be contributory to burnout among health professionals generally.

The inference is thus drawn that health care professionals who demonstrate characteristic propensities toward guilt,

high anxiety and/or hostility would likely evidence higher burnout in such situations than those whose personality characteristics were low on these traits. It would be expected, for example, that nurses and/or physicians who have high trait anxiety would be more likely to develop a posture of distancing and negative feelings toward the patient population in defensive response to heightened anxiety. Similarly, individuals who are characteristically prone to feelings of self guilt will likely experience defensive distancing and negative feelings toward patients as cause for anxiety provoking self rebuke or abasement. The hostility of a health professional that might be engendered by the psychological process hypothesized by Maslach would be most evident in an individual who characteristically resorts to hostility or aggression (as defined by Gough, 1965) as a defensive response, namely, and individual with a high character propensity to aggression.

In his clinical analysis of patient-staff relations in a rehabilitation hospital, Gunther (1977) also cited staff guilt, anxiety and anger as significant dynamics. He additionally reported: "Staff attitudes revealed the presence of qualities of intensity, exaggeration, misunderstanding, and inapporpriateness -- signs indicative of an impairment in their deployment of empathy.... Sensitive listening to staff members suggested the existence of unacceptable, poorly recognized feelings and ideas connected with this dis-

turbance in their use of empathy."

Gunther further noted that "not only did staff members ignore the possibility that preconscious motives of their own lay behind their disturbed reactions to patients, but the staff overlooked the possibility that the distortions of their professional attitudes might have begun in a reciprocity between some psychological experience of their patients and its subjected meaning to themselves".

These observations cited by Gunther are consistent with Maslach's later observations (cited earlier) of the burned out health professional who is emotionally exhausted and "no longer has any positive feelings, sympathy, or respect for patients or clients".

Freudenberger noted this same externalization: "People who are in the throes of burning out often fail to see their situation as stemming from inside themselves. Instead they find fault with everything and everyone around them (1974)".

The inference drawn from this and other clinical data (Scully, 1980; Artiss, 1973), written both in direct observation of the burnout process in health professionals and in non-burnout related clinical observations of patient-staff interactions, is that the presence or absence of introspection and empathic feelings toward patients is important in assessing the extent of burnout present in health care professionals. It thus follows that individuals whose characterological structures are strongly intraceptive (as defined

by Gough, 1965) are less likely to experience burnout when placed in critical and sensitive working environments than those who are characteristically disinclined to this personality trait.

Inference can also be made regarding the importance of a characterological autonomous trait. Masclach (1978), Barad (cited in Maslach and Pines, 1979), Kafry (1978), and Storlie (1979) all refer to feelings of a lack of autonomy and independence in one's work as significant in faciliting the burnout process. Gunther (1977), speaking of the psychological stressors related to working with severely ill patients, observed that "staff members acknowledge... that they experience upsetting feelings of helplessness, or disappointment over their inability to work major constructive changes in patient's condition". Edelwich (1980) cited as an "unavowed reason" people enter the helping professions is "the desire to exert control". He found that these people often need to "confirm their sense of their own power.... The need to exert control over others... may stem from counter-transference, in that it may reflect a need to change the behavior of a recalcitrant self or other.... It is part of the seductive appeal of the human service career.... When frustrated, it can be dangerous to the counselor. When gratified, it can be dangerous to the client".

It thus follows that the presence or absence of a strong characterological inclination to act autonomously or exert

control can be important in influencing the level of burnout experienced by health service professionals. As Pines and Kafry (1978) pointed out, to the extent that the work environment frustrates the desire of autonomous individuals to feel in control of themselves and/or others, burnout may be predictable.

As with intraception, autonomy, abasement, anxiety and aggression, the literature offers much clinical inference regarding the importance of nurturance in mediating the burnout process. Freudenberger (1975), speaking of the different types of personalities most prone to burnout in alternative self-help or crisis intervention settings, pointed out that workers entering such fields usually do so out of a desire to address their own nurturing instincts. Frustration and anger are often the experienced emotions of these people after they have been overwhelmed by the unanticipated drain of patients' demands for nurturance.

Emener, Jr. (1979) added: "Many people who enter the field of rehabilitation do so with idealistic expectations ... and a genuine committment to helping disabled people.... It would seem safe to assume that people who work in the field of rehabilitation have moderately high nurturance needs".

Pines and Kafry (1978): "The social services are strongly client centered and are dominated by one significant theme; an incessant and chronic search for ways to help troubled

people.... Social workers are responsive to a 'dedictory ethic', which elevates service motives..., the work is not seen as a job but a calling. It has also been observed that social workers are essentially humanitarians. Their dominant approach is to help people...."

As noted earlier, Edelwich (1980) pointed out that the most common "avowed" reason individuals offer for opting to enter the helping profession is the desire to help people in order to address their own nurturing instincts.

It is thus an hypothesis that individuals with strong characterological nurturance traits in fact thrive in an environment that is receptive to their nurturing instincts.

Work variables

Maslach (1978), Edelwich (1980) and others point out that burnout often results from the unrealistically high expectations of young health care professionals new to the health service field. Many point to training methods and academic attitudes that are insulated from the "real world" of health services as instrumental in shaping the attitudes and expectations of the young professional. The resulting disillusionment, coupled with pressure from older more experienced co-workers to conform to the "norms" of established work attitudes, often results in the early onset of burnout symtoms among these yound health professionals.

Though the literature speaks of the jaded older health

worker, it is in fact ambivalent regarding the extent of burnout found (or even suspected) among long time health care professionals. Contrastingly, references are often made of the attraction to high patient-contact health care activities (such as ICU, terminally ill units, etc.) of the young professional (particularly nurses) and the resulting high turnover rates among these professionals.

The importance of social support systems both in private life and on the job in nullifying potentially high burnout work and attitudinal circumstances is clear in the literaturel Family members, co-workers, and friends are valuable resources in providing alternative interests, understanding, problem solving and verification of self-esteem. These social systems are less often found available to the young professionals than to older ones.

As stated earlier, burnout appears more prevelant among nurses who work in close physical and psychological contact with poor prognoses patients. The stresses of understaffing and long hours are additional work factors that foster burnout among nursing personnel. Liske's (1964) work, reported earlier, noted the significance of parents' social and occupational status in influencing the clinical performances of physicians.

