# *Satisfaction with Nursing Care: A Comparison of Patients With HIV/AIDS, Non-HIV/AIDS Infectious Diseases, and Medical Diagnoses*

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*The purpose of this study was to describe patients' perceptions of nursing care and compare those perceptions based on patients' diagnoses (HIV/AIDS, non-HIV/AIDS infectious diseases, and medical diagnoses). One hundred forty-two patients on five units in a major medical center were surveyed using the Patient Satisfaction Instrument. In addition, 126 staff nurses completed the AIDS Vulnerability Survey. Results of data analysis indicated a statistically significant difference in patient satisfaction with nursing care among patients in the medical group compared to patients in the HIV/AIDS group, with the medical group being more satisfied with their nursing care. Further, there was a statistically significant difference across units between nurses' knowledge, attitude, and fear. In spite of their knowledge base related to HIV/AIDS, nurses felt vulnerable when providing care to this population, thus perpetuating fear and negative attitudes. Additional research into the dynamics of these relationships is imperative as we continue to see increases in the number of patients with HIV/AIDS*

**Key words:** *Anxiety, fear, nurses' knowledge, patient satisfaction*

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Over the past 15 years, nurses have had increased contact in their practice with patients living with HIV/AIDS (PLWA). This increased contact with PLWA has precipitated a variety of responses including fear, prejudice, negative attitudes, and refusal to care (Bower, Webb, & Stevens, 1994; Huerta & Oddi, 1992; Wiley, Heath, Acklin, Earl, & Barnard, 1990). These responses are at odds with nurses' professional code of ethics and may result in conflict and feelings of inadequacy (American Nurses Association, 1985).

Since 1988, several studies have documented nurses' concerns about caring for PLWA. Conflicts between professional obligation and concerns about one's own health can interfere with the provision of quality health care for PLWA. The literature includes reports of nurses' requests to be reassigned and outright refusal to care for PLWA (Huerta & Oddi, 1992; Kelly, Lawrence, Hood, Smith, & Cook, 1988; Larson & Ropka, 1991; Naylor, Munro, & Brooten, 1991; van Servellen, Lewis, & Leake, 1988). Despite the provision of information and knowledge, there is evidence that other factors influence the willingness to care and the actual process of care (D'Augelli, 1989; Lawrence & Lawrence, 1989; Pomerance & Shields, 1989; Siminoff, Erlen, & Lidz, 1991; Webb & Bunting, 1992).

Studies related to care of PLWA reveal that nurses' knowledge is associated with their attitudes toward PLWA and that both these variables contribute to the level of fear and decisions about caring for PLWA (Blumenfield, Smith, Milazzo, Seropiean, & Wormster, 1987; Damrosch, Abbey, Warner, & Guy, 1990; Flaskerud, Lewis, & Shin, 1989; Wiley, Heath, & Acklin, 1988; Wiley et al., 1990). In other words, the more knowledge one

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had about HIV/AIDS, the better his or her attitude. However, rather than predicting greater comfort in caring for AIDS patients, Bower et al. (1994) found that *how* one dealt with anxiety determined not only attitude, but also one's ability to obtain and maintain knowledge related to HIV/AIDS. Ultimately, how healthcare workers deal with their attitudes and fear about PLWA affects those who receive the care.

There is disagreement among investigators concerning the relationship among knowledge, fear, and attitudes, leaving educators and administrators uncertain about the most effective methods for preparing nurses to care for the ever increasing HIV/AIDS population (Bryne & Murphy, 1993; Chitty, 1989; Ficarrotto, Grade, Bliwise, & Irish, 1990; Flaskerud, 1987; Synoground & Kellmer-Langan, 1991). The one recurrent conclusion in the literature is the lack of predictability of such factors as knowledge, attitudes, and fear on patient care outcomes. While studies have reported nurses' beliefs about the care given to HIV/AIDS patients compared to non-HIV/AIDS patients (van Servellen, Lewis, Leake, & Schweitzer, 1991; Wiley et al., 1990), to date, no studies have found that PLWA receive substandard care. There have been anecdotal reports by PLWA and their families of being abandoned, ignored, or given minimal basic care. The authors have personal anecdotes that suggested the need to document the quality of care of PLWA, especially compared to patients with other diagnoses. Conversations with hospitalized HIV/AIDS patients have elicited information related to being left on the bedpan for hours at a time, having trays slid under the door with no offer of assistance, and having their call lights go unanswered for hours.

Through experience and examination of the literature, it became apparent that further investigation into the dynamics of patient satisfaction was warranted. In addition, it was clear that certain characteristics of nurses could affect the patient's perception. This study, therefore, was conducted to examine patient perceptions of nursing care and nurses' knowledge, attitudes, and fear concerning AIDS that potentially affect the care received by patients.

