Nursing Supervisors Perception on quality of Nursing Care in Ethiopia

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ABSTRACT

Background: ***The problem of clarifying the nature of the core elements of the nursing profession and the limits of its scope of practice are found in many countries. Additional problem in Ethiopia which should be taken into consideration and thoroughly examined by policy-makers and nurses are the existing imbalances between the numbers, types, functions, distributions, and quality of nursing personnel, on the one hand, and on the other, the country's need for their services and ability to employ, support and maintain them. Guided by this perspective, the purpose of this study were to assess (a) any nursing imbalance and shortage and (b) the quality of nursing education and nursing care in Ethiopia.***

Methods: ***A cross-sectional approach was utilized. Health department supervisor nurse (or the equivalent) respondents (n= 70) were recruited from the 11 regional and 59 zonal and 7 special woredas'. Participants completed the Nursing Personnel Resources Survey Questionnaire (NPRSQ). The NPRSQ is a self-administered 51-items instrument for measuring the distribution of nursing personnel; the quality of nursing schools and the relevance of nursing education; the quality of nursing care (relative to a perceived standard); and the status and image of nursing in the country.***

Results: The most important findings shows a three dimensional nursing workforce imbalances: the numerical dimension involves under-supply compared to country needs and resources; the qualitative dimension represents a mismatch between educational preparation and requirements in the workplace; and the distributional dimension focuses on urban areas and hospitals compared to rural areas and community health care settings.

Conclusion*: This study does not try to address all the issues related to nursing personnel imbalance. However, regardless of the nature of the nursing situations, this study does show that nursing shortage is associated with quality of care, and quality of care with quality of education. The solution lies in a broad, country-based approach that addresses infrastructure, education, and human resources management. as an interrelated and complex aspects of human resources policy and planning.*

Key Words*: Perception, Nursing image & status, imbalance & shortage, education, quality of care.*

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INTRODUCTION

Proponents of health care reform recommend the integrated development of health systems and human resources to ensure a supply of personnel with competence relevant to country needs and balanced according to occupation, specialty and institution. In almost all countries, however, an imbalance now exists in the supply of nurses, physicians and other health professionals (1).

The criteria for assessing the balance or imbalance of nursing resources will vary from country to county and from time to time, depending on people's perceptions of health needs, their expectations, the prevalent diseases, the availability of affordable health services, the composition of health care teams, and the cultural and socioeconomic factors that affect people's use of health services (1-3).

In most countries, nurses are the health professionals with primary responsibility for the care of people at all ages who require health services in hospitals and communities and in rural and urban centers. Nurses also carry out administrative duties, including the training and supervision of auxiliary workers. Nurses in management position bear major responsibility for nurse's working conditions, their methods of work, selection and scheduling of nursing personnel (4-6).

In 1989, the World Health Assembly recognized that the demand for nursing care would increase and the content of care would have to be expanded and changed because of aging populations, life-extending technology, expanded health promotion, prevention, and the AIDS pandemic. Member states were urged to review their national nursing needs and resources and devise measures to avert future shortfalls, and develop strategies to recruit, educate and reorient nursing personnel and improve their qualifications (7,8).

This increased emphasis on nursing services is related to the economic status of most countries: many governments have been forced to look for more efficient ways of using health personnel to provide universal access to health care and health development (9,10). Unfortunately, at a time when the need for nursing services appears greatest and when nurses face nearly unprecedented new responsibility and demands for their services, the number of well-prepared nurses may be diminishing (1,11,12).

A great deal has been written about the shortage of nurses (12-14), but comparatively little data-based research is available. A 1988 WHO survey on nursing personnel obtained information from 30 countries in the six WHO regions. A shortage was widely reported and three major steps to alleviate the nursing shortage were recommended: changes in government policies, effective planning of health personnel and improving nurses' working conditions. Among the reasons given for a shortage of nurses were medical dominance; the low image and status of nursing; low pay for hard work; poor, often unsafe working conditions and inappropriate use of nurses' skills and knowledge. The under-financing of nursing education by governments was also identified as a contributing factor (4,5).

Clearly the shortage of nursing personnel is a significant worldwide problem, yet few studies have addressed the nursing situations in various countries at all levels of development. Given the dearth of information, this study was designed as a first effort to assess the number, quality and distribution of nurses in Ethiopia. Specific objectives of the study were to assess 1) the nursing imbalance and

shortage and 2) the quality of nursing education and nursing care. The goal was to provide information for the development of policies to prevent or reduce any nursing personnel resources imbalance.

