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Effect of Organizational Environment on Retention of Health Workers in Hard-to-Reach Areas of Turkana County

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Abstract*: Health system management is a paradigm shift that emphasizes on deeper understanding of the dynamism, relationships, interactions and behavior of elements of the health system away from the disease specific approach. The study was anchored on Maslow's hierarchy of needs theory and Vroom's expectancy theory. The study made use of a descriptive research design. The target population were the health workers in Turkana County. From the population of 651 health workers, the study picked a sample of 248 health workers through stratified random sampling technique. Primary data was gathered through structured questionnaires which were self-administered. SPSS was employed for analysing the data in descriptive form. The outcome was presented in bar charts, graphs and pie charts and in prose for easier undemanding. The study also used inferential statistics to establish the relationship between the study variables. The study found and concluded that job-related incentives and task-related characteristics were significant factor in influencing retention of health workers in hard-to-reach areas of Turkana County with significance values of .000 and .001 respectively. Further, the study concludes that organizational environment and work-life balance were insignificant determinants of retention of health workers in hard-to-reach areas of Turkana County with significance values above .05 as .486 and .105 respectively. The study recommends that in order to promote the Organizational Environment the Turkana County department of health should install a programme aimed providing training and refresher courses aimed at promoting the relationships and professionalism in their everyday activities in their respective medical fields. Further recommends that in order to promote the work-life balance the ministry should develop a timing schedule which promotes the flexibility aimed at balancing the personal life of health workers with their jobs which would encourage them to stay. Also recommends that in order to promote job-related incentives the county department of health should strengthen the existing programs which promotes the training opportunities in the hospital which would eventually influence the decision to stay. Finally recommends that in order to promote task-related characteristics the county government should focus on giving the staff autonomy in making some decision or being innovative which allows the workers to put into practice their skills and abilities thereby promoting the satisfaction and eventually promoting retention.

***Keywords*: organizational, environment, retention, health workers, Turkana County.**

1. Introduction

A. Background of the Study

Health system management is a paradigm shift that emphasizes on deeper understanding of the dynamism, relationships, interactions and behavior of elements of the health system away from the disease specific approach. (WHO, 2007). HSM is made up of six pillars: service delivery, Human resource for health, Health information system, medical products and supply, financing and leadership and governance. The study is anchored on the Human resource for health pillar and more so on factors affection retention of health workers in hard-to-reach areas of Turkana County.

Retention of health workers is problematic in rural areas, and increasing level of remoteness intensifies the acuteness of workforce shortages as well as the burden of disease (Campbell, McAllister, & Eley, 2017). Literature review in narration form was directed to discover the variables which decide the ability of wellbeing labourers to remain and work in provincial and far off settings (McAuliffe, et al., 2016). Moreover, assertion has been made regarding the essential nature of health workforce in achieving key health policy goals and targets such as Millennium Development Goals (MDGs) and its successor Sustainable Development Goals (SDGs), as well as Universal Health Coverage (UHC) (Herbst, Campbell, Scheffler, & Lemiere, 2016). Nonetheless, not only are rural and remote areas disproportionately affected by general shortage of health workers, these areas also suffer more severe forms of workforce attrition, lower densities of practitioners and skill-mix imbalances (Zurn, Poz, Stilwell, & Adams, 2004; Agyepong, et al., 2017).

Globally, no single country has been able to completely resolve the issue of health workforce mal-distribution (Waters, et al., 2013). Nonetheless, hard-to-reach or rural and remote areas continue to be underserved due to undersupply of appropriately qualified workforce hence lack of access to needed health services (Ono, Schoenstein, & Buchan, 2016). As Strasser et al. (2016) point out, rural practitioners tend to engage in practice environment that is significantly different from their metropolitan counterparts, leading to high turnover rates and reduced motivation among the healthcare professions.

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Thus, according to Dolea (2016), there is need for an expanded understanding of issues ha make the health workers choose to say or leave the remote areas.

Kenya is exemplified by fewer imbalances in rural-urban HW availability remains an enduring challenge (Ministry of Health, 2014). Interplay of complex factors makes intervening to address underlying issues problematic. Health workers were given incentives to compensate them for working in remote and isolated conditions. (Peña, et al, 2016).

