RELATIONSHIP OF BURNOUT AND SOCIAL SUPPORT
IN NURSES WHO CARE FOR PEOPLE WITH AIDS

by

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Relationship of Burnout and Social Support

in Nurses Who Care for People With AIDS

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Abstract

This study examined the effect of social support on burnout in nurses of People with AIDS (PWAs). A sample of 80 female registered nurses (RNs) completed the House and Wells Social Support Questionnaire, which measures supervisor, co-worker, friend/relative, and spouse/partner support, and the Maslach Burnout Inventory, which defines burnout in terms of Emotional Exhaustion, Depersonalization, and Personal Accomplishment. The experimental group (AIDS-high) consisted of 34 nurses who care for PWAs on a daily basis in the course of caring for patients who require acute non-surgical medical care. The control group (AIDS-low) consisted of 40 nurses who provide pre- and post-operative care for patients requiring surgery.

The two groups were not significantly different according to their univariate statistics, however, a regression analysis revealed significantly different patterns of results between groups. Lack of experience (age and the number of years worked as an RN) was significantly predictive of burnout in AIDS-low nurses, but not in AIDS-high nurses. Contrary to predictions, the three components of burnout were not significantly associated with the four sources of social support for
either the AIDS-high nurses or the AIDS-low nurses. Work-related social support was not more strongly associated with the burnout variables in AIDS-high nurses than in AIDS-low nurses.

In conclusion, the use of social support was not associated with burnout for AIDS-high nurses, however, experience was observed to be a strong predictor of burnout for AIDS-low nurses.
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CHAPTER I
INTRODUCTION

The presence of AIDS in society has affected the lives of nurses at many different levels, both personally and professionally. AIDS is unique because of the nature of the disease and its prognosis. In addition to the fear of contagion, despite the use of universal precautions, there are a variety of psychosocial issues to be faced. Caring for People with AIDS (PWAs) has been rated by some nurses as the most stressful area of nursing today (Sherr & George, 1988), especially in hospitals where AIDS is rarely encountered and where it thus remains a foreign and threatening syndrome of diseases (O'Donnell, O'Donnell, Pleck, Snarey, & Rose, 1987). Prior to the introduction of AIDS into society, cancer patients were typically the most stigmatized of patients. In comparison to individuals with heart disease, diabetes, cancer, AIDS patients are now judged the least socially acceptable, the most responsible for their illness, and of the least moral worth (Katz, I., Hass, R.G., Parisi, N., Astone, J., McEvaddy, D., & Lucido, D.J., 1987). Nurses are much more negative attitudinally towards,
and much less willing to interact with, a patient labelled as a PWA than towards a patient who has been described with the same symptoms, but who has been labelled as a leukemia patient (Kelly, 1988; Kelly, J.A., St. Lawrence, J.S., Hood, H.V., Smith, S., & Cook, D.J., 1988). Furthermore, it has been reported in one study that 75% of nurses would refuse to care for an AIDS patient in certain circumstances (Moriarty, 1988).

It appears that underlying the negative attitudes towards AIDS patients is the perception that they are responsible for contracting the human immunodeficiency virus (HIV) (Katz et al., 1987). When the causality of an illness is based in moral language, those afflicted with the illness tend to be blamed for having it (Kayal, 1985). Such moral judgements may create barriers which may prevent nurses from hearing and retaining information necessary for the care of the stigmatized patient (Scheitingher, McCarthy, Gillen, & Hammrich, 1988).

Stigmatized by association

Nurses who care for AIDS patients may feel that they become stigmatized by association (Rolle, 1988;
Govoni, 1988; Holland & Tross, 1985; Kelly, 1988) and this perception of stigmatization can isolate these nurses from their peers (Kelly, 1988). Nurses' friends and families are often unsupportive, judgemental, and frightened to have the nurse caring for PWAs (Blumenfield, Smith, Milazzo, Seropian, & Wormser, 1987; Bolle, 1988; Butler & Lynch, 1988). AIDS is still seen predominantly as a 'gay disease', and most nurses, in general, blame the PWAs for their illness (Andre, 1988), despite assurances from the Kinsey Institute that the HIV virus is an 'equal opportunity' virus which can be transmitted via the exchange of blood or semen, regardless of one's nominal sexual preferences (Reinisch, Sanders, & Ziemba-Davis, 1989). Prejudice against gays is a major factor in AIDS phobia (O'Donnell, et al., 1987). Gays have been as strongly stigmatized as PWAs have been, and it has been suggested that both groups are considered interchangeable and nearly identical (Kelly et al., 1988). In addition to the stigma attached to homosexuality, there is a stigma associated with terminal illness, and with being an IVDU (intravenous drug user), let alone with having AIDS (Knox & Dow, 1989).
Mortality issues

In addition to the issues surrounding sexuality, nurses also are faced with the lethality of AIDS (O'Donnell, et al., 1987) and their own mortality (Bolle, 1988; Flakerud, 1987; Govoni, 1988). Both AIDS and oncology nurses confront the helplessness and frustration of caring for terminally ill patients (Dilley, Ochtill, Perl, & Volberding, 1985; Flakerud, 1987; Govoni, 1988; Kelly, 1988), and both types of nurses find themselves fighting against becoming demoralized by the high rate of mortality and the repetitive grieving (Bolle, 1988; Flakerud, 1987). Fear of death in and of itself has been reported to significantly predict burnout (Hare, Pratt, & Anderson, 1988). Nurses of AIDS patients often identify strongly with their patients due to the similarity in their ages (O'Donnell et al., 1987), and consequently they may become over-involved with their patients (Flakerud, 1987; Govoni, 1988). They may carry a heavy emotional burden in watching so many of their young patients waste away (Kelly, 1988; McLeod, Smith, & Willoughby, 1986). The emotional and physical needs of the patient can become overwhelming and cause the nurse to become stressed and fatigued (Flakerud, 1987; Salisbury,
1986). Although some nurses report having experienced growth as a response to the existential challenge of caring for PWAs (Bolle, 1988; Govoni, 1988), these mortality issues put nurses at risk of exhaustion and burnout as they are repeatedly confronted with their inability to cure.

Frustration associated with AIDS care

The type of care required by an AIDS patient is not substantially different from that required by any cancer or critical care patient (Rosenthal & Haneiwich, 1988). The perception of powerlessness is a major source of dissatisfaction when caring for a patient with an uncertain prognosis, or when administering treatments which are not always helpful. Nurses, in general, can end up feeling frustrated, incompetent, and can suffer from self-recrimination for past and potential future failures (Bush, 1988; Pot-Mees, 1987; West, Horan, & Games, 1984). AIDS nurses also report feeling overworked from trying to meet all immediate acute care demands of AIDS patients in the face of time constraints (Flaskerud, 1987; Pot-Mees, 1987; West et al., 1984), although they have been found to exaggerate the amount of care required by PWAs (O'Donnell et al.,
Furthermore, it has been reported that staff may feel as uncomfortable with hepatitis B patients as with AIDS patients, suggesting that the fear of contagion plays a large part in the role of the stigma associated with PWAs (Knox & Dow, 1989).

