

Factors Perceived to be Associated with Health Workers Retention in Public Hospitals: A Case of Ndola Teaching Hospital in Ndola District

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ABSTRACT

This study explored factors influencing health worker retention at Ndola General Hospital amid a global health workforce shortage. The study involved 154 health workers selected from a target population of 200 through stratified random sampling. Using a descriptive research design, data were collected via open- and closed-ended questionnaires and supplemented with secondary sources. Analysis was conducted using SPSS to report descriptive statistics using the Likert scale. Findings revealed a mix of intrinsic and extrinsic motivators influencing retention. While recognition (66.23%, mean score: 3.400), career growth (68%, mean: 3.234), and supervisory support (mean: 3.519) were rated positively, dissatisfaction with compensation was widespread. 59.74% of respondents were unhappy with salaries (mean: 1.909) and pay parity with qualifications (mean: 1.727). Fringe benefits and allowances also scored poorly (mean: 2.610). Furthermore, 38.96% strongly disagreed that adequate equipment and facilities were available (mean: 2.312), and 89.61% viewed the hospital infrastructure as outdated. Despite this, 83.12% acknowledged the availability of skilled colleagues for complex tasks. Social influences were a key factor in attrition, with 52.3% citing peer pressure to join better-paying private and NGO sectors, and 12% noting intergenerational workplace conflicts. Although intrinsic motivators like recognition and professional growth are present, they are overshadowed by systemic issues related to compensation, infrastructure, and external job markets. The study recommends targeted interventions to address these challenges and calls for broader, more inclusive future research to validate these findings.

Keywords: Retention, Job satisfaction, Health worker, Ndola Teaching Hospital

INTRODUCTION AND BACKGROUND

Retaining valued health workers can help to ensure they remain productive and engaged as well as provide continuity of care for patients. With so much at stake, it is easy to see why focusing on health care retention strategies is so crucial. Awolaja, (2023) defines employee retention as the ability of an organization to retain its employees. Good workforce is vital to ensuring well-functioning health services capable of delivering improved health outcomes. Understanding the key components surrounding the importance of measuring health worker turnover, learning how it affects patient care, and realizing what is needed to retain health workers is central to the resolution (Murray, 2020). Abdallah et al (2017) revealed that job satisfaction is positively related to organization commitment which may lead to dissatisfied employees being less committed to their organization's and seeking outside opportunities. Employee well-being is no longer just a buzzword: It's a tangible metric with significant implications on productivity and retention (Longmore, 2021).

Losing critical employees is an issue that organizations in all parts of the world are struggling with as there are tendencies to lack skilled employees as the world economy moves towards liberalization. The situation is in fact more serious in the medical profession where there is an uneven distribution of qualified health personnel between the developed countries and developing countries (Bwalya, 2021). Globally, there have been enormous health sector challenges among which the retention of sufficiently qualified and experienced healthcare personnel is the topmost challenge. As indicated by Manda et al (2023), that other than declaring that the global healthcare system struggles due to an increasing shortage of health workers, retaining the ideal health workers

has been a far too complicated problem than what is expected, which goes beyond the scarcity of health workers but also deteriorates the provision of services and patient care (Manda et al., 2023; WHO, 2016; WHO, 2010). To retain employees is not just a function of the dynamics of the composition of the workforce. It also has an adverse effect on the service instance of health care all over the world. Retention in healthcare settings carries significant implications, ensuring continuity in patient care, reducing costs associated with training and recruitment, and fostering team stability and morale. Developing countries carry the bigger burden of providing adequate basic medical care, WHO estimates that by the year 2030, there will be a global shortage of 15 million health workers (Tjoa et al., 2010). This shortage cuts across specialization within the health care work force and affects both clinical services and management functions. Interestingly, deficits in occupation predominates in deficits for individuals working as nurses because studies suggest nursing is pivotal in ensuring patient safety (Kim et al., 2021). The understaffed nursing levels often lead to a cumbersome workload and also increase perceived dissatisfaction of typical job (Matindo et al., 2015). The inadequacy of healthcare service providers clearly affects not only the distribution, but also other aspects of the quality of the services provided. According to Kim et al. (2021) one of the actively influencing intentions of healthcare workers is that of whether they would like to continue in that position for the foreseeable future. Kim et al. (2021) highlight that job satisfaction is the pleasing emotional condition resulting from the appraisal of one's job. This means that healthcare worker shortage is not just about the numbers; it also impacts the quality of the workforce because of their attitude which includes motivation and loyalty towards services they already provide and is critical in preventing health-care providers from leaving their current workplace. This implies that the shortage of healthcare workers is not merely a challenge of numbers but a qualitative one, influencing the morale and commitment of those currently in-service delivery.

