



## Factors associated with job satisfaction among health care workers at Arua Regional Referral Hospital in West Nile, Uganda

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### Abstract

**Background:** Job satisfaction among healthcare workers is a key determinant of performance and patient outcomes, yet it remains underexplored in resource-limited settings like Uganda. Understanding the factors influencing satisfaction, particularly in regional hospitals, is critical for workforce stability and improved healthcare delivery. **Aim:** This study aimed to identify the factors associated with job satisfaction among healthcare workers at Arua Regional Referral Hospital, Uganda. **Methods:** A cross-sectional study was conducted from December 2020 to April 2021, enrolling 219 healthcare workers. Participants completed a self-administered, pre-tested questionnaire with 69 items on job satisfaction. Principal component analysis identified key satisfaction factors, while associations were examined using Poisson regression. **Results:** The mean age of participants was  $35.4 \pm 7.5$  years, with the majority being female (52.5%) and nurses (46.6%). Job satisfaction was significantly higher among healthcare workers aged 35-39 years (aPR = 1.46) and 40+ years (aPR = 2.87), as well as females (aPR = 1.30) and Muslims (aPR = 1.45). In contrast, longer service ( $\geq 5$  years) was associated with lower satisfaction. Key factors influencing satisfaction included peer recognition, autonomy, teamwork, access to training, and leadership style. Overall, job satisfaction was moderate (60.7%). **Conclusion:** Job satisfaction among healthcare workers at Arua Regional Referral Hospital was moderate. Factors such as age, gender, religion, and years of experience played a significant role in satisfaction levels, with peer recognition, autonomy, and leadership being central drivers. Improving autonomy, recognition, and incentives especially for long-serving staff could enhance satisfaction, improve staff retention, and ultimately support better healthcare outcomes.

**Keywords:** Job satisfaction, Healthcare workers, Uganda, Arua Regional Referral Hospital, Workforce motivation, Health policy, retention

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### 1. Introduction

Job satisfaction is the feeling that employees have about their work and its different aspects. It is a result of how

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they evaluate their experiences on the job (Thompson and Phua, 2012). Job satisfaction is seen to be a major element impacting the performance of both individuals and organizations in the health sector, and it is strongly linked to patient satisfaction and service quality (Liu et al., 2010). Furthermore, one of the key factors in organizational and work psychology is job satisfaction, which is an important metric for assessing the quality of health care systems and is considered an indicator of working-life balance (Kinzl et al., 2004). Job-related factors that affect employee satisfaction include comfort, advancement, recognition, and merit-based evaluation, which is occasionally connected to pay (Temesgen et al., 2018). Worker happiness increases output, particularly in the healthcare industry where it influences the provision of services. Job security, compensation, staffing, professional growth, workload, supervision, performance evaluation, and a positive work environment all affect employee satisfaction (Kumar et al., 2013).

Human resources are essential assets in any organization, whether public or private, as they are responsible for coordinating and optimizing other resources to produce tangible or intangible outputs. Sustaining effective and efficient employee performance requires ongoing motivation through both financial and non-financial incentives to foster job satisfaction (Ajayi, 2004). For healthcare workers, job satisfaction plays a critical role in enhancing their engagement and productivity. Higher job satisfaction correlates with improved patient satisfaction and employee performance, providing a competitive advantage and boosting overall productivity (Geta et al., 2021). Studies indicate low levels of job satisfaction among healthcare professionals (Geleto et al., 2015). Research consistently shows a positive association between job satisfaction and demographic factors such as age, professional role, educational level, work experience, and monthly income (Faragher et al., 2005; Lu et al., 2016; Bekru et al., 2017; Deriba et al., 2017).

A dissatisfied workforce tends to underperform in healthcare settings. Additionally, low job satisfaction contributes to the migration of healthcare workers, as they seek better opportunities, moving from rural to urban areas or even emigrating (Geleto et al., 2015). Consequently, human resources management in the health sector, including health ministries, must prioritize strategies to effectively motivate health workers (Mathauer and Imhoff, 2006). Research has found that employees who are dissatisfied and uncomfortable in their workplaces are more likely to engage in unproductive or unethical behaviors, such as inadequate service delivery, misappropriation of funds, and spreading rumors (Samad, 2006). Furthermore, low job satisfaction can lead to higher rates of staff turnover and absenteeism, undermining the efficiency of healthcare services (Samad, 2006).