MATERIALS AND METHODS

This survey was conducted between June and September 2000. Data were collected by means of a mailed, self-administered 51-item questionnaire designed for the study and based on the study framework. The opening items, section-1, with 4-items solicited demographic data, including respondent position, main professional field, name of the region and zone or special woreda.

Section 2 of the survey instrument, with 47 items, examined the status and image of nursing, nursing education, the quality of nursing, any nursing shortage, the availability of positions, and trends in the supply of nursing personnel. At the end of the questionnaire information was sought on migration of nurses and the challenges and demands of nursing education and quality of nursing care in each regional zone or special woreda.

Content and construct validity was established by five judges with expertise in nursing. These experts included nurse educators, administrators and practitioners who have taught, written and published scholarly papers relevant to nursing. The original 54-item instrument was reviewed individually by the judges for item-by-item relevance to the study objectives.

Agreement was needed among four of the five judges for retention of items. On the basis of this review, three items were eliminated. A measurement expert was asked to evaluate the items for clarity and readability as well as for congruence of the rating scale to each item. The instrument was pre-tested with 25 beginning post-basic nursing and health officer students to determine the clarity of items, level of readability, and specificity of directions. Suggestions for editing and simplifying the language were incorporated. Because of the extensive consultation process and past successes with the use of this type of instrument, the measure was judged to have adequate validity.

Approval for the study was obtained from Jimma University and other reviewers. An introductory letter and questionnaire packets that also included an empty envelop and postage stamps for mailing back a completed questionnaire were then delivered to the designated person at the participating health department through the post office. Questionnaires were also sent to nursing instructors in some regions; responses to these were used for internal validation only. Return of the completed questionnaire to the investigators indicated consent to participate which was explained in the introductory letter. The letter also emphasized that there were no risks to the respondents because the information was collected anonymously and would be reported as group data only.

We made an attempt to use respondents from all regional (n =11), zonal (n = 59), and special woredas (n = 11) health departments as of the year 2000. The questionnaires were completed by nurses (or the equivalent) who were in positions to estimate nursing resources and return them to the investigators by July 2000. The data collection period was extended to late September 2000 to assure the highest possible return rate.

Questionnaire were returned by 52 (88%) of the 59 zonal and 7 (67%) of the 11 special *woredas* (districts) and by 11 (100%) of the 11 regional respondents. All returned questionnaires were usable for

analysis as an official perceived respondent's opinions.

The data were analyzed as one group using descriptive statistics to describe the perception of the entire sample. For the purpose of tabular/figurative reporting and to avoid an intricacy and complication between the 4-point rating scales of items in the nursing education subset, the scales of 1= No, almost not at all, and 2= No, not usually were combined as were those of 3= Yes, usually, and 4= Yes, almost always thereby providing the categories of No and Yes responses respectively. Similarly, the other scale, which rated quality of nursing care subset items of 1= Never acceptable and 2= Seldom acceptable were combined as were those of 3 = Frequently acceptable and 4= Consistently acceptable in order to provide the categories of Unacceptable and Acceptable responses respectively.

The major questions were also tested by using correlational statistical method to examine the existence of any association between perceived quality of nursing care and quality of nursing schools; and nursing shortages. Content analysis was used to identify broad categories of responses for open-ended questions on (1) migration and (2) demands and challenges.

RESULTS

The findings of the study are based upon the analysis of the responses of staff working in 11 regional and 52 Zonal and 7 special Woreda Health Departments or offices in the nation. Because there is no internationally or nationally valid definition of "nurse" and because reliable data and accepted yardsticks for workforce balance and quality of education and nursing care are lacking, the responses were valid or reliable only as the respondents' opinions. However, those opinions are the basis for daily operational and long-term policy decisions in regard to the nursing workforce. Some of the major findings are as follows.

Most respondents (41.4%) thought the status of nursing was below average in their area of work, with 37.2% saying it was average and 21.4% saying it was above average. When asked to compare the image of nursing to that of labourers, clerical workers, teachers and physicians, less than half of respondents (39.7%) said nurses were most like physicians. Twenty three per cent of all respondents thought the image of nurses was most like that of clerical workers and about the same percentage compared nurses to labourers. Few respondents (14.3%) thought the image of nurses was like that of teachers.

Respondents were also asked whether the image of nursing as a field for women was about the same as that of most fields, or better or worse; 57.1% thought the image of nursing was better than most fields, while 37.1% said it was about the same as most fields. In contrast only 14.5% thought the image of nursing as a field for men was better than most fields while 43.5% said it was about the same as most fields (Table -1).