A high burnout demographic profile hypothesized from the above data is one of a young nurse (possibly unmarried) who works with a high number of severely injured, poor prognoses patients. Her work hours are longer, with a greater case-

load. She is fairly new both to nursing and to her current work environment. Her parents are professional level workers. The literature offered no substantitive data relative to the significance of ethnicity in the burnout process.

In summary, there have been few empirical studies which have attempted to define quantitatively the factors which comprise the concept of burnout, and few reported studies relating such factors to personality and social characteristics of the health care provider.

The aim of the present study was the measurement and clarification of the factors which comprise the burnout syndrome and the determination of the degree of relationship these factors have to personality and social variables. The study was limited to an exploratory investigation of variables associated with burnout and sought to identify personality and demographic correlates of the burnout syndrome.

At this stage of the investigation the current study did not seek to control or modify these variables. Descriptive data are needed in order to provide a basis for the development of guidelines for selection of personnel less prone to burnout and for training prodedures which can be effective in controlling the negative consequences. The present study hypoyhesized that individuals with differing personality structures would have differing perceptions of burnout.

Intraception, aggression (hostility), nurturance, anxiety, abasement and autonomy were hypothesized to be personality variables that serve to significantly heighten individual perceptions of burnout or protect against individual perceptions of the syndrome. Social and work related variables were hypothesized to be predictive of burnout among the sample population.

METHOD

The Sample

In April of 1982 a 9-page questionnaire was mailed with a cover letter and a self-addressed, stamped return eneve-lope to 685 female nursing school graduates* living in the U.S.. The mailing represented an effort to survey all of the graduates of the nursing school during the past 5 years. Forty-two surveys were returned by the postal service as undeliverable. By June 5, 1982, 112 question-naires (16.4) were returned. Three respondents had not entered the nursing profession after graduation. The final sample consisted of 109 practicing registered nur-ses -- a response rate of 15.9%.

Procedure

Respondents were advised that it was a study on nurses' general work attitudes and conditions which would help im-prove training and placement methods. Each respondent was asked to anonomously complete four pencil and paper self-report questionnaires. In pre-test administration all re-

*Names and addresses, along with mailing labels, were provided by the metropolitan nursing school cooperating in the study. School administration officials asked that the name of the shcool remain anonomyous.

spondents completed the test battery in less than 35 minutes.

Instruments

The Maslach Burnout Inventory (1978) The MBI served as the criterion measure. It is a 24 item self-rating scale which requires respondents to rate each item for frequency and intensity. It yields factor scores on 4 subscales -- Emotional Exhaustion, Depersonalization, Personal Accomplishment and Involvement.

The Gough Adjective Check List (1965) This 300 adjective, self evaluation inventory was scored for levels of autonomy, abasement, intraception, nurturance and aggression (hostility).

As defined by Gough:

1) Autonomy means to act independently of others or of social values and expections.

2) Abasement means to express feelings of inferiority through self-criticism, guilt, or social impotence.

3) Intraception means to engage in attempts to understand one's own behavior or the behavior of others.

4) Nurturance means to engage in behaviors which extend material or emotional benefits to others.

5) Aggression means to engage in behaviors which attack or hurt others.

The Spielberger State/Trait Anxiety Inventory (1968) The trait anxiety portion of this 40 item self reporting in-

ventory was used to measure trait anxiety levels. (See Appendix D.)

The Adjective Check List (ACL) and the State/Trait Anxiety Inventory (STAI) are two instruments with high reliability and validity which had the advantage of brevity for administration without sacrificing reliability.

Demographics This was a questionnaire of work related and biographic data identified in the literature as relevant to burnout propensity among health care professionals. Also included was a scale (adapted from Cantril, 1965) designed to assess respondents' perceptions of their lives at different times. (See Appendix A.)

Personal characteristics

The nurses included in the sample had a mean age of 31 years, ranging from 24 to 45. They were predominantly white (48.1%) and Black (34.9%), while the balance was comprised of Latins and Asians. While they averaged 1.2 children, 43% of the sample had no children. The median education of both parents was approximately 10th grade. Detailed personal data distributions are presented in Tables 1-4.

Respondents were asked to make subjective assessments on the Cantril Ladder of Life Scale of the quality of their lives 5 years ago, presently and 5 years hence. These distributions are presented in Table 5.

Work characteristics

All of the respondents were currently employed in nursing with full-time experience averaging 6.7 years. Ninety-one percent of the nurses worked regular 8 hour shifts; the median income was more than $20,000. More than 37% of them had spent at least half of their nursing careers working with acute patients only or terminal-chronic patients only. Seventy-five percent of the sample was currently working with adult patients. Detailed work related data are presented in Tables 6-11.

RESULTS

Analysis

The analysis of the data entailed a canonical multivariate correlational model. The personality measures (ACL and STAI) and social demographic variables were treated as predictor variables. Three of the four factors of the MBI served as the criteria or predicted variables. The canonical multiple regression analysis allowed for determining the relative weight of each combined criteria measures.

Correlations of scores of one instrument with another sought to develop relations between the instruments to the extent that any of the measures may be deemed critical to the burnout syndrome. The study predicted to that measure from the collection of other measures by means of step-wise progression techniques.

Maslach (1978) provided little instruction as to the scoring of the 4 orthogonal factors of the MBI or their two dimensions (frequency and intensity) and their interrelationships. Additionally, though she was clear in her findings that burnout was reflected in high scores on Emotional Exhaustion and Depersonalization and low scores on Personal Accomplishment, the MBI offered no global measure of burnout.

The first step of the current study was to obtain an

overall measure of burnout. In contrast to Maslach's population, the current study utilized a homogeneous sample which yielded high intercorrelations of 3 of the 4 MBI subscales. Additionally, while Maslach found frequency and intensity correlations ranging from .35 to .73, Pearson correlational analyses of the frequency and intensity scores in the current study revealed impressively high positive correlations (approaching .90) between these measures. Because Maslach did not deal with the relative values of the frequency and intensity measures, in the current study these two measures were weighted equally with products computed for each of the MBI subscales. Correlations of .90 or better were found between product scores and the original score of each of the 4 subscales was considered as the best descriptor of that scale.

The intercorrelation matrix for the 4 subscales revealed high correlations with the exception of Involvement. Consistent with Maslach's interpretations, there was an ambiguous and inconsistent relationship of the Involvement subscale to the other subscales. In the present study Involvement was treated as a separate variable. (See Table 12 for intercorrelates.)