**Fear of contagion**

It has been well-documented that the risk to health-care workers who care for people with AIDS is minimal (Reisman, 1988; Richardson, Lochner, McGuigan, & Levine, 1987; Sherr, 1987; Treiber et al., 1987), and it is equally well-documented that nurses continue to fear contagion (Andre, 1988; Brennan, 1988; Dilley, et al., 1985; Holland & Tross, 1985; Kelly, 1988; Knox & Dow, 1989; O'Donnell & O'Donnell, 1987). Given the lethal consequences of contracting the HIV virus, contagion is a legitimate fear. Fear of contagion has been found to interfere with the caregiver's ability to objectively evaluate the risk of contagion in the care of oncology patients (O'Donnell et al., 1987). Similarly, within the realm of AIDS care, factual information has been resisted and guarantees of safety have been requested (Butler & Lynch, 1988). The fear of contagion has been reinforced by changes in the
information available regarding AIDS and the transmittance rates of the HIV virus (Bolle, 1988; Friedland, 1988; Salisbury, 1986). Needlestick injuries have a significant emotional effect on nurses, whether they result in transmission of the virus or not (Marrie, MacIntosh, & Streight, 1989). Nurses are afraid because they think that the risk of occupational exposure has been downplayed (Gerbert, Maguire, Badner, Altman, & Stone, 1988).

Universal precautions are a source of stress for nurses not only because universal precautions are not perceived to be a guarantee against contagion (Gerbert et al., 1988) but also because they prevent nurses from delivering direct patient care (Pot-Mees, 1987). Universal precautions require the nurse to wear gloves, gown, hat, and mask when caring for patients with highly infectious diseases or with compromised immune systems. These barriers to infection also create barriers between nurse and patient when the nurse cannot use touch to comfort the patient (Pot-Mees, 1987).

Education and social support are most often prescribed for nurses who are encountering stress from caring for PWAs. Nursing inservice programs have been
reported to significantly increase the level of knowledge regarding AIDS in general (Calder, Brown, & Rae, 1989), as well as AIDS patient care (O'Donnell & O'Donnell, 1987; O'Donnell et al., 1987). Furthermore, education course attendance has been found to be associated with low perceived stress in nurses who care for PWAs (Sherr & George, 1988). Education can help to alleviate discomfort with deviant lifestyles (Bolle, 1988; Flaskerud, 1987; Holland & Tross, 1985; Knox & Dow, 1989; Nichols, 1987). Nurses most often comment that they lack the counselling skills to cope gracefully with situations involving patients and their families, transmission factors, and testing (Flaskerud, 1987; Nichols, 1987; Sherr & McCleaner, 1989).

Experience and personal interaction with PWAs can decrease fear of contagion and negative attitudes towards PWAs (Blumenfield et al., 1987; Holland & Tross, 1985). In order for personal interaction to decrease the stress associated with working with PWAs, it is important that an increase in contact time involve interactive time, not merely technical time (O'Donnell et al., 1987).
Ultimately, regardless of their personal attitudes, nurses are morally obligated by their professional code of ethics to care for PWAs (Moriarty, 1988; Reisman, 1988). This obligation requires nurses 1) to recognize and resolve personal issues surrounding AIDS care, 2) to acquire the necessary skills to deliver adequate care, 3) to update training as the field develops, 4) to use universal precautions, 5) to be a patient advocate, and 6) to maintain confidentiality (Govoni, 1988; Reisman, 1988).

Burnout

Maslach and Jackson (1986) define burnout with a tripartite theory, composed of emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment. Emotional exhaustion occurs when people feel that they can no longer give of themselves psychologically. Depersonalization occurs when cynical and negative attitudes affect the feelings about one's clients. Personal accomplishment, when diminished, refers to the tendency to evaluate oneself negatively, especially with regards to one's work with clients. Workers with a diminished sense of personal accomplishment feel unhappy with their work and about
themselves. Burnout has also been defined as adaptation to the progressive loss of idealism, energy, and purpose (Hare et al., 1988), and as a system of emotional and physical exhaustion involving the depersonalization of clients, the development of negative job attitudes, and of a negative self-concept (Pot-Mees, 1987; Shendell-Falik, 1985).

Burnout can lead to a deterioration in the quality of service provided by staff, and can play a role in low morale, absenteeism, and job turnover (Douglas, 1985; Maslach & Jackson, 1984, 1986). Burnout has been correlated with physical dysfunction, insomnia, increased alcohol and drug use, and marital and family problems (Maslach & Jackson, 1986).

Burnout is common in nursing (Constable & Russell, 1986; Shendell-Falik, 1985; West, 1984). Nursing is a profession which exposes nurses to many stressful stimuli which can weaken their state of mental and physical health (West et al., 1984). There is some debate as to whether situational factors (i.e., occupational role, facility, and shift) and demographic factors (i.e., age, marital status, and education) affect burnout. Bush (1988), Salisbury (1988), and Sherr and George (1988) find these factors to
significantly affect levels of burnout, whereas Hare, Pratt, and Andrews (1988) state that these factors are relatively unimportant.

It has been suggested that repeated exposure to death wears down a nurse's resiliency and contributes to burnout (Bolle, 1988; Douglas, 1985; Pot-Mees, 1987), yet Hare, Pratt, and Andrews (1988) found that the amount of exposure to patients with a poor prognosis of survival was not associated with burnout, in confirmation of Yasko (1983). Nurses who do burnout tend to leave the profession altogether, whereas those nurses who do not burnout seem to develop mechanisms with which to cope and eventually accommodate the various stresses to which they are exposed (Douglas, 1985). These are the 'career' nurses for whom the stresses associated with their jobs would actually decrease over time due to their increasing experience and competence.

Although supporting evidence is lacking, it is generally suggested that the broad range of social and medical issues to which AIDS nurses are exposed combine to predispose them to burnout (Bolle, 1988; Bush, 1988; Constable & Russell, 1986; Flaskerud, 1987; Govoni,
The evidence of a relationship between social support and burnout has been inconsistent (Cronin-Stubbs & Brophy, 1985). Nevertheless, the perception of social support has been found to be generally indicative of good health and is seen to buffer against stress (House, 1980; Orth-Gomer & Unden, 1987; Sarason, 1987). This perception has led to the suggestion that the enhancement of social support could be a way to alleviate burnout (Constable & Russell, 1986).

