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HIV Stigma and Nurse Job Satisfaction in Five African Counties

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Abstract

This study explored the demographic and social factors, including perceived HIV stigma, that influence job satisfaction in nurses from 5 African countries. A cross-sectional survey was conducted of nurses ($n = 1,384$) caring for patients living with HIV infection in Lesotho, Malawi, South Africa, Swaziland, and Tanzania. Total job satisfaction in this sample was lower than 2 comparable studies in South Africa and the United Kingdom. The subscale, Personal Satisfaction, was the highest in this sample as in the other 2. Job Satisfaction scores differed significantly among the 5 countries and these differences were consistent across all subscales. A hierarchical regression demonstrated that mental and physical health, marital status, education level, urban/rural setting, and perceived HIV

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stigma had significant influences on job satisfaction. Perceived HIV stigma was the strongest predictor of job dissatisfaction. These findings provide new areas for intervention strategies that might enhance the work environment for nurses in these countries.

Keywords

Africa; AIDS; HIV; job satisfaction; nurses; stigma

Sub-Saharan African nations are experiencing unprecedented out-migration of nurses at a time when they are also battling a serious HIV epidemic (Ross, Polsky, & Sochalski, 2005). The nurses who remain behind in these already disadvantaged systems experience worsening working conditions and heavier workloads, which lead to lower job satisfaction (Kingma, 2007). There has never been a time when it has been more important to understand the job satisfaction of nurses remaining in these countries and delivering services at the height of the epidemic. This study is designed to explore the potential contribution of perceived HIV stigma surrounding nurses – enacted by nurses and experienced by nurses – to their job satisfaction.

Job satisfaction pertains to employees and how they feel about their work environments and the diverse aspects of their employment (Spector, 1997). Locke defined job satisfaction as “a pleasurable or positive emotional state resulting from the appraisal of one’s job experience” (1983, P. 1298). Furthermore, Locke (1983) believed that the “job fulfils or allows the fulfillment of one’s own important job values providing that those values are congruent with one’s needs” (p. 1298). Initial job satisfaction studies, such as a meta-analysis by Iaffaldano and Muchinsky (1985), focused on the influence of job satisfaction on productivity, while later studies recognized it as a quality of life issue pertaining to the welfare of workers (Westaway, Wessie, Viljoen, Booysen, & Wolmarans, 1996). Different instruments used different components to address job satisfaction. Beasley, Kern, Howard, and Kolodner (1999) developed PD-Sat, a job satisfaction instrument for internal-medicine-residency program directors that addressed six factors (Cronbach alpha = .88): work with supervisees, colleague relations, resources, patient care, pay, and promotion. Tovey and Adams (1999) used qualitative comments from English National Health Service nurses to identify six factors related to job satisfaction (job content, resource issues, professional concerns, professional working relationships, emotional reactions to nursing, and external pressures).

Job satisfaction among nurses working in HIV services has been widely studied. Murphy, Stewart, Ritchie, Viscount, and Johnson (2000) found in Canada that both social support and coping moderate the effects of job stresses on job satisfaction and burnout of nurses working in HIV care. Bellani et al. (1996) studied the relationship between individual variables and job satisfaction and burnout in care givers in the HIV field. They found two independent variables, which they called “burnout” and “personal accomplishment,” and a range of personal factors such as ego strength and depression affecting these two variables (Bellani et al., 1996). Benevides-Pereira and Das Neves Alves (2007) reported that about a quarter of their sample of Brazilian health care workers had high emotional exhaustion scores, even when they were in the service for fewer than 5 years. They also reported that such workers developed destructive attitudinal defense mechanisms.

HIV stigma has been linked with quality of life for people living with HIV (PLWHs) (Chen, Han, & Holzemer, 2004; Khakha, 2003; Surlis & Hyde, 2001). However, data that document the relationship between perceived HIV stigma and the job satisfaction of nurses working in settings where they care for HIV-infected persons is less common. In a qualitative study from South Africa, Ijumba (2003) reported a high level of burnout as a result of “seeing too much suffering, and stigma and discrimination may prevent health workers from openly discussing

HIV/AIDS” (p 196). Li et al. (2007) reported that among 478 health care workers in China, the stigma and discrimination that they experienced because of their work with HIV-infected people was significantly and positively related to internalized shame ($r = 0.32$). Further, “providers who reported less institutional support ($\beta = -0.10$)... experienced a higher level of internalized shame for their work with PLWHA” (Li et al., 2007, p. 261).

