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## The influence of employee orientation on employee performance in healthcare sector in Kisii County

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### Abstract

The Kenyan government more especially the county governments have faced several human resource challenges in devolved government services, including employee turnover and improper management of health workers. The study sought to establish the influence of employee orientation on employee performance in healthcare sectors in Kisii County. The study adopted a survey research design with simple random sampling and purposive sampling techniques used identifying respondents for the study. The target population consisted of 498 employees in the Sub-County hospitals in Kisii County. The study sample involved 222 employees. Data analysis was done using SPSS version 25. The data was presented in the form of graphs and tables. The results indicated that there is a positive relationship between employee orientation and employee performance with correlation ( $r = 0.376$ ) with a sample size of  $N=200$ . Any change in employee orientation causes a positive correlation value of (0.376) unit change in employee performance. The relationship is statistically significant at  $Pvalue < (0.01)$ .

**Keywords:** Employee orientation, employee performance, onboarding, healthcare sector

### Introduction

Identification of new talents is critical in onboarding new employees (Hirsch, 2017) [27]. Orientation aims to have new employees identify themselves and begin doing productive work as soon as possible, while also ensuring their commitment to the organizational goals (Ross, Huang, and Jones, 2014) [25]. A good onboarding practice upon the entry of a new employee into an organization ensures that orientation, coaching, mentoring, and a follow-up evaluation plan are completed while seeking feedback, among other Human Resource Practices (Room, 2019) [22]. Landon and O'Keefe (2018) [13] in a study on team training is a realized orientation as a variable that supports the imparting of expert knowledge to support crew performance at mission control and reduces the time and burden of orientation interactions, and increases employee retention. Practicing orientation increases rates retention of employee (Thoma, Ganger, Peterson, and Kelly, 2016) [9] provided there is involvement of stakeholders, departmental heads, and top management in supporting orientation successfully strengthened the onboarding program Gorman's (2017) [28] study on individualizing orientation process, and whether it would reduce the orientation process and integrate Certified Registered Nursing Anesthetists (CRNAs) when they enter a large medical center and whether it can lead to increased job satisfaction. The development of an orientation process and tool was done and used to orient newly employed CRNAs at Mayo clinic between September 2016 and February 2017 and compared using a survey design with CRNAs hired between October 2011 and June 2016, and the time taken to, and after the intervention. The findings indicated the orientation time decreased from 12 months to 5.25 months after the intervention group resulting in reduced time spent on individualized orientation. Increased satisfaction of CRNAs moved upwards from 69% in pre-intervention to 78% in post-intervention. The study concluded that orientation allowed new employees to assimilate fast, reducing time and costs for integration, creating time for performance action. A study of psychological orientation, commitment, and employee performance in Kampala, Uganda found a relationship between psychological orientation and employee commitment at  $r = .998$ ,  $p = .015$ ,  $N = 213$  and a relationship between psychological orientation and employee performance and employee commitment and employee performance at  $r = .419$ ,  $p = .041$ ,  $N = 213$ . Respondents in the survey included 213 personnel from various departments under the Kampala City Council Authority (KCCA). Psychological orientation proved that it required more time and resources because it predicts employee performance better than any

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Other component under investigation (Nabayinda and Matovu, 2020) <sup>[16]</sup>. Antwi, Tampah-Naah, and Buame (2019) <sup>[4]</sup> investigated the effectiveness of employee orientation in helping new employees learn about an organization's philosophy. The study demonstrated a lack of knowledge of the conditions of service, university legislation, the scheme of work, and even the schedule of duties at work, since orientation conducted was insufficient to increase employee performance. Face to face orientation not enough to enhance performance. The study recommended that the management should reorganize the current training model to improve learners' outcomes and improve performance.

A study on the effect of the orientation program on new employees' performance indicated that orientation improved employee performance (Ndayisaba, 2017) <sup>[17]</sup> at the United States International University-Africa, Kenya. The results indicated that orientation program has a significant relationship with employee performance with orientation methodology, employee predominance, and factors affecting orientation programs.