Social Support

It appears that the concept of social support is intuitively appealing, but that it is also difficult to operationally define. Orth-Gomer and Unden (1987) use the frequency of social contacts, the amount of social activities, and the number of available persons to define social support. Hutchinson (1987) uses the word "cultivating" to describe social support. The definition of "cultivating" includes such aspects of support as offering help, bringing people together, supporting each other, listening, expressing interest, educating, and socializing. Overall, quality of
contact is emphasized over quantity in Hutchinson's (1987) conceptualization of social support.

Sarason, Shearin, Pierce, and Sarason (1987) assessed seven measures of social support and found the measures to examine how much an individual is accepted, loved, and involved in relationships involving open communication.

Tardy (1985) conceptualizes social support on five different levels: directionality, disposition, description (versus evaluation), content (House, 1980), and network. Kaufman and Beehr (1986) break down the composition of social support according to whether it is tangible (i.e., from a prescribed source), emotional, or instrumental (i.e., 'tangible' without coming from a prescribed source). The sources of support used in this study were supervisors, co-workers, and people who were extra-organizational.

House (1980) focusses on the content level of social support in which support is defined as emotional, instrumental, informational, or appraisal-oriented. Emotional support is comprised of empathy, caring, love, and trust. This is seen to be the most important form of social support. Instrumental support involves instrumental behaviours that directly help the
person in need. Informational support involves the provision of information that allows people to help themselves. Appraisal support refers to the provision of information pertaining to social comparison that is used to self-evaluate.

Social support is generally believed to be beneficial to mental and physical health. This belief pervades the social support literature despite its being based on correlational results which are often equivocal (Cohen & Wills, 1985; Pearson, 1986; Sarason et al., 1987). Social support has been reported to be detrimental to mental health and well-being (Kaufman & Beehr, 1986). It can promote dissatisfaction with one's situation without providing a way in which either to improve the situation or to better cope with it. Such inconsistent results are viewed to be a result of the difficult interplay between psychological factors and social support (Orth-Gomer & Unden, 1987), yet there appears to be an overall reluctance within the literature to stop trying to conceptualize and measure social support.

Social support is currently defined as having two means by which it functions: as a main effect, and as a buffer (Cohen & Wills, 1985; House, 1980; Pearson,
Social support operates as a main effect when it is beneficial whether or not the individual is experiencing stress. Social support is found to have this kind of effect when large social support networks provide positive experiences that are regular and stable. It aids in the avoidance of otherwise stressful situations and is equivalent to social interaction, social integration, relational reward, and status support (Cohen & Wills, 1985; Sarason et al., 1987). Support that acts as a main effect is generally associated with good health insofar as it is not affected by an increase in stress (House, 1980; Sarason et al., 1987).

According to the buffering effect model, social support acts to modify the relationship between objective conditions and perceived stress, but it is not felt to have any beneficial effects on health among persons with low amounts of stress. Rather, social support has increasingly beneficial effects on health as stress increases (Cohen & Wills, 1985; Constable & Russell, 1986; Cronin-Stubbs & Brophy, 1985; House, 1980; Pearson, 1986). Social support buffers the effects of stressful events and strengthens coping abilities because it provides one with a wider range of
available services, increasing the repertoire of coping responses. Social support also allows one to realistically appraise one's situation. This reappraisal inhibits maladjustive responses and allows for more adaptive counter responses (Cohen & Wills, 1985; Pearson, 1986). Although it is important for well-being, belonging to social groups does not necessarily mean that one will be buffered against stress, since specific supportive functions may not be provided for. There must be a match between available support and the coping requirements of an individual for buffering to occur (Cohen & Wills, 1985; Sarason et al., 1987).

Social resources that buffer against stress are esteem support, informational support, social companionship, and instrumental support (Cohen & Wills, 1985). Social support can come from friends, family, neighbors, and co-workers (Pearson, 1986). It is known that close friendships and marriages buffer, suggesting that these relationships provide a wide range of social support functions (Cohen & Wills, 1985). Spousal support has been found to be important when looking at the effects of stress on psychological symptoms, whereas work supervisor support has been found to be
associated with physical symptoms (Cohen & Wills, 1985).

Social support in the workplace

Which source of support is important varies across individuals. Wherever the support comes from, it appears that a single source of support is all that is necessary to buffer the effects of stress (House, 1980; Sarason et al., 1987). Social support in the workplace tends to insulate people from the effects of job stress, and it is correlated with job satisfaction and self-esteem (House, 1980). Work supervisors have long been recognized as having an important role with regards to the productivity and morale of workers, and support from supervisors has been found to reduce many of the manifestations of occupational stress (House, 1980). A good supervisor will provide all four types of content-related support (emotional, instrumental, informational, appraisal), while relationships among co-workers vary according to the organizational structure (House, 1980). Lack of supervisor social support has been found to be positively correlated with the emotional exhaustion associated with burnout (Constable & Russell, 1986).
Equivocal evidence has been reported for the importance of co-worker social support in the perception of stress. In accordance with the buffering hypothesis, a low level of co-worker social support has been observed to be correlated with an increase in somatic complaints which increased directly in relation to the amount of perceived stress. However, if a high level of support was perceived, there was no observed relationship between somatic complaints and the perceived level of stress (Pinneau, 1976, cited in House, 1980). It is also possible that communications between co-workers may either convince stressed peers that things are better than they first appear, or they may confirm that things are as bad, if not worse, than they appear (Kaufman & Beehr, 1986). In such situations, the social support provided by peers would actually detract from their ability to cope with their work. Family (Hare et al., 1988; Sarason et al., 1987), and especially spouse (House, 1980) support have been reported to be important in buffering work-related stress with regards to both general affective and psychological states.

Although Hare, Pratt, and Andrews (1988) assert that interventions to reduce burnout should focus on
the organizational issues of supervisor and peer support, results have been equivocal regarding the role of social support in the workplace for nurses.

Georgopoulos and Matejko (1967) state that nurses are most strongly affected by the stress from their relationships with other nurses, but Constable and Russell (1986) were unable to replicate this result in their own study. Burnout rates are reported to be much lower for those involved in social support groups at work (McNally, 1988; Shendell-Falik, 1985). Powel (1989) reports that nurses do not perceive their peers as supportive of each other, whereas, Hutchinson (1987) found that there were nurses who had peer support networks, and that those who did had more self-esteem and were more secure than nurses who did not. Cronin-Stubbs & Brophy (1985) have found supervisor and staff support to be strongly negatively associated with burnout. Nurses who care for PWAs are popularly believed to benefit from support groups (Bolle, 1988; Holland & Tross, 1985; Scheitinger, 1986; Sherr, 1987) although there is little objective evidence supporting this assertion.