In order to make the 3 subscales compatible, product scores were converted to Z scores and a single algebraic formula, Emotional Exhaustion + Depersonalization - Personal Accomplishment (EE+D-PA), was used to yield a global Burnout

measure.

Personality characteristics and Burnout

It was hypothesized that anxiety, autonomy, aggression, intraception, nurturance and abasement would be related to the burnout syndrome among nurses in the sample, either to heighten experienced levels of Burnout or as a moderating factor in lessening experienced Burnout levels. Abasement, anxiety and aggression traits would be positively correlated with Burnout levels in the nurses' work roles. In contrast, autonomy, nurturance and intraception would be negatively correlated with Burnout levels among the nurses. The distribution of Burnout scores is found in Table 13.

Hypotheses were supported relative to nurses with high propensities to Burnout as a function of high trait anxiety, abasement and aggression. The highest correlation (r=.62) was between Burnout and anxiety. Nurturance (r=-.43) and intraception were negatively correlated with Burnout scores. There was, however, no significant correlation between Burnout and autonomy. Nurturance was most highly negatively correlated with Burnout in the population.

Table 14 contains the means and range distributions of personality variables found in the sample. Inter-correlational comparisons were also made of the personality traits, as measured by the ACL and STAI, and Burnout and Involvement scores. (See Table 15.)

Personal characteristics and Burnout

Social demographic correlations were consistent with the hypotheses about the relationships between Burnout and age, marital status, years in nursing full-time and income. All correlated negatively with Burnout. The hypotheses concerning the social and work relations of the respondents' parents with Burnout were not confirmed. Correlations of Burnout, Involvement and personal variables are presented in Table 16.

Work characteristics and Burnout

Hypotheses pertaining to higher levels of Burnout among nurses who have spent the greatest percentage of time working in close and continuous proximity to patients with poor prognoses were confirmed. (The ordinal rating scale of patients' prognoses from good to terminal is presented in Appendix F.) Nurses with high percentages of their careers working with terminally ill patients were found to have higher levels of Burnout (r=.46). While no relation to Burnout was found among nurses working with chronic patients (r =.08), the hypothesized relation is supported in part by a negative correlation found among nurses with high percentages of work with good prognoses patients (r=-.35). However, the percentage of time respondents spent in other work assignments bore no relation to Burnout.

Seventy-eight percent of the population worked in general

medical or specialized medical treatment facilities. The type of institution at which respondents worked and the type of work assignment were related to Burnout. Institutions and work assignments were ordinally rated according to the nature and extent of the patient services likely to be provided. (See Appendices G and H.) Work at institutions and agencies that treat long term and severely damaged patients (and requiring nurses to intimately interact with patients) was associated with higher Burnout than work at institutions or agencies servicing short term patients and/or not necessitating its nursing personnel to interact as continually with patients (r=-.32). This finding was supportive of hypothesized results. Also supported was the hypothesized finding that Burnout increased as work assignments requiring close patient contact increased (r=-.60).

The number of years nurses were in the profession was found to be negatively correlated with Burnout as hypothesized. Years employed full-time evidenced this relation (r=-.21), while no relationship was found between Burnout and years of part-time employment (r=-.15). The relation between Burnout and years in nursing full-time, along with findings (previously mentioned) regarding age, marital status and income served to support the general hypothesis that Burnout was most apparent among younger, less experienced nurses in the sample. Contraindicative was the positive relation between Burnout and the length of time respondents

had spent at their present place of employment (r=.23). The study's hypotheses relating Burnout to respondents' work load (hours worked daily, number of patients in work assignments and number of nurses assigned) were not confirmed.

Correlations of Burnout, Involvement and employment variables are presented in Table 17.

Quality of life and Burnout

Findings regarding the perceptions of the quality of respodents' lives and Burnout were mixed. Negative correlations were found between Burnout and respondents' perceptions of their lives 5 years ago (r=-.39) and 5 years hence (r=-.30). The hypothesized negative relation between the nurses' perceptions of the quality of their lives currently was not borne out (r=-.19). (See Table 16.)

The prediction* of Burnout

The present study sought to investigate the feasibility of predicting Burnout from a multiple regression analysis. The 33 independent variables were used in competitive stepwise predictions. Nine variables combined to predict to more than 80% of the variance in Burnout scores. Table 18 presents the nine variables which predicted to Burnout in

*Prediction is used in a statistical sense, since all measures were obtained at the same time.

decending order of importance. Four of the variables (anxiety, quality of life 5 years ago, nurturance and autonomy) related to the respondents' personal characteristics, while 5 variables (amount of patient contact, duration of work shift, percentage of time with acute patients, time at present institution and number of nurses on shift) related to aspects of their employment.

The 33 independent variables in the study were categorized into personal and work related groups. Fourteen variables addressed respondents' personal characteristics. Nineteen were grouped as variables relating to respondents' employment characteristics. These are presented in Appendix E.

Multiple regression coefficients were calculated for the variables in each category. Table 19 presents the 6 personal variables that emerged in decending order of importance to account for 61.4% of the variance. Table 20 represents the 5 employment variables that emerged in decending order of importance to account for 61.6% of the variance.

DISCUSSION

The MBI and Burnout

The MBI as developed by Maslach (1978) consisted of 4 orthogonal factors describing feelings and attitudes toward work. Each item was scaled for both intensity and frequency. In the current study, with a single occupational group, 3 of the 4 original factors were highly intercorrelated. One factor, Involvement, a weak subscale, remained independent. The 3 related MBI factors were combined into a unitary score and labeled Burnout.

Personal characteristics and Burnout

Burnout was found to be related to several personality traits of the nurses in the study. High Burnout related to high anxiety, aggression and abasement. Low Burnout related to high nurturance and intraception. Autonomy was not correlated with Burnout directly.

Anxiety evidenced the highest correlation with Burnout both directly and in the step-wise multiple regresssion prediction of Burnout from the 33 independent variables in the study. In the multiple prediction of Burnout, trait anxiety accounted for 18% of the explained variance.

Young nurses new to the profession experienced anxiety

around numerous issues unique to them. When these nurses move from a training environment to their first professional experience, anxieties are understandably high over learning the job, fear of making critical mistakes and how they will be perceived by their new colleagues. These anxiety provoking issues are coupled with high expectations of the quality of their new experience. These young nurses are in turn generally placed (or opt to work) in units that traditionally (because of the high levels of stress) have the highest turnover in nursing personnel.