Table 1. Perceived Image of Nursing as a Field for Women and Men, Jimma, June-September 2000.

The image of nursing	Not as good as most fields		About the same as most fields		Best than most fields	
	No	%	No	%	No	%
Nursing as a field for women	4	5.7	26	37.1	40	57.1
Nursing as a field for men	29	42.0	30	43.5	10	14.5

Respondents were asked a series of questions about the overall quality of nursing schools and nursing education in Ethiopia. Most respondents thought the overall quality of nursing schools in Ethiopia was unacceptable (68.6%), while only (31.4%) however, described the quality as acceptable.

When asked about the adequacy of preparation of nurses in Ethiopia, more than half the respondents (60.0%) said nurses were usually or almost always prepared for the technical aspects or care; 60.0% said they were prepared to deliver safe and effective care in hospitals; and 51.4% thought they were usually or almost always prepared for leadership in nursing and health care. (Table - 2).

In contrast, two-thirds of respondents said nurses were not usually or almost not at all prepared to provide safe and effective care in communities (65.7%) and to provide care relevant to the nation's health care needs (64.3%).

Table 2. Perceived adequacy of Nursing Education in Ethiopia, Jimma, June-September 2000.

Does Nursing Education in Ethiopia Adequately Prepare Nurses:	Yes		No	
	No	%	No	%
For the technical aspect of care?	42	60.0	28	40.0
For leadership in nursing and Health Care?	36	51.4	34	48.6
To Provide safe and effective care in hospitals?	42	60.0	28	40.0
To Provide safe and effective care in communities?	24	34.3	46	65.7
To Provide care relevant to the nation's health care needs?	25	35.7	45	64.3

Respondents were also asked a series of questions to rate the quality of nursing care in their locality of operations, more than one-half of the respondents perceived the overall quality of care in the various locales as unacceptable (Table-3). The quality of nursing care in rural communities and rural hospitals in particular were considered by more than two-thirds of the respondents as unacceptable.

Table 3. Perceived Quality of Nursing Care and Locales In Terms of Health Care Needs and Resources Available, Jimma, June-September 2000.

The Quality of Nursing Care	Unacceptable		Acceptable	
	No	%	No	%
For Public Sector Health Care Services	42	61.8	26	38.2
For Private Sector Health Care services	37	53.6	32	46.4
In urban Hospitals	36	52.9	32	47.1
In rural Hospital	47	68.1	22	31.9
In urban Communities	45	65.2	24	34.8
In rural Communities	54	78.3	15	21.7

Respondents were also asked to rate the quality of nursing care in terms of health care needs and the resources available for each vulnerable group and speciality areas. As shown in Table-4, except for operating rooms (hospital surgery) the majority of respondents described quality of care in all other speciality areas as well as care for the vulnerable groups as an unacceptable.

This perceived quality of nursing care was significantly associated with the perceived quality of nursing education for all specialties and settings: the better the nursing education, the better the care. The relationship between the quality of schools and care was specially significant for nursing care of children ($r = 0.99$, $p < 0.01$).

Table 4. Perceived Quality of Nursing Care-in terms of Health Care needs and the resources available for each speciality, Jimma, June-September 2000.

The Quality of Nursing Care for	Unacceptable		Acceptable	
	No	%	No	%
Children	51	73.9	18	26.1
Mothers and new borns	48	69.6	21	30.4
Elderly	56	82.3	12	17.7
Mentally ill and Handicapped (disabled)	61	88.4	8	11.6
Intensive Care units (Recovery rooms)	49	71.0	20	29.0
Operating rooms (Hospital surgery)	34	49.3	35	50.7
Adult medical-surgical patients	47	67.1	23	32.9
Those with infectious diseases and HIV/AIDS	50	72.5	19	27.5
Health Teaching	55	80.9	13	19.1
Nursing administration & management	52	74.3	18	25.7

As Table -5 indicates indicates, A sizable majority of respondents (88.6%) noted a nursing shortage in the public sector. The percentage reporting private sector shortages were lower but still significant (65.7%). A shortage of nurses in urban hospitals and urban communities was also reported by a large majority of the respondents: 77.9% and 79.7% respectively. The shortage is even worse in rural hospitals and rural communities as reported by 85.1% and 87.0% of the respondents respectively.

Table 5. Perceived Nursing Shortages and Locales, Jimma, June-September 2000.

