Evaluation of the Skill Mix of Health Professionals in Government Regional Referral Hospitals in Uganda

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ABSTRACT

This study, evaluated the Skill Mix of Health Professionals in Government Regional Referral Hospitals in Uganda. Specifically, the study examined the skill mix in Government Regional Referral Hospitals. A field survey of four Government Regional Referral Hospitals was conducted using structured questionnaires, review of reports, in-depth interviews and observation. Descriptive analyses, Pearson's correlation coefficient, single and multiple regression analyses were applied to achieve study objectives. The study was underpinned on Bourdie's Social Capital Theory and Human Capital Theory. Results indicated a shortage of qualified health professionals in all the four regional referral hospitals. Health workers were over-worked since most of the required positions were partially filled. At several regional referral hospitals, nurses, clinical officers, nursing assistants and medical officers worked under minimal supervision due to shortage of senior health workers. Consequently, there was a possibility of health professionals at lower levels of training offering un-regulated task shifting services; made worse by lack of a policy and legal framework framework to monitor their competencies and/or training needs. The study also appreciated the need for soft skills so as to apply technical skills and knowledge effectively at work. In conclusion, an appropriate skill mix will largely reduce the effects of health workforce shortages. The skill mix between different cadres of health professionals represents significant advancements in performance of health professionals amidst staff shortages.
Keywords: Skill Mix, Health Professionals, Government and Referral Hospitals.

INTRODUCTION

Over the last few years, there have been significant developments, both nationally and internationally, in health care provision. Huge clinical and technological advances have brought in their wake, rising demands for higher quality health care, with all the resource implications this entails. Consequently, there is now an imperative struggle to resolve the growing demand for health provision within tight budgetary constraints for countries like Uganda. In the United Kingdom's (UK) National Health Service (NHS), one response to this dilemma has been to recommend an extension of the role of nurses. In particular, a number of recent policy documents emerging from the department of health suggest a development of a mix of health professionals' skills and experience. This enables nurses deliver high quality health care in areas designated as priority clinical targets [1] in the UK system. The Sub-Sahara African (SSA) region is coping with 24% of the world's disease burden. This is worsened by local health systems, which are not responsive, efficient, equitable or even safe [2]. While reasons for this underperformance are multiple, it has been suggested that motivation and work performance of health professionals, as the foundation of any health-care system, are a main determinant of health-care service quality [3; 2]. African health systems are experiencing some of the greatest staff shortages, alongside weak institutional frameworks and distortive incentive structures. Ineffective management practices and adverse work environments have resulted in an overburdened health work, force leading to low levels of work motivation [4;5;6]. The poor

performance threatens the achievement of the Millennium Development Goals (MDGs) towards reduction of child mortality; improvement of maternal health; combating HIV/ AIDs, malaria and the neglected tropical diseases [6]. In Uganda, prior to the 1970s, the country was characterized by political stability and had a high rate of economic growth. Between 1966 and 1968, Uganda over saw the construction of 22 hospitals and, establishment of a free quality, natural health care system. This was a boost to the health sector infrastructure. Prior to this period, Uganda's referral hospitals were limited to Mulago and the Grade B hospital at Entebbe. Uganda's health system was modeled the best in SSA [7]. During the 1970s, however, Uganda underwent a period of political and economic upheavals. The trend, which followed the military coup of 1971, significantly affected the social service sector. The health sector was marked by health system failures, aggravated by insufficient funding. This led to problems of meager and late payment of salaries, permanent shortages of medicines and supplies, and dilapidated infrastructure in hospitals [8].

Understanding performance of health professionals requires a clear definition of boundaries of the health system. This bases on the concept of health action, referred to as a set of activities with the primary objective to improve and maintain health [9]. Performance of health professionals in this study, centered on three fundamental goals: to improve health, enhance responsiveness to the expectations of the beneficiaries; and to ensure fairness. Improvement in health implies increase in the average health status. In this regard, responsiveness includes two major components: respect for persons and client orientation at work. Respect for persons includes dignity, confidentiality and autonomy to decide upon one's own health when being attended to, while client orientation includes prompt attention, access to social support networks during care, quality of basic amenities and choice of health provider. To ensure fairness, means to reduce health inequalities. This study-classified performance in three dimensions namely: task performance, contextual performance, and organizational commitment performance.

More so, the study investigated skill mix; defined by [10], as a combination of different categories of workers employed in any field of work, a combination of skills available at a specific time, a mix of posts in a given facility, a mix of employees in a post, a combination of activities constituting each role, and differences across occupational groups. For this study, differences across occupational groups could mean; between nurses and physicians; or a mix within an occupational group such as between different types of nursing providers with different levels of trainings and differences.

Skill mix also refers to skills and experience of staff, their continuing education and professional development; years of experience and how all put together to influence professional judgment (National Pharmacy Association, 2013). [11], give an important framework for nurse/doctor skill mix as follows; Enhancement: meaning to extend the roles or skills of a particular group of workers; Substitution: Meaning working across professional divides or exchanging one type of work for another. Delegation: pointing to moving a task up or down a uni-disciplinary ladder; and innovation: meaning to create new jobs by introducing a new type of work.

On the other hand, the study-investigated skills, which according to [12] are knowledge demonstrated by action and ability to perform in a certain way. This study puts emphasis on the skill mix of health professionals in government regional referral hospitals. There is a variation in the meaning of skill mix or personnel mix. The concept may refer to the mix of posts in a facility, mix of employees in a post; combination of skills available at a specific time; or combination of activities comprising each role. Skill mix can be examined within occupational groups, across different groups [13; 14].

Additionally, as part of the skill mix, this study looked at generic skills; also known by many other terms as soft skills, key skills, common skills,

essential skills, employability skills, basic skills, necessary skills, competencies skills, and transferable skills to asses targeted research objectives. [15] Have divided the generic skills into three categories, which are personal skills, communication skills, and problem solving skills. [16] Report that generic skills can be presented in four broad areas of management skills namely: management of self, management of others, management of task, and management of information.

While according to [17], the eight soft skills needed by all individuals are collaboration/teamwork, communication skills, initiative, leadership ability, people development/coaching, personal effectiveness/personal mastery, planning and organizing, and presentation skills for judgment.

Purpose of the study

The purpose of this study was to evaluate the Skill Mix of Health Professionals in Government Regional Referral Hospitals in Uganda

METHODOLOGY

Research Design

The study adopted descriptive-comparative and descriptive-correlational research designs. [18] Define descriptive research as a broad class of non-experimental studies. A descriptive research design was chosen because it provides current information or intelligence regarding the research problem [19; 20]. This study compares staffing levels in different hospitals and departments. Similarly, there was comparison between vertical and generic programmes.

Area of Study

The study is a nation-wide investigation carried out in Government Regional Referral Hospitals in Uganda. To achieve this wide scope, the study involved four of the thirteen government regional referral hospitals. The hospitals were; Mbale government regional referral hospital in the East, Lira government regional referral hospital in the North, Hoima government regional referral hospital in the west, and Jinja government regional referral hospital in the east. The choice of regional referral hospitals premises on the fact that, these health facilities are major centers for provision of health services in those regions, serving a relatively large population (1:2,000,000 as per the Annual Health Sector Performance Report, 2010/2011 and as per the Report on the State of Regional Referral Hospitals in Uganda, 2012).