The Kenyan government has faced several human resource challenges in devolved government services, including employee turnover and improper management of health workers, among other issues (Magokha, 2015) <sup>[14]</sup>. In this case, the government created a proposed competency framework for human resource management in the Devolved Human Resource Management Policy guidelines on Human Resources for Health in 2016. The goal was to assist the county government in attracting and retaining staff with skills and knowledge through a mandatory onboarding program that would last three months in order to address the issue of having unskilled employees in the healthcare sector. The Kisii County Annual Development Plan 2020-2021 indicates that Primary Healthcare is fundamental in achieving quality healthcare as stipulated in the National Government's *Four Big* agendas. This depends on having sufficient well-trained healthcare employees well integrated into the healthcare services. This is also articulated in the Kisii County Annual Capacity and Performance 2017-2018 report to provide competitive quality public services

## Methodology

### Research Design

The research employed descriptive research survey design. The descriptive design concentrated on gathering information to reflect a population's attitudes, behavior, opinions, and beliefs that can't be observed directly in order to determine the correlation of variables and how one variable affects another. This is consistent with Olusola *et al.* (2013) <sup>[19]</sup>, who define descriptive research as a method of gathering information by cross-examining and administering a questionnaire to a sample population in order to accomplish inquiry.

### Study Area

The researcher carried out a study in nine Sub-County Hospitals in Kisii County, Kenya. Kisii County is one of 47 counties in Kenya's new county governance systems. The County has a total area of 1,332.7 km<sup>2</sup> and a population of approximately 1,226,860 people. It is highland equatorial climate with two bimodal rainfall patterns and is located between latitude 0 30' and 1 0' South and longitude 34 38' and 35 0' East, bordered to the south by Narok County, to the west by Homabay and Migori Counties, and to the northeast by Nyamira County.

## Target Population

The target population for this study was 498 employees from all the nine Sub-County Hospitals in Kisii County. The study selected nine Sub-County hospitals, mainly referral hospitals that hold the cadre of employees involved in this study. The employees included Medical Officers, clinical officers, nurses, laboratory technicians, pharmacists, and administrative staff. Onboarding of new employees is the foundation of better healthcare employee performance; its success or failure only be determined by the entire healthcare system. The availability of skilled and motivated employees in Sub-County Hospitals is crucial to the success of the entire healthcare system. The researcher, therefore, assumed that the structure of onboarding practices and the performance of employees in Sub-County Hospitals provided an insight into the new employee onboarding practices and the quality of healthcare in Kenya. The study-involved employees employed between three months and ten years as they represented the most recent group that was exposed to the organization structure and were within the study range.

## Sample Size

The sample size consisted of 222 respondents selected from the target population. The 222 respondents distributed among Sub-County Hospitals were as indicated in Table 3.2 below. The sample size was determined using the Taro Yamane (1967) sample determination formula:

$$n = \frac{N}{K + N(e)^2}$$

Where

n = signifies the sample size

N = signifies the study Population

K = constant (1)

e = signifies the acceptable margin error (95% confidence level and 0.05 are assumed).

## Sample Frame

The sample frame of this survey was a list of the medical staff and administrative staff at the Sub-County Hospitals in Kisii County.

## Sampling Procedure

The study employed simple random sampling and purposive sampling techniques to collect samples. The research employed a simple random sampling technique by generating a sampling list of all the respondents. Simple random sampling is a technique that selects samples without bias from a selected accessible population (Oso and Onen, 2011) <sup>[18]</sup>. The study used simple random sampling to ensure that every person in Sub-County Hospitals has an equal and independent chance of representation (Oso and Onen, 2011) <sup>[18]</sup>. The researcher purposively involved employees who have been in the hospitals for more than three months and less than ten years because they had gone through the onboarding processes and were fundamental for the study.

