



Contextual Analysis and Perceptions of Health Workers on Migration: Perspective from Kenyatta National Hospital Staff, Nairobi Kenya

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Authors' contributions

This work was carried out in collaboration between all the authors. Author BO designed the study and wrote the protocol. Author SC performed the statistical analysis and wrote the first draft of the manuscript. Authors GOO and JPO guided in the development of the study design and data management. Author JGK provided technical support during data collection. All authors read and approved the final manuscript.

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ABSTRACT

Aims: Migration of health workers constitutes a significant barrier to expanding health interventions. In Kenya, internal migration of workers, from rural to urban areas, is just as serious as international migration. Healthcare professionals are migrating vertical and horizontal within the country while others are emigrating internationally. Whereas there is extensive literature on immigration little reports indicate in-country migration. The aim was establish the determinants of migration in human resource for health.

Study Design: This was a cross-sectional descriptive study. The study population was human resource for health working in the hospital.

Study Area and Duration: This research was undertaken at Kenyatta National Hospital between April and May, 2013.

Methodology: Qualitative and quantitative data was collected for triangulation purposes. Stratified random sampling was applied. Probability proportionate to size sampling was used at each stratum. Manifest content analysis was used for qualitative data while quantitative data was analyzed using Statistical Package for Social Science (SPSS) version 20 at alpha of value (<0.05).

Results: The study demonstrated that a few employees intend to migrate 132 (37.0%) to work elsewhere. Years of service were a significant predictor for migration. For example, those who had worked for less than five years were 29.6% less likely to migrate compared to those who had worked for over 15 years (AOR 0.296). Support staff and medical officers are willing migrants than clinical officers, health records and radiographers. The desire to stay or move is underpinned by several dynamic drivers. Better terms of services, improved working conditions and training opportunities are synonymous with migration. Passion, job security, experience and growth/research are descriptive retention factors.

Conclusion: Human Resource for Health migration continuum in Kenyatta National Hospital is founded on several elements. The occupational skill mix is sensitive to dynamics of individual, social and institutional motivational factors relative to migration.

Keywords: Migration; human resource for health.

1. INTRODUCTION

World Health Organization notes that human resources for health are the most important part of a functional health system [1]. However, Brain drain is a major phenomenon confronting health system in developing world. In Africa, the public health sector is arguably the most seriously affected [2]. Brain drain otherwise expressed as migration of personnel is defined as, “the voluntary movement of Health care workers from one employment station to another in search of different and/or better working arrangements” [3]. Health care workers are “all Human resource for health (HRH) engaged in actions whose primary intent is to enhance health” [2]. These include clinical staff, such as doctors, nurses, clinical officers, public health officers and dentists, as well as management and support staff- those who do not deliver services directly but are critical to the performance of health systems [4]. Owing to a wide range of social, economic, political and technological factors, there is concern over the acceleration of the problem in recent years [3]. According to Ndeti et al. progress towards health-related sustainable development goals previously millennium development goals (MDGs) is seriously impeded by shortage of human resources for health, with serious implications for child survival and health goals [5]. For this reason, World Health Organization (WHO) developed a common framework for Action for health system strengthening that consists of six building blocks. These building blocks are: Service delivery; Health work force; Information; Medical products;

Vaccines and technologies; Financing; and Leadership and governance [6]. While the building blocks provide a useful way of clarifying essential functions; various permutations and combinations of what constitutes the health workforce potentially exist depending on each country's situation and the means of monitoring.

The challenges facing Kenya rarely manifest themselves as described in the WHO common framework. In Kenya, Resources for health are scarce, and the disease burden is high [7]. The healthcare facilities are poorly staffed, for example, the ratio of 1.3 health workers per 10,000 populations, is way below the WHO benchmark of 2.3 per 1000 population [8]. The same problems affect other health professionals. At the centre of this human crisis is a failure of the health system. The health system is fragmented in the majority of the health care organizations while the National is traditional pyramidal public delivery structure made up of six levels outlined in the Kenya National Health Sector Strategic Plan (NHSSP). Community unit is the foundation while Referral and/or Teaching Hospital are the apex [9]. Consequently, healthcare professionals are migrating vertically and horizontally within the country [10]. The HRH crisis is exacerbated by the migration of health workers to wealthier countries [11].