### Purpose

The purpose of this study was to describe patients' perceptions of nursing care and compare those perceptions based on the patients' diagnoses. The following questions guided the study:

1. What are the perceptions of nursing care of patients with HIV/AIDS, non-HIV/AIDS infectious diseases, and medical diagnoses?
2. Do patients' perceptions of nursing care vary by diagnosis?
3. Are there relationships among nurses' knowledge, fear, and attitude about HIV/AIDS and the patients' perceptions of nursing care?

## Methods

### Setting

An 800-bed teaching hospital in northeastern Ohio was selected as the setting for this study. Five percent of the hospital's yearly census are PLWA. This adult tertiary facility provides inpatient and outpatient care for this population. Five inpatient hospital units were selected for study because of the suitability of the patient population. These units all were general medical floors and housed patients from all of the above diagnostic groups. The units had an average of 40 beds. The unit staff consisted of RNs, LPNs, and nursing aides.

### Sample

Overall sampling criteria included patients between the ages of 18 and 65 and able to speak and read English. All patients admitted to the study floors that met the above criteria were eligible for participation in the study.

A convenience sample of 142 patients participated in the study. Patients were grouped by medical diagnosis. The first group included 42 patients diagnosed with HIV/AIDS, most of whom were hospitalized for oppor-

tunistic infections (this group included all patients with an HIV or AIDS diagnosis regardless of reason for hospitalization at the time of the study). The second group included 50 patients with an infectious, non-HIV/AIDS related diagnosis such as hepatitis, tuberculosis, or pneumonia. The third group included 50 patients with a medical diagnosis such as congestive heart failure, cerebral vascular accident, or diabetes. In all three groups, the subjects were predominately male and ranged in age from 18 to 65 years, with a mean age of 30 years. See Table 1 for a description of patient demographics by group.

Additionally, the sample included 126 staff nurses assigned to the five selected inpatient units. These nurses were primarily female, between the ages of 30 and 39, and held a diploma as their basic preparation in nursing. See Table 2 for further description of the nurses demographic characteristics.

### Instruments

**The Patient Satisfaction Instrument** developed by Risser (1975) was used to collect information related to the patients' perceptions of nursing care on the hospital units. This 24-item instrument contains three subscales: technical-professional, trusting relationship, and education relationship. The technical-professional subscale, with six items, measures technical activities and level of knowledge needed to perform nursing care. The trusting relationship subscale, with 11 items, assesses characteristics of the nurse necessary for constructive and comfortable interaction. The education relationship subscale, with 7 items, measures the nurse's ability to communicate information to patients about their care.

Designed as a self-reporting tool, the instrument contains a 5-point Likert scale ranging from strongly agree to strongly disagree. The Cronbach's alpha coefficients ranged from .64 to .89 on the three subscales in two trials, with a total scale alpha of .92 in the second trial (Hinshaw & Atwood, 1982).

The **AIDS Vulnerability Survey** (AVS) is a 30-item self-report instrument that measures nurses' knowledge of, attitude about, and fear of HIV/AIDS. This instrument contains 10 demographic items, with particular focus on the self-reported professional contact with AIDS patients. The remaining questions pertain to knowledge and transmission of AIDS, attitude toward AIDS, perceptions of vulnerability of contracting the AIDS virus, and universal precautions. With the exception of the question that asked information about the test for AIDS, no information was sought about the pathology or medical treatment of AIDS.

Originally developed by Wertz, Sorenson, Liebling, Kessler, and Heeren (1987) of the Boston University School of Public Health, the AVS was modified by these researchers. The modified instrument was piloted and has been used extensively with both student and practicing

**Table 1. Patient Demographics**

| | Age | Gender | | Race | | LOS* |
|---|---|---|---|---|---|---|
| | Mean | M | F | White | Non-White | Mean |
| • HIV/AIDS patients | 36.8 | 19 | 3 | 34 | 8 | 7 days |
| • Non HIV/AIDS infectious patients | 45.1 | 29 | 21 | 28 | 22 | 4 days |
| • Medical patients | 43.3 | 28 | 22 | 40 | 10 | 5 days |

