

Leadership Styles  
And Employee  
Performance In Public  
Hospitals: A Case  
Of Apac Hospital,  
Northern Uganda

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**ABSTRACT**

**Background:** Leadership is a widely discussed topic, both in formal research and informal discussions. Despite its significance, there remains ongoing debate about its impact. This study aimed to evaluate how different leadership styles affect employee performance at Apac Hospital.

**Methods:** A quantitative approach with a cross-sectional survey design was employed. From a population of 137, a sample of 124 respondents was selected using stratified and simple random sampling techniques. Data were analyzed using both descriptive and inferential statistics, including regression analysis.

**Results:** The study found that employee performance at Apac Hospital improved significantly. Transformational leadership had a positive and significant effect on employee performance ( $\beta = 0.391$ ,  $p = 0.001$ ). In contrast, transactional leadership did not significantly impact performance ( $\beta = -0.094$ ,  $p = 0.245$ ). Overall, the study concluded that transformational leadership is a significant predictor of employee performance, explaining 12.7% of the variation in performance, while transactional leadership had no significant effect.

**Conclusion:** Transformational leadership was shown to significantly enhance employee performance at Apac Hospital, whereas transactional leadership had no discernible impact. It is recommended that local governments in Uganda focus on understanding and implementing transformational leadership strategies to better engage and motivate employees.

**Keywords:** Employee performance; Leadership styles; Public hospital

**1. BACKGROUND**

Leadership plays a crucial role in determining the performance and effectiveness of organizations, particularly in sectors such as healthcare, where the quality of service directly impacts human lives (Saeed et al., 2022). In public hospitals, effective leadership is essential for managing resources, motivating staff, and ensuring the delivery of high-quality patient care (Kabunga, Kigongo, Tumwesigye, et al., 2024; Saeed et al., 2022). In developing countries like Uganda, where public healthcare systems are often under-resourced and face numerous challenges (Kabunga, Kigongo, Okalo, et al., 2024; Kigongo et al., 2023), the leadership styles adopted by hospital administrators and managers become even more critical.

Apac Hospital, located in Northern Uganda, serves as a vital healthcare institution for the local population. Like many public hospitals in Uganda, Apac Hospital faces significant challenges, including limited financial resources, inadequate medical supplies, and a shortage of skilled healthcare workers (Kabunga, Tumwesigye, Kigongo, et al., 2024). These challenges are exacerbated by the post-conflict context of Northern Uganda, where

the legacy of the Lord's Resistance Army (LRA) insurgency continues to affect the region's development and healthcare infrastructure (Kabunga & Anyayo, 2021; Luo, 2020).

The literature on leadership styles and employee performance is extensive, covering various sectors, including healthcare (Erschens et al., 2022). Key studies have explored how different leadership styles, such as transformational, transactional, and autocratic leadership, influence employee outcomes like job satisfaction, motivation, and performance (Idowu, 2020; Setiawan et al., 2021). Transformational leadership, in particular, has been identified as a critical factor in fostering a positive work environment, improving job satisfaction, and enhancing employee performance in healthcare settings (Alwali & Alwali, 2022).

However, most of these studies are conducted in well-resourced settings or different regions, especially in developed countries (Cummings et al., 2010). There is limited research specifically addressing the unique context of public hospitals in Northern Uganda, where challenges like post-conflict recovery, resource scarcity, and cultural factors play a significant role in leadership dynamics (Kabunga et al., 2023; Kabunga, Kigongo, Udho, et al., 2024; Okalo et al., 2023). Additionally, while some research addresses leadership in resource-constrained environments, there is a notable gap in exploring how leadership styles impact employee performance in post-conflict regions like Northern Uganda. Furthermore, there is a lack of comprehensive studies that link specific leadership styles with quantifiable employee performance metrics in public hospitals in Uganda. Most existing research tends to focus on qualitative assessments of leadership effectiveness (Ronald et al., 2016) without providing robust empirical evidence on how different leadership styles translate into measurable performance outcomes. Moreover, there is limited literature on the effectiveness of leadership development and training programs in improving leadership styles and, subsequently, employee performance in public hospitals in Uganda.