There is extensive literature on brain drain but very little reports indicate in-country migration particularly in referral facilities such as Kenyatta National Hospital (KNH). Likewise, majority of available studies have explored this specific

issue using quantitative methods [12,13]. The findings though important were a partial analysis of the problem since quantitative analysis needs the support of qualitative analysis. The demand and supply factors affecting in- country migration of HRH have not yet been brought together in a mixed methods framework. This study therefore sheds light on perspective of migration among HRH and thus enable policy makers to review various health care policies aimed at strengthening, improving and sustaining the health care system.

2. MATERIALS AND METHODS

The study was undertaken at Kenyatta National Hospital (KNH). This is the largest referral and teaching hospital in Eastern Africa with 50 wards, 22 outpatient clinics, 24 operating theatres (16 specialized) and a total bed capacity of 1800 and 4000 staff. The hospital is located in the capital city, Nairobi and at the apex of Healthcare services in Kenya. The specific skill mix is high, motivational packages are appealing crowned by affluent city life making it appropriate to obtain an unequivocal picture of the Human resource for health. This was a cross-sectional descriptive study. This design was applied as it presents facts concerning the nature and status of a situation, as it existed at the time of the study and described the present events/systems based on the impressions or reactions of the respondents of the research. The study population was human resource for health working in KNH and sample size was calculated using Fischer's et al. 1998 considering 95% confidence interval, a precision of 0.05 and proportion of interest of 50%. It was assumed that half of the HRH have worked at the facility for at least a year. Since the population was less than 10, 000, the sample size was adjusted accordingly as per Fischer's et al. 1998 formula.

2.1 Sampling Technique

Stratified random sampling procedure was applied. The first step was to divide the HRH into different strata based on cadres and calculating their percentage. Probability proportionate to size sampling was used at each stratum (Table 1). Simple random sampling method was used to select the actual participants. HRH who had worked in KNH for one year and above preceding the study period, and were willing to participate were included. The one year inclusion criteria was to exclude new and fresh graduate staff who were still adapting to the new working

environment and may be gray on the migration concept.

Table 1. Sample size of target population

Category	Total population	Sampled population
Medical officers	300	27
Registrars and records officer	218	20
Nurses	2869	257
Pharmacists	50	5
Dental Officers	50	5
Clinical Officers	47	4
Radiographers	55	4
Laboratory Technologists	120	10
Public Health Officers	36	3
Physiotherapists	55	4
Occupational Therapists	40	4
Nutritionists	20	3
Orthopedics technologists	45	4
Medical Social Workers	20	3
Plaster Technician	40	4
ECG/EEG technologist	35	3
Total	4000	360

2.1.1 Research instruments

This was a mixed method research in which both qualitative and quantitative data were collected for triangulation purposes. The study was premised on four analytical dimensions: individual, socio-economic, institutional and environmental factors that may result to migration of HRH. Semi structured questionnaire was used to collect quantitative data while key informant interview guide was used for qualitative data. For reliability and validity, tools were pretested and revised appropriately. The semi structured questionnaire consisted of open ended questions aimed at generating individual, socio-economic factors of the respondents as wells as questions that indicate the relationship of institutional factors that lead to the migration of health workers. For quality data collections a research team was selected, recruited and trained on the institutional setting, study objectives, procedures and research ethics. The key informant interview guide was undertaken among institutional managers and it was mainly

centered on motivation factors, perceptions, challenges and institutional retention strategies.

2.2 Data Management

Manifest content analysis was used for qualitative data (thematically organized into themes, subthemes, specific patterns and trends from which conclusion and generalization were formulated). The quantitative data was analyzed for significance at alpha of value (<0.05) using Statistical Package for Social Science (SPSS) version 20. The results are presented descriptively and inferentially. Confidentiality and anonymity was maintained.

2.3 Research Ethics

All codes of ethics and ethical review were observed in the process of protocol development, data collection and reporting. Data was collected on the months of April-May, 2013. The research protocol was approved by relevant legal authorities in Kenya including the National Commission for Science Technology and innovation (NACOSTI), Kenyatta National Hospital/University of Nairobi Ethics Research Committee (ERC) and Kenyatta University. Participation was voluntary and consenting was by writing.