Several factors have been identified as influencing job satisfaction levels among healthcare workers, including high workloads from insufficient staffing, limited professional autonomy, inadequate supervision, extended working hours, unsafe working conditions, lack of career progression, poor or inequitable compensation, insufficient access to essential supplies, and restricted opportunities for professional development, in addition to the internal and external migration of workers (Kingma, 2003; World Health Organization, 2006). Job-related stress and satisfaction have been assessed through specific survey questions that address stress and satisfaction sources in a self-administered format (Singh, 2017). While human resources are widely recognized as the foundation for delivering quality healthcare and ensuring professional satisfaction (Donaldson et al., 2005), there is limited research focused on the job satisfaction of healthcare workers in Uganda, especially within public facilities like regional referral hospitals.

Job satisfaction in public healthcare facilities in developing countries has received limited attention, despite its importance. Research in various low-income regions indicates that public healthcare employees generally report lower satisfaction levels compared to their counterparts in private healthcare. Studies from Ethiopia reveal that health professionals in public hospitals often experience low job satisfaction due to bureaucratic management, limited autonomy, and challenging work conditions (Yami et al., 2011). In South Africa, organizational factors and adverse work environments were linked to dissatisfaction, whereas social aspects of the workplace contributed positively to employee satisfaction (Delobelle et al., 2011). To address the specific challenges encountered by public healthcare providers in this context and to pinpoint areas for enhancing service delivery and employee satisfaction, this study aims to examine job satisfaction and its associated factors among healthcare workers at Arua Regional Referral Hospital in Northern Uganda.

## 2. Methods

### 2.1. Study design and setting

This study was a descriptive, cross-sectional survey conducted at Arua Regional Referral Hospital, located in Uganda's West Nile region. As one of the country's major regional referral hospitals, Arua serves a large, diverse population, including residents of nearby districts and refugees from neighboring countries. The hospital provides a range of essential health services in a resource-constrained environment, facing challenges related to staff shortages, high patient loads, and limited resources. This setting offers valuable insights into job satisfaction factors within a high-pressure healthcare environment, representative of many regional public health facilities in Uganda.

### 2.2. Sampling selection

The participating health workers were sampled consecutively. They were approached at their workstations and invited to participate in the study. Those who agreed were provided with a consent form to sign, followed by the questionnaire for completion.

### 2.3. Data collection

Research assistants guided participants through the information sheet, explaining the study's purpose and procedures. After agreeing to participate, each signed a consent form. Data was then collected using a pre-tested, structured, self-administered questionnaire adapted from relevant literature. Research assistants, who had received two days of training from the principal investigator, provided instructions to ensure accurate completion of the questionnaire. Job satisfaction was evaluated through a survey containing 69 questions specifically focused on job satisfaction factors. Responses were rated on a 5-point Likert scale, with options ranging from 1 (strongly disagree) to 5 (strongly agree).

### 2.4. Data analysis

Data analysis was conducted using STATA version 13. Descriptive statistics summarized continuous variables with ranges, medians, and means, while categorical variables were presented as frequencies, percentages, and confidence intervals. Job satisfaction levels were classified as either "satisfied" or "dissatisfied" based on response scores, with "very dissatisfied," "dissatisfied," and "neutral" responses grouped as "dissatisfied," and "satisfied" or "very satisfied" responses grouped as "satisfied."

Bivariate tests assessed associations between job satisfaction and various factors, employing chi-squared or Fisher's exact tests for categorical variables. Spearman's rho was calculated to correlate job satisfaction levels with each factor. T-tests and ANOVA examined differences in job satisfaction across demographic groups. A p-value of less than 0.05 indicated statistical significance, with variables at  $p < 0.2$  included in multivariable analysis for assessing interaction and confounding.

Principal Component Analysis (PCA) identified key contributors to job satisfaction, using the Kaiser method to retain components with eigenvalues  $\geq 1$ . Sampling adequacy was verified through the Kaiser-Meyer-Olkin measure, and factor loadings were derived. Variables with correlation estimates of 0.7 or higher were considered influential.