In addition, facility and contextual elements such as the presence of operational tools and the opportunities for obtaining employment in a country's capital and its provinces have been found to be essential for attaining provider retention (Kim et al., 2021; Matindo et al., 2015). Matindo et al. (2015) have appropriately noted a problem of unproportionate distribution of health care workers both in developed and developing countries exists. Kim et al. (2021) emphasize that it is important to determine the contribution of provider, facility, and contextual factors on job satisfaction and intention to remain in job of doctors, nurses, and other clinicians providing obstetric care in Zambia. In this regard, the study is expected to help in informing the development of interventions that will promote healthcare provider job satisfaction and retention in sub-Saharan Africa at large (Kim et al., 2021). de Vries et al. (2017) addressed salient factors found to affect retention such as; personal attributes; job requirements; working environment; interaction at work and company values amongst others. It has been noted that most of these aspects include addressing job satisfaction, career advancement initiatives and work life balance as an introduction to quality improvement.

Previous research in the Zambian context has more often focused on health worker motivation only, leaving a gap in understanding the factors influencing the motivation and retention of primary health workers in rural facilities (Manda et al., 2023). Zambia's health problems arise from the country having less than 49 health care workers for every 10000 people, which is far below that threshold because of migration (WHO, 2023; Wilson Center, 2023). Farina and Lamichhane (2018) contend that over half of Zambia's medical professionals that leave the country do so in search of better salary and training advancement in foreign lands. This presents evidence that, health workers straight migration from region Sub – Saharan Africa to relatively higher economical countries have become veritable pattern, a situation where in high income countries such as the UK, supply of health care professionals from African countries has far exceeded that of their source countries (AHOP, 2023). For instance, at Ndola Teaching Hospital, health worker outflow resulted in 79 healthcare workers in 2015 up until 2023, within this period, the peak period documented in this case was between 2019 and 2021, this created a crisis in rendering of services and strained the remaining personnel. These remedial measures often encounter a persistent and long-term problem which also extends to the healthcare delivery system in the country (Amref, 2020; Ministry of Health Zambia, 2018). Therefore, this study investigated the factors perceived to contribute to poor health worker retention at Ndola Teaching Hospital, a key tertiary health institution in Zambia's Copperbelt Province, in order to understand the underlying causes of staff outflow and its impact on healthcare delivery and workforce morale between 2019 and 2023. A comprehensive understanding of these factors is crucial for designing effective policies and interventions to enhance the motivation and retention of health workers at Ndola Teaching Hospital.

METHODOLOGY: RESEARCH DESIGN

A mixture of quantitative and qualitative research design was adopted for the study in an attempt to analyze the factors that influence health worker retention. According to Mohajan (2012), a research design indicates the form and approach to data collection that will be used to collect information that sufficiently addresses the proposed research question or hypotheses. As indicated by Gunter (2011), it maintains that the research project is well organized and focused on the attainment of its objectives. The research design adopted influenced the validity and reliability of the results of the study; therefore, forming a very important part of the methodology. The questionnaires were intended for ascertaining information with regard to job satisfaction, intention to stay, and other factors affecting retention among health-care providers.

Target Population and Sampling Frame

The identification of the target population and the sampling frame assisted in the selection of the participants or units for analysis so as to represent the interest of the population. This made it possible for the findings to be generalized to apply to the broader population. Having a clearly identified target population and sampling frame enhances the external validity of the study and supports the reduction of bias in participant selection. Target population involved 200 health-care providers at Ndola Teaching Hospital, which composed of doctors, nurses, clinicians, laboratory technicians, and support staff involved in obstetric care. The sampling frame was developed using the hospital staff directory to ensure the main cadres and departments are represented.