3. RESULTS

3.1 Demographic Characteristics

The findings are from 357 interviewees less than the anticipated 360, due to inconsistency in some of the response to the items of the questionnaires. Majority, 188 (52.4%) of the respondents were over 40 years of age and females 234 (65.5%). Whereas the study did not ascertain the gender distribution of staff from the institutional registry, this finding alludes to more females since the study applied probability proportionate to size sampling at each stratum.

3.2 Migration Intentions and Causes

The intention to migrate by health professionals was sought so as to establish the likelihood of them leaving the current employer in the near future. The survey results indicate that a sizeable number of the respondents 132 (37.0%) are considering leaving the institution to work elsewhere. However, this study did not inquire about their preferred destination. This shows a vote of confidence in the institution motivation strategy. This finding was buoyed by qualitative conclusion that KNH is a just and equitable employer. The qualitative conclusion was explicitly summarized by a key informant who noted that "Well, as you know, it is not possible to satisfy everyone. However, we (KNH) try as an institution to ensure that all staff is treated fairly". Higher income (77.3%), better terms of services (70.3%), improved working conditions (61.3%) and training opportunities (43.1%) are synonymous with migration (Table 2). Passion to serve 85 (23.8%), better salary 48 (13.4%), job security 39 (10.9%), experience 33 (9.2%) and growth/research 20 (5.6%) were the presupposed descriptive retention factors.

Profession ($\chi^2=30.45$, $df=8$, $p=0.002$) was synonymous with migration. Technical support staff and medical officers were willing migrants than clinical officers, health records and radiographers (Table 3). Some nurses had upgraded and/or tweaked the professional/job description in tandem with institutional needs. For instance, some are line managers, matrons and professional counselors. Years of service referred to the period the respondent had worked prior to the study period in KNH. One hundred and seventy three (48.5%) of the respondents had worked in KNH for over 15 years whereas 103 (30.3%) had worked between 11 to 15 years, 53 (14.8%) for between 6-10 years while 23 (6.4) less than five years. Years of services ($\chi^2=10.010$, $df=3$, $p=0.018$) was significantly associated with migration (Table 3) with bias to 6-10 years (54.7%) of services.

Table 2. Descriptive perceived causes of migration

Scale	Higher income n (%)	Better terms of services n (%)	Improved working conditions n (%)	Family based reasons n (%)	Training opportunities n (%)
Strongly disagree	20 (5.6)	19 (5.3)	25 (7.0)	88 (24.5)	25 (7.0)
Moderately disagree	19 (5.3)	21 (5.9)	18 (5.0)	90 (25.2)	18 (5.0)
Indifferent	20 (5.6)	33 (9.2)	66 (18.5)	66 (18.5)	66 (18.5)
Moderately agree	22 (6.2)	33 (9.2)	29 (8.1)	44 (12.5)	29 (8.1)
Strongly agree	276 (77.3)	251 (70.3)	219 (61.3)	69 (19.3)	219 (61.3)

Table 3. Years and terms of services; area of specialization in relation to migration