Nursing Shortage in	Yes		No	
	No	%	No	%
Public Sector Health Care Services	62	88.6	8	11.4
Private Sector Health Care Services	46	65.7	24	34.4
Urban Hospitals	53	77.9	15	22.1
Rural Hospitals	57	85.1	10	14.9
Urban Communities	55	79.7	14	20.3
Rural Communities	60	87.0	9	13.0

Shortages of nurses to care for particular subgroups of the population-children, mothers and newborns, elders, mentally ill and disabled, were widely reported. As shown in Table-6, more than three fourths of the respondents reported shortages for the care of these vulnerable population-groups. These figures are consistent with the generally lower ratings of quality of care for these groups.

Shortage of hospital nurses were, as expected most severe outside of Addis Ababa. Nevertheless, 72.7% of all respondents reported a shortage of intensive care nurses while 77.9% of them reported a shortage of nurses for both operating-rooms and medical-surgical settings. More than three-fourths of the respondents (81.2%) reported a shortage of nurses to care for patients with infectious diseases including HIV/AIDS and again there were widely reported shortage of nurses for health teaching (74.6%). Similarly, most respondents (76.1%) reported shortages in nursing administration and management.

Table 6. Perceived Nursing Shortages by Specialty, Jimma, June-September 2000.

Specialty Nursing Shortages	Yes		No	
	No	%	No	%
Care of Children	59	85.5	10	14.5
Care of mothers & new borns	57	83.8	11	16.2
Care of the elderly	59	86.8	9	13.2
Mentally ill and Handicapped	61	88.4	8	11.6
Hospital intensive care units	48	72.7	18	27.3
Hospital Surgery (Operating Rooms)	53	77.9	15	22.1
Hospital Medical & Surgical Care	53	77.9	15	22.1
Care for infectious diseases and HIV/AIDS	56	81.2	13	18.8
Health Teaching	50	74.6	17	25.4
Nursing Administration & Management	51	76.1	16	23.9

There were significant inverse correlation's between the perceived shortage of nurses and the perceived quality of nursing care in the various locales ($r = -0.67$, $p < 0.01$). The greater the shortage, the poorer is the care.

Because there are many reasons why nurses might prefer to migrate /transfer to

work in hospitals rather than communities and in urban, rather than rural hospitals, this has been considered a significant problem to many health care establishments and respondents were asked to comment on the effects of nurses' migration/ transfer on health care in their localities.

Some reported migration /transfer and the negative consequences that the expertise of experienced nurses was lost, positions couldn't be filled, and some services have to be curtailed. Others reported loss of nurses both from the public sector to the private sector and to non-nursing fields, leaving the major health care services in a dire state. There is sometimes only one nurse per 36 patients, as a result of which the quality of patient care and the workload of those who remained was severely affected. While respondents from all regions and zones reported shortages of nurses, they also said there were enough vacant posts available for nurses in hospitals or communities-one of the explanations for migration.

At the end of the questionnaire, respondents were also asked to provide additional information on the challenges and demands of nursing personnel in their zone. The respondents raised the problem of quality and supply, as noted above. The respondents pointed to the need to improve the quality of care in all specialties and in all settings. Some also noted the need to restructure nursing education, to move nursing education toward degree preparation and to reorient nursing education to primary health care.

Respondents from many zones pointed to the challenge to provide good nursing care with limited personnel, materials and money, and noted a need to increase both the number of posts available for nurses and the supply of nurses, to deal with changing health needs. Poor pay and slow upward mobility were also noted. Some pointed insufficient autonomy for nurses and poor working conditions. From a couple of zones came this fairly typical comment: unless the economic situation of the country is improved, there will be a continued shortage of nurses. The remuneration and condition of work are unattractive and as a result it is nearly impossible to retain those young men and women who are already trained.

Respondents also pointed to the needs to formulate a national nursing policy delineating the numbers, types and standards of nursing personnel and services. A number of zones pointed out the need to promote community-based care and the need to improve working conditions, as well as the need to train more nurses at the post-basic level for specialist positions and for leadership and management. Several zones pointed to the challenge of improving nursing education and providing adequate care in the face of political, economic and social difficulties.

DISCUSION

Human resources are the cornerstone of any country's health system, yet a dearth of information limits severely the characterization of nursing personnel imbalances in most regions and zones. While this was known before the survey, the present findings have made it even more apparent. The survey results provide a beginning picture of nursing personnel resources nationwide.