Research Population

A target population of 1,269 health professionals derived from four regional referral hospitals was considered. While the overall staffing picture at the referral hospitals remains generally good, there is a high degree of hospital variability in staffing levels (MoH2011b). The fill rates vary generally with the urban/rural split. This population varied across hospitals as follows: Mbale 230, Lira 259, Jinja 393, and Hoima 184 (Hospital submissions for Annual Health Sector Performance Report 2010/11). Respondents involved both health professionals and administrative staff. Health professionals included Medical Officers, Clinical Officers, Nursing Officers, and Enrolled midwives, Enrolled Nurses, Nursing Assistants, Radiographers, Dispensers, Dental Assistants, Anaesthetic Officers and Anesthetic Assistants. On the other hand, Administrators included Hospital Directors, Personnel Officers, Records Officers, principal Nursing Officers, and Nursing Officers.

Sample Size

While there are several ways of determining sample size, the researcher used [21]:

n   =   N / 1+N (e2) as indicated in Table 3.1.

n   =   N/1+N (e2)

=   1269/+11269(0.052)

=   1269/+13.2

=   1269/4.2

=   302

Mbale: $\underline{433}$
              1269 x 302= 103

Lira: $\underline{259}$
              1269 x 302=62

Jinja $\underline{393}$
              1269 x 302=93

Hoima $\underline{184}$
              1269 x 302=44

Table 1: Percentage and Sample Size determination

Regional Referral Hospitals	N	Sample size(n)	Percentage of total
Jinja	393	93	30.8%
Hoima	184	44	14.6%
Mbale	433	103	34.1%
Lira	259	62	20.5%
Total	1269	302	100%

Sample Size for Qualitative Data Collection

Scholarly evidence suggests that the sample size for a qualitative study should be determined based on information needs [18]. [20], on the other hand, postulates that, the guiding principle in sampling is data saturation (sampling to the point at which no new information is obtained). In this study, 67 health professionals, 30 patients and 10 caretakers participated in the interviews. As emphasized by [22], a sample size of at least 20 to 30 is adequate to achieve representativeness, and reach the saturation level in a qualitative study.

Sampling Procedures

Choice of respondents depended on two techniques: stratified sampling and simple random sampling. Stratified sampling ensured that results were representative of all categories of health workers while, simple random sampling gave each health worker a chance of representation. For Lira, Mbale and Hoima hospitals, the staff establishment was used while in Jinja hospital, where the staff establishment was not available, the list of wards was used. The researcher further stratified the staff establishment and wards to all cadres of health professionals. Using a random Table method, 134 Nurses, 5 Dispensers, 36 Clinical Officers, 28 Nursing Officers,23 Medical Officers, 20 Medical Officers Special Grade, 14 Consultants3,0 Nursing Assistants, 6 Radiographers, and 6 Medical Records Officers, were sampled. Initial contact with respondents concentrated on explaining sampling, objectives of the study, and the voluntary nature of participation. Primary choice of government hospitals was because the government health system is the backbone of the Uganda's health care, and employs more health professionals compared to the private sector. Patients and core-takers were selected using convenient sampling owing the willingness and ability of the patient to communicate. The researcher took care to ensure that the study was representative of all work Shifts (day, evening and night). Choice of hospitals was by the simple random sampling technique, to ensure objectivity in the study.

Research Instruments

To determine levels of skill, motivation, and performance of employees, self-administered questionnaires were used. A face sheet, on the other hand, enabled the researcher to determine the profile of employees.

Socio-demographic Characteristics Questionnaire

In addition to the study variables, participants responded to demographic items. These included information regarding age, gender, ethnicity, education level, and employment status.

Questionnaire to measure employee Skills

A questionnaire is a means of eliciting the feelings, beliefs, experiences, perceptions, or attitudes of a sample of individuals. Its strength is that potential information can be collected from a large portion of a group [23]. The questionnaire to measure skills was a slight modification of areas of skill examined in the Management Competency Inventory as building blocks of competence in the modern work place. It captured day-to-day skills that allow health professionals to work effectively and efficiently by harnessing their own potential and that

of other employees. Five items from the Management Skills Inventory [24] measured skills. These included interpersonal, motivational, leadership, written and verbal communication, teaching and counseling skills. Health professional were asked to indicate the extent to which each item described them (on a Likert's scale, from 1= never or almost never true of me to 4= always or almost always true of me).

Questionnaires to measure employee performance.

The researcher scaled job performance into task and contextual performance. Task performance measured seven items from [25] in-role behavior scale. These items were to assess behaviours recognized by an organization's formal reward system. They also captured performance requirements of a general job description. In the questionnaire for employees, the researcher modified items to facilitate self-ratings. The respondents were instructed to rate their performance on average. They were also required to indicate how often they effectively performed specific job behaviours. A sample item includes, "perform tasks that are expected of me". Response mode: 1= "Never", 2= "Rarely", 3= "Some Times", 4= "Very Often". Contextual performance based on [26] taxonomy of citizenship performance dimensions, was measured with twelve items. These dimensions include interpersonal citizenship performance, organizational citizenship performance and task conscientiousness:

a) Interpersonal citizenship performance includes behaviours that assist, support, or develops organizational members beyond formal expectations. A sample item in the questionnaire for employees was, "Assist co-workers with their personal matters". Response mode: 1= "Never", 2= "Rarely", 3= "Some Times", 4= Often", 5= "Very Often".

b) Organizational citizenship performance includes behaviours that demonstrate commitment and loyalty to the organization. A sample item is "Promote and defend the organization to others.

c) Job/conscientiousness performance describes behaviours that go beyond role requirement by exhibiting

persistence and the desire to maximize one's own job performance.

In the questionnaire on performance, a sample item was "persist with enthusiasm when completing my work'. Respondents were to think about their performance on average and indicate how often they engage in the listed behaviours. The response mode was as follows: 1="Strongly Disagree", 2= "Disagree", 3="Uncertain", 4= "Agree", 5= "Strongly Agree".

[27] Affective commitment scale measured organizational commitment. The scale consists of eight items scored on a five-point scale. These range from "Strongly Disagree" to "Strongly Agree". A sample item in the employee's questionnaire is "I really feel as if this organization's problems are my own".

Because of the reluctance to fill and return questionnaires, the researcher distributed 380 questionnaires. In the event of failure of retrieval and/or non-compliance to filling, the minimum required target would still be achievable. Overall, 325 questionnaires were returned (86% retrieval rate). Due to errors and incomplete filling, 302 questionnaires met the target sample population. Owing to the work schedule of health professionals, a lot of patience was required to have the questionnaires filled. The researcher had to visit the sites over four times to have these questionnaires fully retrieved. Clinical Officers, Enrolled Nurses, Lab Assistants, Nursing Assistants, Dispensers Nursing Officers, Enrolled Midwifes, Lab Technicians, Medical Officers, Anaesthetic Assistants, among others, received questionnaires.

Reliability

Reliability refers to the consistency of a research instrument in measuring whatever it is intended to measure [18]. Previous research suggests that, in the absence of archival data, self-reported measures are acceptable. They are often equally reliable, if data reliability is examined [28]. Composite reliability assessed inter-item consistency using Cronbach's alpha. Although the constructs developed in this study were strongly grounded in the literature, they were modified to suit the hospital context in Uganda.

