



Original article

The Effect of Training Programs on the Performance of Healthcare Workers at Benghazi Medical Center (BMC)

Randa Mahmoud Gadalla¹, Amal Ali Mukhtad²

¹Department of Health Services Administration, Faculty of Public health, University of Benghazi, Libya.

²Department of Environmental Health, Faculty of Public health, University of Benghazi, Libya.

ABSTRACT

Background: Healthcare workers (HCWs) are considered as one of the cornerstones and play an important role inside the healthcare sector. However, health care workers (HCWs) in developing countries frequently work in challenging environments, mainly dealing with sciences and technology development. Thus, attention to involve the HCWs into training programs to meet their needs and to achieve a better level of work performance and to provide better health services in their institutions.

Methods: A descriptive cross-sectional study, aimed to explore the effects of training programs on healthcare workers performance at Benghazi Medical Center (BMC) in Benghazi city, Libya. 51 questionnaires were collected from March 2019 and end in June 2019 by using the impact of training on workers performance. Data were fed to statistical software package version 20.0 SPSS. Approval of the Ethical Committee of faculty of public health was obtained.

Results: High percentage (72.5%) of the study respondents had undergone training programs with healthcare institutions. The results also show that the majority of these respondents (59.5%) participated in training on the purpose of performance consideration and 75% associate training to their enhanced performance at work.

Conclusion: It may be indicated that training to a big extent can lead to an improved worker's performance but still it is not the only factor that can enhance worker's performance rather it is a combination of factors. Thus, further researches can be done on different factors in the healthcare sector, specifically concerning workers' performance factors such as training needs assessment, training programs design, development, are significant to study for exploring their effects on the workers' performance in the healthcare sector.

Key words: *Healthcare workers, Training effects, Performance.*

Corresponding author:

Randa Mahmoud Gadalla: Department of Health Services Administration, Faculty of Public health, University of Benghazi, Libya.

E-mail: randa.elamrony@uob.edu.ly

INTRODUCTION

Improved capabilities, knowledge and skills of the talented workforce proved to be a major source of competitive advantage in a global market.¹ A good training program ensures that an employee discovers his talents and organizational interest. When this happens, an employee aligns his goals to the company objectives and this helps in meeting the organizational goals through high performance on the job.² More impetus has been given to the requirements to maximize the

performance of employees, mainly in the public sector, which is usually identified to be characterized by low productivity and poor performance.³ Thus, training is needed to raise employee's performance. If employees are trained, they will be aware of their job specifications, skills necessary to do the job and be capable to use new technology.⁴ Employees play a crucial role in every organizational set-up. Achieving organizational goals cannot be done without human resource (employees).⁵ Attentions on the people and the meeting of their needs is important to achieve

corporate objectives, training and development is a very important component of human resource administration and management.⁶ Organizations make it necessary to provide long term and systematic training and development programs for their employees. This is because every aspect and activity of an organization involves people.⁷ Employee Development refers to the capacity and capability building on an employee, and thus as of whole organization, to meet the standard performance level.⁸

There are different ways of defining the term training. Workers to do sufficiently on confirmed task or job may define it as an organized development of the knowledge, skills and behavior need.⁹ Training is also seen as a planned process to modify attitude, knowledge or skill behaviour through learning experience to achieve effective performance in an activity or range of activities.¹⁰ These are the reactive and proactive approaches of training : The reactive approach tries to identify and find out a solution to the current needs and problems of the organization. On the other hand, a proactive approach is a forward-looking approach in which training is conducted in anticipation of the future needs of the organization.¹¹

Several advantages can be achieved through training, including the enhancement of job satisfaction among employees, in addition to commitment and collective empowerment.¹² Training is essential in the work environment. Without it, workers don't have a stronghold on their responsibilities or duties.¹³ Training programs help in making the acquaintance of employees with more advance technology and attaining robust competencies and skills to handle the functions and basics of newly introduced technical equipment.¹⁴ The purpose of training is basically to bridge the gap between job requirements and the present competence of an employee. Training is aimed at improving the behaviour and performance of a person and also it is a never-ending or continuous process.¹⁵

Employees who are trained regularly are well motivated, well-mannered and have enhanced confidence and self-esteem.¹⁶ Training provides a positive result to employees of the organization in the sense that they have more activist attitude towards their work as they can be more efficient, work healthier with fewer errors and require less supervision.¹⁷ This study aimed to find out the effects of training on healthcare workers performance at Benghazi Medical Center (BMC) in Benghazi city, Libya.