## 3. Results

### 3.1. Participant characteristics

The study included 219 health workers from Arua Regional Referral Hospital, with a mean age of 35.4 years ( $SD = 7.5$ ), ranging from 25 to 57 years. The largest age group comprised participants aged 30-34 years, accounting for 27.8% (61/219) of the sample, followed closely by those aged 25-29 and those aged 40 or older, each making up 25.6% (56/219). The gender distribution was balanced, with slightly more females 52.5% (115/219) than males 47.5% (104/219). Religious affiliation was predominantly Anglican, representing half of the participants 50.2% (110/219), while Catholics made up 30.6% (67/219) and Muslims 19.2% (42/219). Nearly all health workers had completed tertiary education 97.3% (213/219), with only a small fraction holding

**Table 1: Individual characteristics of the 219 health workers of Arua Regional Referral Hospital accessed between December 2020 and April 2021**

Characteristic	Frequency (n = 219)	Percentage
Age, years (mean $\pm$ SD)	35.4 $\pm$ 7.5	
<b>Age categories (years)</b>		
25-29 years old	56	25.6
30-34 years old	61	27.8
35-39 years old	46	21.0
$\geq$ 40 years old	56	25.6
<b>Sex of respondents</b>		
Female	115	52.5
Male	104	47.5
<b>Religion of respondent</b>		
Anglican	110	50.2
Catholic	67	30.6
Muslim	42	19.2
<b>Education level of respondent</b>		
Primary	3	1.4
Secondary	3	1.4
Tertiary	213	97.3
<b>Cadre</b>		
Nurse	102	46.6
Medical officer	14	6.4
Laboratory personnel	43	19.6
Midwife	27	12.3
Others (Radiographers, data clerks)	33	15.1
<b>Marital status</b>		
Married	145	66.2
Single	74	33.8
<b>Duration in practice</b>		
<1 year	30	13.7
1 - <2 years	96	43.8
2 - <5 years	16	7.3
5 - <10 years	33	15.1
$\geq$ 10 years	44	20.1

**Note:** This table summarizes the demographic and professional characteristics of the 219 health workers who participated in the study, including age, gender, religious affiliation, education level, professional cadre, marital status, and years of service.

secondary 1.4% (3/219) or primary education 1.4% (3/219). In terms of professional roles, nurses constituted the largest group, comprising 46.6% (102/219) of participants. Laboratory personnel represented 19.6% (43/219), while midwives and other healthcare roles (radiographers, data clerks) made up 12.3% (27/219) and 15.1% (33/219), respectively. Medical officers were the smallest group, at 6.4% (14/219). Marital status indicated that two-thirds 66.2% (145/219) of participants were married, with the remaining third 33.8% (74/219) being single. Regarding work experience, 43.8% (96/219) of participants had been in service for 1 to <2 years, while 13.7% (30/219) were newcomers with less than a year in practice. About one-fifth of the health workers had served for 10 years or more 20.1% (44/219), indicating a mix of relatively new and seasoned professionals within the hospital. These demographic and professional details are further summarized in Table 1.

### 3.2. Job satisfaction levels and overall satisfaction

The study assessed job satisfaction across various factors, including general work attributes, autonomy, co-worker relationships, recognition, promotion, supervision, and pay. The results indicate a range of satisfaction levels as summarized in Table 2.

**Table 2: Job satisfaction scores by factor among health workers at Arua Regional Referral Hospital**

Factor	Frequency (N = 219)	Percentage (%)
<b>General work attributes</b>	$67.2 \pm 12.3$	
Dissatisfied (0-63)	81	37.0
Satisfied (64-105)	138	63.0
<b>Autonomy</b>	$11.0 \pm 2.6$	
Dissatisfied (0-12)	160	73.1
Satisfied (13-20)	59	26.9
<b>Co-worker</b>	$34.9 \pm 8.4$	
Dissatisfied (0-30)	71	32.4
Satisfied (31-50)	148	67.6
<b>Recognition</b>	$20.7 \pm 6.0$	
Dissatisfied (0-18)	88	40.2
Satisfied (19-30)	131	59.8
<b>Promotion</b>	$24.4 \pm 5.1$	
Dissatisfied (0-24)	116	53.0
Satisfied (25-40)	103	47.0
<b>Supervision</b>	$42.5 \pm 8.6$	
Dissatisfied (0-42)	108	49.3
Satisfied (43-70)	111	50.7
<b>Pay</b>	$16.1 \pm 3.5$	
Dissatisfied (0-18)	168	76.7
Satisfied (19-30)	51	23.3