Table 2: Cronbach's Alpha for Skills and Performance

Category	Alpha for a construct	Overall Alphas
Skills		
Interpersonal skills	0.811	
Verbal/ written communication skills	0.790	
Teaching and counseling skills	0.883	
Leadership skills	0.870	
Performance	0.614	0.641
Task and conceptual performance		
Organization commitment behavior	0.585	

Source: Field data, 2013

Table 2 showed that, the overall alpha for skills was (0.950), and for performance (0.641) by implication, skills had the highest overall alpha (0.950), and trailed by performance (0.641): (Skills >Performance). [29], states that permissible alpha values can be slightly lower (>0.60). Therefore, an alpha value of 0.60 was considered as the cut off value. This indicates that the measure for performance was also reliable

Validity
[30] Assert that the validity of a research instrument is the determination of how well the instrument reflects the theoretical concept under examination (suitability of an instrument). [31] Describes validity as the ability to produce findings that are in agreement with theoretical or conceptual values.

Content Validity of Questionnaires
To establish Content Validity of the questionnaires, the researcher specified the indicators, relevant to the concept being measured. The researcher selected a representative sample of indicators from the domain of indicators of the concepts of skills, motivation and performance; [32] refers to this as sampling validity. The researcher relied on the supervisor and three other subject experts to measure content validity. Following the design and construction of the questionnaire, the researcher requested and sent the data collection tools to three subject experts to assess the relevance and content of the questionnaire items. These experts included one with a human resource management background, one public administrator and, a statistician. The expert's general view was that the data

collection tools were comprehensive enough to cover all variables indicated in the theoretical framework. Accordingly, all questionnaire items were relevant to the study and, the length of the questionnaire was acceptable. For the interview guide, the experts indicated that all the questions were straightforward, inclusive, and clear.

Validity of Interviews
Interviews were both formal and informal, and observations were made. Field notes using both recorded and off-recorded statement were taken. Additionally, the interviewees were of different cadres and with varying work experiences. This facilitated achievement of a holistic perspective [33; 34]. Supervisor guidance, especially in the preparation stages, helped to avoid the researcher's pre-conceived ideas, and to stick to the study objectives. A pilot was conducted with four health workers. To repeat the questions to different persons, rephrasing and probing were done to help the interviewee understand the questions more precisely.

Data Gathering Procedures
Data collection involved use of self-administered questionnaires. [35] Underscores the benefit of primarily using questionnaires to collect data. Accordingly, questionnaires have a high proficiency in studies involving literate respondents. The questionnaires were written in English, representing the language spoken by health professionals in these hospitals. When administering the questionnaires, each individual in the sample population had equal chance

of presenting their perceptions on the studied phenomena.

Data Analysis

Data analysis involved editing, categorizing, and tabulating the collected data sets. It also involved describing and interpreting the data basing on the research objectives. The study encompassed qualitative and quantitative assessments of data. Qualitative data were examined using the Content Thematic Approach, which was guided by the [36] framework (Appendix VII) to capture latent and manifest content in the interview scripts [37]. Study themes and sub-themes that emerged during data collection were refined, following multiple readings of interview transcripts. In addition to content thematic analysis, the study employed sub-group analysis that entailed comparing findings from health professionals in the four selected Government Regional Referral Hospitals. The researcher used selected voices of health professionals and key respondents to present study findings. The identities of individual study participants were masked, for instance the study uses "respondent, Lira RRH" to mean all study participants from Lira Regional Referral Hospital. Analysis of Quantitative Data used Pearson's correlation coefficient and multiple regression analyses.

Ethical Considerations

Ethical clearance was obtained from the Institutional Ethics Committee, Kampala International University-Uganda. Approval and permission to conduct research in the four hospitals was granted by concerned authorities; Mbale Regional Referral Hospital Institutional Review Committee Accredited by the Uganda National Council for Science and Technology, Jinja Regional Referral Hospital Research Committee, Hoima regional referral hospital Institutional Research Review Committee; and Management of Lira Regional Referral Hospital. Respondent first consented to research before the process began. Throughout the process of data collection, participants were asked to cooperate with the researcher. The relevant respondents had assurance that the research data was solely for study purposes. Adherence to the norm of anonymity had utmost consideration and to achieve this, names of respondents were omitted. Accordingly, all completed questionnaires were coded and names of respondents wherever indicated were erased to ensure this.

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

Demographic Profile of Respondents

This section presents the description of participant's demographic information. In particular, presentation of respondents is by gender, age, current employment status, current job description, job title and experience. Table 3 presents a summary of demographic characteristics of participants.

Table 3: Demographic Profile of respondents (n=302)

Gender	Frequen	Perce	Freque	Perce	Freque	Perce	Freque	Percen
Male	43	46.2	44	42.7	21	47.7	28	45.2
Female	46	49.5	59	57.3	23	52.3	34	54.8
Total	89	95.7	103	100.0	44	100.0	62	100.0
Age								
Below 20	10	10.8	9	8.7			9	14.5
20-29	43	46.2	46	44.7	16	36.4	31	50.0
30-39	19	20.4	21	20.4	13	29.5	10	16.1
40-49	6	6.5	9	8.7	6	13.6	2	3.2
50 and	4	4.3	10	9.7	6	13.6	4	6.5
Total	**82**	**88.2**	**95**	**92.2**	**41**	**93.2**	**56**	**90.3**
Current Job Description								
Staff	63	67.7	59	57.3	32	72.7	22	35.5
Consultan	3	3.2	1	1.0			1	1.6
Others	15	16.1	3	2.9			11	17.7
Total	**81**	**87.1**	**63**	**61.2**			**34**	**54.8**
Current job title								
Dispenser	1	1.1	2	1.9	1	2.3	1	1.6
Nurse	60	64.5	45	43.7	17	38.6	26	41.9
Clinician	4	4.3	12	11.7	6	13.6	4	6.5
Medical	1	1.1	2	1.9	2	4.5	1	1.6
Lab	4	4.3	22	21.4	4	9.1	10	16.1
Others	23	24.7	20	19.9	14	31.8	20	32.3
Total	**93**	**100.**	**103**	**100.**	**44**	**100.**	**62**	**100.0**
Experience								
1-10yaers	49	52.7	59	57.3	39	88.6	25	40.3
11-	2	2.2	5	4.9	3	6.8	2	3.2
21 and	2	2.2	3	2.9	1	2.3	1	1.6
Total	53	57.0	67	65.0	43	97.7	28	45.2

Source: primary data, 2013

Results in Table (3) indicate, that the majority of respondents were staff: Jinja RRH (67.7%), Lira RRH (72.7%), Mbale RRH (57.3%) and Hoima RRH (35.5%). Further, a very small number of consultants participated in the study in Jinja, Mbale and Lira RRHs, with none from Hoima RRH. To examine the Skill Mix of Health Professionals in Government Regional Referral Hospitals in Uganda

Emerging themes for Skill Mix of Health Professionals
Presentation of skill mix of health professionals was in terms of: 1) combination of posts available 2) combination of skills available at a specific time 3) combination of activities that comprise each role.
Theme One: Skill mix in terms of combination of posts available at a particular time:This theme was handled by examining the staff establishments in each of the four regional referral

hospitals investigated. Presentation is made of data triangulated from reports, interviews and observation.