In this context, the leadership styles adopted by hospital administrators can significantly influence employee performance, job satisfaction, and overall hospital efficiency (Specchia et al., 2021). Understanding the relationship between leadership styles and employee performance in a public hospital setting like Apac Hospital is crucial for developing strategies to improve healthcare delivery in the region. Given the unique challenges faced by public hospitals in Northern Uganda (Miyingo et al., 2023), this study also aims to contribute to the broader discourse on public sector leadership in resource-constrained environments, particularly in post-conflict regions.

## **2. METHODS**

### **2.1 RESEARCH DESIGN**

The institution-based cross-sectional design is appropriate for this study because it allows for the collection of data at a single point in time, providing a snapshot of the relationship between leadership styles and employee

performance in Apac Hospital. This design is particularly effective for identifying patterns and correlations within the population under study without requiring an extended time frame for data collection. Additionally, by using quantitative data, the study can objectively measure the impact of different leadership styles on employee performance, leading to more reliable and generalizable findings. The cross-sectional approach is also practical in a healthcare setting, where prolonged data collection could disrupt hospital operations and affect the validity of the results

## **2.2 STUDY POPULATION**

The study was conducted among employees and supervisors (section heads) across the four healthcare departments at Apac Hospital. The study population included 4 Senior Nursing Officers, 4 Medical Consultants, 4 Nursing Officers in charge, 74 Nurses, 14 Clinical Officers and Doctors, and 37 other staff members. This latter group comprised 2 Human Resource Officers, 4 Laboratory Technicians, 4 Laboratory Assistants, 2 Procurement Officers, 2 Stores Assistants, 2 Health Educators, 4 Health Inspectors, 4 Health Assistants, 2 Dispensers, 2 Anesthetists, 2 Ophthalmic professionals, 2 Dental Officers, 2 Orthopedic staff, 1 Accountant, and 2 Accounts Assistants

## **2.3 SAMPLE SIZE**

The sample size for this study was determined using the Krejcie and Morgan (1970) table for sample size determination, a widely accepted method for estimating the appropriate number of participants needed in a study (Krejcie & Morgan, 1970). Based on this method, out of a total study population of 137 employees at Apac Hospital, the calculated sample size was 124 participants. This ensures that the sample is representative of the population, providing reliable and valid results.

## **2.4 SAMPLING TECHNIQUES AND PROCEDURES**

This study utilized both stratified and simple random sampling techniques. First, the population was divided into strata based on areas of specialization, ensuring that each subgroup within the hospital staff was adequately represented. After establishing these strata, simple random sampling was applied within each group to select participants.

For the simple random sampling process, the job titles of the targeted respondents were written on pieces of paper and placed into an urn. These papers were thoroughly mixed, and then random selections were made to reach the desired sample size. This method ensured that each individual within the strata had an equal chance of being included in the study, enhancing the representativeness and fairness of the sample.

## **2.5 DATA COLLECTION PROCEDURE**

For data collection, closed-ended questionnaires were administered to both section heads and non-section heads to gain a deeper understanding of the relationship between leadership styles and staff performance. The questionnaire was structured into four sections: bio-data, leadership styles, staff performance, and personal

characteristics. Respondents were asked to provide their answers on a five-point Likert scale, ranging from "strongly agree" to "strongly disagree."

To ensure the reliability of the data collection tools, a pilot study was conducted prior to the main study. The overall Cronbach's alpha reliability coefficient for the questionnaire, as administered to nurses and other health workers, was 0.852. This value indicates a high level of internal consistency, which is acceptable according to Sekaran (2005), as it exceeds the commonly accepted threshold of 0.7.

**3. DATA ANALYSIS**

After data collection, the field tools were carefully examined to ensure completeness. Descriptive statistics, including frequencies, percentages, and measures of central tendency and dispersion, were used to summarize and describe the data. Initially, Pearson's correlation coefficient test was conducted to assess the relationship between leadership styles and employee performance.