## Data analysis

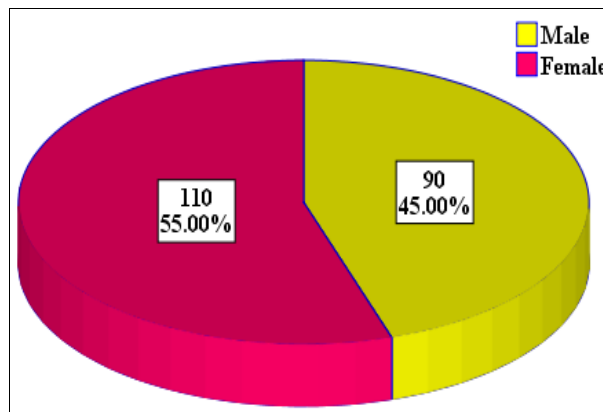
Data collected was analyzed using descriptive statistics design and majorly for summarizing data collected. The descriptive statistical methods including measures of frequency that is; count (frequency) and percent were used for data analysis. Inferential statistics; correlation coefficient

analysis(r), and multiple linear regression analysis techniques were used to analyze data. Correlation (r) analysis measured the relationship between the variables under study. Correlation analysis is the measure of the degree of association between one or more means of variables obtained from the same group of subjects (Oslo & Onen 2011) <sup>[18]</sup>. In this study, correlation (r) analysis

compared the differences between the means of employee performance.

**Results and Discussion**

The study sought to establish the gender distribution of the respondents in Sub-County Hospitals in Kisii County.

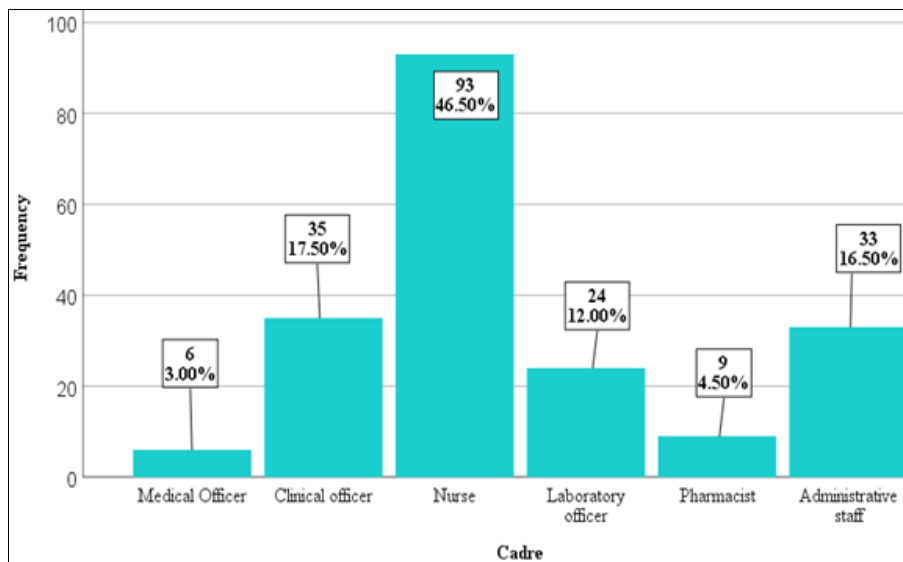


Source: Field data (2022)

**Fig 1:** Pie chart showing the distribution of gender of the respondents

The pie chart above in Figure 1 shows the distribution of the gender of respondents. It depicts that out of the total 200 respondents 110 (55.0%) represent the number of female respondents more than half of the population sample while males being at (45%) represent 90 respondents. Hence, there was a slight difference between the numbers of respondents

in terms of gender? Supported by the study by (Henry-Moss, 2018) that female workers in most of medical facilities have a higher number of representations. The study sought to understand the cadre of employees who participated in the study



Source: Field data (2022)