Theme One: Skill Mix in terms of Combination of posts in Lira Government Regional Referral Hospital (LRRH)

Table 4: Skill mix in terms combination of posts for Staff Establishment

Staff category	Approved Posts	Filled Posts	Percentage of filled	Vacant Posts	Percentage of vacant
Doctors	39	9	23.1%	30	76.9%
Allied Health Professionals	97	59	60.8%	38	30.2%
Nurses and Midwives	143	127	88.8%	13	12.2%
Finance and Administration	43	18	41.9%	25	58.1%
Support Staff	49	39	79.6%	10	20.4%
TOTAL	**371**	**258**	**69.5%**	**116**	**31.3%**

Source: LRRH Human Resource Report, 2013
GRRH: Government Regional Referral Hospital

Results in the Table (4) indicate the current staffing position of Lira Regional Referral Hospital at 69.5%. Additionally, the available numbers of filled posts of health professionals are still grossly inadequate. Critical categories of missing staff include doctors (in health professional category), finance and

administration, and secretaries. This study however, focused on health professionals. The findings further revealed that, nursing cadres and support staff were the relatively filled positions. The current staffing position of doctors is at 23.1%, making it the worst affected category.

Table 5: Skill mix in terms of combination of posts for Doctors in Lira GRRH

Staff category	Approved posts	Filled posts	Percentage of filled	Vacant posts	Percentage of vacant
Senior	4	0	0%	4	100%
Consultant	12	6	50%	6	50%
MOSG	12	0	0%	12	100%
Medical officer	10	3	30%	7	70%
Senior dental surgeon	1	0	0%	1	100%
Total	39	9	23.1%	30	66.9%

Source: LRRH Human Resource Report, 2013
MOSG: Medical Officer Special Grade
GRRH: Government Regional Referral Hospital

While the summary in Table 5 reveals doctors as the most understaffed category, Table 5 gives the distribution of different cadres in this category. Results in Table (4.3) indicate that the hospital lacks a senior dental surgeon and, a Medical Officer Special Grade (MOSG). Additionally, the hospital has no senior consultant yet, from

established norms, the facility should have four (4) senior consultants. Of the 10 established norms for medical officers, only 30% are filled. Further, results show that senior consultant positions, MOSG and senior dental surgeon, ere vacant. Similarly, 70% of established positions for medical

officers were vacant while, 50% of the positions for consultants were vacant.

An interview with nurses on the wards elicited the following response:

Hundreds of patients that come to Lira Regional Referral Hospital are resorting to private facilities due to lack of doctors. Much as the facility was upgraded from a district hospital to a referral in 2005, it has operated with only 6 doctors for the past years" (Respondent, Lira RRH, 2013). Finding also indicate that, only 30% and, half of positions for medical officers and consultants respectively, are filled. The hospital operates with neither a senior dental surgeon nor any senior consultant in other medical and surgical areas of specialization.

Interview with a nursing officer at Lira RRH elicited the following responses:

"This hospital has not even a single senior consultant, yet given its level, it would be mandatory to have such persons. This caliber of people would save some of our poor patients the stress and burden of being referred to

Mulago hospital. In fact, majority of patients referred to such distant hospitals never go there. They die silently in their homes. It is a pity" (Respondent, Lira RRH 2013). The voices from interviews confirm that, while senior consultants are a significant cadre of doctors, Lira regional referral hospital has none. Corresponding findings from interviews revealed that there is work over-load of the staff. In ideal establishments, part of the burden of dealing with complicated cases is passed on to consultants and their senior officers. The situation in Lira RRH is such that   health professionals with lower levels of qualifications carry on the burden. In the same line revealed a lot of task shifting with instances of dental Assistant attempting tasks supposed to be handled by dental officers. Implication is that patients with ailments beyond the knowledge of the available are for referral to Mulago hospital. Further, some elite patients, out of their own on, opted to seek care from   private   health   practitioners.

Table 6: Skill mix in terms of combination of posts for Nursing Cadres in Lira GRRH

Staff category	Approved posts	Filled posts	Vacant posts	Percentage of vacant
SPNO	1	1	0	100%
PNO	1	1	0	100%
SNO	6	13	3	75%
Nursing officers	45	39	6	86.6%
Enrolled nurses	40	32	8	80%
Enrolled mid-wives	20	17	3	85%
Nursing assistant	20	20	0	100%
Total	143	123	20	86.0%

Source: Lira RRH Human Resource Report (2013)
SPNO: Senior Principal Nursing Officer
PNO: Principal Nursing Officer
SNO: Senior Nursing Officer
GRRH: Government Regional Referral Hospital

Nurses and midwives make up the largest percentage of human resource in the hospital (88.8%) as indicated in Table 6. Results in Table 6 show that all the higher-level nursing positions are filled: SPNO 100%, PNO 100%. The Table further reveals that generally, all the categories of the nursing cadre are filled above the National 68.5 minimum requirement. While results show that, all approved positions for Senior Principal Nursing Officers (SPNO), and Principal Nursing Officer, are filled; approved

posts of nursing officers, enrolled nurses, enrolled midwives and nursing assistants, are not all filled.

Interview with some medical officers and nursing officers elicited the following responses:

"The current numbers are inadequate to handle the ever-increasing workload. The existing staffing norm was fixed when this hospital was still a district facility and a 300-bed hospital. With the status of a Government Regional Referral Hospital since 2005   the same

establishment and staffing norm has however not changed. In reality the staffing is worse than the figures given by the ministry. They take a lot of time to update the staffing norms" (Respondent Lira RRH, 2013). "More 11 of the nursing staff are already scheduled for transfer to other hospitals; one (1) is working on contract under Ministry of Health. Inspite of the approved transfers, here are no plans for replacement by implication, the already inadequate staffing of nurses is yet to be worsened" (Respondent, Lira RRH, 2013).

A Patient at Lira RHH was at the out-patient department lamented:

"I came here very early in the morning hoping to be treated early and I go back home. Imagine I have not been able to see a doctor to listen to my problems. I am not even sure if I will get the chance to be treated since the patients are too many today" (Patient in Lira RRH)

Results from interviews portray increasing numbers of patients amidst a critical shortage of nurses in the hospital.

While the human resource report indicated that, the SPNO and PNO are expected play administrative and coordination functions in the hospital, the severely inadequate numbers of nurses place obligation for the administrators to get involved in nursing patients. Directly, such a scenario compromises their supervisory role. The minimal supervision implies that, inadequacies of performance of junior staff are not given attention. This further implies that it becomes increasingly difficult to suggest any corrective measures. The much documented public outcry about the poor attitude and rudeness of nurses [38], could be a pointer to this. The high level of absenteeism and its impact to the national economy [39] is another serious signal. One of the cardinal roles of Regional Referral Hospitals is to supervise lower level health levels. Given the shortcomings in the staff and the diversion of SPNO and SNO into offering nursing care at regional hospital level, supervision and follow up of lower health units is a nightmare. Corresponding findings from interviews attributed crowding of patients in wards and at outpatient clinics to cases that ought to have been managed at lower level health units. This finding further reveals that inadequate supervision at regional hospital and lower health unit levels, partly accounts for the increased work load in a regional referral hospital like Lira; leading to staff burn out.