Participants' overall satisfaction with general job qualities was 63.0%, indicating a positive opinion of the workplace. Strong collegial support was indicated by the high level of pleasure that 67.6% of respondents expressed with their coworker interactions. Positive feedback was also obtained about recognition, with 59.8% of employees feeling that their efforts were sufficiently recognized. On the other hand, 50.7% of respondents

expressed moderate satisfaction with supervision, suggesting a range of opinions regarding managerial support. Given that 73.1% of healthcare professionals were unhappy with their degree of autonomy in making decisions, autonomy became a major problem. With only 47.0% satisfied with career development chances and only 23.3% satisfied with their income, promotion opportunities and salary were among the lowest-rated components of their jobs, indicating significant dissatisfaction with these important aspects of their jobs.

To gauge overall job satisfaction, responses were grouped into "satisfied" and "dissatisfied" categories, where responses of "very dissatisfied," "dissatisfied," or "neutral" were classified as "dissatisfied," and responses of "satisfied" or "very satisfied" were classified as "satisfied." The results showed an overall satisfaction rate of 60.7%, indicating that 133 out of 219 health workers were satisfied with their jobs. This satisfaction rate had a 95% confidence interval of 53.92% to 67.24%, lending statistical reliability to the findings. These results highlight the need for targeted improvements, especially in areas such as autonomy, promotion, and compensation, while establishing a general baseline of satisfaction with aspects like co-worker relationships and supervisory support.

### 3.3. Bivariate and multivariate analysis of factors associated with job satisfaction

The bivariate analysis explored associations between job satisfaction and various demographic and

**Table 3: Multivariable analysis of factors associated with job satisfaction among 219 health workers of Arua Regional Referral Hospital**

Characteristic	Crude PR (95% CI)	Adjusted PR (95% CI)	P-value
<b>Age categories (years)</b>			
25-29 years old	Reference	Reference	
30-34 years old	0.80(0.54-1.16)	0.79(0.52-1.19)	0.265
35-39 years old	1.26(0.92-1.73)	1.46(1.01-2.13)	<b>0.048</b>
≥40 years old	1.53(1.17-2.02)	2.87(1.92-4.29)	<b>&lt;0.001</b>
<b>Sex of respondents</b>			
Male	Reference	Reference	
Female	1.21(0.97-1.50)	1.30(1.04-1.63)	<b>0.021</b>
<b>Religion of respondent</b>			
Anglican	Reference	Reference	
Catholic	1.30(1.01-1.66)	1.20(0.96-1.50)	0.116
Muslim	1.42(1.10-1.84)	1.45(1.13-1.87)	<b>0.004</b>
<b>Cadre</b>			
Nurse	Reference	Reference	
Medical officer	0.81(0.47-1.40)	0.95(0.57-1.59)	0.842
Laboratory personnel	0.98(0.74-1.30)	0.97(0.72-1.30)	0.824
Midwife	1.14(0.85-1.52)	0.88(0.66-1.16)	0.364
Others (Radiographers, data clerks)	0.88(0.62-1.25)	0.74(0.54-1.02)	0.063
<b>Marital status</b>			
Single	Reference	Reference	
Married	1.23(0.96-1.58)	1.07(0.81-1.43)	0.623
<b>Duration in practice</b>			
<1 year	Reference	Reference	
1 - <2 years	0.97(0.69-1.36)	0.93(0.65-1.34)	0.698
2 - <5 years	1.15(0.74-1.78)	0.92(0.59-1.45)	0.727
5 - <10 years	1.11(0.76-1.62)	0.60(0.39-0.93)	<b>0.023</b>
≥10 years	0.98(0.67-1.44)	0.44(0.28-0.69)	<b>&lt;0.001</b>