Nursing shortages are currently common in most medical institutions. Units where young nurses are frequently placed evidence the greatest shortages due to turnover and the undesirability of the work among older more experienced nurses In this environment the young nurse is often faced with irregular and often non-existent time off, low professional status, demeaning job tasks and high colleague turnover. These are coupled with first-time experiences of working with patients with poor prognoses, and intense emotional involvement with patients and their families. The young nurse is generally not prepared for this assault on her professional and personal equilibriums.

In a comparative study of nursing units, Kulhman (1982) wrote that these "unit impairments" impact "on the organization of work which profoundly affect the emotional atmos-

phere of the unit. The major consequence of this atmosphere seems to be the level of stress experienced by the nursing staff on the Unit. One effect of this stress is difficulty in retaining experienced nursing staff". Kulhman added:

> This impairment is reflected in both the quality of patient care and the quality of working life.... [It] affects the quality of working life for professional staff who feel overworked and overstressed by diverting them from more gratifying activities involving human contact to more technical and mechanical activities. The end result is a loss of experienced nursing staff to less stressful settings (p. 119).

Kulhman pointed out that in the long run, as a result of "Burnout", "approximately sixty percent of the nursing staff leaves each year and are replaced by new graduates".

The current study"s findings regarding anxiety would lead to the inferences: (1) Younger, highest anxiety nurses, among whom Burnout was most prevalent, tend to change institutions early in their careers or not remain in the nursing profession. (2) Those remaining at their starting institutions (or after the early institutional change) tend to gain some job seniority and quickly move to less anxiety producing nursing assignments (lower care loads, less patient contact, lower staff turnover). Findings also indicate that many of the nurses in this latter group may retain the negative effects of early Burnout even though they have moved on to less stressful working conditions. Burnout levels were positively correlated with the length of time nurses in the

sample remained at their current institutions.

Autonomy and Burnout

The nurses in the sample were well above the standization norm in the autonomy trait and with less variability compared with anxiety and other ACL measured traits. Unlike the other personality variables, autonomy evidenced no direct correlation to Burnout. It also was not found significant in the personal variables Burnout prediction matrix. However, in the combined variables prediction matrix, autonomy bore a negative relation to Burnout while accounting for 6.7% of the variance. Autonomy, as measured in the current study, appeared to maintain a more complex relation to Burnout than nurturance, aggression, intraception, abasement and anxiety.

Gough (1964) defined autonomy as a propensity to "act independently of others or of social values and expectations". The ACL distinguished autonomy from other personality traits within that operational definition. Autonomy, however, is not a unitary trait, but is two dimensional. Pines (1978) and Edelwich (1980) pointed out that the autonomous desire to exert control over others in one's environment is also strong among individuals who enter nursing. The desire to exert control over others in one's environment -- an important dynamic in the conception of the autonomous personality -- does not fall within the scope of Gough's definition of autonomy. The attraction to nursing of autonomous individ-

uals may in fact result from the desire to be independent of others or due to the desire to exert control over others.

The distinction between these two aspects of the autonomous personality can be likened to Gorn's (1980) distinction between intrinsic and extrinsic motivations in determining job satisfaction. Acting independently of others in the environment can be viewed as intrinsic motivation, while seeking to control others in one's environment can be viewed as extrinsic motivation. The ACL operationally defines and measures the intrinsic motivation of the autonomous individual, while not accounting for a distinction of the extrinsic component of the autonomous personality from other traits measured in the sample.

Issues of control or power over others in the environment may be strong in individuals high in each of the other personality traits measured in the sample. Nurses high in anxiety, for example, may also be strongly moved to exert control over patients or to controlling the direction of patients' illnesses. Similarly, intraceptive nurses may also feel impotent in the face of the powerlessness experienced by nurses in their relations with physicians or administrators. These issues of power over control of one's environment may also be present in nurses high in nurturance, aggression or abasement and are important dynamics in the Burnout process.

What is inferred from these data is that confounding may

have influenced the measure of autonomy as that trait related to control of the environment. It may also have made the measure of the relationship of autonomy with Burnout more difficult than the measures of other, less complex personality traits in the sample with the dependent variable.

The emergence of autonomy in the combined variables Burnout prediction matrix lends support to the study's hypothesis (not borne out in direct correlational analysis) that Burnout bore a negative relation to autonomy. However, because the ACL may measure only one of two important dynamics of autonomy, the complex relation of autonomy with Burnout and with the other measured personalities may not have been fully realized in the study.

Quality of life and Burnout

A way of measuring the possible psychological contributions to their own Burnout levels was to have respondents rate their perceptions of the quality of their lives at different times. Low quality of life scores were assumed to be indicative of low self esteem, low expectation (lack of hope(, and associated with high Burnout. Past and future measures did negatively correlate with Burnout. Present ratings of the quality of life, though in the hypothesized negative direction, were not significantly correlated with Burnout.

These results would indicate that assessments of the current quality of their lives is a more complex concept. It may be, for instance, that the quality of their lives 5 years ago served to influence respondents' perceptions of the current state of their lives. Also, it is possible that current life assessments were more psychologically charged than past and future assessments.

Employment and Burnout

Consistent with the hypothesis, Burnout was associated with the respondents' job, specifically, closeness of contact with patients. Ordinal rating of job assignments reported in the sample were made according to the amount of patient contact required of nurses in each assignment (as a function of the service provided) from most to least patient contact. General medical, rehabilitation and intensive care units were ranked 1, 2 and 3, respectively, while supervision, educational and administration assignments were ranked 13th, 14th and 15th. Nurses in the sample evidenced increased Burnout as the closeness of patient contact in their work assignments increased.

Related to the amount of patient contact was the precentage of their professional careers nurses in the sample had spent working with patients of various prognoses. As the percentage of career time with terminally ill patients increased, Burnout increased. Conversely, as the percentage

of career time spents with acutely ill patients increased, Burnout decreased. These findings were consistent with the hypothesis. Burnout, however, showed no relationship to the percentage of their careers the nurses had spent working with chronically ill patients. A negative relation was expected.

Working with chronically ill patients is often a mixed emotional experience. It may be quite rewarding through long term interpersonal contacts, which is one of the desirable aspects of nursing (particularly among nurturant women). This factor may serve to offset other, more negative aspects of the hopelessness of working with chronically ill patients.