Table 7: Skill Mix in Terms of Combination of Posts for Allied Health Professionals in Lira GRRH

Staff Category	Approved posts	Filled posts	Vacant posts	Percentage %
Pharmacists	2	0	2	0%
Clinical Officers	20	19	1	95%
Dermatologists	1	1	0	100%
Anaesthetic Officers	5	3	2	60%
Orthopaedic Officers	11	8	3	72%
Physiotherapists	4	1	3	25%
Occupational Therapists	3	2	1	66.6%
Ophthalmological Officers	3	3	0	100%
Radiographers	5	3	2	60%
Laboratory Staff	14	12	2	85.7%
Dental Officers	6	4	2	66.6%
Dispensers	5	2	3	40%
Psychiatric Officers	7	6	1	83.7%
Theatre Assistants	4	3	1	75%
Others	7	2	5	28.3%
Total	**97**	**69**	**28**	**71%**

Source: Lira RRH Human Resource Report (2013)
GRRH: Government Regional Referral Hospital

With regard to Table 7, allied health professionals form the second largest group of health workers (15.9%) of the total staff requirement (as computed from Table 7). Additionally, the current norm makes up 71% of the required numbers. Results also indicate that all approved posts for pharmacists are vacant while, all approved posts for Dermatologists and Ophthalmological officers are filled. It further reveals that, there are still vacant positions for clinical officers, anaesthetic officers, orthopaedic officers, radiographers, laboratory staff, dental officers, dispensers and psychiatric Officers.
An interview with some Allied Health Professionals in Lira RRH elicited the following responses:

"Critical categories still missing in this hospital are dispensers and physiotherapists yet Allied health professionals cumulatively carry out a large volume of both mental and physical work. This category also comprises a varied category of personnel with skills in various areas of clinical, rehabilitative and supportive health care. The varied disciplines compliment and strengthen clinical work" (Respondent Lira RRH, 2013).
In similar voice, a patient interviewed in Lira RRH said: Sometimes it is a struggle seen a doctor in this hospital. I do not know why the government cannot employ enough health workers (patient in Lira RHH)

The results in Table above indicate that the approved ratio of pharmacists to dispensers is ill: 2.5. Results however, reveal that the hospital has no pharmacist. By implication, dispensers perform the roles of pharmacists. Further, one should note that, pharmacists and dispensers, though performing complimentary tasks undergo different trainings. Since in ideal circumstances pharmacists are expected to supervise the dispensers, it implies that, dispensers lack immediate technical supervision and are overwhelmed by work. The observed task shifting has no policy support in terms of employee protection and patient safety as echoed in the interviews.

Skill Mix of Health Professionals in Mbale Regional Referral Hospital (MRRH)

The hospital is located in the heart of Mbale Municipal Council. Mbale Regional Referral Hospital has a bed capacity of 60,000 patients and a bed occupancy rate of 88%.The average length of stay is 3 days with an average annual outpatient attendance of 100,000 (Annual Hospital Human Resource Manual (2011).

Table 8: Skill mix in terms of combination of posts for Staff in Mbale Government Regional Referral Hospital

Staff category	Approved Posts	Filled posts	Vacant posts	Percentage
Doctors	38	22	16.16	57.9%
AHP	82	70	12	85.4%
NS/MW	200	179	21	89.5%
F/A	32	21	11	65.6%
Support staff	81	80	1	100%
Total	**433**	**373**	**61**	**86.1%**

Source: Mbale RRH Reports (20l3)
AHP: Allied Health Professionals
NS/MW: Nurses and Midwives
F/A: Finance and Administration

Results in the Table 8 indicate staffing positions of Mbale Regional Referral Hospital at 86.1%. The Table reveals that Mbale government regional referral hospital critically needs doctors, with 50% of the positions vacant. Allied health professionals, nurses, and midwives categories, though not fully filled, are all above the 68.5 national minimum requirement.

An interview with some of the administrators in Mbale RRH elicited the following responses:

"The hospital, according to the ministry of health, is filled up to 93 percent and yet there are other hospitals out there that are below this. So we are usually restricted to recruit only for rural health centers" (Respondent Mbale regional referral hospital)."We have been put at 83 percent medical staffing level but, this number does not cater for those who retire, and who die each year. We have more nurses but, few midwives. This number is, too low for a referral hospital" (Respondent Mbale regional referral hospital). The interview responses confirm the inadequacy in staffing, which is worsened by restriction in recruitment. It also affirms that, the ministry does not have the actual staff requirements per hospital.Results in Table above show that, the approved doctor to nurse ratio for Mbale RRH is 1:5. According to the filled posts however, the doctor to nurse ratio is 1:8. By implication, eight nurses are under the instruction of one doctor. Like Lira, Hoima, and Jinja regional referral hospitals, Mbale hospital faces a

critical lack of doctors. This collaborated with results in table above showing that, the hospital grossly lacks consultants. By implication, medical officers undertake much of the consultants' work (task shifting).

Findings from Table 8 further reveal better staffing levels of Allied Health professionals Mbale RRH. Interview responses indicated that this category of staff usually take over cases meant to be handled by doctors (task shifting). In the ophthalmology department, where the hospital lacks both a senior consultant and a consultant ophthalmologist, ophthalmological officers handle routine ophthalmological cases. Further, the 100% staffing level of ophthalmological clinical officers as reflected in Table above (Mbale Regional Referral hospital Human Resource Report, 2013) could be due to their high retention rate and a much lower cost of employment, as opposed to that of ophthalmologists. The visiting senior consultant ophthalmologist from Jinja hospital reviews patients occasionally, a typical

case of task shifting. Inter-regional referral hospital collaboration is hence, an important area that hospitals are engaging in to ameliorate staff inadequacies (especially among the highly qualified cadres). The effectiveness of this approach however, largely depends on the flexibility of the administration of hospital to which the consultant is permanently attached, as well as time available and the will of the consultant to serve patients in an extra hospital. It also implies that emergencies requiring specialist attention are referred to either Mulago National Referral or Jinja hospitals, where the senior consultant ophthalmologist is based. The danger is that, only those with financial resources progress to get the treatment. The poor may have to wait until the specialist comes. Such as cases may degenerate into advanced stages of illness, sometimes resulting into disability (blindness). It therefore, may not be an appropriate strategy especially in instance where there is no proper guiding policy framework.

Table 9: Skill   mix in terms of combination of posts for Doctors in Mbale GRRH

Staff category	Approved posts	Filled Posts	Percentage of Filled	Vacant Posts	Percentage of Vacant posts
Senior Consultant	4	3	73%	1	27%
MOSG	11	6	54.5%	5	45.5%
Consultant	11	1	9.0%	10	91%
Medical Officers	12	12	100%	0	0%
Senior dental surgeon	0 0	0	0%	0	0%
Senior Consultant Ophthalmologist	0	0	0%	0	0%
Total	**38**	**22**	**57.9%**	**16**	**42.1%**

MOSG: Medical officer special grade

Table 9 illustrates the distribution of cadres in the doctor category. Findings in Table 9 indicate a severe lack of consultants (91%). Results indicate that the MOSG category is below the 68.5 required national minimum. The table however, shows that all approved positions for medical officers, are filled.

An interview with a medical officer at Mbale RRH elicited the following responses:

"As a result of poor pay, almost 100 percent of consultants and senior consultants not available. They prefer working in Mulago hospital, where they can easily take on moon lighting" (Respondent, Mbale RRH). The response

from the interview, confirms the acute lack of consultants and senior consultants in Mbale regional referral hospital.