To further analyze the data, multiple linear regression was employed to examine the effect of transactional leadership style on the performance of supervisors at Apac Hospital, as well as to determine the overall performance of employees. A 5% level of significance was set, with a p-value of 0.05 and a 95% confidence interval, ensuring that the findings were statistically robust and reliable

**3.1 ETHICAL CONSIDERATIONS**

This study was conducted in accordance with the Declaration of Helsinki. Ethical approval was obtained from the Institutional Review Board (IRB). Written informed consent was secured from each participant, ensuring they were fully aware of the study's purpose and procedures. The data collected were kept confidential and anonymous, with no identifying information linking participants to their responses. Participants were provided with a comprehensive explanation of the study's goals by the data collectors and were informed of their right to withdraw from the study at any time without consequence.

**3.2 CHARACTERISTICS OF RESPONDENTS**

As detailed in Table 1, the majority of respondents were adults aged between 36 and 45 years (n = 48, 39.34%), followed by those aged 26 to 35 years (n = 46, 37.7%). In terms of gender, male respondents slightly outnumbered female respondents, with 75 males (60.48%) and 49 females (39.52%). Regarding educational qualifications, most respondents held a diploma (n = 53, 42.74%), followed by those with a bachelor's degree (n = 37, 29.84%). The largest proportion of respondents had worked at the facility for between 5 and 9 years (n = 45, 36.29%).

*Table 1: Respondent Characteristics*

Variable	Frequency	Percentage (%)
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Gender		
Male	49	39.52
Female	75	60.48
Age category		
<25	6	4.92
26-35	46	37.7
36-45	48	39.34
46-55	19	15.57
56+	3	2.46
Length of time of work at hospital		
0-4	43	34.68
5-9	45	36.29
10-15	24	19.35
16-20	10	8.06
21+	2	1.61
Duration of work with supervisor		
0-4	47	37.9
5-9	50	40.32
10-15	21	16.94
16-20	6	4.84
Level of education		
Certificate	34	27.42
Diploma	53	42.74
Bachelor	37	29.84

**3.3 DESCRIPTIVE STATISTICS OF LEADERSHIP STYLES**

As illustrated in Table 2, the respondents' perceptions of leadership styles yielded the following results: Supervisors were generally viewed as displaying a strong sense of power (mean = 4.48, SD = 0.62) and providing complete trust (mean = 3.74, SD = 0.97). They were also seen as emphasizing the importance of having a strong sense of purpose (mean = 4.01, SD = 0.76) and considering the moral and ethical consequences of their decisions (mean = 4.31, SD = 0.59). Additionally, supervisors were perceived as stressing the importance of a collective sense of mission (mean = 4.29, SD = 0.15) and articulating a compelling vision of the future (mean = 4.30, SD = 0.16). They were also noted for suggesting new ways to approach assignments (mean = 3.90, SD = 0.25) and seeking differing perspectives when solving problems (mean = 3.61, SD = 1.11). The overall grand mean of 4.08 indicates that, in general, supervisors were perceived as exhibiting transformational leadership qualities.

*Table 2: Transformational Leadership Styles*

Variables	Mean	SD	CV
1. My supervisor displays a sense of power	4.48	0.62	0.14
2. My supervisor Provides complete trust	3.74	0.97	0.26
3. My supervisor Specifies the importance of having a strong sense of purpose	4.01	0.76	0.19
4. My supervisor Considers the moral and ethical consequences of decisions	4.31	0.59	0.14
5. My supervisor Emphasizes the importance of having a collective sense of mission	4.29	0.64	0.15
6. My supervisor Articulates a compelling vision of the future	4.30	0.68	0.160

7. My supervisor Suggests new ways of looking at how to complete assignments	3.90	0.99	0.25
8. My supervisor Seeks differing perspectives when solving problems	3.61	1.11	0.31
Average	4.08	0.79	0.20