Importantly, since hard-to-reach area is not a monolithic term referring to similar underlying conditions, it is essential to clearly delineate the factors which influence decisions to accept and/or stay in a remote post that are context-sensitive (Robyn, et al., 2015). Accordingly, this study will be conducted in hard-to-reach areas in Turkana County. Turkana County is one of the most highly remote counties in Kenya. It is an arid north of Kenya the in a region considered hardship area, due to prolonged seasons of very dry spell and general inadequate water supply, experiences conflict from neighbouring communities and has limited transport infrastructure. This makes the county a suitable study location in order to broaden current understanding of how a confluence of factors affects retention of HW in hard-to-reach areas.

B. Problem Statement

As at the year 2013 before devolution started working in Kenya, in Kenya, there 70,000 people served by 1 and 5,200 served by 1 nurse (the WHO recommends 23 doctors, nurses and midwives per 10 000 population). Additionally, the average distance between health facilities was 50 kilometres against the World Health Organization's recommended distance 5 kilometres.

After the onset of devolution, Turkana County has reduced the distance between health facilities from 50 to 20 kilometres by converting 39 dispensaries into health centers, and building and equipping 90 new dispensaries (KWFR, 2017). Additionally, Turkana County adopted the incentive framework for attracting and retaining health workers, in partnership with the national Ministry of Health. Key among the incentive framework aims was improving working conditions and making posts in undeveloped and hard-to-reach areas more attractive (Okibo, et al., 2018). However, despite the measures put in place to retain health workers in Turkana there is still a high rate of HWs turnover. Turkana County is one of the counties with fewer nurses than 1 per 10,000 populations at 0.9 a ratio of 0.3 per 10,000 populations for clinical officers. The health workforce to population ratio in Turkana is 73% below the national rate; in every 10,000 persons in Kenya, the average percentage of a healthcare worker in Kenya is approximate 13.8% (KWFR, 2017). This study thus aimed at establishing the factors that affect retention of health workers in the County.

2. Literature Review

Wakio (2019) carried out a study on the influence of work environment on employee retention in level four and five hospitals in Machakos County. The study population was 742 employees who included Medical Superintendents, heads of departments, medical officers, clinical officers, nurses and support staff. A sample of 86 employees was selected. The study utilized descriptive survey design. The data was collected using questionnaires. The data were then analysed both inferential and descriptive statistics using the Statistical Package for Social Sciences (SPSS) version 24.0 and the findings indicates that, availability of hospital resources, good management support and strong co-workers' relationship motives and encourages workers to stay in one facility for long.

Kiwanuka, et al., (2017) carried out a study on the effect of organizational environment on long-term maintenance of health workers in three rustic areas in Eastern Uganda. A distinct subjective investigation investigated the variables that roused wellbeing laborers to remain, in three rustic areas of Uganda. Top to bottom meetings directed among wellbeing laborers who had been held for in any event 10 years investigated factors persuading the wellbeing laborers to remain inside the region, openings, and the advantages of remaining. The study established an insignificant effect of organizational environment on long-term retention of health workers.

Kartika (2019) also worked on effect of organizational environment remote setting of Indonesia on health workforce retention in rural. A literature review that was in narration form was directed to discover the variables which decide the ability of wellbeing labourers to remain and work in provincial and far off settings. Around 204 articles at first evaluated and 16 articles met the consideration standards. They comprised of the combination of quantitative, subjective and blend technique examines. The study established that the organizational environment had a significant effect remote setting of Indonesia on health workforce retention.

Lundstrom, Pugliese and Bartley (2017) led an examination because of authoritative and natural variables influencing maintenance of wellbeing laborers in country emergency clinics in USA. A cross-sectional, graphic overview was led in 8 emergency clinics in provincial emergency clinics. Information were gathered on single day in every clinic and all HPs on the job were mentioned to partake. 417 questionnaires were completed. The study established that teamwork, safety climate, job stress and burnout, staffing mix and duration of shift significantly affected health workers' retention in hospitals that are located in rural areas.

3. Methodology

The study used descriptive survey design. According to Creswell and Creswell, (2017) this design is used when the study seeks to acquire information about a phenomenon basically by posing question with an aim of evaluating behaviour, values, attitude and perceptions. The target population were health workers working in the five rural and remote sub-counties from the population of 651 health workers, a total of 248 people were included in the study through stratified random sampling technique, the strata being formed on the basis of designation. Primary data was gathered through structured questionnaires The questionnaires were administered through drop and pick method where the researcher will deliver the questionnaires in person at the respondents' work

environments. Approval was sought by the researcher from Science and Ethical Review committee (SERC) in Kenya Methodist University. National Commission for Science and Technology innovation (NACOSTI) authorized that the researcher can collect the data that will be used in this study.