Characteristics	Migration (n) (%) All (n=357)			Bivariate analysis					
	Staying*	Migrating*	Total*	χ^2	df	P value			
Years of service									
1-5 yrs	18 (78.3)	5 (21.7)	23 (6.4)	10.10	3	0.018			
6-10 yrs	24 (45.3)	29 (54.7)	53 (14.8)						
11-15 yrs	71 (65.7)	37 (34.3)	108 (30.3)						
Over 15 yrs	112 (64.7)	61 (35.3)	173(48.5)						
Terms of service									
Permanent	215 (62.3)	130 (37.7)	345 (96.6)	2.401	2	0.362			
Contract	6 (75.0)	2 (25.0)	8 (2.2)						
Temporary	4 (100)	0 (0.0)	4 (1.1)						
Job category									
Dental officers	5 (100.0)	0 (0.0)	5 (21.4)	23.397	9	0.002			
Medical officers	11 (40.7)	16 (59.3)	27 (7.6)						
Clinical officers	4 (80.0)	1 (20.0)	5 (1.4)						
Pharmacy	2 (50.0)	2 (50.0)	4 (1.1)						
Health records officers	16 (84.2)	3 (15.8)	19 (5.3)						
Laboratory technician	5 (55.6)	4 (44.4)	9 (2.5)						
Nurses	156 (32.5)	74 (32.5)	92 (25.8)						
Allied and support team	23 (44.2)	29 (55.8)	228 (63.9)						
Radiographers	3 (75.0)	1 (25.0)	4 (1.1)						
Public health officers	2 (50.0)	2 (50.0)	4 (1.1)						
Supportive management									
Strongly agree	70 (79.5)	18 (20.5)	88 (24.6)				19.696	4	< 0.001
Moderately agree	101 (57.4)	75 (42.6)	176 (49.3)						
Indifferent	22 (55.0)	18 (45.0)	40 (11.2)						
Moderately disagree	24 (72.7)	9 (27.3)	33 (9.2)						
Strongly disagree	8 (40.0)	12 (60.0)	20 (5.6)						
Level of professionalism									
Very poor	7 (58.3)	5 (41.7)	12 (3.4)	10.690	4	0.038			
Poor	9 (50.0)	9 (50.0)	18 (5.0)						
Indifferent	30 (49.2)	31 (50.8)	61 (17.1)						
Good	150 (65.8)	78 (34.2)	228 (63.9)						
Very good	29 (76.3)	9 (23.7)	38 (10.6)						
Status of migrated peers									
Better	180 (59.4)	123 (40.6)	303 (84.9)	11.295	2	0.003			
Worse	23 (82.1)	5 (17.9)	28 (7.8)						
Not sure	22 (84.6)	4 (15.4)	26 (7.3)						

Abbreviations: n = total number of respondents, CI = confidence interval; *Column percentages, + row percentage; fisher exact applied where counts are less than five

3.3 Institutional Management and Professionalism Relation to Migration

Leadership and professionalism are two key determinants of both institutional and individual success. These propositions were put to the respondents and 20 (5.6%) strongly disagreed with the proposition that KNH management is supportive, 33 (9.2%) moderately disagreed, 40 (11.2%) were indifferent, 176 (49.3%) moderately agreed and 88 (24.6%) strongly agreed (Table 3). Level of professionalism was generally good 266 (74.5%). The study found significant

differences on respondents' perception on institutional management support ($\chi^2=19.696$, $df=4$, $p=0.000$), level of professionalism ($\chi^2=10.690$, $df=4$, $p=0.039$) to migration (Table 3). Employment is on permanent and pensionable terms 345 (96.6%). This may be one of the retention factors ($\chi^2=2.401$, $df=2$, $p=0.362$). However, the desire to change jobs was conjoint with a third of those in permanent and pensionable terms. One KII candidly commented "Well as you know this is a referral facility that is autonomous and strives to serve all. We have managed to do this by hiring highly qualified managers to run the institution.

Furthermore, due to its exalted position, the Hospital is expected to set high standards of health-care delivery that other public and private hospitals may emulate. A big constituent 329 (92.2%) were in touch with former colleagues who had migrated to other institution, signifying a high level of networking. This group (84.9 %) credence that the welfare of their former contemporaries is better while 7.8 % think it is worse and 7.3 % were not sure. Perceived status of the ex-colleagues was ($\chi^2=11.295$, $df=4$, $p=0.004$) was one and the same with migration (Table 3).

3.4 Skills and Resource Influence on Staff Migration

Enhancing competence and skill through job training is a personal and institutional responsibility. In this survey, it was noted that KNH offer the appropriate skills and competence to the staff. This may explain why skills competency was not statistically sound ($\chi^2=1.531$, $df=3$ $p=0.681$) with supposed migration (Table 4). This finding resonated well

with the views of many (82.4%) of the respondents who agreed with the preposition that staff competence affect health service delivery with 50% having had a short professional training less than one year preceding the study. Additionally, the number of staff in a unit affect the performance of a section remarkably (72.6%) while only 24 (6.7%) had a divergent opinion. Whereas the number of staff was synonymous with retention ($\chi^2=4.391$, $df=3$, $p=0.222$), the possibility of intended migration enhanced with increase in staff proportion (Table 4).