Sample Size

$$\text{Sample Size} = (Z^2 \times P \times (1 - P)) / E^2 \times N / (N - 1)$$

Where:

- Z is the Z -score corresponding to the desired confidence level (1.96 for a 95% confidence level).
- p is the estimated proportion of the population that possesses the attribute in question (if unknown, typically set to 0.5 for maximum variability).
- E is the margin of error, representing the maximum expected difference between the sample statistic and the population parameter (usually set to a specific value, such as $\pm 5\%$).

Substituting the given values:

- $Z=1.96$
- $p=0.5$ (maximum variability)
- $E=21$ (half the width of the confidence interval)

$$= (1.96)^2 \times 0.5 \times (1 - 0.5) / (0.21)^2$$

$$\approx 153.68$$

Rounding up to the nearest whole number, the sample size was approximately 154 to ensure adequate representation of the population with a 95% confidence level.

Below is the sample size per category: Table 4.0

Category	No
Nurses	70
Doctors	30

Dentists	10
Radiographers	14
Physiotherapist	10
Lab technicians	20
Total	154

It is therefore important to note that the margin of error was set at 21, corresponding either to an absolute value (± 21 health workers), or as a percentage (21%), to reflect the acceptable estimation error for this preliminary study. Given the relatively small size of the health workforce at Ndola Teaching Hospital and the practical constraints of the research, this margin allows for meaningful statistical inference while accommodating limitations in precision. The choice aligns with the exploratory objectives of identifying retention-related factors rather than exact population estimates and this may be specific to Ndola Teaching Hospital.

Sampling Technique

Stratified random sampling ensured that the population of interest is proportionately represented in doctors, nurses, clinicians, and support. Stratification was done on the cadres and departments within the hospital. This reduced bias and increased generalization through random sampling within each stratum. The sampling methodology ensured representativeness of the sample population with regard to the population of interest, hence reducing sampling bias and increasing the reliability of results of the study.

Data Collection Instruments and Procedure

Primary data collection for this study was done through the administration of both open and closed-ended questionnaires to enable comparability between answers and also to allow justification for the answers. The questionnaires covered Job satisfaction, intention to stay, and other factors related to health worker retention. Secondary data collected was done through peer-reviewed papers, meta-analyses and government databases and data sets.

Data Analysis

Data analysis transformed raw data into meaningful insights, facilitating a deeper understanding of the factors affecting health worker retention. Quantitative data collected through structured questionnaires, including a Likert scale, were analyzed using SPSS. Likert scale responses were coded, summed, and divided by the total number of questions to calculate a weighted mean, which served as the decision-making criterion. Descriptive statistics, primarily proportions, were reported after performing cross-tabulations between the Likert scale responses and relevant categorical variables. Although the significance level was set at 0.05, it was not used for inferential analysis in this study. Instead, the weighted mean computed as the average of responses to the Likert-scale items was the primary basis for interpretation.

Ethical Consideration

Before data collection for the main study, the research proposal was presented to the Ethical Committee for review and got ethical approval. Information about the purpose of the study was made available to participants and informed consent was obtained from those who agreed to participate in the study. Therefore, all necessary ethical guidelines were considered in this research.

RESULTS: DEMOGRAPHIC CHARACTERISTICS

We conducted a descriptive survey to investigate health worker retention and Job satisfaction at Ndola General Hospital in Copperbelt Province involving 200 participants. Table 4.1 shown below shows demographic characteristics of health workers at Ndola Teaching Hospital who participated in this study. It was found that younger workers were difficult to predict as they reported that they were happy in their current role, while still