**Fig 2:** Bar Graph Showing Cadre Distribution of the Respondents Cadre Distribution

Figure 2 above shows the distribution of the cadre among the respondents, we were able to observe that, almost half of the respondent population were nurses with 93(46.50%) which also reveals that most of the hospitals are largely occupied by nurses under the medical personnel as they offer most of the services. Secondly, clinical officers and Administrative Staff had almost the same distribution of 35(17.50%) and 33(16.50%). From this, we can deduce that they are the second-largest occupants of the hospital's medical and administrative running of the facilities. Lower turnout was experienced with laboratory officers,

Pharmacists, and medical officers with a percentage and Frequency distribution of 24(12.00%), nine (4.50%), and six (3.00%) respectively, which means that these positions require a minimized number of personnel to perform these duties.

**The Influence of Employee Orientation on Employee Performance**

The research aimed at finding statistics to establish the influence of employee orientation on employee performance in healthcare sectors in Kisii County. Descriptive statistics

was used with the help of 5-Point Likert Scale to establish the relevant information that helped to measure employee

orientation on employee performance as shown in Table 1 below.

**Table 1:** Descriptive Statistics of Employee Orientation

	N	Minimum	Maximum	Mean	Std. Deviation
The hospital culture influenced you to work hard.	200	1	5	3.62	1.167
The hospital culture demonstrated an atmosphere of teamwork.	200	1	5	3.90	.937
The strategic hospital policies were well defined.	200	1	5	3.92	.950
The hospital strategic vision and mission of the hospital were clearly communicated.	200	1	5	4.02	.959
The hospital operational systems corresponded with the strategic goals.	200	1	5	3.68	1.020
The hospital structure demonstrated clear division of roles and responsibilities.	200	1	5	4.05	.996
The hospital internal structure was well defined.	200	1	5	3.94	.883
The hospital structure demonstrated teamwork and cooperation.	200	1	5	3.98	.946
The hospital structure demonstrated clear line of authority.	200	1	5	3.89	1.009
Average Mean and Standard deviation				3.89	0.7152

Source: Field data 2022

Table 1 above, shows the descriptive statistic distribution of employee orientation as one of the independent variables of the research. The hospital culture influenced employee performance with (m 3.62, S.D 1.162) represented results on the question that, the hospital culture influenced you to work hard. The hospital culture demonstrated an atmosphere of teamwork with (m= 3.90, S.D.939). Basing on the outcome for the two observations, it showed that since the standard deviation was small then all the responses were closer to the mean, hence there was a small variation in the responses. The results for, all the remaining observations on how to measure the effect of employee orientation for employee performance indicated that all were varying but near to mean. Thus, the results showed some normality aspect. Considering this outcome, it was clear that indeed those employees who were able to go through employee orientation process then, they were affected positively as from (Lepore, 2018) [29] affirms that; a good environment with the best culture will influence any new employee to

work hard and adapt to the working environment very fast. Furthermore, the study of (Howard, 2015) [31], revealed that; well-defined policies on employee orientation will enhance employee performance when well followed during and after the orientation process. In the study of (Brekemans *et al.* 2013) [5], was in support of the research that; if all the healthcare givers are divided into different units as per their qualifications and skills then more services will be delivered to anybody in need of without any delay. Lastly, from (Freidson, 2017) [6], affirmed that, a well layout of authority in any given hospital or organization, will increase employee performance since most of the issues that will arise during the normal working hours has a proper channel of solving. In general, this indicated that indeed most of the hospitals under the area of study embraced employee orientation to its new employees for a better servicing time at the facility, thus this helped to achieve the aim of establishing the effect of employee orientation on employee performance.