The award for excellence is good motivation retention factor in KNH ($\chi^2=5.241$, $df=2$, $p=0.073$). Similar inference was reported in qualitative dimension with one informant commenting “Motivation is an inherent enthusiasm about a party’s positive response and drives to accomplish work or activities and mostly is brought about through reward and recognition systems. However, how to maintain employee morale, rewarding and recognition systems towards institution success are

Table 4. Skills and Resource influence on staff migration

Characteristics	Migration (n) (%) All (n=357)			Bivariate analysis		
	Staying*	Migrating*	Total*	χ^2	df	P value
Types of skills of staff						
Unskilled	3 (75.0)	1 (25.0)	4 (1.1)	1.531	3	0.681
Semi-skilled	17 (60.7)	11(39.3)	28 (7.8)			
Skilled	36 (57.1)	27 (42.9)	63 (17.6)			
Highly skilled	169 (64.5)	93 (35.5)	262 (73.4)			
No. of staff in a unit						
<5	25 (78.1)	7 (21.9)	32 (9.0)	4.391	3	0.222
6-10	30 (66.7)	15 (33.3)	45 (12.6)			
11-15	52 (63.4)	30 (36.6)	82 (23.0)			
<16	118 (59.6)	80 (40.4)	198 (55.5)			
Perception on KNH services						
Very poor	9 (75.0)	3 (25.0)	12 (3.4)	6.420	4	0.170
Poor	7 (43.8)	9 (56.2)	16 (4.5)			
Average	51 (57.3)	38 (42.7)	89 (24.9)			
Good	135 (64.6)	74 (35.4)	209 (58.5)			
Very good	23 (74.2)	8 (25.8)	31 (8.7)			
Resources effect on turnover						
Indifferent	18 (58.1)	13 (41.9)	31 (8.7)	2.674	4	0.614
A little	21 (61.8)	13 (38.2)	34 (9.5)			
Moderately	88 (68.2)	41 (31.8)	129 (36.1)			
Very much	52 (58.4)	37 (41.6)	89 (24.9)			
Extremely	46 (62.2)	28 (37.8)	74 (20.7)			

Abbreviations: n = total number of respondents, CI = confidence interval; *Column percentages, + row percentage; fisher exact applied where counts are less than five.

important questions. Furthermore, it is widely held by the respondents 185 (51.9%) that resource in an institution dictates the stability of staff and institution. This descriptive finding reverberated well with inferential statistics that resource influence staff migration status. In this study the influence was towards retention ($\chi^2=2.674$ df=4, p=0.614) as summarized in Table 4. The overall services offered by KNH were good 240(67.2%), though 89 (24.9%) said average while 28 (7.9%) thought it was poor. This positive service rate influenced staff to stay ($\chi^2=6.420$ df=4, p=0.170) however, those who thought (66.2%) the services are poor yearned to move on (Table 4). Comparable finding was reported on qualitative that "Health workers might be dissatisfied with one or more attributes of the work environment. For example working in an environment where there is lack of equipment and lack of drugs is very frustrating and depressing. You cannot do quality work" concluded by one informant.

3.5 Multivariate Analysis

A multivariate logistic regression analysis using the backward conditional method was performed on multiple factors to eliminate confounding factors and examine the effect of the five predictive factors which significantly associated (independently) with intended migration at bivariate analysis. Two factors (Table 5) were found to predict migration while training and profession were confounding factors. In regard to years of services, those who had worked for less than five years were 29.6% less likely to migrate compared with those who worked for over 15 years (AOR 0.296). The odds of migrating decreased among health respondents who strongly agreed and moderately disagreed that KNH management is supportive compared to those who strongly disagreed -1.847 and -1.438 respectively (Table 5).

4. DISCUSSION

4.1 The Extent of Professed Migration of Human Resource for Health

The study has revealed that the few employees profess to migrate. This indicates that in Kenya, KNH is good employer. This may be probably because the institution is the apex of health care in Kenya with considerable differences in motivational privileges compared to other public and private facilities. This conforms to the principle of stepwise migration that migration is a

step by step drift from one place to another which might finally turn out to end at the destination once longed for or at the highest level within a setting. However, many are in communication with peers who migrated from KNH. This shows that HRH are aware and informed of the migration trends. The knowledge of success of peers and/or greener pastures elsewhere can trigger migration. This finding relates well with Stilwell et al. who pointed out that social networks plays a significant role in migration by linking peers to advertisement and connecting to opportunities [14].