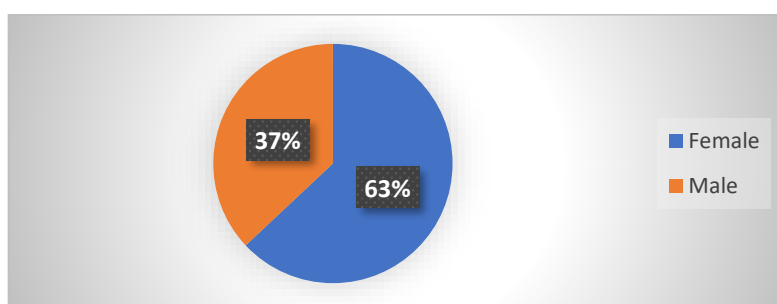
looking to move elsewhere. Older workers aren't much of a flight risk, but the problem is that, they are unhappy in their role and stay put resulting in 'resenteeism' contributing to toxic work culture. About 41% (63) of the of the health workers included in this study, had worked in the public hospitals for at most 20 years. Health workers turnover at Ndola Teaching Hospital negatively affects both access to care, and the level of quality of healthcare being provided. Having health workers who stay with the company long term helps increase the hospital's retention. Further, Majority (58%) of study participants had diplomas while only 5.2% of the participants had certificates. Also, about 35% (54) had bachelor's degrees, while about 12% (18) had masters degrees and 10% (16) had PhDs. Promotion is seen as an important factor in influencing motivation and work performance. But despite acquiring further education, health workers at Ndola Teaching Hospital are either overqualified or mismatched in their roles. This has led to a number of leaving the hospital.

Table 4.1: Demographic characteristics of study participants

Variable	Frequency (%)	Total
Age		
Below 26 years	37 (24.0)	154
26 to 35 years	18 (11.7)	
36 to 45 years	52 (33.8)	
46 to 55 years	29 (18.8)	
56 years or order	18 (11.7)	
Gender		
Female	97 (63.0)	154
Male	57 (37.0)	
Years of service		
Less than 10 years	39 (25.3)	154
Between 11 and 20 years	63 (40.9)	
More than 20 years	52 (33.8)	
Qualification		
Certificate	08 (5.2)	154
Diploma	58 (37.7)	
Degree	54 (35.1)	
Master's Degree	18(11.7)	
PhD	16 (10.4)	

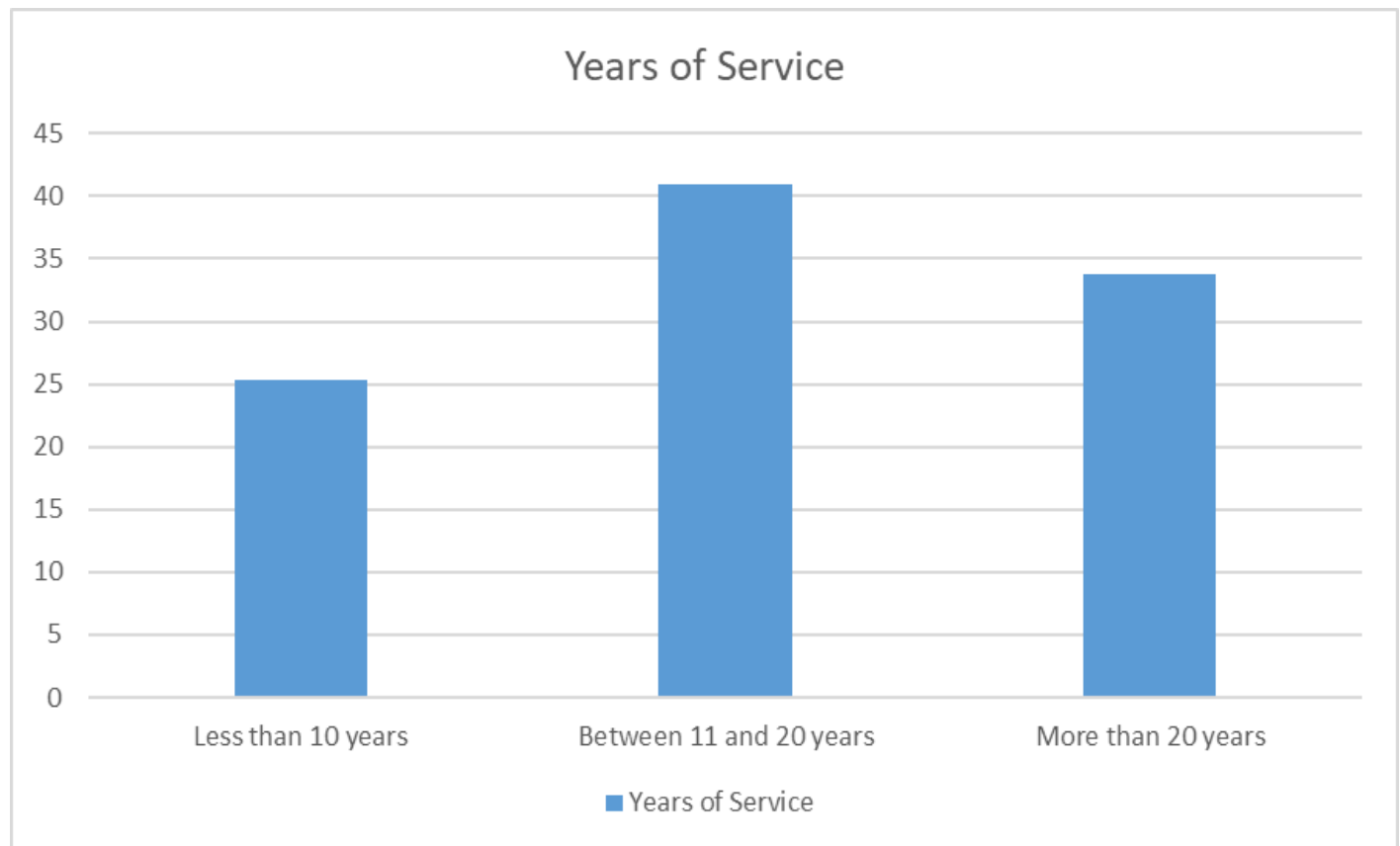
Some of the results described above are graphically presented in figure 41