*Length of Stay

**Table 2. Nurse Demographics**

| | A<br>$n = 24$ | B<br>$n = 19$ | C<br>$n = 29$ | D<br>$n = 30$ | E<br>$n = 24$ |
|---|---|---|---|---|---|
| • Age (mean) | 31.6 | 33 | 32.6 | 34.3 | 31.1 |
| • Gender | | | | | |
| Male | 1 | | 3 | 1 | |
| Female | 23 | 19 | 26 | 29 | 24 |
| • Religion | | | | | |
| Catholic | 6 | 7 | 3 | 10 | 10 |
| Protestant | 13 | 8 | 24 | 16 | 10 |
| Other | 5 | 4 | 2 | 4 | 4 |
| • Race | | | | | |
| White | 22 | 17 | 29 | 27 | 1 |
| Non-White | 2 | 2 | | 3 | 23 |
| • Education | | | | | |
| Diploma | 17 | 9 | 17 | 13 | 10 |
| AD | 1 | 2 | 11 | 5 | 10 |
| BSN | 6 | 8 | 1 | 12 | 4 |

nurses in the United States, as well as in China, Zimbabwe, and Korea. Content validity has been established. Coefficient alpha for the modified instrument revealed an internal reliability of .71 (Munodawafa, Bower, & Webb, 1992).

### Procedure

IRB concerns included voluntary participation and assurance that the findings of the study would not be related to the patient's care at the institution. Over a seven-month period, all patients who met the study criteria and had discharges planned within 24 hours were invited to participate in the study. Daily visits by the researcher were made to each unit, whereupon the patient census for possible discharges within a 24-hour period were reviewed for eligibility. Potential subjects were approached by the researcher and screened according to the following criteria: no evidence of dementia (as determined by staff nurse), and no complaints of pain (at time of survey). If they met the criteria and agreed to participate in the study, all patients signed the informed consent and completed the Risser questionnaire.

Following consent from nursing administration, letters of introduction were sent to all nurses working on the selected units. The researcher then distributed the anonymous AVS to all nurses working on the five study units. These instruments were returned to the researcher via interhospital mail. Data collection was completed within seven months.

### Data Analysis

Data were analyzed using descriptive and inferential statistics. ANOVA was used to compare the patient satisfaction scores across units. Significance was set at .05. Tukey's Studentized Range Test was used to identify where the group differences lay. In addition, ANOVA was

used to compare nurses' knowledge, attitude, and fear scores across units. Again, Tukey's Studentized Range Test was used to identify where the group differences lay.

## Results

### Patient Findings

Patient satisfaction with nursing care as reflected in the total Risser score indicated a statistically significant difference among the patients in the medical group compared to patients in the HIV/AIDS group (see Table 3). No significant differences were found relative to the non-HIV/AIDS infectious diagnostic group. Further analysis of all demographic variables and patient satisfaction with nursing care revealed no significant relationships. Based on field notes and acuity levels, all patient units were essentially the same in their staffing patterns. No differences were found in patient satisfaction with nursing care across units.

### Nurse Findings

Nurses across all units reported a preference for avoiding assignments with HIV/AIDS patients. There were no statistically significant relationships between nurses' knowledge, attitude, and fear and patient satisfaction.

The average knowledge score on the AVS for all of the nurses was 71%. There was a statistically significant difference among nurses' knowledge across units in that the nurses on units caring for the majority of the HIV/AIDS patients scored lower on knowledge than those caring for fewer PLWA. Significant differences pertinent to nurses' attitudes and fear also were found across the units. Two unit profiles are of particular interest. On Unit A, a medical unit that cares for only a few HIV/AIDS patients, the HIV/AIDS knowledge score was significantly higher than on units that cared for more HIV/AIDS patients. In addition, the attitude on Unit A was more positive than on the other units. It is interesting, then, that the fear score was significantly higher on Unit A than on units that cared for more HIV/AIDS patients (See Table 4). Unit D, which cared for the majority of the HIV/AIDS patients, had a lower knowledge score than most of the other units, the most positive attitude (statistically significant), and the least amount of fear (statistically significant) (See Table 4).

## Discussion

The outcomes of this study are significant in that HIV/AIDS patients remain less satisfied with their nursing care compared to other hospitalized non-HIV/AIDS

**Table 3. Risser Patient Satisfaction Scores Across Diagnoses**

| | Subscales | | |
|---|---|---|---|
| | Technical-Professional | Educational | Trusting |
| • HIV/AIDS patients | 3.607* | 3.316* | 3.638** |
| • Non HIV/AIDS infectious patients | 3.833 | 3.485 | 3.703 |
| • Medical patients | 3.906* | 3.674* | 3.883** |

Scale of 1 (Very Unsatisfied) to 5 (Very Satisfied)

*Significant at .05
**Near significance at .05

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**Table 4. Knowledge, Attitude, and Fear: A Comparison of Nurses by Unit**

| | Units | | | | |
|---|---|---|---|---|---|
| | A<br>*n* = 24 | B<br>*n* = 19 | C<br>*n* = 29 | D<br>*n* = 30 | E<br>*n* = 24 |
| • Knowledge | 73 | 73 | 67[1] | 70 | 74 |
| • Attitude | 75 | 72 | 74 | 84[2] | 78 |
| • Fear | 36 | 37 | 45[3] | 45[3] | 36 |
| • PLWA[4] | 6–12 | 6–12 | 6–12 | >25 | 6–12 |

[1] Indicates a statistically significant (@.05) difference in the knowledge level of nurses when compared across units. Highest knowledge score possible 100%.