**Analysis of employee Performance indicators**

**Table 2:** below, shows the distribution of the dependent variable of the study (Employee Performance). Descriptive Statistics of Employee Performance

	N	Minimum	Maximum	Mean	S.D
Patients/caregivers are educated on self-management.	200	1	5	4.08	1.297
Patient medical records are well maintained.	200	1	5	4.53	.929
Patients are provided with education and instructions after hospital care	200	1	5	4.26	1.104
Patient’s understanding is assessed.	200	1	5	4.04	1.107
After a patient planned discharge, a follow-up is conducted.	200	1	5	3.44	1.348
The number of patients I attend to in a week is more than the recommended ratio.	200	1	5	3.86	1.512
The number of staff attending to patients is enough.	200	1	5	2.28	1.582
Expectations and supporting education were provided during orientation on care transitions.	200	1	5	3.66	1.346
There is mixed role performance due understaffing compromising quality of healthcare.	200	1	5	3.99	1.339
My colleagues and I get along well working towards achieving a shared goal.	200	1	5	4.39	.867
Valuing and appreciating patients for providing the right information is what I do regularly.	200	1	5	4.37	.915
Training was provided on how to track patient healing processes.	200	1	5	3.59	1.484
Average Mean and Standard deviation				3.87	0.6196

Source: Field data (2022)

Table 2 above shows the average mean of 3.87 of the results. It shown that the distribution of almost all the other means near the central value as from (2.28 to 4.53) with the standard deviation of the study having an average of 0.6196. This means that the responses of the employee performance did not vary with a large deviation, thus, it means most of the Sub-County Hospital under the study had an effective effect of employee onboarding process to help them perform

well as new employee. From the study of (Powell *et al.*, 2016) [20] re-affirmed that indeed most of the hospital caregivers need self-management skills. The results, in this case mean that most Sub-County hospitals in Kisii County were able to provide education on self-management for both patients and caregivers during the onboarding process. Hence, through a vigorous onboarding exercise, (Roehrs, *et al.*, 2017) [21] emphasize on a good

record keeping for all patient medical history enhance better employee performance.

Furthermore, the results in (Jackson *et al.*, 2015) <sup>[11]</sup>, maintained that, a well-planned patient checkup after discharge is important since it reduces chances of patient readmission rate hence improving employee performance. Considering whether most of the selected Sub-County Hospitals had enough staff, (Aiken, 2012) <sup>[1]</sup>, that or better and quality services at a healthcare facility there is need to have enough staff to provide required services hence, it will lead to new employee’s improved performance than when the ratio is need inadequate. In support of (Anderson, 2016) <sup>[3]</sup>, that during the medical service delivery process the patient, a well-trained healthcare will track the patient healing process thus, to reduces cases of patient readmission. The same results of the study were supported by (Grillo, 2015) <sup>[30]</sup>, “The onboarding process is critical for successful employee performance and retention” thus through improved process of onboarding program towards enlightening the new employees will led to more Sub-County hospitals to deliver quality services.

**Correlation between the Employee Orientation (EO) and Employee Performance (EP)**

The assessment conducted correlation analysis to determine the relationship between the independent variables of employee orientation (EO), and the dependent variable of employee performance (EP) as shown in Table 2 below.

**Table 3:** Correlation distribution

		EO	EP
EO	Pearson Correlation	1	.376**
	Sig. (2-tailed)		.000
	N	200	200
EP	Pearson Correlation	.376**	1
	Sig. (2-tailed)	.000	
	N	200	200

Source: Field data 2022

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 3 above shows the correlation relationship between employee orientation and employee performance within the Healthcare Sector of Kisii County, analyzed by using the Pearson product-moment correlation coefficient statistics method. From table3 statistic correlation directed that there is a positive relationship between employee orientation and employee performance with correlation (r =0.376) with a sample size of N=200. This shows that any change in employee orientation causes a positive correlation value of (0.376) unit change in employee performance. The relationship is statistically significant since the p-value of (0.000) < (0.01) level of significance.