MATERIALS AND METHODS

Study design:

The study employed a cross sectional survey research design, aimed to find out the effects of training on healthcare workers performance at a governmental hospital affiliated to the Ministry of Health namely: Benghazi Medical Center (BMC) in Benghazi city, Libya.

Data Collection:

A questionnaire was used as a method of data collection at BMC.¹⁸ Data was collected from March 2019 and end in June 2019 by using the impact of training on employee's performance questionnaire. The questionnaire included questions about the socio-demographic data and about training programs he/ she received in the past and their impact on his/ her performance.

Sampling and Population:

The population includes the HCWs who have received training, who are working in Benghazi medical Centre for more than a year. Thus, population consists of (51) healthcare workers (HCWs). The HCWs were informed regard their participation rights. They were assured about their free will to share or to refuse to share without any concerns and confirming that all data are treated with confidentiality.

Data Analysis:

Data for this study was analyzed quantitatively by Statistical Package for Social Sciences (SPSS version 20.0) was used to analyze quantitative data. Descriptive statistics were done. Tables, graphs and charts were used in presentation of data to consent visual simplicity of presented data.

RESULTS

Based on the demographics characteristics of the respondents (Table 1), majority of the respondents are females (84%), showing that more females are working in the healthcare sector and more interested participating in the training programs in comparison to males (16%). In age category; 29 respondents are between the ages (26 to 35 years) which represent the majority(60%), 16 respondents between the ages of (36 to 45 years) represent (31.4%) and 4 respondents between the age of (18 to 25 years) which is approximately(8%) of respondents .

The respondents from the healthcare sector hold a variety of educational levels falling between intermediate level and degree level. About 22% had the educational level of the intermediate diploma, (64.7%) Bachelor level, (11.8%) had higher diploma and (2%) had a master degree. It refers that there was limited skill among the HCWs and hence training can be a substantial requirement in this sector to follow for the development with new technology and improve worker's skills, therefore, increasing their performance at work.

Table 1 Demographic Characteristics of the respondents (n=51)

Variables	Frequency	Percent %	Mean $\pm$ SD.	Median
Gender				
Male	8	16	-	-
Female	43	84	-	-
Age (Years)				
18 – 25	4	7.8		
26-35	29	56.9		
36-45	16	31.4	35.14	32.0
46-55	2	3.9	$\pm$	
>55 Year	-	-	7.29	
Social Status				
Single	21	41.2		
Married	28	54.9		
Divorced	2	3.9	-	-
Widowed	-	-		
Academic Level				
Intermediate Diploma High	11	21.6		
Diploma Bachelor	6	11.8		
Postgraduate	33	64.7	-	-
	1	2		
Work Experience (Years)				
≤ 5	6	11.8		
6 to ≤ 10	27	52.9	9.25	
11 to ≤ 15	11	21.6	$\pm$	8.0
≥ 16	7	13.7	5.96	

The results in Figure 1 also show that respondents from nursing department formed the majority with 12 participants, representing (23%), 9 trainees from the control infection department, representing (18%), 6 from dermatology department, representing (12%), and Medical laboratory, vaccination department, representing (8%), while only 2 HCWs at the emergency

department, surgery department and Internal medicine department, representing 4%. The rest of the other departments representing 2% (n=1). These results illustrate that the organizational structures of healthcare sector comprising of many departments which suggests that various levels of training may be needed to develop worker performance

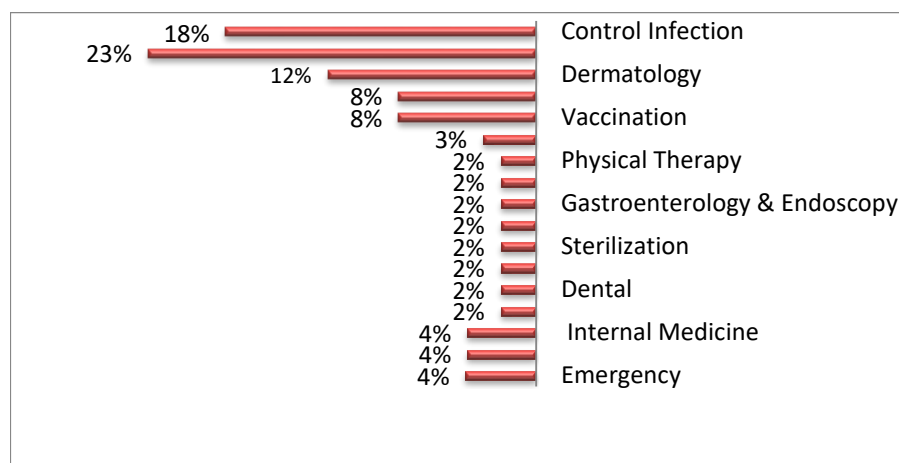


Figure 1: Distribution of the respondents according to Work Departments (n=51)