professional factors, identifying trends and significant differences based on age, gender, religion, and years of service (see Table 3). Job satisfaction was positively associated with age. Health workers aged 40 and above reported significantly higher satisfaction levels compared to younger age groups, with a prevalence ratio of 1.53(95% CI: 1.17-2.02, P = 0.002). This trend suggests that older workers may have adapted better to job demands or have more realistic expectations, enhancing satisfaction. Gender-based differences showed that female health workers had a significantly higher prevalence of job satisfaction than males, with a prevalence ratio of 1.21(95% CI: 0.97-1.50, P = 0.021). Religious affiliation also impacted satisfaction levels; Muslims and Catholics reported higher satisfaction compared to Anglicans, with Muslims showing the strongest association (cPR = 1.42, 95% CI: 1.10-1.84, P = 0.007), suggesting a potential link between religious support systems and job satisfaction. Moreover, Years of service inversely impacted job satisfaction, particularly for those with longer tenure. Health workers with 5 to <10 years of experience and those with 10 or more years were less satisfied compared to those in service for less than a year, indicating that prolonged service may lead to disenchantment or unmet career progression expectations, furthermore, other demographic variables, such as marital status and professional cadre, did not show significant associations with job satisfaction. Their lack of impact suggests that satisfaction may be more closely linked to personal factors like age and religion, rather than job position or marital status.

The multivariable analysis, controlling for confounders to identify independent predictors of job satisfaction (see Table 3), highlighted both positive and negative influences on satisfaction levels. Age, gender, and religious affiliation emerged as significant predictors: health workers aged 35-39 and those 40 and above were more likely to report satisfaction, with adjusted Prevalence Ratios (PR) of 1.46(95% CI: 1.01-2.13, P = 0.048) and 2.87(95% CI: 1.92-4.29, P < 0.001), respectively. Female participants showed higher satisfaction than their male counterparts, with an adjusted PR of 1.30(95% CI: 1.04-1.63, P = 0.021), and Muslim affiliation was associated with greater satisfaction, with an adjusted PR of 1.45(95% CI: 1.13-1.87, P = 0.004). Conversely, longer tenure negatively impacted satisfaction; health workers with 5 to <10 years and those with 10 or more years of experience were less satisfied, with adjusted PRs of 0.60(95% CI: 0.39-0.93, P = 0.023) and 0.44(95% CI: 0.28-0.69, P < 0.001), respectively, indicating that extended service without sufficient rewards may diminish job satisfaction. These adjusted prevalence ratios and confidence intervals illustrate the significant role of age, gender, and religion in enhancing satisfaction, while prolonged service duration acts as a negative predictor.