**3.4 TRANSACTIONAL LEADERSHIP STYLES**

As presented in Table 3, the respondents reported the following observations about transactional leadership styles: Supervisors were perceived as exhibiting a sense of power (mean = 4.48, SD = 0.62) and providing complete trust (mean = 3.74, SD = 0.97). They were also noted for specifying the importance of having a strong sense of purpose (mean = 4.01, SD = 0.76) and considering the moral and ethical consequences of their decisions (mean = 4.31, SD = 0.59). Additionally, supervisors were seen as emphasizing a collective sense of mission (mean = 4.29, SD = 0.15) and articulating a compelling vision of the future (mean = 4.30, SD = 0.16). They suggested new ways to approach assignments (mean = 3.90, SD = 0.25) and sought differing perspectives when solving problems (mean = 3.61, SD = 1.11). The overall grand mean of 4.08 suggests that supervisors were generally perceived as adopting a transformational leadership style rather than a strictly transactional one.

Table 3: Transactional Leadership Styles

Variables	Mean	SD	CV
1. My supervisor waits that problems must become chronic before taking action	2.42	1.48	0.61
2. My supervisor waits for things to go wrong before taking action	2.61	1.44	0.55
3. My Concentrates his/her full attention on dealing with mistakes, complaints and failures	3.51	1.15	0.33
4. My supervisor keeps track of all mistakes	3.68	1.09	0.30
5. My supervisor focuses attention on deviations from standards	3.63	1.06	0.29
6. My supervisor focuses attention on exceptions	3.43	1.06	0.31
7. My supervisor Provides me with assistance in exchange for my efforts	3.73	1.02	0.27
8. My supervisor Discusses in specific terms who is responsible for achieving performance targets	3.98	0.85	0.21
9. My supervisor Makes clear what one can expect to receive when performance goals are achieved	4.15	0.79	0.19
Average	3.46	1.10	0.34

**3.5 EMPLOYEE PERFORMANCE**

As detailed in Table 4, the findings regarding employee performance are as follows: Respondents generally agreed that the facility has a sufficient number of health workers to provide services (mean = 3.36, SD = 1.20), and they spend a significant portion of their time attending to patients (mean = 3.99, SD = 0.99). The management structures in the facility were seen as supportive of health worker performance (mean = 3.96, SD = 0.84). Respondents also felt that it is easy to use their knowledge and skills to improve patient safety (mean = 4.46, SD = 0.70), and they make timely referrals of patients when necessary (mean = 4.21, SD = 0.87). Furthermore, they were able to effectively use available communication technology (computers and phones) to support patient care (mean = 4.55, SD = 0.65). The cluster mean for employee performance was 3.81, indicating an overall improvement in performance. Notably, the coefficient of variation for the item "I am able to use the

available communication technology to support patient care (computer and phone)" was the lowest (CV = 0.140), suggesting minimal variation and a high level of agreement among respondents on this aspect.

Table 4: Employee Performance

Variable	Mean	SD	CV
1. This facility has adequate numbers of health workers to deliver the services.	3.36	1.20	0.36
2. In this facility, there is enough and constant supply of medicines and supplies.	3.01	1.20	0.40
3. I spend most of my time at work attending to the patients.	3.99	0.99	0.25
4. The management structures in this facility encourage the performance of health workers	3.96	0.84	0.21
5. In this facility, it very easy to use my knowledge & skills to improve safety of patients due some other factors	4.46	0.70	0.16
6. I do timely referrals of patients in case of management above my level.	4.21	0.87	0.21
7. I do timely referrals of patients in case of management above my level.	2.95	1.25	0.42
8. I am able to use the available communication technology to support patient care (computer and phone).	4.55	0.65	0.14
Average	3.81	0.96	0.27

### 3.6 RELATIONSHIP BETWEEN CONSTRUCTS OF LEADERSHIP STYLES AND EMPLOYEE PERFORMANCE

The results presented in Table 5 reveal a positive and significant correlation between employee performance and transactional leadership ( $r = 0.337, p < 0.05$ ). This indicates that higher scores in transactional leadership are associated with improved employee performance. Additionally, there is a positive and significant correlation between transformational leadership and transactional leadership ( $r = 0.449, p < 0.05$ ), suggesting that as the effectiveness of transformational leadership increases, so does the effectiveness of transactional leadership.