The positive correlation, in this case, means that when there is an enhancement of new employee orientation then it will cause a positive change in employee performance and also it means that if there is no or very minimal employee orientation program for the new employees, then it will reduce the employee performance. Thus, this means that the change is essential to the healthcare sector in Kisii County, whereby, the County Government has to ensure that there is enough and well-implemented new employee orientation program in all its healthcare facilities to entirely develop and improve healthcare delivery services to the people. The hospitals’ employee orientation showed a significant

positive correlation with its employee performance. Employee orientation showed a substantial direct and positive relationship with all factors of employee performance, which made it clear that any company or organization has to apply the use of an employee orientation program for success to be achieved (Ndayisaba, 2017) <sup>[17]</sup>.

**Conclusion**

There is a statistical significant relationship between employee orientation and employee performance in healthcare sector.

**References**

1. Aiken LHC. Patient safety, satisfaction, and quality of hospital care: cross; c2012.
2. Sectional surveys of nurses and patients in 12 countries in Europe and the United States. *BMJ*. 2012;344:e1717. <https://doi.org/10.1136/bmj.e1717>.
3. Anderson JG. Examination of the perceptions of registered nurses regarding the use of healing touch in the acute care setting. *Journal of Holistic Nursing*. 2016;34(2):167-176.
4. Antwi EA, Tampah-Naah C, Buame JA. Exploring blended training. Scheme to improve training outcomes: An assessment of orientation training programs in university for development studies. *ExUDS International Journal of Development [UDSIJD]* ISSN. 2019;6(3):2026-5336. <http://www.udsijd.org>
5. Brekelmans GB, Poell RF, Van Wick K. Factors influencing continuing professional development: A Delphi study among nursing experts. *European Journal of Training and Development*. 2013;37(3):313-325. <https://doi.org/10.1108/03090591311312769>.
6. Freidson E, Lorber J. *Medical professionals and the organization of knowledge*. Routledge; c2017.
7. Gorman K. *Individualizing the orientation process for newly hired CRNAs in a large academic medical center [Doctoral Dissertation]*, University of Michigan-Flint; c2017.
8. Henry-Moss D, Abbuhl S, Bellini L, Spatz DL. Lactation space experiences and preferences among health care workers in an academic medical center. *Breastfeeding Medicine*. 2018;13(9):607-613.
9. Hofler L, Thomas K. *Transition of New Graduate Nurses to the Workforce*; c2016.
10. *Challenges and Solutions in the Changing Health Care Environment*. North Carolina Medical Journal. 2016;77(2):133-136. <https://doi.org/10.18043/nmc.77.2.133>
11. Jackson C, Shahsahebi M, Wedlake T, DuBard CA. Timeliness of outpatient follow-up: an evidence-based approach for planning after hospital discharge. *Annals of family medicine*. 2015;13(2):115-122. <https://doi.org/10.1370/afm.1753>
12. Kisii County, Finance and Economics Planning. *Annual Development Plan*; c2019.p. 2020-2021. <https://www.kisii.go.ke>.
13. Landon LB, O’Keefe WS. *Team training is a Go: Team Training for Future; Spaceflight’ Building Intelligent Tutoring Systems for Teams*. Emerald Publishing Limited. 2018;(19):279-298. <https://doi.org/10.1108/S1534-085620180000019015>.
14. Magokha T. *Blame game as Kenya’s health crisis hurts’*