House (1980) concludes that all people can benefit from social support in combating occupational stresses,
depending on the stress associated with their occupations and depending on the individual's perception of stress.

Age and experience

The ability to cope with the challenges presented to nurses who care for PWAs may be viewed as partially a function of age, experience as a Registered Nurse (RN), and experience working with PWAs. Age has been reported to be a small but significant predictor of burnout in some studies (Bush, 1988; Hare et al., 1988), and not in others (Chiriboga et al., 1983). In one study of palliative care nurses, when asked which qualities are most important in a palliative care nurse, 80% cited general nursing skills and experience as the most important qualities. Maturity (emotional/philosophy of life) was cited as the second most important quality by 60% of the respondents (Gotay et al., 1985). Cronin-Stubbs and Brophy (1985) found that the more experience nurses had in providing direct care to patients, the less burnt out these nurses felt. Finally, an increase in the amount of time spent working with PWAs has been linked anecdotally with an increase in personal satisfaction (Brennan, 1988; Sherr

The Current Study

The current study investigates the relationship between social support and burnout in nurses who care for PWAs as compared with nurses who care for non-AIDS patients.

The following hypotheses are tested in the present study:

1. It is hypothesized that burnout will be related to social support for both groups of nurses, and that this effect will be stronger for AIDS-high nurses.

2. It is expected that work-related social support (i.e., from supervisors and co-workers) will be more strongly associated with burnout than will non-work sources of social support (i.e., from friends/relatives and partners).

3. Youth, lack of experience as an RN, and lack of experience with PWA's are expected to be related to be related to burnout.
CHAPTER II
Method

Subjects

Subjects were RNs from St. Paul's Hospital, a teaching hospital in Vancouver, Canada. St. Paul's Hospital adopts the policy of integrating PWAs with the rest of the patient population in an effort to reduce the stigmatization associated with PWAs. It has approximately 570 beds, and a nursing staff of approximately 1000. The experimental group consisted of 34 RNs who are involved in the daily care of PWAs on medical wards (AIDS-high). The control group consisted of 40 RNs on surgical wards who are involved in the care of patients recovering from surgery and who consequently have less frequent contact with AIDS patients (AIDS-low).

Procedure

Subjects were solicited during ward in-service meetings arranged for the purpose of recruitment. Subjects were not obligated to take part in the study, and the names of those who did take part were known only to the principal investigator. Questionnaires were distributed at ward in-service meetings to be
completed on the nurses' own time and were returned in sealed envelopes via the head nurse or the instructor for their wards. Subjects were presented with the option of remaining anonymous, or being linked to their data by numeric code for follow-up research. Subjects were promised a report of the findings of the study.

Questionnaires were distributed to 150 RNs, and 80 were returned. The data from six people were not included in the analysis because the questionnaires were returned with information missing. The response rate of 53% is lower than those reported in similar studies and is interpreted to be a result of the temporary interruption of data collection by a six-week long industrial action initiated by the provincial nurses union.

Measures
1. **Maslach Burnout Inventory** (MBI; Maslach & Jackson, 1986).

The MBI was used to measure burnout as the dependent variable. The MBI includes three subscales: Emotional Exhaustion, Depersonalization, and Personal Accomplishment. Statements regarding one's attitudes towards work were rated by the subject on a seven-point
Likert scale that addressed how often one experienced these attitudes and feelings. The Emotional Exhaustion subscale consists of 9 items (range: 0-54; average score for nurses: 19-26) that describe feelings of being exhausted by one's work and of being overextended emotionally. The Depersonalization subscale consists of 5 items (range: 0-30; average score for nurses: 6-9) that describe an impersonal and unfeeling response towards the people one serves. High scores on these scales correspond to higher levels of experienced burnout. The Personal Accomplishment subscale consists of 8 items (range: 0-48; average score for nurses: 34-39) that describe one's feelings of successful achievement and feelings of competence. In this subscale, lower scores correspond to higher degrees of experienced burnout. Personal Accomplishment is not assumed to be opposite of Emotional Exhaustion or Depersonalization, and the correlations between it and the other two subscales are low. The scores for each subscale are considered separately and are not combined into a single total score. Consequently, each subject is scored on these three dimensions on the MBI. Scores are considered low if they are in the lower third of
the normative distribution, average it they are in the middle third, and high if they are in the upper third.

Internal consistency is estimated by Cronbach's alpha (Maslach & Jackson, 1986). The reliability coefficients for the subscales are: Emotional Exhaustion, 0.90, Depersonalization, 0.79, and Personal Accomplishment, 0.71. The standard error of measurement for each subscale is reported as follows: 3.80 for Emotional Exhaustion, 3.16 for Depersonalization, and 3.73 for Personal Accomplishment. Convergent validity has been established in three ways. First, an individual's MBI scores were correlated with scores on behavioural ratings made by someone close to the individual. Second, MBI scores were correlated with job characteristics implicated in causing burnout. Third, MBI scores were correlated with various measures which have been hypothesized to be related to burnout. All sets of correlations provided significant and substantial evidence for the validity of the MBI (Maslach, & Jackson, 1981). Discriminant validity was established by comparing scores on the MBI with a measure of general job satisfaction. Job satisfaction was moderately negatively correlated with Emotional
Exhaustion and Depersonalization, as well as slightly positively correlated with Personal Accomplishment. Across several samples relatively low correlations between the burnout subscales and other measures of job satisfaction have been reported. It is thus concluded that burnout is not simply a synonym for job dissatisfaction (Maslach & Jackson, 1986).

The possibility of the MBI being reactive to social desirability has also been raised given that the MBI items describe feelings which are contrary to professional ideals. In a study of 40 graduate students of social welfare the scores on the MBI and the Crowne-Marlowe (1964) Social Desirability (SD) Scale were compared. None of the MBI subscale were significantly correlated with the SD at the .05 level (Maslach & Jackson, 1986).

2. House and Wells Measure of Social Support (House, 1980).

The social support measure which was used was developed by House and Wells (House, 1980). Work-related social support is measured on four dimensions in this scale: friend/relative support (2 items, range 0-6, alpha = .83), spouse or partner support (2 items, range 0-7, alpha = .92), co-worker support (3 items,
range 0-9, alpha = .75), and supervisor support (6 items, range 0-18, alpha = .88). The total score for overall support is obtained by summing together the scores on the subscales. All items were scored from 0-3 according to how supportive the source in question is perceived to be. Normative data is unavailable. The scale scores are typically correlated with other scales in order to assess how closely linked social support is with other constructs (Constable & Russell, 1986; House, 1980). Those people who identified themselves as being part of a spousal or common-law relationship were given one additional point on the spouse or partner support scale since analyses indicate that unmarried persons were generally comparable to, or worse off than, married persons who reported the lowest level of social support from their spouse (House, 1980).