Table 10: Skill Mix in terms of combination of posts for Nurses and midwives in Mbale GRRH

Category	Approved posts	Filled Posts	Vacant Posts	Percentage of Vacant posts
SPNO	1	1	0	100%
PNO	1	1	0	100%
SNO	18	18	0	100%
Nursing Officers	68	42	26	61.7%
Enrolled nurses	44	45	-1	102.2%
Enrolled midwives	26	31	-5	119.2%
Nursing assistants	0	0	0	0
Psychiatric Nurses	5	4	1	80%
Midwives	30	24	6	80%
Enrolled mental nurses	7	13	-6	185.7%
Total	**200**	**179**	**21**	**89.5%**

Source: Mbale RRH Reports (2013)
GRRH: Government Regional Referral Hospitals
SPNO: Senior Principal Nursing Officer
PNO: Principal Nursing Officer
SNO: Senior Nursing Officer

Findings in the Table 10 show that all high-level nursing positions are filled (SPNO 100%, PNO 100%, and SNO 100%). Nursing officers however, are below the 68.5% required national minimum. The Table further reveals that Enrolled Nurses, Enrolled Midwives, and Enrolled Mental Nurses are above the required established positions (102.2%, 119.2%, and 185.7% respectively). Overall, the percentage staffing rates of nurses and midwives in Mbale Regional referral hospital is at 89.5% well above the required 68.5% national minimum.
An interview with one of the midwives at Mbale RRH elicited the following responses:
"There are always two midwives at night catering for about 17 women who give birth almost the same time. Here, being overwhelmed with patients is normal because, the medical team is inadequate" (Respondent Mbale regional referral hospital). A care-taker in Mbale RRH whom I interacted with at the Obstetrics and Gynecological ward said: "I brought my wife here at night, but was only able to see a doctor this morning. At times, it is by God's grace that some of these people survive. I even do not know whether the government really understands the staffing situation in this hospital". Care-taker in Lira RRH). The voices of participants confirm that nurses are few compared to over-whelming patient numbers.
There is a disparity in nurse numbers as per the approved positions by the MoH and the actual, as is seen at the hospital. While results in Table 10 indicate overstaffing of mental nurses, enrolled midwives and enrolled nurses, evidence from interviews revealed, inadequate numbers to satisfactorily attend to patients. It was revealed that the

catchment area served by Mbale hospital has since widened, leading to large patient populations. The MOH has not upgraded hospital establishments for long hence giving an under-estimation of the situation.

Table 11: Skill mix in terms of combination of posts for Allied Health professionals in Mbale RRH

Staffing Category	Approved Posts	Filled Posts	Vacant Posts	Percentage (%)
Pharmacists	2	1	1	50%
Social workers	3	3	0	100%
Clinical officers	12	9	3	75%
Nutritionist	1	1	0	100%
Psychiatry Officers	8	5	3	62.5%
Ophthalmological Clinical Officer	5 5	5	0	100%
Aesthetic Officers	5	7	-2	140%
Theatre Assistants	3	3	0	100%
Dispensers	10	6	4	60%
Orthopedic Officer	5	3	2	60%
Orthopaedic Workshop	4	3	1	75%
Physiotherapists	6	4	2	66.6%
Radiographers	4	4	0	100%
Dental officers	4	6	-2	150%
Laboratory staff	10	10	0	100%
Total QUrce: Mbale RRH Reports	**82**	**70**	**12**	**85.4%**

Source: Mbale RRH reports (2013)

RRH: Regional Referral Hospital
Allied health professionals form the second largest group of health workers (16.2%) of the total staff requirement (as computed from Table above). Results in Table (above) show that, the current norm makes up 85.4% of the required numbers. Critical categories still missing are dispensers (60%), physiotherapists (66.6%), orthopaedic officers (60%), psychiatric officers (62.5%) and pharmacists (50%) all below the required minimum by the MOH. Results from interviews revealed that, Allied health professionals cumulatively carry out a large volume of both mental and physical work.

Results in Table 11 further indicate categories that are seen as overfilled: dental officers (150%) and Anaesthetic officers (140%). The hospital assessment however indicates that the numbers are still not adequate for the current patient workload. Interviewing some Allied Health Professionals elicited the following responses: "Although we have an X-ray unit supposed to be manned by three workers, there is only one staff member. Ultra sound, CT scan, and radiography departments are, inadequately staffed" (Respondent Mbale regional referral hospital). "While statistics indicate over-staffing, the hospital has several operating theatres

necessitating a bigger number of anaesthetic officers than staff numbers approved before the expansion of the hospital. The relatively overstaffed Dental Officer posts, is attributed to staff, who had upgraded to this post, and were retained by the hospital due to the heavy patient load, than earlier anticipated" (Respondent Mbale RRH, 2013).The voices point to the fact that the staffing is inadequate. Additionally, they reveal variation between data at the MOH headquarters and that at the hospital regarding the staffing. Further, results reveal need for the ministry to update its formation on the actual staffing situation at various hospital levels.Corresponding evidence from interviews revealed that, at the time of establishment, the hospital had only one operating theater. Observation of the facility indicated that the hospital has operating theaters at; the outpatient department, the private wing (Masaba wing), at the gynecology and obstetrics ward and, a major operating theater. Dental care portrayed a similar situation. By implication, the assumed overstaffing of most posts of dental and anaesthetic officers results from either information gaps between the ministry and the hospital, or delay in updates.

Theme One, Three: Skill mix of Health Professionals in Hoima Government Regional Referral Hospital

Table 12: Skill Mix in terms of combination of posts for Hoima Regional Referral hospital

Category	Approved Posts	Filled Posts	Vacant Posts	Percentage (%)
Doctors	36	15	21	41.6%
Allied Health Professionals	68	42	26	61.7%
Nurses and Midwives	108	91	17	84.2%
Finance and Administration	36	21	15	58.3%
Support staff	61	59	02	96.7%
Total	**309**	**228**	**81**	**73.7%**

Hoima Hospital Report 2013

The results in Table (12) indicate that the current staffing position of Hoima regional referral Hospital is at 73.7% of the approved posts. Further, the available number of filled posts is still grossly inadequate. Critical categories of missing staff include Doctors (41.6%) and Allied health professionals (61.7%) in the health professional category; and finance and administration (58%).

Results in Table (above) further reveal that positions relatively filled include those of nurses and midwives (84.2%) and support staff (96.7).

An interview some of the administrators in Hoima RRH elicited the following responses:

"The hospital in fact is facing an acute shortage of staff. Even in such a situation we are not in position to recruit, because the government has put a ceiling on staff recruitment. The recruitment of staff is controlled by the centre ministry of Health. The ministry does not seem to understand the reality on the ground" (Respondent, Hoima RRH, 2013). Being teaching hospital, students from Hoima nurses' training school help in filling some gaps; especially, those in their third year of training. There is also a programme of in-service training for nurses. These are nurses from health center IVs on capacity building. When in this hospital, they are attached to different wards to practice.These two categories, to some extent help build up numbers of health workers' at work" (Respondent,

Hoima RRH 2013). Reacting in affirmative, a patient at the out-patient clinic in Hoima RRH said: These young nurses are very active; when you approach her she will run around until she finds a doctor to examine you. The older nurse sometimes take their time patient Hoima RRH). Interviews confirm that students from nurses' training school and in-service nurses in filling some gaps in the staffing.