The specific aim of this study was to explore the relationship between perceived HIV stigma and job satisfaction among nurses in five African countries. Perceived HIV stigma was considered broadly as the stigma that surrounds nurses working with PLWHs, including both the stigma that nurses enact and also the stigma that they experience as a result of their work. In addition, the study sought to explore demographic and social factors influencing job satisfaction. This study was part of a larger study on HIV/AIDS stigma that sought to develop linguistically and culturally sensitive instruments for measuring perceived HIV stigma among nurses as well as PLWHs (Dlamini et al., 2007; Greeff et al., 2008; Holzemer, Uys, Makoae et al., 2007; Holzemer, Uys, Chirwa et al., 2007; Kohi et al., 2006; Makoae et al., 2008; Naidoo et al., 2007; Uys et al., 2005; Uys et al., in press).

Methodology

Research Design

A survey was conducted amongst nurses caring for patients living with HIV and AIDS in Lesotho, Malawi, South Africa, Swaziland, and Tanzania. Participating nurses met the study protocol's inclusion criteria: adult female or male nurses at all levels of position and preparation. Information about the participants' HIV status was not collected and was not a criterion for participation in the study. Data were collected at three times, but only baseline data are included in the analysis presented here.

Data Collection

Data were collected in 2006. Each of the five country principal investigators sought to recruit 300 nurses caring for PLWHs, chosen using a purposive, voluntary sampling approach. The country principal investigators recruited nurses from accessible health care settings, including both primary care settings and hospitals, and with the goal of getting similar representation from urban, rural, and peri-urban settings (around the urban, city areas). Because of work culture in health care settings in these countries, the country principal investigators first approached the nursing management to request permission to conduct the study, and also to request assistance in distributing and collecting the self-administered questionnaires to nurses working with HIV-infected patients at the site. This step ensured not only institutional support, but may also have aided the rate of response. A token of appreciation (e.g., a denim bag, or transportation reimbursement) was given to the participants.

Protection of Human Subjects

The institutional review boards/ethics committees of all of the universities involved in the study approved the research protocol. In addition, the local and central governments reviewed and approved the study protocol, as required by policy. The investigators informed potential participants about the background of the study and told them that the study was completely voluntary and that participants could withdraw at any time. Further, the investigators assured all potential participants of the confidentiality of information obtained. Those who agreed to participate signed a consent form, written in English.

Instruments

Participants independently completed the surveys in English. The survey booklet included four instruments:

Demographic questionnaire—The 21-item Demographic Questionnaire was used to obtain demographic and job-related information from the participants. Job-related questions addressed, for example, the work setting (hospital in-patient ward, community based-clinic, nongovernmental organization, etc), whether the service unit was specifically for HIV-infected patients, estimated frequency of contact with HIV-infected patients, HIV training received beyond basic nurse training (basic HIV counseling, management of opportunistic infections, symptom management, etc), years worked as a nurse, and experience working outside the country.

HIV/AIDS Stigma Instrument – Nurse (HASI-N)—The HASI-N (Uys et al., in press) was developed based on focus group data with both nurses and PLWHs in the five African countries represented in this study, and it was pilot-tested and validated in these same countries. Stigma was defined as a process of triggers, stigma and stigmatizing behaviors, and, finally, stigma outcomes such as poorer health. This iterative process takes place in the context of the environment, the health care system, and the agent (Holzemer, Uys, Makoe et al., 2007). HASI-N is a 19-item instrument comprised of two factors: Nurses Stigmatizing Patients (10 items, $\alpha = 0.91$, Eigenvalue = 7.259) and Nurses Being Stigmatized (9 items, $\alpha = 0.90$, Eigenvalue = 3.487). When completing the HASI-N, participants are asked to mark how often they have observed an event during the past 3 months (0 [*Never*], 1 [*Once or twice*], 2 [*Several times*], or 3 [*Most of the time*]). The responses for each item are summed and then divided by the number of items in the factor or the instrument as a whole, with resulting scores ranging from 0 to 3. The higher the score, the higher the level of perceived HIV stigma. The instrument has an overall Cronbach alpha of 0.90. It is the first inductively derived instrument measuring stigma experienced and enacted by nurses (Uys et al., in press). In this study, a significant negative correlation was found between stigma and job satisfaction.