In nearly every country nursing shares the characteristics of other female dominated occupations-low pay, low status, poor working conditions, fewer prospects for promotion and poor education all contribute to the image of nursing (8). Pizurki *et al*. (15) contend that, of all the professions subject to sex-role

stereotyping, nursing is the most severely handicapped in that "nurses are doubly conditioned into playing a subservient role: first by society generally, and secondly by the medical establishment." Results from this study also support and reflect these facts. The status and image of nursing in this country were rated below average by the majority of the respondents.

However, nursing as a field for women was thought better than most or the same as most fields (94%), while for men it was rated by (58%) of the participants. Indeed, many nurses love their work field and are proud to be part of a profession, which is meaningful and vital to people's well being. When nursing is a positive career choice for women and men, this in itself raises the image of nursing to reflect the intrinsic rewards the profession can give to its practitioners.

In developing countries, multiple, widely dispersed, small schools of nursing operating without adequate resources, are ill equipped to provide good nursing education (5). Similarly in the current study the majority of respondents viewed the overall quality of nursing schools in this country as inadequate.

Many authors have cited the problem that traditional nursing education tends to be authoritarian and produce passive; subservient and uncritical nurses (16), especially in countries where financial resources for education are restricted, learning materials are few and there is a chronic under investment in training of teachers. Similarly, the overall quality of basic nursing education and its process in Ethiopia do not prepare nurses to respond adequately to the health needs of the nation or to become the critical, caring and competent health workers that are needed by communities.

Analysis of participants' opinions related to the adequacy of educational preparation of existing nursing staff shows in particular, the hospital-orientation of nursing education where by many nurses are distanced from the problems faced by most communities in the nation (17, 18). Surely our priority should be to provide safe, competent and effective care to all people. On the other hand the quality of nursing care for both the various settings and specialties were consistently rated by the majority of participants as only seldom acceptable or even never acceptable.

Of course, having appropriately educated staff for both community and hospital services is one part of ensuring an adequate quality nursing service. And a total commitment to providing quality nursing care to the whole population, backed by allocation of the necessary resources, is another part. However, without well-educated (which means appropriately and relevantly educated) nursing staff, the long process of lobbying for, implementing and sustaining quality nursing care at peripheral, zonal and central levels will only be delayed. Across all regions at all levels of development, a considerable nursing shortage has been reported. The shortage is especially pronounced in the public sector; in rural hospitals and communities; for the care of particular subgroups of the population-children, mother and infants, the elderly, the mentally ill and the handicapped; and for nursing care of infectious diseases including HIV/AIDS.

Nurse migration from rural to urban areas, from the public to the private sector, is seen by most respondents as a major problem where by the rural and public sectors are losing a vital part of their nursing workforce, which had been educated by scarce public funds.

Similar results were reported in one opinion survey of nursing personnel resources world wide (4) by respondents

from 70% of developing countries who reported a shortage of nurses in the public sector, especially in rural areas. Reluctance to practice in rural areas exacerbates the shortage of health care personnel. A number of responses to the survey reported that many nurses leave the public sector for the private sector in search of better working conditions and pay, producing acute personnel shortages in the public sector.

In general this study's findings show a three dimensional nursing workforce imbalance: the numerical dimension involves under-supply compared to country needs and resources; the qualitative dimension represents the mismatch between educational preparation and requirements in the workplace; and the distributional dimension is geographical, institutional, or by specialty.

In Conclusion any analysis of the supply, distribution and quality of nursing personnel and the activities to maintain a balance or correct an imbalance must be understood in the much wider context of the country's sociopolitical and economic situation, the people's health needs and expectations, and the broad range of all available resources for health. Human resources planning and education and the management of health systems must be dealt with in our particular context.

Regardless of the nature of the nursing shortages, this study does show that shortage is associated with quality of nursing care, and quality of care with quality of education. The solution lies in a broad, country-based approach that addresses human resources policy infrastructure, education, and human resources management.

From this broad analysis of data, the following strategies are recommended to ensure optimal use of nursing personnel in Ethiopia as socially significant professionals in the 21st century.

- Review nursing personnel needs and resources and devise methods to avert shortfalls.
- Recruit, retain, educate and reorient nursing personnel to meet national needs and reorient nursing education including continued education in PHC.
- Ensure appropriate working conditions and the allocation of adequate resources for nursing.
- Develop standards and regulations for nursing practice and nursing education, which will ultimately impact the quality of nursing care.
- Establish university programs to educate nurse teachers and managers at the baccalaureate and masters degree levels.
- Develop a mechanism to administer a standardized professional examination and enact legislation for licensing in order to ensure competent, safe, and ethically sound nursing services.

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