### 3.4. Principal Component Analysis (PCA) for key satisfaction factors

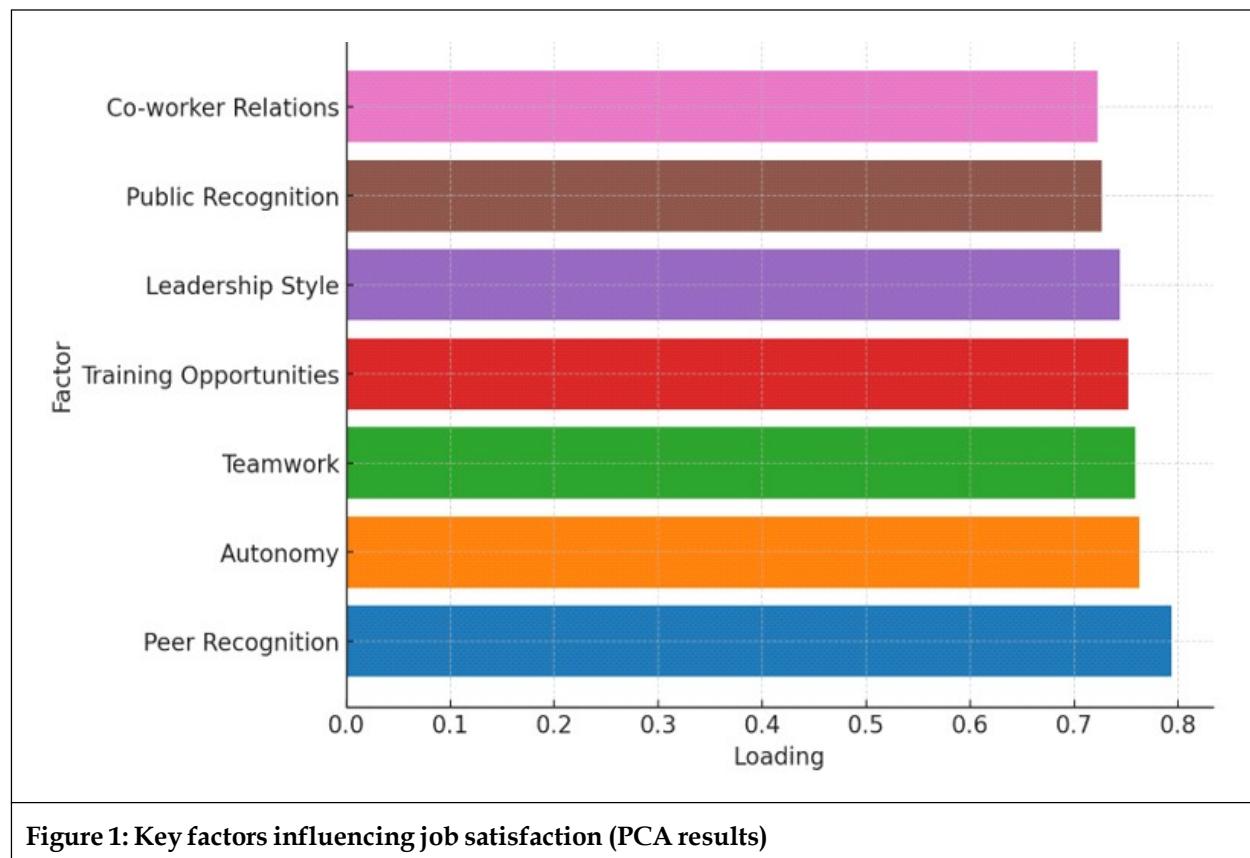
To gain insight into the primary determinants impacting job happiness among health workers, Principal Component Analysis (PCA) was utilized to determine which elements were most closely linked to job satisfaction (Table 4). Only principal components with an eigenvalue of 1 or higher were deemed significant contributors, in accordance with the Kaiser criterion. By reducing the data to 19 essential elements, this criterion made it easier to concentrate the investigation on the variables that had the biggest effects. The data's eligibility for PCA was confirmed by the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy, which was 0.8789. This

**Table 4: Correlation between the factor scores and original variables**

Variable	Correlation score
The recognition 1 receive from my peers by doing my job	0.7935
The recognition 1 receive from other professional groups doing my job	0.7648
Independent thinking	0.7626
Team working	0.7586
Opportunities for on-the-job training	0.7519
Manager's leadership styles	0.7437
The recognition I receive from the general public by doing my job	0.7268
Relationship with co-worker	0.7226

indicates that there is enough intercorrelation among the variables, which is necessary for effective data reduction.

There were robust associations between eight factors and job satisfaction, with factor loadings above 0.7 on the principal retention component (see Table 4). Peer and professional group recognition, chances for autonomous thought, teamwork, on-the-job training, leadership style, public acknowledgment, and relationships with coworkers were some of these high-loading characteristics. These results demonstrate that autonomy, supportive teamwork, and recognition all have a major impact on job satisfaction. The importance of a supportive work environment and effective leadership in raising overall satisfaction was highlighted by the findings, which specifically identified opportunities for growth, strong collegial relationships, and recognition from peers and the public as essential elements that promote a positive work experience. The findings are graphically presented in Figure 1. Each bar represents a factor that significantly impacts satisfaction, with the length of each bar (the “loading”) indicating the strength of its influence.



**Figure 1: Key factors influencing job satisfaction (PCA results)**

#### 4. Discussion

This study provides essential insights into factors influencing job satisfaction among health workers at Arua Regional Referral Hospital in Uganda. Understanding job satisfaction in this context is crucial, as it directly impacts workforce stability, productivity, and the quality of healthcare delivery. Health workers perform optimally in environments that support their professional and personal needs, which can be achieved through targeted policy reforms. Thus, identifying what drives satisfaction—or dissatisfaction—enables health workforce planners and policymakers to address these factors proactively. This research fills a critical gap by identifying specific demographic and professional attributes associated with job satisfaction, including age, gender, religion, and years of experience. With a job satisfaction rate of 60.7%, the findings suggest that while a majority feel reasonably content, there remains a significant opportunity for improvement. By aligning strategic priorities with the factors highlighted, the study offers guidance for enhancing the work environment in Uganda's public healthcare facilities.