3. Experience

Experience, as defined by age, the number of years worked as an RN, and the number of years worked with PWAs, is included to account for differences between nurses according to their life experience and the experience that they have acquired over time on the job.
Statistical analysis

The impact of the industrial action which occurred during data collection was assessed by comparing the Mahalanobis distance (Dixon, 1983) of each questionnaire that had been completed post-strike, with those questionnaires completed prior to the strike. A regression analysis was used to assess the extent to which experience and social support predicted levels of burnout across groups.
CHAPTER III
Results

A labour dispute and strike occurred during the period of data collection which made it necessary to determine if the time of completion of the measures affected the scores. Accordingly, the initial analysis of the data involved assessment of the impact of the strike on the nurses' attitudes with respect to the burnout and social support variables. Of the 78 completed questionnaires which were returned, 8 were dated as having been completed post-strike, 4 each from the group of medical nurses and the group of surgical nurses. For each group, the questionnaires completed post-strike were compared with those completed pre-strike, with reference to the Mahalanobis distance of each post-strike subject from the pre-strike group centroid. No significant pre-strike/post-strike differences were observed in either group and all of the data were used in the subsequent analyses.

Univariate analysis

The means and standard deviations are reported in Table 1. Between group pairwise t-tests were performed
Table 1
Summary table of burnout and social support in nurses.

<table>
<thead>
<tr>
<th></th>
<th>Medical (N=34)</th>
<th>Surgical (N=40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>Mean: 24.06</td>
<td>24.20*</td>
</tr>
<tr>
<td></td>
<td>SD: 10.01</td>
<td>10.60</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>Mean: 8.12</td>
<td>7.82</td>
</tr>
<tr>
<td></td>
<td>SD: 6.27</td>
<td>5.05</td>
</tr>
<tr>
<td>Personal Accomplishment</td>
<td>Mean: 36.53</td>
<td>36.65</td>
</tr>
<tr>
<td></td>
<td>SD: 6.43</td>
<td>6.08</td>
</tr>
<tr>
<td>Supervisor Support</td>
<td>Mean: 14.06</td>
<td>11.06</td>
</tr>
<tr>
<td></td>
<td>SD: 3.11</td>
<td>4.91</td>
</tr>
<tr>
<td>Co-worker Support</td>
<td>Mean: 7.12</td>
<td>7.60</td>
</tr>
<tr>
<td></td>
<td>SD: 1.59</td>
<td>1.35</td>
</tr>
<tr>
<td>Friend/Relative Support</td>
<td>Mean: 3.91</td>
<td>3.85</td>
</tr>
<tr>
<td></td>
<td>SD: 1.54</td>
<td>1.99</td>
</tr>
<tr>
<td>Partner Support</td>
<td>Mean: 2.94</td>
<td>4.27</td>
</tr>
<tr>
<td></td>
<td>SD: 2.97</td>
<td>2.90</td>
</tr>
<tr>
<td>Age</td>
<td>Mean: 32.59</td>
<td>34.45</td>
</tr>
<tr>
<td></td>
<td>SD: 9.54</td>
<td>8.84</td>
</tr>
<tr>
<td>Years Worked As RN</td>
<td>Mean: 8.97</td>
<td>10.22</td>
</tr>
<tr>
<td></td>
<td>SD: 10.53</td>
<td>9.21</td>
</tr>
<tr>
<td>Years Worked With PWA's</td>
<td>Mean: 2.76</td>
<td>2.60</td>
</tr>
<tr>
<td></td>
<td>SD: 1.97</td>
<td>2.12</td>
</tr>
</tbody>
</table>

*All between group pairwise comparisons of variables were insignificant at the 5% level.
and no significant differences were observed on any individual variable with reference to the means and standard deviations between groups. The burnout levels were within the average range of the norms for medical personnel (Maslach & Jackson, 1986). Norms for the House and Wells (1980) measure of social support were unavailable for the purposes of comparison. The range of ages, years of experience as an RN, and years worked with PWAs are typical of the literature (Bush, 1988; Hare et al., 1988; Sherr & McCleaner, 1989).

Multivariate analysis

The correlation matrix for burnout (emotional exhaustion, depersonalization, and personal accomplishment), social support (supervisor, co-worker, friend/relative, and partner), and experience (age, years worked as an RN, and years worked with PWAs) in AIDS-high nurses is presented in Table 2, and for AIDS-low nurses in Table 3. The correlations are presented as background information for the interpretation of the regression analysis and are not the focus of this data analysis. The levels of significance are reported for the convenience of the
Table 2
Correlation matrix for burnout, social support, and experience in AIDS-high nurses (N=34).

<table>
<thead>
<tr>
<th></th>
<th>Emotional Exhaustion</th>
<th>Depersonalization</th>
<th>Personal Accomplishment</th>
<th>Supervisor Support</th>
<th>Co-worker Support</th>
<th>Friend/Relative Support</th>
<th>Partner Support</th>
<th>Age</th>
<th>Years Worked As An RN</th>
<th>Years Worked With PWAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Exhaustion</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depersonal</td>
<td>.73**</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Depersonalization</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Personal</td>
<td>.31</td>
<td>-.35*</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
<td>...</td>
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<tr>
<td>Accomplishment</td>
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<tr>
<td>Supervisor</td>
<td>-.29</td>
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<td>-.07</td>
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<td>...</td>
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<tr>
<td>Support</td>
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<td></td>
</tr>
<tr>
<td>Co-Worker</td>
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<td>-.10</td>
<td>.27</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
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<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Support</td>
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<td></td>
<td></td>
</tr>
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<td>Friend/Relative</td>
<td>-.06</td>
<td>-.02</td>
<td>-.09</td>
<td>-.21</td>
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<td>1.00</td>
<td>...</td>
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<tr>
<td>Support</td>
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<tr>
<td>Age</td>
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<td>.15</td>
<td>-.12</td>
<td>1.00</td>
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<td></td>
</tr>
<tr>
<td>Years Worked</td>
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<td>-.24</td>
<td>-.13</td>
<td>-.05</td>
<td>-.09</td>
<td>.10</td>
<td>.00</td>
<td>.37**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>As An RN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years Worked</td>
<td>.05</td>
<td>-.12</td>
<td>-.18</td>
<td>-.17</td>
<td>-.10</td>
<td>-.04</td>
<td>.03</td>
<td>.69**</td>
<td>.76**</td>
<td>1.00</td>
</tr>
<tr>
<td>With PWAs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p<.05
**p<.001
Table 3

Correlation matrix for burnout, social support,
and experience in AIDS-low nurses (N=40).