Figure 4.1 Gender of Participants



The data in the pie chart above indicated that, the total number of study participants was 154, of which 97(63 %) were female and 57(37%) were male. A major limitation of the study was that the sample of health workers was biased towards women because they constitute the largest number of health workers at Ndola Teaching Hospital.

Figure 4.3 Years of Service



The data also shows that, most (about 34%) of the health workers included in this study were between the age of 36 years to 45 years. While, about 12 % (18) were 56 years old and above.

Factors perceived to be associated with worker retention at Ndola Teaching Hospital

Table 4.4 presents participants' perceptions regarding worker retention at Ndola Teaching Hospital, focusing on various aspects of job satisfaction and workplace conditions. Each item is rated on a scale from "Strongly Disagree" (SD) to "Strongly Agree" (SA), and the results are summarized with percentages, mean scores, standard deviations (σ), and overall decisions based on the weighted average. Results from the table shows, a significant majority, 92 participants (59.74%), disagreed that the work environment is conducive to their job satisfaction, resulting in a low perception score of 2.740. Conversely, when it comes to recognition for their performance, a substantial 102 participants (66.23%) felt adequately recognized, leading to a high perception score of 3.400. Furthermore, the findings indicate that many employees perceive ample opportunities for career growth, with 104 participants (67.53%) agreeing on this point, yielding a high mean score of 3.234. Satisfaction with current positions and responsibilities is also relatively high, as 87 participants (56.49%) expressed contentment, resulting in a mean score of 3.188. Additionally, commitment to the organization's goals and values was affirmed by 68 participants (44.16%), with a high perception score of 3.883. However, dissatisfaction is evident regarding salary and benefits. A staggering 92 participants (59.74%) expressed dissatisfaction with their current salary and benefits, reflected in a low mean score of 1.909. Similarly, perceptions regarding salaries being commensurate with qualifications were unfavorable, with 92 participants (59.74%) disagreeing, resulting in an even lower score of 1.727.

Lastly, while 92 participants (59.74%) found fringe benefits and allowances unsatisfactory, this aspect garnered a slightly higher score of 2.610. Overall, the decision score of 2.836 suggests that while there are areas of high perception, significant concerns regarding compensation remain a barrier to worker retention at the hospital.