Table 2 Distribution of the respondents according to HCWs Performance (n=51)

Table2 demonstrates that 37 respondents indicating 72.5% have experienced training with healthcare institutions.

The outcomes also demonstrate that the majority of respondents (59.5%) were selected to receive training on the purpose of performance consideration. While 56.8% of respondents informed that they participate in training on joining the company. Around 22% of HCWs stated their training selection according to their supervisors' recommendation in addition to compulsory for them.

The timetable of HCWs training as stated in the table above displays that the more than half of respondents (59.5%) were under no particular training timetable. It refers that they had no particular training timetable whereby they would need to link in training anytime as scheduled by the institution.

The most common approaches of facilitation recognized by the respondents as dominant during the training are lectures 30 represent (81.1%), while discussions represent (35.1%), presentations and demonstrations represent (27%). Seminars represent the remaining (10.8%). These outcomes can indicate that institutions strongly emphasis on lectures and discussions methods for their training programs.

Regarding effect of training methods on skill reveals that (73%) supposed that the training methods used affected their skills, and (35.1%) were satisfied with the quality of the training programs. (59.5%) from responded confirm on the relevance of training to respondents work. while the necessity for further training were also statistically highly percent was (58.6) it is for Improve performance.

HCWs Performance	Frequency	%
Respondent's participation in training:		
No	14	27.5
Yes	37	72.5
Total	51	100
If Yes, * Selection for training:		
On joining the company	21	56.8
Supervisors recommendation	8	21.6
Compulsory for all HCWs	8	21.6
Upon employee request	4	10.8
Performance appraisal	22	59.5
Don't know	0	0.0
Total	37	
Training schedule:		
Every 6 months	3	8.1
Once a year	5	13.5
Every 2 years	7	18.9
No specific schedule	22	59.5
Total	37	100.0
* Methods of facilitation at the training:		
Lectures	30	81.1
Demonstrations	10	27.0
Discussions	13	35.1
Presentation	10	27.0
Seminar	4	10.8
Total	37	

**More than one answer*

Based on the outcomes of Figure 2, HCWs trainees who involved in the present study (n=37) faced various challenges during their training programs. 30% of trainees complained from inappropriate timing. 13% reporting the training programs were on an irregular basis while 8% indicated that there

was a lack of efficiency in delivering knowledge. 3% reported there was the unavailability of capabilities. However, 43% of the trainees referred there were not any challenges regarding training program.

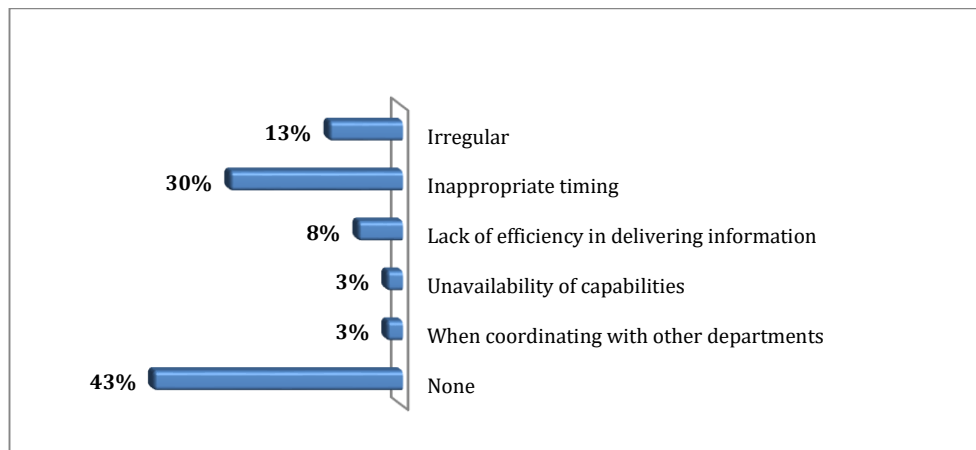


Figure 2: Challenges of Training Programs among respondent trainees (n=37)