<table>
<thead>
<tr>
<th></th>
<th>Emotional Exhaustion</th>
<th>Depersonalization</th>
<th>Personal Accomplishment</th>
<th>Supervisor Support</th>
<th>Co-worker Support</th>
<th>Friend/Relative Support</th>
<th>Partner Support</th>
<th>Age</th>
<th>Years Worked As An RN</th>
<th>Years Worked With PWAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burnout: Emotional Exhaustion</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>.44**</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Personal Accomplishment</td>
<td>-.19</td>
<td>-.47**</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Social Support: Supervisor Support</td>
<td>-.04</td>
<td>-.25</td>
<td>.36*</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Co-Worker Support</td>
<td>-.16</td>
<td>-.27</td>
<td>.27</td>
<td>.34*</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
<td></td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Friend/Relative Support</td>
<td>.16</td>
<td>-.08</td>
<td>.10</td>
<td>.29</td>
<td>.12</td>
<td>1.00</td>
<td>...</td>
<td></td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Partner Support</td>
<td>.12</td>
<td>-.24</td>
<td>.33*</td>
<td>.20</td>
<td>.06</td>
<td>.33*</td>
<td>1.00</td>
<td></td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Experience: Age</td>
<td>-.45**</td>
<td>-.46**</td>
<td>.30</td>
<td>-.06</td>
<td>-.07</td>
<td>-.32*</td>
<td>.12</td>
<td>1.00</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Years Worked As An RN</td>
<td>-.49***</td>
<td>-.40*</td>
<td>.28</td>
<td>-.04</td>
<td>-.01</td>
<td>-.21</td>
<td>.12</td>
<td>.89*</td>
<td>1.00</td>
<td>...</td>
</tr>
<tr>
<td>Years Worked With PWAs</td>
<td>-.25</td>
<td>-.19</td>
<td>.22</td>
<td>.13</td>
<td>.11</td>
<td>.02</td>
<td>-.95</td>
<td>.57*</td>
<td>.33***</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* p<.05  
** p<.01  
*** p<.001
reader and were determined without controlling for family-wise error rate.

A multiple regression analysis (Table 4) was conducted first by entering only the social support variables, next by entering only the experience variables, and finally by entering all of the social support and experience variables together. This procedure was used for both the AIDS-high and the AIDS-low nurses. Significance was determined by assessing the effects of the introduction of each set of variables. The adjusted square multiple correlation (adj. $R^2$) measured the ability of each set of variables to predict each of the components of burnout. The adj. $R^2$ is a measure of the amount of variance in the criterion burnout variables (emotional exhaustion, depersonalization, and personal accomplishment) which is accounted for by the predictor variables (social support, experience, & social support combined with experience).

The social support variables were first assessed as a set of variables to determine the overall effect of social support on each of the burnout variables across groups. Contrary to expectations, social support did not account for a significant amount of the
Table 4
Regression analysis of burnout
as predicted by experience and social support.

<table>
<thead>
<tr>
<th></th>
<th>Social Support</th>
<th>Experienceb</th>
<th>Experience &amp; Social Support</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adjusted Square Multiple Correlations ($R^2$)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>Emotional Exhaustion:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIDS-Highc Nurses</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>AIDS-Lowd Nurses</td>
<td>.00</td>
<td>.18*</td>
<td>.17</td>
</tr>
<tr>
<td>Depersonalization:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIDS-High Nurses</td>
<td>.00</td>
<td>.09</td>
<td>.00</td>
</tr>
<tr>
<td>AIDS-Low Nurses</td>
<td>.04</td>
<td>.16*</td>
<td>.23</td>
</tr>
<tr>
<td>Personal Accomplishment:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIDS-High Nurses</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>AIDS-low Nurses</td>
<td>.13</td>
<td>.02</td>
<td>.15</td>
</tr>
</tbody>
</table>

*p<.05

Social support includes supervisor, co-worker, friend/relative, and partner support.

Experience includes age, years worked as an RN, and years worked with PWAs.

N=34

N=40
variance in any of the burnout variables for either group of nurses. Because social support overall was not predictive of burnout, the data did not support the more detailed analysis required to assess the relationship between the work and non-work components of social support and burnout.

It was expected that youth, lack of experience as an RN, and lack of experience with PWA's would be predictive of burnout in both groups of nurses. The introduction of these experience variables into the regression equation did not account for a significant amount of the variance in any of the burnout variables in the AIDS-high nurses. However, the set of experience variables did account for a significant amount of the variance in the AIDS-low nurses in predicting the emotional exhaustion (adj. $R^2 = .18; F(3,32)=3.435; p<.05$) and the depersonalization (adj. $R^2 = .16; F(3,32)=3.016; p<.05$) components of burnout.

The social support and experience sets of variables were combined to determine whether there was any interaction effect between them in the prediction of burnout. The amount of variance accounted for by
these predictor variables did not significantly increase with the use of this procedure.
CHAPTER IV
DISCUSSION

Social support and burnout

The hypothesis that burnout would be associated with social support, particularly for nurses who care for PWAs, was not supported in this study. The results observed in this study are not in accord with the general trend within the literature. Most authors suggest that working with PWAs entails stress above and beyond that which is inherent in other areas of nursing and that nurses who care for PWAs are expected to be at a greater risk of burnout, and in greater need of social support, relative to other areas of nursing (Douglas, 1985; Lebourdais, 1989; Pot-Mees, 1987).

However, most of the articles written about the impact of the stresses involved in caring for PWAs have been rhetorical rather than experimental. The empirical results of this study indicate that nurses for PWAs are no more burnt out than are nurses of non-AIDS patients. The mean burnout levels of both groups of nurses in this study are within the average range for nurses in general (Maslach & Jackson, 1986). The pattern and size of the correlations within each group among the
burnout variables is also consistent with norms (Maslach & Jackson, 1986), nor does it appear that there are any differences between these two groups of nurses the way in which they use social supports. The two groups of nurses do not differ significantly in their group means on any of the social support subscales, and the sizes of the correlations within each group are consistent with those reported by House (1980).

Possible explanations for this departure from literature on the effects of caring for PWAs include the high level of AIDS education available in the setting that was sampled, the use of integrated wards at the hospital, self-selection bias on the part of the volunteer subjects, the inappropriateness of the social support measure which was used, and the occurrence of strike action during the study.

As of May 30, 1989, the rate of incidence of AIDS in British Columbia was 171 cases per million, the highest in the country (Goldstone, 1989). Ninety percent of all reported cases live in Vancouver proper (Reckart, 1989). As Vancouver's main inner-city hospital, St. Paul's has had to develop expertise in AIDS care in order to meet the needs of this community,
and staff receive the most up-to-date information available regarding the risks involved in AIDS care. Formally, staff are required to attend one inservice meeting regarding universal precautions in general, and one inservice meeting specifically on AIDS. Specialists, general practitioners, and head nurses attend a weekly AIDS Care Committee meeting regarding AIDS patients and current issues relevant to AIDS care. Head nurses pass on updated information to their staff. Much information is acquired informally from the more experienced nurses on the ward, and if a special issue evolves which cannot be addressed informally, an inservice meeting is arranged to formally address the issue (R. Riddell, Nursing Director -- St. Paul's Hospital, personal communication, Sept. 28, 1989).