4.2 Duration of Services and Reward Scheme

Most of the respondents had worked for over fifteen years. Longevity pay purposes maybe the drive here. Years of service were synonymous with migration with respondents' who had worked for six to ten years longing to migrate. This category may be interested in greener pasture probably because of the experience and skills they have acquired. This concurs with WHO report of 2008 which said that workers tend to go after little exposure to where the working conditions are best and challenging [15]. Kenyatta National Hospital is marked by high staff diversity which was statistically significant. Medical officers and technical support staff were willing migrants than clinical staff, records officers and radiographers. The principle of stepwise migration may explain the phenomenon of clinical staff, records officers and radiographers however; the move by support staff may be attributed to good and better enticing opportunities outside the spectrums of healthcare. These finding suggest that the occupational skill mix of the health sector workforce is sensitive to variations in the human resource costs and benefits of migration. This however contrasts with Ndetei et al. in Equity in Health in East and Southern Africa (EQUINET) Discussion Paper Series 62 which noted that the migration of nurses overwhelmingly dominates the migration of health professional category. The lack of career advancement paths or the presence of it; may be the reason why medical pharmacist and public health officers aspire to leave. This relates well with Yumkella, who reported that a breakdown of migration movements by sub-category shows a very sharp increase in outflows of nurses and above all, other health professionals [16].

Income, better salary, improved working conditions and training opportunities were

Table 5. Multivariate analysis results for independent variables (n=357)

Variables	Levels	B	S.E	Wald	P value	Exp (β)
Years of services	1-5 yrs	-1.217	0.570	4.555	0.033	0.296
	6-10 yrs	0.375	0.358	1.098	0.295	1.455
	11-15 yrs	-3.313	0.284	1.215	0.270	0.731
	Over 15 yrs	Ref	-	-	-	-
Supportive management	Strongly agree	-1.847	0.550	11.262	0.001	0.158
	Moderately agree	-0.774	0.501	2.381	0.123	0.461
	Indifferent	-0.631	0.583	1.171	0.279	0.531
	Moderately disagree	-1.438	0.636	5.108	0.024	0.237
	Strongly disagree	Ref	-	-	-	-

Abbreviations: B=coefficients; S.E= standard error; wald=associated with degree of freedom – p value; Exp(β)= exponentiated coefficient (odds ratio). Dependent variable: (0 = no (staying), 1= yes (professing to migrate)

synonymous with migration but not family reasons. This agrees with Ndetei et al. who reported that higher remuneration rates, reduced workloads and improved professionalism are among the pull factors [17]. On the other hand; passion, job security, economic gain, experience, growth and research exposure and medical cover were retention factors. This shows that HRH migration is due to several drivers. Income in this study was highly ranked. These elements of migration are consistent with those enlisted in a survey carried out in the four African countries (Cameroon, South Africa, Uganda and Zimbabwe) that showed that the four main reasons people emigrated were to achieve better remuneration, a safer environment, better living conditions and better facilities [18]. The finding on family reason chimes well with the statement that family and cultural ties are likely to be strong for some people and weaker amongst others [17]. It however, negates the notion that families influence employee decision to leave [19].

Reward scheme was not associated with migration. This infers that non-financial incentives are important motivating retention factors. This agrees with other studies which have found rewards and incentives as effective stick factors. For example, the Canadian government has improved the retention of certain cadres of health personnel through endowment programs [17]. Elsewhere Yumkella, says that employees in the developed world are more likely to stay with an organization that demonstrates fair treatment for all, shows care and concern for employees and has proven to be trustworthy [16]. The 2003 GTZ multi-country study identified a mix of non-monetary incentives applied in 18 sub-Saharan African countries. The incentives included training opportunities, study leave, award schemes, housing benefits, transportation allowances and clear career

structures. The study findings suggest that in Zambia refresher training opportunities led to high retention, while in Ethiopia a mix of continuing education, provision of housing and establishment of clear career structures led to improved job satisfaction and retention [16].