Table 5: Correlation Matrix

Variables	(1)	(2)	(3)
(1) Employee Performance	1.000		
(2) Transformational leadership	0.337* (0.001)	1.000	
(3) Transactional Leadership	0.103 (0.315)	0.449* (0.000)	1.000
* $p < 0.05$			

### 3.7 REGRESSION ANALYSIS FOR PREDICTING EMPLOYEE PERFORMANCE

A multivariate regression model was utilized to assess the relative importance of transformational and transactional leadership styles in predicting employee performance. The regression analysis results, as shown in Table 6, indicate that transformational leadership ( $\beta = 0.391, p\text{-value} = 0.001$ ) is a significant predictor of employee performance. This suggests that transformational leadership has a substantial positive impact on how employees perform.



Conversely, the analysis in Table 8 reveals that transactional leadership ( $\beta = 0.094$ ,  $p\text{-value} = 0.245$ ) does not significantly predict employee performance. The linear regression analysis demonstrated that only transformational leadership ( $p = 0.001$ ,  $\beta = 0.391$ ) significantly influences employee performance, highlighting its critical role in enhancing performance outcomes.

Table 6: Linear Regression for predicting Employee Performance

Employee Performance	Coef.	St. Err.	t-value	p-value	[95% Conf Interval]	Sig
Transformation	.391	.118	3.31	0.001	.156 .626	***
Transactional	-.094	.08	-1.17	0.245	-.254 .066	
Constant	2.582	.403	6.41	0.000	1.78 3.384	***

Model Summary

Mean dependent var	3.779	SD dependent var	0.418
Adjusted R-squared	0.127	Number of obs	81
F-test	5.657	Prob > F	0.005
Akaike crit. (AIC)	82.398	Bayesian crit. (BIC)	89.581
*** p<.01, ** p<.05, * p<.1			

4. DISCUSSION

The aim of the study was to examine the relationship between leadership styles and employee performance in public hospitals in Apac district. The results revealed that transformational leadership ( $\beta = 0.391$ ,  $p\text{-value} = 0.001$ ) was a significant predictor of employee performance, indicating that increased transformational leadership enhances employee performance. Conversely, transactional leadership ( $\beta = -0.094$ ,  $p\text{-value} = 0.245$ ) did not significantly predict employee performance. This suggests that while transformational leadership plays a crucial role in improving performance, transactional leadership does not have a significant impact in this context. These findings highlight the importance of transformational leadership in fostering better employee performance within the studied hospitals.

The study results demonstrate that transformational leadership ( $\beta = 0.391$ ,  $p\text{-value} = 0.001$ ) significantly predicts employee performance. This implies that an increase in transformational leadership is associated with enhanced employee performance, assuming all other factors remain constant. This finding underscores the substantial impact of transformational leadership on performance in public hospitals within the Apac district. It aligns with previous research by Chebon et al. (2019), which found that transformational leadership positively influences employee performance in hospital settings (Chebon et al., 2019).. Additionally, the work by Linge and Sikalieh (2019) supports these results, showing that idealized influence, a component of transformational leadership, significantly predicts job performance (Linge & Sikalieh, 2019). Based on these findings, it is recommended that leaders align their values with those of their organization and actively socialize their employees to these values, enhancing the effectiveness of transformational leadership.

In contrast, transactional leadership ( $\beta = -0.094$ ,  $p$ -value = 0.245) did not significantly predict employee performance. This suggests that transactional leadership had no substantial effect on performance in the public hospitals of Apac district. This finding diverges from Hamdan's (2020) study, which suggested that entrepreneurial leadership can influence worker performance (Hamdan, 2020). Similarly, Gitoho et al. (2016) found that management by exception, a facet of transactional leadership, significantly impacted job satisfaction (Gitoho et al., 2016). However, these results contrast with Islami et al. (2018), who identified various factors such as goal-setting and continuous communication as critical for enhancing employee effectiveness (Islami et al., 2018). thus, challenging the efficacy of transactional leadership in this context. To improve employee welfare, it is essential for supervisors to adopt transformational leadership styles. This approach should be complemented by additional motivational strategies, including involving staff in decision-making and offering comprehensive remuneration packages. Given the high-stress nature of hospital work, such measures can enhance employee commitment and performance.