Education is required to alleviate the discomfort associated with working with PWAs (O'Donnell, O'Donnell, 1987; O'Donnell et al., 1987; Sherr & George, 1988). It is suggested that the ease of availability of information regarding PWAs at St. Paul's dispels many of the fears which may be held by nurses who care for PWAs in facilities which have more limited access to information.
The policy of maintaining integrated wards at St. Paul's is another possible explanation for the apparent lack of burnout within nurses in this study. Nurses involved in fulltime AIDS nursing are reported to burn out within 18 mos - 3 years as a function of the intense pressures associated with these nursing areas (Lebourdais, 1989). Organizational factors, such as integrated wards, influence the stresses inherent in caring for PWAs (Pot-Mees, 1987; Salisbury, 1986; Sherr, 1988). It is proposed that the use of integrated wards relieves the pressure on nurses who care for PWAs. None of the nurses at St. Paul's provide care exclusively for AIDS patients and thus they may renew themselves by caring for non-AIDS patients if the burden of caring for PWAs becomes overwhelming.

Subjects participated in the study on a voluntary basis. They were asked to take part by filling out the questionnaires on their own time and they were asked to take responsibility for the return of the questionnaires to their head nurses or instructors. These instructions require initiative on the part of the subject, and presume that subjects are willing to volunteer approximately 1/2 hour of their free time for
a work-related activity. While this format was considered unavoidable, it is probable that this partially accounts for the lack of burnout observed in this study. It is less likely that those nurses who were burnt out from work would volunteer their free time to take part in a work-related activity. To expect burnt out nurses to participate would be to expect them to be concerned enough about their work to contribute extra effort, yet the lack of this type of concern is one of the characteristics which signal the emotional exhaustion and depersonalization of burnout. The apparent lack of burnout among nurses may be seen, in part, as an artifact of the method of data collection.

Whereas the Maslach Burnout Inventory is a well-established reliable, and valid instrument, the House and Wells Measure of Social Support is less psychometrically sound. It is difficult to say exactly what it measures, although it has adequate reliability and high face validity for the study of work-related social support. As has been stated earlier, there is much debate as to what is the most appropriate theoretical definition of social support, let alone what is the best operational definition. There is a
wide variety of measures which address general social support, yet there are few which take into account work-related social support. It was the intent of this study to address both work and non-work social support as efficiently as possible, which this measure does. However, without further research documenting the validity of this scale, it is difficult to say exactly what it is measuring. Although the results indicate that there is not a significant relationship between these measures of social support and burnout, definitive statements regarding the relationship between these two concepts can not be made without further study using psychometrically sound instruments.

The lack of a relationship between social support and burnout can also be understood in light of the state of industrial relations at the time of the study. Nurses who participated in this study were in the midst of negotiating their contract when they were approached to participate in the study. The contract negotiations, including a two-week long strike, continued throughout data collection. The investigator felt a certain sense of irony in giving a burnout questionnaire to nurses who were voting on whether or not to strike. There was concern that the evident
dissatisfaction that the nurses were voicing regarding their work situation might be reflected in a ceiling effect on the burnout questionnaire. Upon analysis of the data, it became clear that the opposite effect had occurred. Instead of feeling highly burnt out, as might be expected of striking nurses, they reported only sub-clinical 'average' levels of burnout typical of their profession.

Burnout is a syndrome which is typified by a lack of ability to care about one's work situation. Those nurses who were voicing dissatisfaction cared a great deal about improving their work situation, and they did not evidence the apathy which would have suggested that they were experiencing burnout. Furthermore, the ground-swell of support among provincial nurses during this industrial action created a sense of solidarity which, in and of itself, may have provided a global sense of support which could not be tapped by the type of questions in the social support questionnaire used.

Work-related social support

It was predicted that social support from supervisors and co-workers would be more strongly associated with burnout than would non-work sources of
social support. Overall, social support was not significantly predictive of burnout, consequently a more specific regression analysis of the relationship between these two aspects of social support and burnout was considered inappropriate.

Effect of age and experience

It was predicted that lack of experience, including youth, lack of experience as an RN, and lack of experience working with PWA's would be associated with burnout. This relationship was confirmed, in this study, among the AIDS-low nurses, but not among the AIDS-high nurses. The differences between groups are attributable not to the differences in their ages, experience as RNs, or experience with PWAs, but rather to the type of nursing required of these two groups.

Neither group of nurses differed significantly in age or in the number of years worked as RNs. The average age of the AIDS-high nurses was 33, and the average age of the AIDS-low nurses was 34, but the distribution of their ages was heavily skewed for both groups. Fifty-five percent of the AIDS-high nurses and forty-three percent of the AIDS-low nurses responding to this study fell between the ages of 20 and 30. The
average number of years worked as RNs was 9 years for AIDS-high nurses and 10 years for AIDS-low nurses.

Both of the nursing groups had worked with PWAs for an average of about 2 1/2 years but this is not seen to be directly indicative of the amount of experience each group has had with PWAs. AIDS patients are regularly admitted to the medical wards on which AIDS-high nurses work. PWAs are admitted less frequently, for shorter durations onto the surgical wards on which AIDS-low nurses work. Despite AIDS-low nurses having been exposed to PWAs over the same length of time, the amount of their exposure is much less than that of AIDS-high nurses. Consequently, the number of years worked with PWAs is considered to have contributed little to clarify the effect of the amount of exposure to PWAs on nurses' attitudes.

An attempt was made to determine how many AIDS patients had been seen by each nurse. Medical nurses were unable to report this because large numbers of AIDS patients have seen over the years and it is difficult to estimate the number of people this involved as AIDS patients are often readmitted into hospital repeatedly. Furthermore, the number of years worked with PWAs did not correlate with any of the
social support variables, nor with the burnout variables. Age, the number of years worked as an RN, and the number of years worked with PWAs, were combined into a composite of age and experience in an effort to assess the effects of general life experience on the attitudes of nurses regarding social support and burnout. The number of years worked with PWAs was incorporated into the regression analysis because it was nominally the only variable that took PWAs into account explicitly, although it was not expected to, and in fact did not contribute significantly to the regression equation.