4. Results and Findings

The organizational environment encompasses factors such as staffing mix, job stress and burnout, availability of resources, management support, workplace relationships, safety, and emotional well-being. Understanding how these internal workplace dynamics affect retention is vital for informing effective human resource policies in underserved areas.

The results in Table 1 indicate that job stress and burnout play a significant role in influencing health workers' decisions to leave their posts. A majority of respondents (47.9% agreed and 25.6% strongly agreed) affirmed this, suggesting that psychosocial stressors are a key contributor to staff turnover. These findings are consistent with previous studies, such as those by Mutale et al. (2013) in Zambia, which showed that burnout due to workload, emotional fatigue, and poor working conditions significantly influenced health worker attrition in rural areas.

Regarding the staffing mix, 38.4% moderately agreed, and another 41.2% (agree and strongly agree combined) indicated that imbalances in skill mix and insufficient staff influenced their intention to leave. This aligns with WHO's 2010 Global Policy Recommendations, which emphasized the importance of appropriate staffing levels and skill distribution to enhance retention in rural and remote areas.

Perceptions of safety and well-being in the hospital were relatively low, with only 28.5% (agree and strongly agree combined) expressing satisfaction, while a significant portion (40.7%) disagreed or strongly disagreed. This suggests that health workers feel inadequately protected or supported, which may impact their willingness to remain in service. Similar findings were reported in a study by Lehmann et al. (2008), which found that perceived safety particularly in remote and conflict-prone regions was a major factor in rural health worker retention.

The emotional distress linked to patient care was also identified as a factor, with 54% agreeing or strongly agreeing that it negatively affects retention. This highlights the need for psychosocial support mechanisms, such as peer counselling and mental health services, which have been found effective in other fragile health systems (e.g., Raven et al., 2014). The presence of teamwork within the hospitals was viewed less favorably, with only 33.6% agreeing or strongly agreeing that it enhanced retention, while nearly 48% disagreed or strongly disagreed. This points to potential issues in interpersonal dynamics or organizational culture. In contrast, studies in Rwanda and Ghana have shown that strong teamwork and collaborative cultures significantly reduce attrition (e.g., Dovlo, 2005).

Availability of supplies and equipment was also rated poorly, with 56.4% disagreeing or strongly disagreeing that resources were consistently available. This scarcity can compromise service delivery and increase frustration among health workers, making retention more difficult. This finding aligns with Dieleman et al. (2006), who identified resource constraints as a demotivating factor for rural health workers in several African countries. When it comes to management support, only 20.8% agreed or strongly agreed that they receive adequate backing from leadership, while over 50% disagreed or strongly disagreed. Lack of supportive supervision is a well-documented barrier to rural health worker retention, echoed in studies from Ethiopia and Tanzania. Finally, in terms of collegial respect, the results were more positive: 41.2% agreed and 19.4% strongly agreed that they enjoy respect from colleagues. Professional respect and social cohesion are key protective factors against burnout and turnover, as shown in studies like Willis-Shattuck et al. (2008).

In sum, the study reveals that several aspects of the organizational environment including job stress, poor staffing mix, low management support, and inadequate supplies negatively impact the retention of health workers in Turkana County. While respect from peers appears to be a strength, issues related to teamwork, emotional burden, and safety persist. Compared to other studies in Sub-Saharan Africa, the results reflect common challenges in rural health systems and point to the need for targeted strategies such as improved

Table 1
Organizational environment on retention of health workers

Test Item	Strongly Disagree	Disagree	Moderately Agree	Agree	Strongly Agree
	f (%)	f (%)	f (%)	f (%)	f (%)
Job stress and burnout influences the health workers to leave the hospital	4	18	34	101	54
	1.9%	8.5%	16.1%	47.9%	25.6%
Staffing mix influences the decision to leave the hospital	14	29	81	48	39
	6.6%	13.7%	38.4%	22.7%	18.5%
Safety and well-being in the hospital is well taken care of.	57	29	65	44	16
	27.0%	13.7%	30.8%	20.9%	7.6%
The emotional distress associated with patient care has a negative impact on retention in your organization	28	33	36	65	49
	13.3%	15.6%	17.1%	30.8%	23.2%
There is teamwork in the hospital which enhances retention	45	56	39	42	29
	21.3%	26.5%	18.5%	19.9%	13.7%
There's availability of supplies and equipment at the hospital	54	65	73	13	6
	25.6%	30.8%	34.6%	6.2%	2.8%
I have management support	48	63	56	26	18
	22.7%	29.9%	26.5%	12.3%	8.5%
I enjoy respect from colleagues	19	35	29	87	41
	9.0%	16.6%	13.7%	41.2%	19.4%