Table above shows an approved doctor to nurse ratio for Hoima RRH of 1:3 while the filled positions account for a ratio of 1:6. Similarly, the table indicates that the approved Allied Health Professionals to nurse ratio is 1:2, tallying with the filled positions of the same category of health workers. By implication, nurses constitute a predominant percentage of health professionals in Hoima Regional Referral Hospital. In addition, the facility has an acceptable number of Allied Health Professionals but an acute shortage of doctors.

By further implication, it is much easier for a patient to access the services of an Allied Health Professional than it is to access the care of a doctor. This also indicates that the few doctors available are constrained by work, especially after revelation that in addition to the medical practice, they hold administrative positions in the hospital. Specifically, interviews revealed that, the hospital director is a surgeon while, other two doctors are heading the hospital research committee. Hence, few doctors available have to see patients, attend strategic planning meetings, conferences and workshops. This constrains these professionals from playing their expected roles, especially of supervising their juniors as they practice, and lower health units under their jurisdiction. Consequently, patients expected to get treatment from lower health facilities crowd at the referral hospital. Driven by the prime health medical etiquette to save life, the lower trained health professionals carry on the tasks that doctors would ideally carry out (task shifting). The danger however, is that there is no guiding policy on task shifting protecting staff and patients under this practice.

Table 13: skill mix in terms of posts for doctors in hoima regional referral hospital

Category	Approved Posts	Filled Posts	Vacant Posts	Percentage (%)
Senior Consultant	4	1	3	25%
Consultant	9	3	6	33.3%
MOSG	11	3	8	27.2%
Medical Officer	10	6 6	4	60%
Senior Dental Surgeon	02	2	0	100%
Total	**36**	**15**	**21**	**41.6%**

Source: Hoima Hospital Report, 2013

MOSG: Medical Officer Special Grade

While the summary in Table above indicates a general critical lack of doctors (41.6%),Table 13 shows the distribution of different cadres in this category. Results in Table 13 indicate that the hospital is in an acute lack of doctors, with four of the five cadres in this category below the minimum requirement of 68.5% of the MoH.The hospital has only one senior consultant (25%) who the researcher was informed soon to retire.

An interview with one of the administrators at Hoima RRH elicited the following responses:

"We have only one senior consultant. She sees patients only on the gynecology ward. Even the only one that we have has reached her retirement age. Soon the hospital will be without a

senior consultant unless the ministry does something" (Respondent, Hoima RRH, 2013).The results of interviews confirm that Hoima government regional referral hospital is in an acute lack of consultants.

Table 14: Skill Mix in terms of Combination of Posts for the Nursing Cadre in Hoima RRH

Category	Approved Posts	Filled Posts	Vacant Posts	Percentage (%)
SPNO	1	1	0	100%
PNO	1	1	0	100%
SNO	10	10	0	100%
Nursing Officers	30	19	11	63.3%
Enrolled Nurses	40	37	03	92.5%
Enrolled Midwives	20	18	02	90%
Nursing Officer M/W	06	05	01	83.3%
Total	**108**	**91**	**17**	**84.2%**

Source: Hoima Hospital Report, 2013

SPNO   :   Senior Principal Nursing Officer
PNO   :   Principal Nursing Officer
SNO   :   Senior Nursing Officer
M/W   :   Midwife
RRH   :   Regional Referral Hospital

Nurses and midwives make up the second largest percentage of human resource in the hospital (84.2%) after the support staff (96.7%), as indicated in Table above. Results in Table above show that all the higher-level nursing positions are filled: SPNO 100%, PNO 100%. Results further reveal that of the seven categories in the nursing cadrer, the position of nursing officers (63.3%) is relatively understaffed.

Table 15: Skill Mix in terms of combination of posts for Allied Health professionals in Hoima RRH

Category	Approved Posts	Filled Posts	Vacant Posts	Percentage (%)
Clinical officers	14	10	4	71.4%
Anesthetic Officers	4	4	0	100%
Orthopedic officers	4	4	0	100%
Physiotherapists	2	2	0	100%
Occupational therapists	1	1	0	100%
Radiographers	4	1	3	25%
Audio logical technologists	1	1	0	100%
Psychiatry	7	4	3	57.1%
Ophthalmic officers	5	2	3	40%
PHDO	4	3	1	75%
Laboratory staff	12	5	7	41.6%
Pharmacists	4	1	3	25%
Dispensers	4	2	2	50%
Nutritionist	1	1	0	100%
Medical social worker	1	1	0	100%
Total	**68**	**42**	**26**	**61.7%**

Source: Hoima Hospital Report, 2013
PHDO: Public Health Development
RRH: Regional Referral Hospital

With regard to Table above, Allied Health Professionals form (61.7%) of the total staff. Results in Table 15 also show that, the current staffing level makes up 61.7% of the required numbers. Critical categories still missing are dispensers (50%), ophthalmological officers (40%), Laboratory staff (41.6%), psychiatric officers (40%) and pharmacists (25%) all below the required minimum by the MoH.Like the norm in other hospitals, this category comprises a varied category of personnel giving a typical skill mix of personnel with skills in various areas of clinical, rehabilitative and supportive health care.
Theme One, Four: Skill Mix in terms of combination of posts in Vertical Programmes in Government Regional Referral Hospitals in Uganda
Respondents reported that vertical programs such as immunization and HIV/ AIDS care were successful because of incentives, including better salaries, field and transportation allowances, streamlined management, specialized training, better facilities and material resources, and results-oriented management to support improved health worker productivity and program performance. Additionally, respondents said that their goals were well specified, understood, shared by staff, and often linked to incentives. All administrators in the four hospitals visited agreed that, preference for vertical structures largely reflects the perceived difficulties of using existing health systems, with their

excessive bureaucracy, under funding, and lack of capacity to implement integrated disease control. Despite the advantages associated with preference for vertical programmes in health care, it was revealed that most hospitals were

under staffed compared with the expected national staffing levels. There is also variation in the extent of staff inadequacies with some facing a greater staffing crisis than others.

Table 16: Skill Mix in terms of combination of posts in Vertical programmes Compared with National Staffing Standards

Seriously understaffed<60% positions filled		Understaffed 60-90% positions filled		Adequately >90% positions filled	
Hoima	55%	Lira	88%	Jinja	125%
-	-	Mbale	80%	-	-

Source: human Resource Assessment report, 2012

Table 16 shows that Hoima Regional Referral Hospital is seriously understaffed, having fewer than 60 % of the allocated posts filled. Only one hospital (Jinja) exceeds the existing MoH staffing standards.
An interview with one of the consultants at Jinja RRH elicited the following responses:
"Although all positions in Jinja hospital appear to be occupied, as per the MoH standards, we need additional staff

based on our own assessment of client loads. The Ministry of Health staffing norms bases on out-dated bed capacities. Consequently, staffing compared with current norms does not provide a good indicator of actual positions required" (Respondent, Jinja RRH, 2013. Findings from interviews reveal that, the staffing norm at the ministry is out-dated, leading to inadequate staff projections for government regional referral hospitals.