One of the central elements of burnout is the passage of time during which a work situation progresses from bad to worse. At first glance, this hypothesis seems to contradict the theory on which burnout is based. According to the theory, the more time passes (i.e., the older one gets, the more experience one has at one's job), the more burnt out one would expect to be. But this theory does not take into account the trend in nursing, echoed in this study, for nurses to leave the profession before they acquire substantial experience. Less than 1/3 of the AIDS-high nurses and less than 1/2 of the AIDS-low
nurses in this study had been RNs for 10 years or more. The minority of nurses who are able to avoid burning out are those who remain in the profession throughout their career.

When these facets of nursing are considered, it becomes reasonable to anticipate that there would be a negative relationship between experience and burnout. Among AIDS-high nurses no relationship was observed between burnout and experience, but among AIDS-low nurses, in accord with expectations, youth, and lack of experience (as an RN and with PWAs) were predictive of the emotional exhaustion and depersonalization components of burnout. Contrary to predictions, these experience variables were not significantly associated with the third burnout component, personal accomplishment, for AIDS-low nurses.

The differences observed between these two groups of nurses are understood to be a function of the differences of their work environments. AIDS-high nurses work on medical wards while AIDS-low nurses work on surgical wards. Surgical nurses were chosen as the appropriate control for the comparison of attitudes towards burnout and social support because of the need to hold organizational variables constant, although it
is generally accepted that within St. Paul's Hospital, surgical nursing is substantially different from medical nursing (I. Goldstone, Nursing Director -- St. Paul's Hospital, personal communication, Aug. 31, 1989; R. Riddell, Nursing Director, Sept. 07, 1989).

AIDS-high (medical) nursing involves complex care over sometimes lengthy periods of time, with fewer 'cures' achieved than are achieved on surgical wards. On medical wards, patients are often treated for several ailments at any given time, and patients are often readmitted for repeated treatments for these more chronic ailments.

AIDS-low (surgical) nurses are responsible for caring pre- and post-operatively for patients who have discrete physical problems that are dealt with via surgery, patients who are often up and walking the same day that surgery is performed. There is often a definable beginning and end to the physical problems which these patients have.

Antonovsky's Sense of Coherence (SOC) theory (Antonovsky, 1987) provides a possible explanation for these results. AIDS-high nursing, and medical nursing in general, is unpredictable and requires nurses to respond to continually shifting conditions in their
patients on a daily basis. In contrast, AIDS-low (surgical) nursing is predictable, and it is possible to become familiar with the typical progression of healing associated with any given surgical procedure (I. Goldstone, personal communication, Aug. 31, 1989; R. Riddell, personal communication, Sept. 07, 1989).

The SOC theory maintains that the more predictable stresses are, the easier they are to cope with, and thus the less stressful they are perceived to be. AIDS-low (surgical) nursing does become more predictable as a function of experience, and so over time, with increasing age and experience, AIDS-low nurses are faced with fewer novel situations.

According to the model then, AIDS-low nurses should experience less emotional exhaustion and depersonalization over time. Their sense of personal accomplishment was not associated with experience, which may again be a reflection of the extrinsically rewarding nature of surgical nursing. AIDS-low nurses continue to see people 'cured' over the course of their careers, and their satisfaction with this does not seem to diminish or increase over time. More focussed study on how and why nurses consider their jobs to be rewarding is required.
Summary

1. Contrary to expectations, social support was not significantly predictive of burnout in either group of nurses. These results are discussed with regards to the use of integrated wards, the high level of AIDS education available at St. Paul's Hospital, self-selection bias on the part of the subjects, possible weakness of the social support measure that was used, and the occurrence of strike action during the study.

2. The hypothesis that work-related social support would be associated with burnout more strongly than non-work social support could not be tested in this study because of the lack of an overall relationship between social support and burnout.

3. In AIDS-high nurses, contrary to expectations, no association was observed between experience and burnout. In AIDS-low nurses, less experience was significantly predictive of emotional exhaustion and depersonalization as expected, but experience was not predictive of personal accomplishment.

4. It is proposed that the differing association between age and experience in the two groups of nurses is a function of the unpredictable nature of AIDS-high
nursing, as opposed to the predictable nature of AIDS-
low nursing.

Limitations of Current Study

The current findings must be interpreted in the context of the following limitations:

1. The current study reflects the attitudes of a specific hospital, at a specific time in the progression of knowledge about AIDS. It is a snapshot of current attitudes and may not be generalizable to other hospitals now, or even to the same hospital in a year from now.

2. The current study did not specifically assess the attitudes of nurses towards AIDS patients. Given that the study was undertaken in a hospital which has integrated wards, and that the study asked questions about the nurses' attitudes toward their job in general, not about PWAs specifically, it is not possible to state conclusively the extent to which PWAs do or do not affect nurses' use of social support, nor their levels of burnout.

3. Although the subjects were nurses drawn from the same hospital, the differences between surgical and medical nursing are extensive enough that it might be
argued that they are nonequivalent for the purposes of studying AIDS-care effects.

Conclusions and Implications for Future Research

Contrary to predictions, no relationship between social support and burnout was observed in nurses who care for PWAs. Future studies of nurses of PWAs should explore the coping mechanisms used by these nurses in relation to burnout. It would be informative to identify and compare the attitudes of nurses who care exclusively for PWAs with those who care exclusively for the terminally ill, in order to more directly assess the impact of caring for PWAs on two groups of nurses whose duties are more similar than those of medical and surgical nurses.

Future studies of social support should assess satisfaction with social supports more directly, and should provide a comparison of the levels of perceived social support with established norms. These more specific analyses would aid in clarifying the complex interaction between social support and burnout.

Youth and lack of experience need to continue to be included in future studies of burnout. These variables should be broken down into more specific
components to assess more specifically what it is that makes them significantly predicative of burnout.

This study involved the population of female RNs at St. Paul's. Their involvement is not seen as representative of the experience of their male counterparts. Male nurses at St. Paul's often have personal ties to the gay population of Vancouver. It is expected that the relationship between co-worker and friend/relative support and burnout would be much stronger than was observed in this study because of the overlap of their social circle and their patients. Furthermore, as a function of the increased density of their social support networks, it is expected that their burnout levels would be higher than average.
APPENDIX

Data Set

Variables and column locations:

Col 1: 0 = AIDS-high (surgical) nurse; 1 = AIDS-low (medical) nurse
Col 2-3: Identification number
Col 4: Consent to future study: 0 = no; 1 = yes
Col 5-6: Burnout -- Emotional Exhaustion
Col 7-8: Burnout -- Depersonalization
Col 9-10: Burnout -- Personal Accomplishment
Col 11-12: Supervisor support
Col 13: Co-Worker support
Col 14: Friend/Relative support
Col 15: Spouse support
Col 16-17: Age
Col 18-19: Number of years worked as an RN
Col 20: Number of years worked with PWAs

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12102305320993042204
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12303412320476531071
12401101411474037173
12502204351364628033
CHAPTER VI
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