Table 2
Chi Square test organizational environment on retention of health workers

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.756[a]	8	.003
Likelihood Ratio	4.751	8	.004
Linear-by-Linear Association	.423	1	.006
N of Valid Cases	211		

management practices, resource allocation, mental health support, and team-building interventions to enhance workforce stability in hard-to-reach areas.

Inferential statistics were used to test the relationship between organizational environment factors such as job stress, staffing mix, safety, teamwork, availability of supplies, management support, and professional relationships and the retention of healthcare workers. By applying the Chi-Square test, the study sought to determine whether the observed patterns in responses were statistically significant and not due to random chance. These insights are critical in identifying actionable organizational factors that can be targeted to improve staff retention in challenging and remote healthcare settings like Turkana.

The Pearson Chi-Square value of 4.756 with a degree of freedom (df) of 8 and a p-value of 0.003 indicates a statistically significant association between organizational environment factors and health worker retention. Since the p-value is less than the conventional threshold of 0.05, we reject the null hypothesis that no relationship exists. This suggests that the conditions and perceptions within the organizational environment such as job stress, teamwork, managerial support, and availability of supplies do indeed influence whether health workers choose to stay or leave.

The Likelihood Ratio test also supports this conclusion, yielding a similar value (4.751) with a significance level of 0.004, further affirming the robustness of the association. The Linear-by-Linear Association, with a value of 0.423 and a p-value of 0.006, reveals a significant linear trend, indicating that as organizational environment variables improve or deteriorate, there is a corresponding change in health worker retention outcomes.

These statistical findings provide empirical support for the descriptive results discussed earlier. They reinforce the notion that unfavorable working conditions whether due to resource shortages, poor management, emotional strain, or lack of teamwork are not just anecdotal grievances but measurable influences on the stability of the health workforce in remote settings like Turkana.

Similar conclusions have been drawn in prior research. For example, Dieleman et al. (2006) found a strong statistical link between perceived organizational support and staff retention in rural Vietnam and Uganda. Additionally, Lehmann et al. (2008) highlighted the importance of improving institutional culture and support systems as a strategy for retaining healthcare workers in underserved areas.

5. Summary, Conclusion and Recommendations

A. Summary

The study revealed that the organizational environment significantly influences the retention of health workers in hard-to-reach areas of Turkana County. Factors such as job stress, staffing imbalances, and lack of management support emerged as key contributors to health worker attrition. Nearly 74% of respondents agreed that stress and burnout influenced their desire to leave, while staffing mix and inadequate supplies also ranked high as sources of dissatisfaction. Perceptions of teamwork and safety were generally poor, with more than half expressing discontent over these aspects. Conversely, professional respect among peers stood out as a positive factor, with over 60% acknowledging mutual respect in the workplace a potential asset to be strengthened for retention efforts.

Inferential analysis using the Chi-Square test confirmed a statistically significant association between organizational environment factors and health worker retention ($p = 0.003$). The study established that as conditions within the organizational setting such as support systems, supply availability, teamwork, and emotional well-being improve or worsen, they correspondingly impact the likelihood of staff staying in their posts. This evidence aligns with earlier descriptive findings and global literature that identify supportive environments as essential for retaining healthcare workers in rural and underserved areas. The analysis underscores the critical role of workplace dynamics in shaping retention trends and calls for urgent interventions.

B. Conclusion

The findings strongly suggest that organizational environment variables are not just peripheral concerns but central to health workforce stability in Turkana's remote areas. Improving staffing levels, enhancing management support, ensuring the availability of basic resources, and addressing emotional burnout through institutional policies and team-building efforts can significantly improve retention. A strategic investment in creating a more supportive, respectful, and resource-enabled work environment is vital for sustaining health service delivery in hard-to-reach regions.

C. Recommendations

i. *Improve Staffing Levels:* The Ministry of Health should ensure adequate staffing in hard-to-reach areas to reduce workload, minimize burnout, and improve retention among health workers.

ii. *Enhance Supportive Supervision:* County health management should adopt regular and constructive supervision practices that promote mentorship, recognition, and a sense of belonging among health workers.

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