Also within the work environment, the type of institution at which respondents currently worked was related to Burnout. Ordinal ranking of the institutions reported in the study (from those which required its nursing personnel to regularly interact with patiens over an extended period to institutions offering very limited patient contact services) showed lower Burnout as the amount of patient contact required of an institution's nurses decreased. Patient contact was defined as the combination of the number of patients seen and the length of time in interaction with patients. General medical institutions, special medical institutions and nursing homes were rated 1, 2 and 3, respectively, as the institutions requiring of its nurses the highest amount of patient contact. Educational institu-

tions were ranked last in patient contact.

Contrary to the hypothesis, the study found that the longer respondents were at their current institutions the greater the levels of Burnout reported. The findings regarding length of time at their present institution was anticipated to be inversely correlated with Burnout. Presumably, dissatisfied nurses would move to other institutions, leaving more satisfied nurses staying on. Burnout was expected to decrease with more time at present institution. Findings regarding the negative relationship of Burnout to the years in nursing full-time would suggest that nurses who became dissatified and moved to other institutions were less prone to Burnout than those remaining at a single institution. Positive expectations of the quality of work (salary, benefits, location, etc.) may accompany changes of institutions and help to avoid the negative effects of Burnout.

Involvement and Burnout

The Involvement subscale of the MBI contained only three items that sought to measure the extent to which involvement is endemic to the Burnout syndrome. Additionally, Maslach (1978) offered no clear understanding of the Involvement subscale. Though Maslach considered the Involvement subscale an optional part of the MBI, the current study yielded findings that contribute to understanding its relation to

Burnout.

Significant relationships were found between Involvement and several personality variables. Positive correlations were found with nurturance and intraception, while a negative correlation existed with aggression.

From Maslach (1978) findings clinical inference suggested that individuals high in nurturance and intraception would be high in personal involvement with others. It is the over-involvement of health professionals that Maslach reported as the important measure of the Involvement factor that may relate to Burnout. Positive correlations between these personality traits (nurturance and intraception) and Involvement would be expected. Similarly, it would be predicted that angry individuals high in aggression would be low in their personal involvement with people, while no relation of Involvement with anxiety, autonomy or abasement would necessarily exist.

Findings also revealed that the more nurses on duty during respondents' work shift and the more patients in the respondents' work unit, the lower were the levels of Involvement. This was consistent with Maslach's work on the Involvement factor of the MBI; it would be expected that less personal involvement with patients occured as the total number of patients increased. Kulman (1982) suggested that as the number of nurses regularly on duty increased, more rewarding nurse-patient relations could be developed.

Parents' occupation and Involvement

The occupational catagories of the parents of nurses in the study were also related to Involvement. As reported earlier, Liske (1964) found that physicians' clinical performance ratings were higher when their fathers' occupational catagories were non-professional than when they were of professional fathers. Liske attributed this relation between clinical performance and fathers' occupational level to a higher social value being placed on involvement with lower social status patients by sons of non-professional fathers. Labov (1966), investigating language differences between subjects of different socio-economic levels, found that sharp division occured in the phonological output of lower and working class subjects on the one hand and middle and upper-middle class subjects on the other. These findings suggest that different classes communicate better within their own social group. Consistent with these data, in the current study as respondents' parents' occupations moved from blue collar through professional, the Involvement level decreased.

For a better understanding of this complex relationship it may be necessary to examine the type of patients worked with. Middle class professionals (with fathers of higher socio-economic status) may have difficulty becoming involved or communicating with patients different from themselves.

In summary, the Involvement subscale emerged as a variable that is related to, yet distinct from, nurturance and intraception and aggression, having to do with the level of commitment to and identification with the patient population. What is needed for a clearer understanding of this MBI subscale is, firstly, an expanded difinition of Involvement. It appears to be both a work related dynamic, as indicated by findings of its relationship to the number of nurses assigned and a number of patient related variables. It also appears to be a personality dynamic, as indicated by its correlation with other personality variables. Findings in the current study suggest that Involvement may have value in the Burnout concept. However, additional MBI items relating to personality and the work environment would be needed if systematic understanding is to be gained.

Predictions of Burnout

Personal variables

In the multiple step-wise prediction of Burnout from the study's 33 independent variables, 3 of the 4 personal variables that emerged (anxiety, nurturance, quality of life 5 years ago, and autonomy) were personality variables. Each of the personal variables predicting to Burnout was consistent with hypothesized relation to Burnout. Only autonomy had not previously evidenced a direct correlation to the dependent variable.

Trait anxiety maintained the highest relation to Burnout in competative regressions of both the combined work and personal variables matrix and the personal variables only matrix. These results suggest that anxiety was the single most important variable (either personal or work related) contributing to Burnout among nurses in the sample. Obsessive, worrying nurses experience more distress on the job and find their work more unpleasant.

Like anxiety, nurturance maintained a consistently high relation to Burnout over both the combined work and personal variables prediction of Burnout and the personal variables only matrix. These data lend support to the hypothesis that the nurturant characteristic (getting satisfaction from caring for others) was the most stabilizing personal factor in offsetting the negative effects of the burnout process among the respondents.

Autonomy's negative relation to Burnout in the combined prediction matrix and its disappearance in the personal variables matrix lends support tc the earlier interpretation (Autonomy and Burnout) that dual autonomous dynamics probably exist, while the ACL measures only one of those dynamics.

The current study suggest that the presence of the autonomous propensity to act independently of others in the environment or of social expectations may be perceived as a personal variable which serves to offset the negative effects of Burnout. The autonomous propensity to influence

control over others in the environment may be viewed as a work related variable not measured in the study.

When the propensity to act independently of others was compared with other personal variables in the sample, it did not emerge as significant. However, when the propensity to act independently of others was compared with both work and personal variables in a Burnout prediction matrix, it predicted to 6.7% of the explained variance.

A clear statement of the studys' results would be that as nurses in the sample evidenced higher levels of the personal dynamic of autonomy (independence from others), Burnout lessened. No measure of the work related autonomous dynamic (control and power over others) was taken.

The respondents' perceptions of the quality of their lives 5 years prior also maintained its negative relation to Burnout over both prediction matrices. Perceptions of the quality of future life, significant in the personal variables matrix, did not appear in the combined variables prediction. Present perceptions bore no relation to Burnout in the study. It appears that to varying degrees, as Burnout levels increased, perceptions of past and future times in the respondents' lives grew bleaker.