Medical Outcomes Study Short-Form 36 (MOS SF-36) Version 1—The MOS SF-36 is a generic measure that can be used with different populations to measure components of quality of life (Ware & Sherbourne, 1992). It consists of nine sub-scales, including physical functioning, role-physical, role-emotional, body pain, social functioning, mental health, general health perception, energy/fatigue, and changes in health. Cronbach alphas ranged from .90–.94 for the PCS, and .85–.90 for the MCS in 12 large studies (Ware & Kosinski, 2004). Construct validity of the two sub-scales has been documented through factor analysis and known-group differences (Ware & Kosinski, 2004). Scores are transformed to a 0 to 100 scale, with 100 meaning greater health, so that the scales can be compared. Summary scores for mental health (Mental Component Score – MCS) and physical health (Physical Component Score – PCS) quality of life were developed from algorithms provided by the authors (Ware, Kosinski, & Gandek, 2004).

Measure of Job Satisfaction (MJS)—The MJS is a 38-item scale used to measure five dimensions of job satisfaction (Traynor & Wade, 1993). The scales and subscales are standardized so that they range from 0 to 4, where high scores indicate job satisfaction: Personal Satisfaction (10 items, $\alpha = .89$), Workload (7 items, $\alpha = .85$), Professional Support (9 items, $\alpha = .89$), Training (8 items, $\alpha = .84$), Pay and Prospects (4 items $\alpha = .89$). Construct validity was established using principal component analysis with a sample of 723 nurses from the United Kingdom. A total score combining all 38 items was evaluated in this study.

Data Management

Responses to the questionnaires were entered into Statistical Package for the Social Sciences (SPSS) for Windows Version 15.0 software (2007). Descriptive statistics (i.e. means, standard deviations, frequencies, and percents) were applied to describe the sample.

Analytical Methods

Bivariate correlation analysis was used to investigate the relationship between job satisfaction and hypothesized predictor variables: personal characteristics (age, gender, MCS, PCS, marital status, education), setting characteristics (type of work unit, work location, years of experience as a nurse), and perceived HIV stigma. Hierarchical regression analysis was used to identify an overall model of predictors of job satisfaction.

Results

Sample Description

The average age of the sample participants ($n = 1,384$) was 37.9 years ($SD = 9.56$). Eighty-eight percent of the sample ($n = 1,218$) was female, 58.3% ($n = 809$) were married, 69.5% ($n = 964$) had a certificate/diploma level of education (non-degree training program), and 69.2% ($n = 961$) were working in urban areas.

The lowest levels of job satisfaction were reported for Pay and Prospects ($M = 1.76$) and Training ($M = 1.81$), and the highest levels of job satisfaction were associated with Personal Satisfaction ($M = 2.77$) and Professional Support ($M = 2.56$; See Table 1). The obtained measures of internal reliability estimates in this sample ranged from 0.84–0.89, similar to those reported by Traynor and Wade (1993) in the original study of nurses at the Royal College, England. There were significant differences among the mean satisfaction scores for the different dimensions ($F = 749.35$; $df = 4, 1360$; $p < .0001$; $\eta^2 = .69$).

Differences in job satisfaction scores by country were explored through a series of one-way ANOVAs (See Table 2). All effects were significant ($p < .0001$) and the effects for these differences were substantial, with 17% of the variance in *Total Job Satisfaction* scores being accounted for by country differences. Nurses in South Africa and Tanzania obtained higher mean job satisfaction scores for all dimensions of job satisfaction than nurses in the other three countries. Nurses in Lesotho reported the lowest levels of job satisfaction. Country level differences on the job satisfaction subscales were consistent.

Correlation analysis demonstrated that the dimensions of job satisfaction were strongly correlated with each other (0.39 to 0.61) and were very strongly correlated with the total job satisfaction score (0.66 to 0.82). On the basis of these findings, we focused further analyses on total job satisfaction.