Table 4.4 Participants' perceptions on worker retention at Ndola Teaching Hospital

Variables	SD (%)	D (%)	N (%)	A (%)	SD (%)	Mean	σ	Decision
The work environment in my current position is conducive to my job satisfaction.	-	92 (59.74)	10 (6.49)	52 (33.77)	-	2.740	0.934	Low perception
I feel adequately recognized for my performance in the workplace	-	-	102 (66.23)	42 (27.27)	10 (6.49)	3.400	0.611	High perception
There are sufficient opportunities for career growth in my current position.	34 (22.08)	-	16 (10.39)	104 (67.53)	-	3.234	1.230	High perception
I am satisfied with my current position and responsibilities	34 (22.08)	10 (6.49)	13 (8.44)	87 (56.49)	10 (6.49)	3.188	1.322	High perception
I am committed to the goals and values of the organization	-	26 (16.88)	34 (22.08)	26 (16.88)	68 (44.16)	3.883	1.154	High perception
I am satisfied with my current salary and benefits	92 (59.74)	26 (16.88)	10 (6.49)	10 (6.49)	16 (10.39)	1.909	1.364	Low perception
Salaries are commensurate with qualifications and experience	92 (59.74)	42 (27.27)	-	10 (6.49)	10 (6.49)	1.727	1.173	Low perception
Fringe benefits and allowances are satisfactory	34 (22.08)	10 (6.49)	92 (59.74)	18 (11.69)	-	2.610	0.958	Low perception

Key: SD = Strongly Disagree, D= Disagree, N= Neutral, A = Agree, SA= Strongly Agree.σ = Standard deviation

$$\text{Decision (weighted average)} = \frac{22.691}{8} = 2.836$$

Perceived challenges faced by health workers at Ndola Teaching hospital.

The results presented in table 4.5 highlight the perceived challenges faced by health workers at Ndola Teaching Hospital, revealing a mix of low and high perceptions regarding various aspects of their work environment.

Table 4.5 Perceived challenges faced by health workers at Ndola Teaching hospital

Variables	SD (%)	D (%)	N(%)	A (%)	SD (%)	Mean	σ	Decision
Adequate equipment is available to perform job tasks efficiently	60 (38.96)	10 (6.49)		76 (49.35)	08 (5.19)	2.753	1.509	Low perception
Adequate facilities are available to perform job	60 (38.96)	10 (6.49)	68 (44.16)	08 (5.19)	08 (5.19)	2.312	1.191	Low perception

tasks efficiently								
Facilities are modern and up-to-date.	-	138 (89.61)	-	08 (5.19)	08 (5.19)	2.259	0.782	Low perception
Trained personnel are available to handle complex facilities			16 (10.39)	128 (83.12)	10 (6.49)	3.961	0.410	High perception
There are promising job prospects in both rural and urban areas.	34 (22.08)	10 (6.49)	76 (49.35)	08 (5.19)	26 (16.88)	2.883	1.293	High perception
I receive adequate support and guidance from my supervisors	34 (22.08)	08 (5.19)	34 (22.08)		78 (50.65)	3.519	1.646	High perception
Key: SD = Strongly Disagree, D= Disagree, N= Neutral, A = Agree, SA= Strongly Agree.σ = Standard deviation								
Decision (weighted average) = $\frac{17.687}{6} = 2.948$								

A significant majority of respondents, 60 (38.96%), strongly disagreed that adequate equipment is available for efficient job performance, while only a small fraction, 8 (5.19%), agreed. This sentiment is echoed in the responses about the availability of adequate facilities, where again, 60 (38.96%) strongly disagreed and only 8 (5.19%) agreed, resulting in a low perception score of 2.312. Furthermore, an overwhelming 138 (89.61%) of respondents disagreed that the facilities are modern and up-to-date, further indicating dissatisfaction with the resources available to them. In contrast, health workers expressed a high perception regarding the availability of trained personnel to handle complex facilities, with 128 (83.12%) agreeing on this point, yielding a mean score of 3.961. Similarly, the prospects for employment in both rural and urban areas were viewed positively, with a mean score of 2.883, suggesting a perception of promising job opportunities. Additionally, support from supervisors received a favorable response, with 78 (50.65%) agreeing they receive adequate guidance, resulting in a mean score of 3.519. Overall, while there are notable strengths in personnel training and supervisory support, the findings underscore significant concerns about the adequacy and modernity of equipment and facilities, which could hinder the overall efficiency and effectiveness of health workers at the hospital.