It is not clear from the data why perceptions of past periods maintained a more consistent and higher relation to Burnout than future and present times. One theory is that, more than current Burnout levels influencing how life 5

years ago was perceived, the quality of their lives 5 years previously influenced current levels of Burnout among respondents.

Employment variables

The 5 employment variables that emerged in the combined variables prediction matrix were:

(1) the amount of patients in job assignment,

(2) the number of hours worked daily,

(3) percentage of career spent with acute patients,

(4) length of time at present institution, and

(5) the number of nurses on work shift.

Two of the variables (amount of patient contact on the job and percentage of career spent with acute patients) were consistent with the study's hypothesized relations with Burnout and with other findings in the study. The emergence of length of time at present institution in the matrix lends support to other findings in the study that Burnout continued to increase among nurses who remain at one institution.

Hours worked daily and the number of nursing companions on the shift, not related with Burnout in direct correlational analysis, emerged as significant predictors of Burnout in both the combined and employment variables only prediction matrices. Both of these variables are related to an overwork factor that may not be separable from such variables as the number of patients in respondents' work unit

and the prognoses levels of patients. The relationship of Burnout to overworked nursing staffs is clear. Variables measuring this overwork factor in the Burnout process may result in some of these variables being submerged in the measure of other related variables. A complex relation between hours worked and levels of nursing staff with other variables in the study may account for these findings.

The amount of patient contact connected with respondents' current job assignments showed the highest employment variable relation to Burnout in both the combined variables prediction and employment variables prediction matrices.

CONCLUSION

The purpose of the current study was to provide practical clinical data about the relationship of personality traits to the burnout process among nurses. The complexity of burnout, it was recognized, was such that any study seeking to assess personality correlates of burnout would have to address the concomitant impact of work related and demographic factors.

Despite the recognition of the extent of burnout in many professional and occupational areas, evidence contributing to understanding its correlates consisted largely of anecdotal and observational reports. Systematic collection of precise quantifiable data was a necessary step in describing the degree of variation of the burnout syndrome among nursing personnel and the determination of associated characteristics.

The study provided a quantitative measure of burnout from a unitary score of MBI subscales. It also provided burnout predictive matrices from personal and work variables. These results allow us to make recommendations for further study of burnout in order to gain better understanding of the syndrome.

From these findings it may be possible to assess and

predict levels of burnout among nursing populations through the administration of present instruments. For use as a selection instrument or prediction of burnout, cross validation of the tests used in the current study would be necessary. This would entail administration of present instruments to nursing students with followup after some time on the job. A subsequent phase of burnout research could involve the attempt to control causal factors experimentally.

Personality traits were identified as important variables in the burnout process among nurses. Additionally, the current study offered information about burnout related demographic and work data. Practical application of the study's results would include approaches for nursing personnel.

Significant and practical multiple correlations of the variables investigated in the study may provide valuable information for the selection and training of nursing personnel. From these data nursing school training programs may begin to identify nursing candidates in terms of their characterological suitability for certain nursing roles. Students can also be better prepared in assessing their own potential for burnout. These recommendations of course should await cross validation of the study's methods.

One drawback, in light of current nursing shortages, is that these selection considerations may not be feasible. In spite of the possible burnout potential of nursing can-

didates, personnel quotas have to be met.

From the study practical ways of identifying nurses of whom extreme levels of burnout are suspected may be available for nursing supervisors. They can begin to anticipate the burnout potential of nurses and be more informed in matching individuals to work assignments.

Recommendations for immediate practical application of the findings of this study are made with caution and the recognition that faculty and supervisors involved in the training and selection of nursing students and applicants are probably well aware of personality correlates that contribute to Burnout and job dissatisfaction. It is almost self-evident to state that anxious, angry, self-debasing persons will be unhappy in almost any situation. Clearly such persons would need special attention and counseling from supervisors. The question does arise regarding the extent to which such characteristics are actually observed by the trainer. The instruments employed in the present study would be of benefit in providing an early alert to trainers if they were not readily able to identify students or applicants during selection or in courses where close observation is possible. It would be desirable to determine the degree of correspondence or agreement between trainer's ratings and the questionnaire. Does the questionnaire, for instance, add anything beyond what able supervisors know already?

A critical issue, which much of the literature on Burnout simply assumes as obvious, is the equation of Burnout and performance. The present study also did not question this assumption. However, some of the study's findings, such as the relation between Burnout and years in the same institution, are difficult to explain. It is possible that with the onset of Burnout, complaining about working conditions, etc. may become a functionally autonomous habit continuing beyond the very difficult early period of adjustment and without the continuing negative reenforcements. Indeed, it is possible also that Burnout may not be associated with poor performance. Certainly an empirical check on the relationship between Burnout and job performance ratings should be determined. Regardless of the outcome, Burnout would still be a problem worthy of resolution.

Though the nursing profession is similar to other health care professions, it remains distinct in its social, personal and work dynamics. The extent and closeness of patient contact, lack of social recognition, high academic requirements, and high levels of responsibility not commensurate with wages serve to set nursing apart from other health care professions. The conclusions drawn from the current study thus have to be limited to nurses.

In summary, the current study offered useful data for a greater clinical understanding of the burnout syndrome and some of the dynamics that serve to contribute to or im-

pede its development among nurses. The study was seen as a move away from the plethora of anecdotal writing on burnout. Instead, a contribution to the emerging body of empirical data regarding burnout has been made. The eventual goal would be to improve patient care and reduce hospital costs affected by the negative effects of burnout.