To explore the correlates of job satisfaction, we categorized variables into three sets, including personal characteristics (age, gender, MCS, PCS, marital status, education), setting characteristics (type of work unit, work location, years of experience as a nurse), and perceived HIV stigma. The descriptive statistics and bivariate correlations of these predictor variables are presented in Table 3. Age and gender were unrelated to job satisfaction; but job satisfaction was positively correlated with mental quality of life ($r = .23$) and physical quality of life ($r = .08$). Married nurses had lower quality of life than unmarried nurses ($r = -.10$), and nurses with higher levels of education (advanced diploma, degree, and postgraduate) were more satisfied than nurses with lower levels of education (certificate and diploma) ($r = -.11$). Location was the only work setting variable that was correlated with job satisfaction. Nurses working in urban settings reported higher job satisfaction than nurses in peri-urban or rural contexts ($r = .$

10). Perceived HIV stigma was observed to be strongly correlated with job satisfaction ($r = -0.22$). High levels of perceived HIV stigma were correlated with low levels of job satisfaction in this sample.

We conducted hierarchical regression analysis to construct a model of the predictors of job satisfaction. We compared three models. The first included the four personal characteristics that were correlated with job satisfaction (MCS, PCS, marital status, education) only. The second model included the personal characteristics and work location; and the third model included all predictors including stigma. Each model significantly improved the overall fit; and the addition of stigma in the final stage of analysis resulted in a substantial improvement to the R-square (Tables 4 and 5). The final model was significant ($F = 33.45$; $df = 6, 1158$; $p < .0001$). These findings demonstrate that perceived HIV stigma makes an independent and negative contribution to job satisfaction, over and above variables related to personal and work setting characteristics. All of the variables that were entered in the first two stages remained significant predictors after the later variables were entered. Perceived HIV stigma proved to be the strongest predictor of job dissatisfaction followed by mental health quality of life.

Discussion

The average job satisfaction in this sample was lower than that reported by Uys, Minnaar, Reid, and Naidoo (2004) in a sample of South African nurses. Out of a possible score of 190, this sample reported a mean job satisfaction of 86.7 and Uys et al. reported a mean of 113.6. This finding may suggest that nurses have become more dissatisfied with their positions over the past few years and may reflect a cumulative impact of staff shortages and out-migration, as discussed by Kingma (2007).

The sub-scale, Personal Satisfaction, was the highest scored factor reported by this sample from five countries in Africa and is similar to the results reported by Traynor and Wade (1993) in the United Kingdom and Uys et al. (2004) in South Africa. The rank-order of the sub-scales of job satisfaction is similar among these three samples with satisfaction with Pay and Prospects and Training being the lowest. Strategies designed to improve job satisfaction among nurses may take into account these ranking of factors, but since all categories are extremely low, such intervention strategies should probably not over-emphasize the order but focus on all aspects.

The similar pattern and statistical significance of differences among the five countries of the nurses' job satisfaction scores and their perceived HIV stigma scores is challenging. This relationship contradicts Bellani et al. (1996) who reported no relationship between burnout and stigma in an Italian study. This difference may be related to the fact that he used a more general AIDS impact instrument and not a culturally sensitive measure of perceived HIV stigma validated on the same population of nurses. The strength of the influence of stigma on job satisfaction is clearly illustrated in the hierarchical regression model and this makes an important contribution to our understanding of job satisfaction in countries where HIV infection is at epidemic levels.

Five demographic factors were significantly related to job satisfaction – mental and physical quality of life, marital status, educational level, and work location (urban/rural). While the correlations were low, they were all significant. Job dissatisfaction is more commonly explained by factors such as salaries, working conditions, availability of supplies, and opportunities for advancement. This is the first study to demonstrate that a small, but predictable amount of variance in job dissatisfaction was due to HIV stigma. Greater job satisfaction was related to feeling healthier (mentally and physically), being unmarried, being more educated, and working in an urban area.

It is not surprising that perceived mental health would be closely related to job satisfaction. The marital status of a sample of Italian health workers had no significant influence on job satisfaction (Bellani et al., 1996). However, the sample for the Italian study was about one third male in comparison with this African study which was 87.8% female. Married female nurses in Africa may have more stress than their male counterparts because of additional responsibilities related to home and child care, and this may lead to lower job satisfaction. The higher job satisfaction of the urban nurses provided documentation of one reason why nurse vacancy rates are so much higher in rural areas in many parts of Africa.