Table 17: skill mix in terms of Staff Required for HIV I AIDS Services per hospital per year

Hospital ~ospital	2011Art clients	Staff needed	2012 ART clients	Staff Needed	2013 ART clients	Staff needed
Hoima	1,900	-6	2,848	-2	3,696	2
Jinja	1,447	-17	1,861	-15	2,414	-13
Lira	4,438	6	5,735	10	7,442	16
Mbale ~e	3,502	-3	3,986	-1	5,173	5

Source: Human Resource Assessment Report, 2012

ART: Anti-Retroviral Therapy

Estimates in Table 17 are particularly informative when compared with current staffing at the HIV/AIDS clinics. The above Table shows a comparison of total staffing requirements for 2011, 2012, and 2013. Results reveal that, Lira GRRH currently requires additional staff in the year 2013. Accordingly, all hospitals, except Lira have relatively adequate staff to handle existing client loads. Jinja RRH had an excess of 17 staff. It is also notable that Jinja

Hospital is the only GRRHof the four in which overall staffing grossly exceeds the national staffing norm.
An interview with a medical officer in Mbale RRH elicited the following voices: "There are some challenges that need to be urgently addressed such as a shortage of medical workers and lack of supplies" (Respondent Mbale regional referral hospital. The results further indicate staff shortages even in vertical programs, including the HIV/AIDS

Services. Additionally, there is a progressive increase in the number of HIV/AIDs clients in all the four Government Regional Referral Hospitals from 2011-2013. Findings also reveal that all hospitals have adequate staffing levels in all hospitals, an aspect that partly explains the increase in HIV/AIDs clients. Accordingly, adequate staffing, with an appropriate mix of personnel (as reflected in Table 17), has a positive correlation with quality of care. The excess number of staff is due to diverse categories of staff that is; some are contractual while Non-Governmental Organizations like SUSTAIN (Table 17) fond others. In addition to those already employed by government in the same hospital.

Results in the Table also give evidence of task shifting, multi-tasking, task sharing and teamwork. This collaborates with findings from interviews and observation. The success observed in

HIV/AIDS care is further attributed to social capital, since social Networks enable the transfer of some types of resources (for example knowledge and support). [42] Claim that centrality of a person in a team has an impact on job satisfaction, and on job performance [43]. Direct or indirect connections to many other persons generate a wider range of information, thereby aiding quicker solutions to problems. From this point of view, one can argue that advice and knowledge transferred among employees can help solve their problems and improve efficiency. Additionally, access to information reduces time wastage on both problem-solving and other often time-consuming methods of finding the necessary information. Additionally, connections through advice relations can also provide power and prestige especially through provision of information.

DISCUSSION

Findings indicate that distribution of roles in regional referral hospitals: involves the same service being offered by staff at different levels of training, tasks shared by staff of the same cadre (task sharing), and tasks taken over by staff at lower levels of training (task shifting). In the researcher's opinion, for any form of skill mix, to be effective, capabilities and skills of the individual employee undertaking a particular task is significant. It therefore, becomes critical to assess each individual in his or her right without generalizing. This approach would also provide an opportunity to identify skill requirements of the individual employee and design proper mechanisms from personal development of the individual. Further, it reveals that skill mix in Regional Referral Hospitals shows, that services are distributed between Health workers employed by Government, staff seconded by NGOs and Volunteers. Partnership is an approach that the management in the MOH has used to try to ameliorate the inadequate staffing in GRRHs. However, the shortfall that partnership is limited too vertical programmes. Nevertheless, where partnership has been involved, the performance indicators have been good. Since most of the departments in all the four GRRHs investigated had

inadequate staff, seconding of staff from NGOs or other partners identified by the MOH would offer a viable solution to the staffing situation in these hospitals. The results and the above discussion, supports findings in a study by [40] which reported that, skill mix of health workers within a health facility significantly affects the delivery of health care services. It is also in congruence with findings in a study by), on determining staffing levels and mix of Uganda Catholic Medical Bureau (UCMB) affiliated hospitals, which revealed that, levels, and skill mix of health professionals is a major determinant of quality of services. In conformity to the above finding, studies by [44]; and [45] revealed that while, Psychiatric disorders are extremely common, in Africa, with only one psychiatrist per million, non-psychiatrically trained health workers, whether working in hospitals or communities, are able to effectively deal with common disorders. Further, is supported by the finding in this study that, tasks supposed to be carried out by consultants, due to shortage in numbers, were found to be handled by medical officers special Grade.

Regarding interpersonal skills, results revealed that respondents were very good at effective listening (mean = 4.28)

as well as at relating well with people (mean = 422). They were also good at helping others (mean = 4.10); being sympathetic to others mean = 4, 05); and being sensitive to others (mean = 3.96). This is because health professionals tend to have the wish to help patients. This study also revealed that health professionals tend to build rapport with their patients

"Essential to health care is effective written, spoken and non-verbal communication skills. For others to regard them serious, nurses ought to express themselves clearly to patients and other health professionals. They must strengthen their ability to say what they mean and must say it well. As a health worker, effective communication to clients relies upon active and thoughtful listening" (Respondent, Hoima RRH). Generally, this study showed that health professionals in government regional referral hospitals have high levels of interpersonal skills. By implication, skills are relevant to health professionals in medical practice. This finding supports studies that have demonstrated the relevance of interpersonal skills: [46] reports that "client satisfaction is not derived from technical skills alone. In fact, personality traits, along with other non-technical skills, such as communication and business knowledge, were considered key to satisfaction." [47], [48] generally showed that effective listening skills are a valuable communication skill for successful employees. Further, [49] specifically indicated that empathetic skills contribute to performance [50] too is in agreement with this finding. While, [51], recognize the significance of soft skills, it extends their relevance to management. Further, their study found that, soft or people issues are the fundamental concerns for organizational management in quality planning and creation of an appropriate working condition to enhance performance.

This finding supports the social capital theory, which provides a useful argument for the mechanisms through which proactive employees may achieve high-level performance [52].

Additionally, the theory argues that one's relationship network determines the extent, to which one can gain access to information, influence, and effect change within an organization [53]. Results show that health professionals were particularly very good at accepting responsibility, making decisions, acting in emergencies, identifying and solving problems. This is similar to several study revelations, which have demonstrated that use of case managers to coordinate services to elderly clients has been beneficial. A study by [54] revealed that a primary responsibility of nurses is teaching to promote health. Similarly, a study by [55] revealed that employers and workers also feel generic skills, such as problem-solving, communication and ability to work in teams, are increasingly important for work place success. Results generally pointed to variations in levels of skills exhibited by health professionals in their practice. Several previous studies support these variations in the levels of skills. Results of a study by [56] on managers in Nigeria revealed a variation in importance of different skills in the attainment of specific performance goals. In this study that seeks to establish the relationship between skills, motivation and health professionals' performance in government regional referral hospitals in Uganda, it was also observed that interpersonal, verbal and written communication, and teaching and counseling skills appear to be more important in attaining performance goals of health professionals. Overall, the discussion on skill mix highlights, social capital and human capital theoretical perspectives in explaining skill mix of health professionals in government regional hospitals in Uganda. Further, it depicts that, performance of health professionals does not only manifest from numbers of health workers at a facility. Leadership and ability to strategically, place the health professionals at work are a key factor. It is also largely true that, appropriate staff numbers once known, would also ensure proper placement of health professionals.

CONCLUSION

An appropriate skill mix will largely reduce the effects of health workforce shortages. The skill mix between different cadres of health professionals represents significant advancements in performance of health professionals amidst staff shortages.

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