4.3 Terms of Employment in Relation to Migration

Permanent and pensionable is the principles term of employment in KNH. This gives staff job security and safety necessary for retention. The finding cites well with Chikanda, who reported that employment status strongly influenced the likelihood of staff to migrate [20]. Terms of employment for health workers are a good indicator of levels of job security, with permanent positions and long-term contract positions offering the most security [21]. It has been argued, for example, that high levels of morale among health workers will go a long way towards improving the retention of health personnel. This may enhance the feeling among health workers that they are able to effectively deliver good quality care and a perception of being valued by employer [17]. Conspicuously a third of the permanent and a quarter of those in contract terms were potential migrants. This shows that professionals lacking job security are more likely to migrate. Similar finding was reported by Korte et al. studying motivation of health-care workers in four developing countries that low job satisfaction and motivation push people to migrate [18].

Many hold the proposition that the number of staff members in a unit affects the performance however; this difference was not statistically significant. Whereas, an increase in numbers may reduce available infrastructure, it positively lowers worker to patient ratio, providing more

options in working hours enhancing chance's to upgrade ones skills. Alternatively, group dynamics may make Health workers dissatisfied and therefore open to movement and migration [17]. The push occurring because of dissatisfaction about pay is easier to understand, but the push because of dissatisfaction with the working environment is much more complex. However, a preposition by Buchan and Calman, that Health workers might be dissatisfied with one or more attributes of the work environment like poor relationships between workers; safety and security concerns may expound this scenario [22]. No statistical relationship was found between competences; job training with migration. Access to training and career path development can be retention incentives. EQUINET notes that lack of further education and career development opportunities, compels migration of health workers [23]. However, HRH who said that their competency has been enhanced moderately were associated with migration. This contrasts with a study in Ghana, which reported that 71% of health workers interviewed mentioned competency, working conditions, income and job satisfaction as the reasons for intended leave [24].

4.4 Institutional Resource and Management Practice in Relation to Migration

The management of KNH was rated generally good and was synonymous with staff retention. The study demonstrated that level of professionalism is high and this was significantly associated with migration. Good management practices contribute to increased productivity, worker satisfaction and improved quality of services. A US-based research has shown that the greatest driver of employee stay or leave decisions is based on relationship with the immediate supervisor [25]. Similarly, smart organizational policies hold supervisors and leaders accountable for retention results [16]. Likewise, poor management, lack of medicines and equipment, bureaucratic inefficiencies and inadequate support and communication are all push factors [17]. Huddart, reports that strong performance management systems that allow for open performance appraisals linked to performance objectives, supportive supervision and constructive feedback have been shown to contribute to improved productivity, worker satisfaction and improved quality of services [26]. Performance appraisal systems in the public sector are generally weak. For example, public

sector employees in Guinea lack job descriptions, while those in Guinea Bissau are reported to be poorly supervised [26]. Health workers cite the availability of professional camaraderie, greater likelihood of promotions, availability of schools, good housing, leisure activities and other social infrastructure as their main reasons for preferring to work in health facility [17].

Resources are crucial for the provision of health care however; this was not statistically sound to professed migration. This corresponds with the findings of a survey conducted in Zimbabwe in 1998 which showed that a common cause for health workers resigning from the public sector was the inability to offer effective care to patients due to inadequate resources in health facilities. This contrast with Dovo, who said unsatisfactory working environment are increasingly recognized as important factors for health professionals moving within and between institutions [27].

5. CONCLUSION

The study has demonstrated that HRH migration continuum in KNH is founded on several drivers and the occupational skill mix of HRH is sensitive to dynamics of individual, social and institutional motivational factors relative to migration. The non-willingness of clinical officers, records officers and radiographers to migrate compared to support staff, and medical officers typify the principle of stepwise migration. It can therefore be inferred that technical support staff, and medical officers utilize the opportunity in KNH to gain the necessary experience and bargaining power required to move on. Terms of employment, supportive management, professionalism and improved working environment encouraged staying while institutional resource base, number of staff per unit and training opportunities was synonymous with professed migration. Thus, the research shows that migration is a complex dynamic process warranting adoption and implementation of an integrated policy that will address all HRH issues for the maximum benefit. This was a general study; it is worth undertaking a comparative research among clinical cadres of health workers and/or county hospitals to compare findings on migration.

6. LIMITATIONS

This study is limited to the responses of KNH staff at point in time. The rejoinders may be

subject to the theory of self-reporting and social desirability. Whereas this was mitigated through triangulation of qualitative and quantitative methods, the net effect may not have been addressed completely. Therefore the findings may be subjective to the concept of public biography.

CONSENT

It is not applicable.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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