#### **4.1 STRENGTH AND LIMITATIONS OF THE STUDY**

The study on leadership styles and employee performance at Apac Hospital in Northern Uganda demonstrates notable strengths. It provides a detailed examination of how different leadership styles impact employee performance within the specific context of a public hospital, offering valuable insights into the practical implications of leadership on staff efficacy. The focus on a single case study allows for an in-depth analysis of contextual factors unique to Apac Hospital, which can yield nuanced findings relevant to similar settings. However, the study also has limitations. The use of a single case study design may limit the generalizability of the findings to other hospitals or regions with different organizational dynamics. Additionally, the research relies on self-reported data from employees and leaders, which may be subject to bias or inaccuracies in perception. To enhance the robustness of the findings, future research could incorporate multiple case studies or quantitative measures to validate and extend the insights gained from this study.

#### **5. CONCLUSION**

The study concluded that transformational leadership significantly enhances employee performance at Apac Hospital. In contrast, transactional leadership did not show a significant impact on performance. It is recommended that local governments in Uganda deepen their understanding of effective engagement and motivational strategies to boost employee performance in public hospitals.

#### **6. REFERENCES**

Alwali, J., & Alwali, W. (2022). The relationship between emotional intelligence, transformational leadership, and performance: A test of the mediating role of job satisfaction. *Leadership & Organization Development Journal*, 43(6), 928–952.