Table 1

Frequency distribution: respondents' age

(N =109)

Age	Freq	Pct
24 - 26	18	16
27 - 29	42	38
30 - 32	14	12
33 - 35	12	11
36 - 38	10	10
39 - 41	9	9
42 - 45	4	4

Mean: 31.0 S.D: 5.13 Median: 29.1

Table 2

Ethnic distribution

(N = 109)

Race	Freq	Pct
White	52	47.7
Black	39	35.8
Latin	13	11.9
Asian	5	4.6

Table 3

Marital status

(N = 109)

	Freq	Pct
Single	31	28.4
Married	67	61.5
Separated	0	0
Divorced	11	10.1

Table 4

Parents' occupation

(N = 109)

	Father		Mother	
	F	%	F	%
Prof	7	6.4	2	1.9
Mgmt	19	16.6	9	8.3
Wht Col	7	6.4	13	12.0
Blu Col	77	70.6	67	61.4
None	0	0	18	16.4

Table 5

Nurses' ratings on Cantril's Quality of Life Scale: 5 years ago, currently and 5 years hence (poor quality = 1)

(N = 109)

Past			Present			Future		
Rating	F	%	Rating	F	%	Rating	F	%
1	1	.9						
2	8	7.3						
3	19	17.4						
4	18	16.5	4	2	2.8			
5	31	28.4	5	20	18.3			
6	9	8.3	6	30	27.5			
7	11	10.1	7	17	15.6	7	7	6.4
8	3	2.8	8	19	17.4	8	17	15.6
9	5	4.6	9	15	13.8	9	34	31.2
10	4	3.7	10	6	5.5	10	51	46.8

Table 6

Years of full-time nursing experience

(N = 109)

Years	Freq	Pct
0 - 2	12	11
3 - 5	35	33
6 - 8	42	37
9 - 11	6	6
12 - 14	2	2
15 - 17	5	4
18 - 20	6	6
21 - 23	1	1

Table 7

Type institution at which currently employed

(N = 109)

Institution	Freq	Pct
General medical	77	69.0
Public health	13	12.4
Specialized medical	11	10.5
Nursing home	5	5.0
Education	2	2.1
Clinic	1	1.0

Table 8

Years employed at current institution and current assignment

(N = 109)

	Institution		Assignment	
Years	F	%	F	%
1 - 2	34	31	35	32
3 - 4	39	35	59	54
5 - 6	22	20	10	9
7 - 8	5	5	2	2
9 - 10	4	4	3	3
11 - 12	0	0	0	0
13 - 14	2	2	0	0
15 - 16	3	3	0	0

Table 9

Nurses' current work assignment

(N = 109)

Assignment	Freq	Pct
General medical unit	41	36.7
Intensive care unit	17	14.7
Rehabilitation unit	6	6.0
Geriatric unit	6	6.0
Psychiatric unit	6	6.0
Emergency room	5	4.9
Surgical	4	3.7
Field work	4	3.7
Operating room	3	2.8
Pediatric unit	2	1.0
Non-patient contact assignment	15	14.6

Table 10

Patient load in work assignment

(N = 109) Number of patients on unit			(N = 109) Number of nurses on unit		
Patients	Freq	Pct	Nurses	Freq	Pct
1 - 10	15	14	1	24	22.1
11 - 20	9	8	2	10	9.0
21 - 30	15	14	3	1	.9
31 - 40	45	41	4	29	26.7
41 - 50	7	6	5	19	17.5
51 - 60	8	7	6	9	8.3
61 - 70	4	4	7	8	7.3
71 - 80	0	0	8	4	3.7
81 - +	6	6	9	5	4.5

Table 11

Prognoses of patients in work unit

(N = 109)

Prognosis	Freq	Pct
Acute only	23	21.1
Acute & chronic	12	11.1
Acute & chronic & terminal	20	18.3
Chronic only	37	33.9
Chronic & terminal	17	15.6
Terminal	0	0

Table 12

Inter-correlations of factor product scores and global Burnout scores

(N = 109)

	Pers Acc	Depers	Involve	Burnout
Emot Exh	-.43	.36	.03	.78
Pers Acc		-.36	.10	-.78
Depers			.42	.75
Involve				.15

Note: $r = .20$, $p < .05$

Table 13

Distribution of Burnout Scores

(N = 109)

Scores		F
-125	-149	2
-100	-124	11
-75	-99	15
-50	-74	17
-25	-49	13
0	-24	14
25	49	3
50	74	6
74	99	8
100	124	5
125	149	8
150	174	0
175	199	1
200	224	0
225	249	3
250	274	1
275	299	2
		109

Table 14

Means and ranges of personality scale scores on ACL and STAI

Variable	Mean	Range
Intraception	50.02	19 - 72
Nurturance	49.49	5 - 61
Autonomy	56.33	43 - 69
Aggression	55.04	33 - 73
Abasement	40.86	22 - 75
Anxiety	35.90	23 - 58

Table 15

Inter-correlations of ACL and STAI personality traits, Involvement and Burnout

	Aggr	Anx'ty	Nurtur	Auton	Intra	Abase	Involv
Burnout	.34	.62	-.43	.14	-.26	.26	.01
Aggr		.41	-.78	.41	-.61	.13	-.48
Anx'ty			-.39	.16	-.19	.32	-.05
Nurtur				-.26	.76	-.40	.36
Auton					-.05	-.43	-.01
Intra						-.42	.27
Abase							-.21

Note: $r = .20$; $p < .05$

Table 16

Correlations between personal variables, and Burnout and Involvement

Variable	Burnout	Involvement
Age	-.28[b]	.04
Ethnicity	-.10	-.23[b]
Marital status	-.46[c]	.09
Number of children	-.11	.01
Degree	-.24[b]	-.11
Father's education	-.07	-.13
Mother's education	.15	-.14
Father's occupation	.16	-.24[b]
Mother's occupation	-.08	-.29[c]
Quality of life (past)	-.39[c]	-.18
Quality of life (present)	-.19	.07
Quality of life (future)	-.30[c]	.05

(b) $p < .01$, (c) $p < .001$

Table 17

Correlations between employment variables and Bunnout and Involvement

Variable	Burnout	Involvement
Years full time	-.21[a]	.13
Years part time	-.15	-.15
Income	-.33[c]	.16
Type institution	-.32[c]	-.20[a]
Years at present instit.	.23[b]	.22[b]
Current work assignment	-.60[c]	.05
Years in work assignment	-.008	.06
Hours worked daily	-.01	.07
No. pts. in work unit	-.12	-.37[c]
No. nurses on shift	-.05	-.36[c]
Patient age group	.04	-.22[b]
Type pt. (prognosis)	.14	-.07
* Terminal unit (career %)	.46[c]	.15
* Acute unit (career %)	-.35[c]	-.18
* Chronic unit (career %)	.08	.18

*Only those nursing assignments at which at least 20% of the respondents had worked during their careers are included in the Table.