There is growing support for the argument that HIV-related stigma reduction interventions can be effective (Mahendra et al., 2007; Murphy et al., 2000; Pisal et al., 2007). These findings suggest that HIV stigma reduction interventions among nurses and their communities as a whole might have an unintended consequence of improving job satisfaction. The finding from this study demonstrates consistently low levels of job satisfaction across these five African countries and that this level of job satisfaction, while related to variables commonly reported in the literature, is also related to perceived HIV stigma. This finding provides new information that might guide interventions designed to improve nurse job satisfaction in Africa by directly addressing the concept of stigma by association with the nurses.

Clinical Considerations

- Countries that are substantially affected by the HIV pandemic must consider health care worker job satisfaction as an important factor in ensuring care for people living with HIV.
- Nurses' perception of stigma related to HIV significantly influences their job satisfaction.
- Health care center directors should consider interventions to reduce HIV-related stigma, which may also result in improved job satisfaction and retention for nurses.

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Table 1
Summary Statistics for Job Satisfaction Measures with Comparative Means (*n* = 1,384)

Job satisfaction	Items	Reliability	Mean (<i>SD</i>)	South Africa [*]	United Kingdom ^{**}
Total	38	.95	2.28 (.63)		
Personal satisfaction	10	.89	2.77 (.73)	3.7	3.8
Workload	7	.85	2.09 (.80)	2.8	2.9
Professional support	9	.89	2.56 (.73)	3.4	3.4
Training	8	.84	1.81 (.81)	2.3	3.0
Pay and Prospects	4	.89	1.76 (.97)	2.4	3.3

^{*} (Uys, Minnaar, Reid, & Naidoo, 2004)

^{**} (Traynor & Wade, 1993)

Table 2

Country Differences in Job Satisfaction Scores

Job Satisfaction Scale Factor	Statistic	Effect Size (η^2)
Total Score	$F_{(4,1466)} = 74.31$	0.17
Personal Satisfaction	$F_{(4,1461)} = 36.45$	0.09
Workload	$F_{(4,1466)} = 47.32$	0.11
Professional Support	$F_{(4,1466)} = 50.33$	0.12
Training	$F_{(4,1466)} = 61.67$	0.14
Pay and Prospects	$F_{(4,1465)} = 24.81$	0.06

Table 3
Predictor Variables and Their Correlation with Job Satisfaction ($n = 1,167-1,382$)

Predictor Variables	Mean	SD	Frequency	Percent	r
Job Satisfaction	86.70	23.77			
Personal Characteristics					
Age	37.91	9.56	1218 female	87.8	0.02
Gender					0.05
Mental Component Score	45.69	8.80			0.23*
Physical Component Score	51.68	8.16			0.08*
Marital Status			809 married	58.3	-0.10*
Education			964 certif./dip.	69.5	-0.11*
Setting Characteristics					
Type of Unit			875 inpatient	63.0	0.01
Work Location (urban)			961 urban	69.2	0.10*
Years Experience	11.88	9.51			0.01
HIV Stigma					
Perceived Stigma	0.46	0.49			-0.22*

* Correlated at $p < .05$ with Job Satisfaction

Table 4
Hierarchical Model Summary

Model	R	Adjusted R ²	Standard Error	R ² Change	F Change	p-value of Change
1 ^a	0.305	0.090	22.76	0.093	29.73	< 0.0005
2 ^b	0.323	0.100	22.63	0.011	14.46	< 0.005
3 ^c	0.284	0.143	22.08	0.044	59.16	< 0.005

^a Predictors: (Constant), marital status, Physical Component Score, Mental Component Score, education
^b Predictors: (Constant), marital status, Physical Component Score, Mental Component Score, education, work location
^c Predictors: (Constant), marital status, Physical Component Score, Mental Component Score, education, work location, Stigma score

Table 5

Predictors of Nurse Job Satisfaction

Variable	Beta	T	p-value
Physical Component Score	0.107	3.87	< 0.005
Mental Component Score	0.195	7.04	< 0.005
Education (lower level)	−0.121	−4.36	< 0.005
Marital Status (married)	−0.060	−2.21	0.028
Work Location (urban)	0.096	3.48	0.001
Stigma	−0.214	−7.69	< 0.005