- Chebon, S. K., Aruasa, W. K., & Chirchir, L. K. (2019). Influence of individualized consideration and intellectual stimulation on employee performance: lessons from Moi Teaching and Referral Hospital, Eldoret, Kenya. *IOSR Journal of Humanities and Social Science*, 24(7), 11–22.
- Cummings, G. G., MacGregor, T., Davey, M., Lee, H., Wong, C. A., Lo, E., Muise, M., & Stafford, E. (2010). Leadership styles and outcome patterns for the nursing workforce and work environment: a systematic review. *International Journal of Nursing Studies*, 47(3), 363–385.
- Erschens, R., Seifried-Dübon, T., Stuber, F., Rieger, M. A., Zipfel, S., Nikendei, C., Genrich, M., Angerer, P., Maatouk, I., & Gündel, H. (2022). The association of perceived leadership style and subjective well-being of employees in a tertiary hospital in Germany. *PLoS One*, 17(12), e0278597.
- Gitoho, S. W., Kamau, J. N., & Muchara, M. (2016). *Influence of Transactional Leadership on Employee Job Satisfaction: Case Study of Firms Listed on the Nairobi Securities Exchange*.
- Hamdan, J. B. (2020). Theory and Evidence on the Relationship between Leadership Style and Organizational Performance: A Case in Small Medium Enterprises in East Malaysia. *International Business Research*, 13(7), 265.
- Idowu, S. A. (2020). *Impact of leadership styles on employees' work performance in Some South-Western Nigerian private universities*.
- Islami, X., Mulolli, E., & Mustafa, N. (2018). Using Management by Objectives as a performance appraisal tool for employee satisfaction. *Future Business Journal*, 4(1), 94–108.
- Kabunga, A., & Anyayo, L. (2021). *Depression and associated factors among refugees amidst Covid-19 in Nakivale Refugee Camp in Uganda*.
- Kabunga, A., Kigongo, E., Musinguzi, M., Tumwesigye, R., & Acup, W. (2023). A systematic review and meta-analysis of the prevalence of depression among breast cancer patients in Sub-Saharan Africa. *Avicenna Journal of Neuro Psycho Physiology*, 10(1), 0.
- Kabunga, A., Kigongo, E., Okalo, P., Udho, S., Grace, A. A., Tumwesigye, R., Akello, A. R., Musinguzi, M., Acup, W., & Nabaziwa, J. (2024). Burnout and coping mechanisms among healthcare professionals in central Uganda. *Frontiers in Psychiatry*, 15, 1373743.
- Kabunga, A., Kigongo, E., Tumwesigye, R., Udho, S., Musinguzi, M., Acup, W., Auma, A. G., Akello, A. R., Okalo, P., & Nabaziwa, J. (2024). A systematic review and meta-analysis of compassion fatigue among healthcare professionals before and during COVID-19 in Sub-Saharan Africa. *PLOS Global Public Health*, 4(6), e0003388.
- Kabunga, A., Kigongo, E., Udho, S., Auma, A. G., Tumwesigye, R., Musinguzi, M., Acup, W., Ruth Akello, A., Okalo, P., & Nabaziwa, J. (2024). An Analysis of Post-Traumatic Stress Disorder and Quality of Life Among Adults Living with HIV in Western Uganda. *HIV/AIDS-Research and Palliative Care*, 73–82.
- Kabunga, A., Tumwesigye, R., Kigongo, E., Musinguzi, M., Acup, W., & Auma, A. G. (2024). Systematic review and meta-analysis of postpartum depression and its associated factors among women before and after the COVID-19 pandemic in Uganda. *BMJ Open*, 14(7), e076847.
- Kigongo, E., Kabunga, A., Tumwesigye, R., Musinguzi, M., Izaruku, R., & Acup, W. (2023). Prevalence and predictors of COVID-19 vaccination hesitancy among healthcare workers in Sub-Saharan Africa: A systematic review and meta-analysis. *Plos One*, 18(7), e0289295.
- Krejcie, R. V., & Morgan, D. W. (1970). Sample size determination table. *Educational and Psychological Measurement*, 30, 607–610.
- Linge, T. K., & Sikalieh, D. (2019). Influence of idealized influence on employee job performance in the insurance industry in Kenya. *International Journal of Research in Business and Social Science (2147-4478)*, 8(5), 266–273.
- Luo, J. (2020). *Cango Lyc (Healing the Elephant): exploring impacts of the Lord's Resistance Army insurgency on mental health of conflict-affected populations in Northern Uganda*. University of British Columbia.
- Miyingo, C., Mpayenda, T., Nyole, R., Ayinembabazi, J., Ssepuuya, M., Ssebuwufu, E. M., Puleh, S. S., Udho, S., & Kabunga, A. (2023). HIV treatment and care of adolescents: perspectives of adolescents on community-based models in northern Uganda. *HIV/AIDS-Research and Palliative Care*, 105–114.

- Okalo, P., Arach, A. A., Apili, B., Oyat, J., Halima, N., & Kabunga, A. (2023). Predictors of Unintended Pregnancy Among Adolescent Girls During the Second Wave of COVID-19 Pandemic in Oyam District in Northern Uganda. *Open Access Journal of Contraception*, 15–21.
- Ronald, M. O., Aisha, N. L., & Babu, M. J. (2016). Analysis of the effect of leadership styles on staff retention in selected private hospitals in Kampala district, Uganda. *European Journal of Business and Management*, 8(9), 141–150.
- Saeed, H., Som, H. M., & Mahmood, R. (2022). Leadership styles, organizational culture, and innovation in healthcare: A conceptual framework. *International Journal of Academic Research in Business and Social Sciences*, 12(8), 1390–1408.
- Setiawan, R., Cavaliere, L. P. L., Navarro, E. R., Wisetsri, W., Jirayus, P., Chauhan, S., Tabuena, A. C., & Rajan, R. (2021). The impact of leadership styles on employees productivity in organizations: A comparative study among leadership styles. *Productivity Management*, 26(1), 382–404.
- Specchia, M. L., Cozzolino, M. R., Carini, E., Di Pilla, A., Galletti, C., Ricciardi, W., & Damiani, G. (2021). Leadership styles and nurses' job satisfaction. Results of a systematic review. *International Journal of Environmental Research and Public Health*, 18(4), 1552.