[2] Indicates a statistically significant (@.05) difference in the attitude of nurses when compared across units. Highest attitude score possible 100%.

[3] Indicates a statistically significant (@.05) difference in the fear of nurses when compared across units. Highest fear score possible 48. (A lower fear score indicates greater fear.)

[4] Number of patients with HIV/AIDS cared for by each nurse during his/her career.

Note: All units were general medical units that housed patients from all three diagnostic groups.

and medical patients. While other variables may be affecting their perception, the fact remains that they are not happy with their care. How all patients, especially HIV/AIDS patients, define excellence in nursing care is not clear. The results of this study certainly indicate that HIV/AIDS patients have different care expectations than other patients.

The majority of HIV/AIDS patients are very educated about their disease, its implications, and their medications. They have much experience managing their own care and expect that same standard of care while hospitalized. The knowledge scores of the nurses in this study were only average. This may have created a situation where knowledgeable patients were being cared for by nurses who had less knowledge, and perhaps less experience with the disease than the patients themselves. Furthermore, this situation could then create anxiety for the patient and effect the trusting relationship with the nurse when procedures are performed differently by different nurses, and patient questions go unanswered.

From the field notes of this study, one patient commented, "Every nurse that came through the door needed to be instructed by me on how to care for my Hickman, and every nurse did it a different way." Another said, "The nurses were never able to answer my questions about my medications." It is true that the medications for this disease change very quickly. Often nurses are not as aware of the medications as the patients, and referring to drug handbooks is not helpful since many times the drugs are not yet included. This lack of knowledge on the nurses' part can be very stressful for patients who are very knowledgeable about their medications and technical care. While the Risser instrument was sensitive to the areas on the subscales of technical-professional skills, trusting relationship, and education relationship, additional factors such as the interplay of these factors may be important in defining this complex relationship.

Nurses continue to have low knowledge and high fear about caring for HIV/AIDS patients. In this study, findings were unusual in that there was not a relationship such that more knowledge led to a better attitude and less fear. In fact, our findings directly contradicted this relationship: Nurses with more knowledge were more afraid. Perhaps beyond the relationship of knowledge and fear, one needs to study the relationship of knowledge and behavior. Certainly, parallels to the literature on educating individuals with high-risk behavior can be drawn. Literature supports that providing education does not change high-risk behavior. If knowledge does not change behavior, what can? Why do we continue to rely on AIDS education to change the behavior of the nurses?

Some speculate that developing a relationship with patients allows the nurse to become more comfortable with patients and their diagnoses. In this study, the nurses who had cared for many AIDS patients reported a better attitude and less fear than the nurses who had cared for few AIDS patients. Was it the opportunity for frequent patient interactions that positively affected their attitude and decreased their level of fear? Could it be that increased interaction allows the nurse to see the patient as a person, not as a disease. This insight improves their attitude, decreases their fear, and breaks down the barriers to providing quality nursing care.

As part of their AIDS education, nurses need to be encouraged to interact with their patients. Through these interactions, the nurses will become more comfortable and less afraid of providing care to this population. As reported in our study, patients with medical diagnoses were the most satisfied with their nursing care. Over time, nurses on medical units care for more patients with medical diagnoses than for HIV/AIDS patients. Are they, therefore, more comfortable caring for patients with medical diagnoses, and is this comfort reflected in their care, making the medical patients feel more satisfied?

## Implications

The findings of this study suggest that the roles of knowledge, fear, anxiety, and patient care are complex and blurred. As we continue to prepare nurses to provide quality patient care, we must identify how patients define *excellence in care.* Qualitative approaches to quality assurance and satisfaction measures may provide better insight into the human dimension of patient satisfaction. The solution is not a simple one.

Exploring new strategies that emphasize patient interactions may provide mechanisms for better preparation for nurses to care for HIV/AIDS patients. As patient care issues become more complex, it is imperative to identify methods to educate nurses not only about the essentials of the disease and its treatment, but also about methods of assisting them in moving beyond the disease, and recognizing the patient as a person.

## Conclusions

The findings of this study continue to reinforce the complex issues facing nurses in their decisions about care. While the results may be unique to this sample, they warrant further investigation. If providing more information to increase knowledge is not effective in reducing fear and improving attitude, we must make an effort to define other ways to assist nurses as they provide patient care. How can we encourage nurses to develop relationships and increase interactions with patient populations that, by diagnosis alone, create fear in the nurses?

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