The study findings reveal a job satisfaction rate of 60.7% among healthcare workers at Arua Regional Referral Hospital. This figure, while indicating that most staff feel moderately satisfied, is relatively low when considering the adverse outcomes associated with dissatisfaction in healthcare settings. Dissatisfied healthcare

staff are more prone to absenteeism, which can disrupt patient care and increase the burden on other staff members, especially those in lower ranks, such as interns and trainees (Deriba *et al.*, 2017). To mitigate this issue, it is crucial for hospital management and the Ministry of Health to focus on attracting and retaining qualified personnel through effective human resource policies. This includes competitive wages, safe and supportive working conditions, job security, and career growth opportunities for health professionals. However, like many other public healthcare facilities in Uganda, Arua Regional Referral Hospital faces challenges such as high absenteeism and subpar service quality (Unpublished data). Such issues can result in increased maternal and neonatal mortality rates and higher rates of diagnostic errors (Abate and Mekonnen, 2021).

The multivariable analysis suggests that age is a significant predictor of job satisfaction, with older health workers exhibiting higher satisfaction levels. Specifically, health workers aged 35-39 years had a 46% higher likelihood of being satisfied with their jobs compared to those under 25. Additionally, healthcare providers over 40 were three times more likely to be satisfied with their roles than their younger counterparts. This trend may stem from the evolving perspectives and experiences of healthcare workers over time. Younger workers, driven by a desire to learn and gain experience, might find initial enthusiasm, while workers in the intermediate age range may face challenges in job satisfaction due to unmet career expectations. On the other hand, seasoned professionals often have a more balanced outlook, better coping mechanisms, and an ability to adapt to the work environment. Similar findings have also been reported by Lu *et al.* in China (2016), Alcaraz-Mor *et al.* in France (2019) and Carrillo-García *et al.* in Spain (2013).

The study revealed that female health workers had a 30% higher prevalence of job satisfaction than their male counterparts. This highlights a significant gender disparity in satisfaction levels. This result aligns with broader advancements in gender equity within healthcare, where substantial strides have been made in promoting equal opportunities over recent decades. For instance, the increased enrolment of women in medical schools indicates a positive shift toward gender parity, as more women are receiving comparable educational and professional opportunities (Boulis *et al.*, 2001; Bickel, 2001). Additionally, the study found that job satisfaction declined with increased tenure. Health workers with five to less than ten years of service were 40% less likely to be satisfied compared to those who had worked for under a year. Workers with ten or more years of experience were 56% less likely to express job satisfaction than their newly employed counterparts. This trend may be attributed to the enthusiasm and eagerness of new employees, who view their roles as avenues for learning and growth. However, as time progresses, repetitive tasks and limited career progression may dampen satisfaction levels for longer-serving staff.

Religious affiliation also influenced job satisfaction, with Muslim health workers reporting significantly higher levels of satisfaction. This outcome resonates with business ethics research, which links job satisfaction to spirituality and religious values that shape work-related attitudes (Tsalikis and Lassar, 2009). Islam, for instance, promotes work as a means of fostering independence, self-respect, and personal growth, with additional emphasis on charity and social contributions as integral components of a fulfilling career (Graafland *et al.*, 2006; Danish and Ali, 2010). Furthermore, the principal component analysis underscored the importance of recognition from peers, other professionals, and the general public. Recognizing health professionals' contributions is crucial as it affirms their value, thereby enhancing job satisfaction and retention rates. Studies in Pakistan and Switzerland corroborate these findings, emphasizing that acknowledgment and appreciation from various sources boost morale and commitment (Danish and Ali, 2010; Pfister *et al.*, 2020; Hinic *et al.*, 2016). Autonomy and teamwork were also significant satisfaction predictors; health workers who had decision-making latitude and strong professional relationships experienced higher satisfaction. Chang *et al.*'s study on interprofessional teamwork supports this observation, illustrating that effective collaboration across roles is a vital factor in healthcare job satisfaction (Chang *et al.*, 2009). Opportunities for on-the-job training and supportive leadership also positively impacted satisfaction, as health workers view training as a path to professional growth, while supportive leadership styles foster a conducive work environment (Körner, 2010; Körner *et al.*, 2015; Asghar and Oino, 2017).