(a) $p < .05$, (b) $p < .01$, (c) $p < .001$

Table 18

Multiple prediction of Burnout scores, personal and employment variables

Variable	Beta	% Variance	% Variance Explained
Trait anxiety	.368[c]	14.6	18.0
Lo pt contact/hi pt contact*	.339[c]	13.5	16.6
Nurturance	-.265[c]	10.6	13.0
Quality of life (past)	-.258[c]	10.2	12.6
Duration of shift	.217[c]	8.6	10.6
% of time w/acute pts	-.189[c]	7.5	9.2
Time at present institution	.145[b]	5.8	7.1
Autonomy	-.136[a]	5.5	6.7
No. nurses on shift	-/128[a]	5.0	6.2
Total	R = .902	81.3	100.

*High patient contact ratings include general medical and terminal case assignments; all other assignments were rated low patient contact.

(a) $p < .05$ (b) $p < .01$ (c) $p < .001$

Table 19

Multiple prediction of Burnout scores from personal variables

Variable	Beta	% Variance	% Variance Explained
Trait anxiety	.641[c]	23.1	37.7
Quality of life (past)	-.273[c]	9.7	16.0
Quality of life (future)	-.249[b]	9.0	14.6
Nurturance	-.199[b]	7.2	11.7
B.A / M.A. degree	-.187[a]	6.8	11.0
Unmarried/ Married*	-.153[a]	5.5	9.0
Total R =	.783	61.4	100.

*Unmarried includes single and divorced.

(a) $p < .05$, (b) $p < .01$, (c) $p < .001$. two-tailed

Table 20

Multiple prediction of Burnout scores from employment variables

Variable	Beta	% Variance	% Variance Explained
Lo pt contact/hi pt contact*	-.473[c]	18.0	29.3
% of time w/acute pts	-.280[c]	10.7	17.3
Income	-.243[c]	9.3	15.1
No. nurses on shift	-.22-[c]	8.4	13.6
General hosp/ other	-.201[b]	7.6	12.4
Duration of shift	.198[b]	7.6	12.3
Total R =	.785	61.6	100.

* High patient contact ratings include general medical and terminal case assignments; all other assignments were rated low patient cantact

(b) $p < .01$, (c) $p < .001$, two tailed

Appendix A
SOCIAL/WORK HISTORY

1. Age_____ race_____

2. Social status: single___ married___ separated____
divorced____

3. Number of children____

4. Highest academic degree obtained:_____

5. Current income range: under $10,000 ____ $10-12,000 ___
$12-15,000_____ $15-18,000_____
$18-20,000_____ over $20,000_____

6. Father's education: 9th grade or less_____
10th grade through some college_____
College graduate or more_____

7. Mother's education: 9th grade or less_____
10th grade through some college_____
College graduate or more_____

8. Father's primary occupation (before retirement if retired of deceased):
professional_____ management_____
blue collar_____ white collar_____

9. Mother's primary occupation (before retirement if retired or deceased):
professional_____ management_____
blue collar_____ white collar_____

10. Years working in nursing profession FULL TIME _____

11. Years working in nursing profession PART TIME _____

12. Type of institution at which you currently work:
general medical treatment institution_____
specialized medical treatment institution_____
mental institution_____
other _____
specify

13. Length of time at present institution _____ _____
yrs mo

14. Your present job is in:
a general medical ward_____ administration_____
a semi-private medical unit_____ operating room_____
a private suite medical unit____ emergency room_____
psychiatric unit_____ clerical_____
intensive care unit_____ other_____

Appendix A (continued)

SOCIAL/WORK HISTORY

15. Length of time in job assignment named above

_____ _____
yrs mo

16. Hours worked daily _____

17. Number of patients in your assignment unit _____

18. Number of nurses usually assigned to your unit during your tour _____

19. Your patients are generally: children ___ adults ____

20. Your patients are generally:
acute _____ chronic _____ terminal _____

21. Estimate the percentage of your careet that has been spent in the following special nursing situations. Try to make the sum of your entries equal to 100%.
operating room_____ care of acute ill _____
maternity_____ care of chronic ill_____
caring for terminally ill___ other_____

22. Imagine that the ladder below represents the quality of life where 1 represents the WORST life one could possibly have and 10 represents the BEST life one could possibly have. Please put an X on the ladder that describes where you feel you are now. Then put a Y where you feel you were 5 years ago. Then put a Z where you expect to be 5 years from now.

_____ 10 best possible life
_____ 9
_____ 8
_____ 7
_____ 6
_____ 5
_____ 4
_____ 3
_____ 2
_____ 1 worst possible life

(Adapted from Cantril's Ladder of Life)

Appendix B

Ordinal rating of patient groups according to prognoses from least severe to most severe.*

Rating	Prognosis
1	Acute only
2	Acute & chronic
3	Acute, chronic & terminal
4	Chronic only
5	Chronic & terminal
6	Terminal only

*In post-test administration, nurses were asked to rank order above patient groups for levels of severity.

Appendix C

Ordinal rating of institutions from most to least patient contact required of nursing personnel as a function of the patient services provided.*

Rating	Institution
1	General medical treatment
2	Specialized med. treatment
3	Nursing home
4	Mental
5	Clinic
6	Field work
7	Public work
8	Education

*In post-test administration, nurses were asked to rank order institutions for the amount of patient contact they would normally expect if working at the above list of facilities.

Appendix D

Ordinal rating of nurses' current work assignments from most to least patient contact required of nursing personnel as a function of the type of patient services provided.*

Rating	Work assignment
1	General medical
2	Rehabilitation
3	Intensive care
4	Nursing home
5	Psychiatric
6	Emergency room
7	Field work
8	Out-patienst clinic
9	Pediactric
10	Operating room
11	Surgery
12	Research out-patient
13	Supervision
14	Education
15	Administration

*In post-test administration, nurses were asked to rank order job assignments for the amount of patient contact they would normally expect if working on the above list of units.

Appendix E

Personal and work related grouping of the 33 independent variables

Personal	Employment
Anxiety	Income
Intraception	Father's occupation
Nurturance	Mother's occupation
Autonomy	Full-time years
Aggression	Part-time years
Abasement	Type institution
Age	Years at present institution
Ethnicity	Type of job currently
Marital status	Years in current job
Number of children	Hours worked daily
Academic degree	No. patients in job assign.
Quality of life (past)	No. nurses during shift
Quality of life (present)	Age group of patients
Quality of life (future)	% career in maternity
	% career w/ terminal pts.
	% career w/ acute pts.
	% career w/ chronic pts.
	% career/ other assignments

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