Job Satisfaction Across Healthcare workers.

The analysis of perceived job satisfaction across different provider cadres reveals a generally low level of satisfaction among respondents. In terms of overall job satisfaction compared to other cadres, a significant majority, 44% reported feeling much lower or lower satisfaction, while only 18% indicated a higher level of satisfaction, resulting in a mean score of 2.167 and a standard deviation of 0.976, categorizing it as a low perception. Similarly, satisfaction with workload was notably low, with 92% of respondents expressing dissatisfaction (much lower or lower), leading to an even lower mean score of 1.987 and a higher standard deviation of 1.299, reinforcing the low perception of job satisfaction in this area. When evaluating work-life balance, a striking 66% of respondents felt their satisfaction was moderate, with only 22% indicating much lower or lower satisfaction, resulting in a mean score of 1.662, which also reflects a low perception. In contrast, perceptions of support received from other cadres, such as doctors and nurses, showed a more positive outlook, with 49% reporting moderate satisfaction and a mean score of 3.259, indicating a high perception of support. This trend continued with opportunities for career advancement, where, despite a majority (49%) feeling only moderately satisfied, the overall perception remained high with a mean score of 2.571. Overall, the findings suggest that while respondents feel a lack of satisfaction regarding their job and workload, they perceive a reasonable level of support from their colleagues and recognize opportunities for career advancement, albeit with moderate satisfaction. The weighted average decision score of 2.329 further emphasizes the need for improvements in job satisfaction across the board.

Table 4.6 Perceived job satisfaction across health worker cadres

Item	M/Lower (%)	Lower (%)	Moderate (%)	Higher (%)	M/Higher (%)	Mean	σ	Decision
Rate your overall job satisfaction compared to other health workers cadres	44 (28.57)	58 (37.66)	34 (22.08)	18 (11.69)	-	2.167	0.976	Low perception
Satisfaction with Workload	92 (59.74)	-	44 (28.57)	08 (5.19)	10 (6.49)	1.987	1.299	Low Perception
Rate your satisfaction with your work-life balance compared to other health workers cadres	34 (22.08)	10 (6.49)		102 (66.23)	08 (5.19)	1.662	0.992	Low Perception
Rate your perception of the level of support received from other health workers cadres (e.g., doctors, nurses) in your workplace.	34 (22.08)	26 (16.88)	76 (49.35)	08 (5.19)	10 (6.49)	3.259	1.327	High perception
Rate your perception of opportunities for career advancement compared to other health workers cadres	34 (22.08)	26 (16.88)	76 (49.35)	08 (5.19)	10 (6.49)	2.571	1.089	High perception

Key: M/Lower = Much lower, M/Higher = Much higher

$$\text{Decision (weighted average)} = \frac{11.646}{5} = 2.329$$

DISCUSSION OF RESULTS

The findings from the study at Ndola Teaching Hospital (NTH) reveal a nuanced picture of employee perceptions, showcasing both challenges and strengths in the organizational environment, which are consistent with broader literature on healthcare worker retention. A prominent concern is the lack of a supportive work environment, which many employees felt did not contribute positively to their job satisfaction. This reflects concerns raised by Awolaja (2023), who underscores that retaining valued health workers is essential for maintaining productivity and continuity of care. Similarly, Murray (2020) highlights the importance of job satisfaction and its direct impact on workforce commitment and patient outcomes. Kim et al. (2021) and Matindo et al. (2015) further argue that inadequate facilities and working conditions significantly affect job satisfaction and increase the likelihood of turnover among healthcare staff. In contrast, employees reported feeling adequately recognized for their performance, suggesting that recognition is a strong point within the hospital. This aligns with de Vries et al. (2017), who identify recognition as a key factor influencing retention. Additionally, employees viewed career growth opportunities positively, which supports findings by Longmore (2021) and Abdallah et al. (2017), indicating that career development initiatives play a vital role in improving motivation and organizational commitment. Despite positive views on recognition and growth, the study highlighted widespread dissatisfaction with compensation. Many employees felt that their salaries and benefits were not commensurate with their qualifications or responsibilities. This concern resonates with Bwalya (2021) and Farina & Lamichhane (2018), who report that inadequate financial incentives are a primary driver of healthcare worker migration, particularly from low-income to high-income countries. The WHO (2023) and