- standards, Nairobi; c2015.  
<http://www.standardmedia.co.ke/Kenyaar50/article/2000174647/blame-game-as-kenya-s-health-crisisHurts?PageNo=2>.
15. MOH. Training needs assessment report of Kenya Health workforce. [https://www.mombasa.go.ke/wp-Content/Uploads/2018/07/MoH-Training-Needs;\\_c2015.Assessment-Report\\_09Jun2016.Pdf](https://www.mombasa.go.ke/wp-Content/Uploads/2018/07/MoH-Training-Needs;_c2015.Assessment-Report_09Jun2016.Pdf); Ministry of Health. <https://www.health.go.ke>.
  16. Nabayinda H, Matovu M. An Analysis of Psychological Orientation, Commitment and Employee Performance in Public Institutions: A Case Study of Kampala City Council Authority (KCCA), UGANDA. *International Journal of Research*. 2020;8:176-188.
  17. Ndayisaba H. Effect of Orientation Programs on Employee Performance a Case of USIU-Africa (Doctoral dissertation, United States International University-Africa); c2017.
  18. Olso Y, Onen D. A general guide to writing a research proposal and report. A handbook for beginning researchers, (Revised edition). Jomo Kenyatta Foundation; c2011.
  19. Olusola AJ, Olugbenga OM, Adeoluwa ZO, Oluwagbemiga OE. Accounting Information on Investment in Nigerian Poultry Agricultural Sector. *Research Journal of Finance and Accounting*. 2013;4:19.
  20. Powell JM, Fraser R, Brockway JA, Temkin N, Bell K R. A Telehealth Approach to Caregiver Self-Management Following Traumatic Brain Injury: A Randomized Controlled Trial. *The Journal of head trauma rehabilitation*. 2016;31(3):180-190. <https://doi.org/10.1097/HTR.000000000000167>
  21. Roehrs A, CA da, Costa R, da Rosa Righi. Omni PHR: A distributed architecture model to integrate personal health records. *Journal of biomedical informatics*. 2017. p. 70-81. <https://doi.org/10.1016/j.jbi.2017.05.012>
  22. Room S. Onboarding new employees. Maximizing success. <https://digidesk.co>; c2019.
  23. Regoniel P. Conceptual Framework: A Step by Step Guide on how to make one; c2015. <https://simplyeducate.me/2015/01/05/conceptual-framework-guide>.
  24. Rosen MA, DiazGranados D, Dietz AS, Benishek LE, Thompson D, Pronovost PJ, *et al*. Teamwork in healthcare: Key discoveries enabling safer, high-quality care. *The American psychologist*. 2018;73(4):433-450. <https://doi.org/10.1037/amp0000298>
  25. Ross WE, Huang KHC, Jones GH. Executive onboarding: Ensuring the success of the newly hired department chair. *Academic Medicine*. 2014;89(5):728-733.
  26. Taruru I, Keruko JM, Ombui K, Karanja K, Tirimba OI. Effects of coaching programmes on employee performance in business process outsourcing subsector of Nairobi City County, Kenya. *International Journal of Scientific and Research Publications*. 2015;5(3):ISSN 2250-3153.retention in Nairobi County in Kenya (Thesis). Strathmore University. <http://suplus.strathmore.edu/handle/11071/4778>,
  27. Fisher RS, Cross JH, D'souza C, French JA, Haut SR, Higurashi N, Hirsch E, Jansen FE, Lagae L, Moshé SL, Peltola J. Instruction manual for the ILAE 2017 operational classification of seizure types. *Epilepsia*. 2017 Apr;58(4):531-42.
  28. Rolnik DL, Wright D, Poon LC, O'Gorman N, Syngelaki A, de Paco Matallana C, Akolekar R, Cicero S, Janga D, Singh M, Molina FS. Aspirin versus placebo in pregnancies at high risk for preterm preeclampsia. *New England Journal of Medicine*. 2017 Aug 17;377(7):613-22.
  29. Waterhouse A, Bertoni M, Bienert S, Studer G, Tauriello G, Gumienny R, Heer FT, de Beer TA, Rempfer C, Bordoli L, Lepore R. SWISS-MODEL: homology modelling of protein structures and complexes. *Nucleic acids research*. 2018 Jul 2;46(W1):W296-303.
  30. Grillo R, Rosa AH, Fraceto LF. Engineered nanoparticles and organic matter: a review of the state-of-the-art. *Chemosphere*. 2015 Jan 1;119:608-19.
  31. Mozaffarian D, Benjamin EJ, Go AS, Arnett DK, Blaha MJ, Cushman M, De Ferranti S, Després JP, Fullerton HJ, Howard VJ, Huffman MD. Heart disease and stroke statistics-2015 update: A report from the American Heart Association. *Circulation*. 2015 Jan 27;131(4):e29-322.