Despite the useful insights of the findings, this study has certain limitations. A portion of the participants' responses was based on self-reports, which may have introduced information bias, potentially impacting the accuracy of the findings. This bias could have resulted in either an overestimation or underestimation of the factors influencing job satisfaction. To address this, participants were briefed on the study's confidentiality

and assured that their responses would be used solely for research purposes. Selection bias is also a possible concern due to the short data collection period, meaning the sample could consist only of those present and available during that time. To mitigate this, all reachable participants were included to enhance sample representativeness. Additionally, the cross-sectional design of the study limits causative conclusions and the relatively small sample size—focused solely on healthcare providers at Arua Regional Referral Hospital—restricts the generalizability of the results to healthcare workers in other regional hospitals.

## 5. Implications

The findings of this study carry significant implications for the management and policy-making practices at Arua Regional Referral Hospital and similar healthcare institutions. Primarily, the results underscore the importance of creating a supportive work environment that enhances job satisfaction. Policies that improve working conditions, safety, and job security can create an enabling atmosphere, allowing health workers to perform effectively. By focusing on safety and future growth opportunities, the hospital management can foster an environment where health professionals feel valued and motivated, reducing turnover and absenteeism. These considerations are particularly important given the demands and stresses unique to healthcare settings, where job satisfaction directly impacts the quality of patient care.

The study also highlights the need to incorporate demographic factors, such as age, gender, and years of service, into human resource policies. Tailoring recruitment, retention, and promotion practices to acknowledge these factors can help in addressing individual needs, fostering a sense of belonging and engagement across diverse staff demographics. Additionally, recognizing and appreciating the contributions of health workers plays a critical role in enhancing job satisfaction. Establishing formal recognition systems within the hospital, and potentially in collaboration with external health bodies, can elevate morale and reinforce commitment to the hospital's goals. Conducting regular job satisfaction surveys can further strengthen these efforts by providing ongoing feedback, allowing management to address evolving concerns and improving satisfaction levels systematically. Collectively, these strategies not only aim to improve the work environment but also contribute to a stable, motivated healthcare workforce dedicated to high-quality service delivery.

## 6. Conclusion

This study examined factors influencing job satisfaction among health workers at Arua Regional Referral Hospital, with findings indicating a moderate satisfaction level of 60.7%. Key contributors such as age, gender, religion, years in practice, recognition, autonomy, relationships with co-workers, and leadership style suggest actionable areas for improving workplace morale. Policies that address these factors, including career advancement opportunities, structured recognition programs, and supportive leadership approaches, could foster a more motivating environment for healthcare workers. Enhanced job satisfaction not only aids in employee retention but also directly impacts the quality of patient care, as motivated health workers are more likely to perform effectively and remain dedicated to their roles. Furthermore, the study's findings hold broader implications for healthcare management across Uganda, where consistent efforts to improve job satisfaction may help mitigate systemic challenges like absenteeism and turnover. Implementing regular feedback mechanisms, such as satisfaction surveys, and tailoring human resource strategies to account for demographic diversity, could significantly enhance job satisfaction levels in public health facilities. Ultimately, aligning these strategies with workforce needs can strengthen health service delivery, positively influence patient outcomes, and reduce healthcare staff migration within Uganda's healthcare system.

## Declarations

**Ethics approval and consent to participate:** All activities were performed in accordance with relevant guidelines and regulations (Declaration of Helsinki). Ethical clearance (approval) was obtained from the School of Public Health Research Ethics Committee (SPHREC). Informed consent was obtained from all participants of the study.

## Author contributions

OMH drafted the manuscript. PO, AK & SK revised it critically for important intellectual content. PO, AK, and

SK made significant contributions to the study conception and design, as well as coordination and data analysis and interpretation.

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