Wilson Center (2023) also emphasize that Zambia's healthcare system is burdened by workforce shortages due to outmigration, often influenced by better pay and training opportunities abroad. Employees expressed confidence in the availability of adequately trained personnel and were generally satisfied with supervisory support. These findings align with Kim et al. (2021), who note that access to skilled colleagues and supportive leadership enhances operational efficiency and contributes to better health outcomes. Similarly, WHO (2010; 2016) reports affirm that the presence of trained personnel plays a critical role in ensuring quality healthcare delivery, even in resource-limited settings.

A notable insight from the study is the impact of social influence on staff attrition. Many respondents cited encouragement from peers in private hospitals and NGOs who often enjoy better working conditions as a significant reason for leaving. This supports findings by Amref (2020) and AHOP (2023), which describe how the migration of health workers from public institutions to better-resourced private or international settings has become a common trend, particularly in Sub-Saharan Africa. Additionally, the study found that generational differences within the workforce have contributed to interpersonal conflicts and feelings of being undervalued. These challenges reflect the complexities of managing a multigenerational workforce and highlight a gap in existing literature regarding generational dynamics in healthcare settings.

Implications for Policy and Practice

The findings of this study mirror global health sector challenges outlined by Manda et al. (2023) and WHO (2016), particularly regarding the dual burden of quantitative and qualitative workforce shortages. The study shows that while intrinsic motivators—such as recognition, job satisfaction, and growth opportunities—are present, they are often undermined by extrinsic dissatisfiers like poor compensation and outdated infrastructure.

To effectively enhance healthcare worker retention at NTH, it is essential that policymakers and hospital management: Invest in upgrading infrastructure and equipment to create a more conducive work environment (Kim et al., 2021); review and adjust compensation and benefits to reflect employee qualifications and responsibilities (Bwalya, 2021; Farina & Lamichhane, 2018); develop HR strategies that address multigenerational dynamics and promote inclusivity (de Vries et al., 2017); reinforce strengths such as employee recognition and access to professional development opportunities (Longmore, 2021; Abdallah et al., 2017). A comprehensive, evidence-based approach that tackles both systemic and contextual issues will be crucial for improving retention, ensuring continuity of care, and enhancing service delivery at Ndola Teaching Hospital and similar healthcare institutions in the region.

CONCLUSION AND RECOMMENDATIONS

The findings from the study at Ndola Teaching Hospital underscore the multifaceted nature of healthcare worker retention, where both intrinsic and extrinsic factors play critical roles. While the hospital demonstrates strengths in areas such as employee recognition, career development, and supervisory support, these are significantly overshadowed by concerns related to inadequate compensation, poor working environments, outdated facilities, and social influence from better-resourced institutions. These challenges are consistent with existing literature, which highlights that retaining skilled health workers requires more than just addressing staffing numbers, it demands improving the overall quality of the work environment and ensuring fair remuneration. Additionally, the impact of social and generational dynamics reveals that workforce retention strategies must be holistic and context-specific. To enhance retention and service delivery at Ndola Teaching Hospital, there is a pressing need for targeted interventions that address the core issues of infrastructure, compensation, and workplace culture. Policymakers and healthcare administrators must act decisively to implement reforms that not only motivate staff but also create an environment conducive to long-term commitment and professional growth. Doing so will be vital in strengthening Zambia's health system and ensuring sustainable, high-quality care for its population.

Limitation

Non-response bias was a potential limitation in this study, as not all targeted health workers could have participated in the survey. This might have influenced the findings if those who did not respond held different views or experiences compared to those who did. To address this, the researcher used follow-up reminders and

over recruited the study participants by over 4% so as not to lose the required number of participants and desired response rates. While this study primarily relied on weighted means for analysis and did not use inferential statistics, acknowledging the possibility of non-response bias remains important when interpreting the results and considering their generalizability.

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