As presented in Figure 3, the respondents HCWs reported their recommended methods to increase the level of future training programs. 39% suggested the importance of organizing a training schedule with their work time while 13% focused on practical training to improve HCWs skills and practices rather than focusing on increasing theoretical knowledge. 12% of the study respondents recommended increasing number of

training programs as well as coordination time table between different training courses Implementing in the same period. On the other hand, 4% of trainees preferred to completely discharge from their jobs during the training program and 2% asked for performing good behavior with trainees and motivate them.

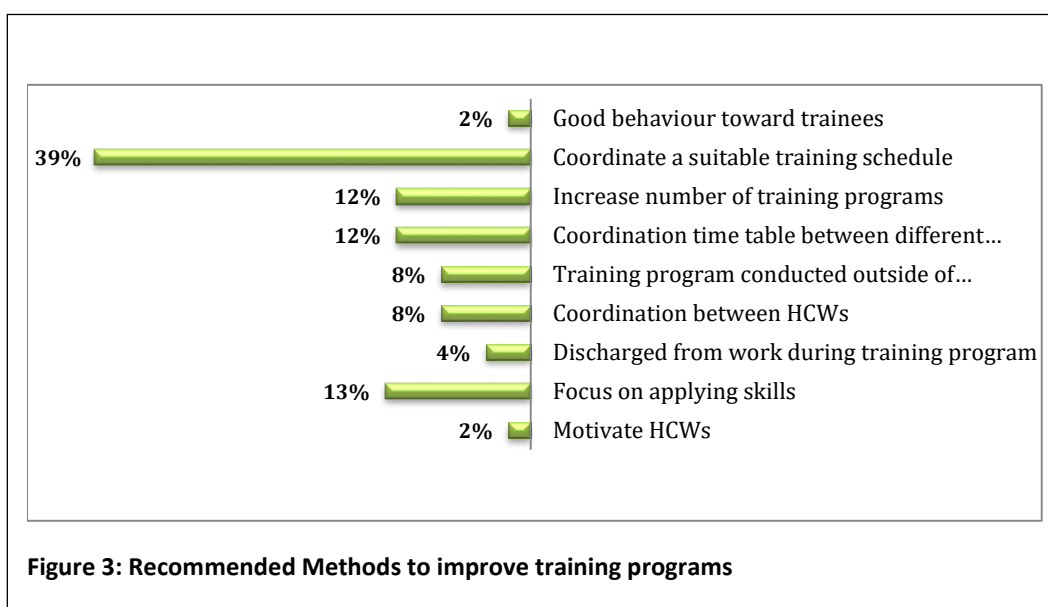


Figure 3: Recommended Methods to improve training programs

Table 3 Distribution of the respondents according to HCWs Performance (n=51) "Continue"

Employee performance	Frequency	%
Effect of training methods on skill:		
No	10	27.0
Yes	27	73.0
Total	37	100.0
Training program quality:		
Very poor	4	10.8
Poor	2	5.4
Average	4	10.8
Good	7	18.9
Very good	13	35.1
Excellent	7	18.9
Total	37	100.0
The relevance of training to respondents work:		
Not relevant at all	3	8.1
Not relevant	3	8.1
Not sure	2	5.4
Effective	22	59.5
Very effective	7	18.9
Total	37	100.0
Effect of training on the performance of the respondents:		
No	9	24.3
Yes	28	75.7
Total	37	100.0
The necessity for further training:		
No	8	21.6
Yes	29	78.4
Total	37	100
If yes * It is for:		
Improve performance	17	58.6
Increase Experience	13	44.8
Self-development	13	44.8
Career-development	8	27.6
Self-assurance	1	3.4
Total	29	

*More than one answer

DISCUSSION

This is a descriptive cross-sectional study on the Effect of Training Programs on the Performance of Healthcare Workers at Benghazi Medical Center (BMC). Based on the demographics characteristics of the respondents (Table 1), Only 2 respondents between (46 to 55 years) demonstrating approximately 4%. There are no respondents between the ages of (56 to 59 years). The data

reveal that the healthcare sector employs mainly young workers. This similar to many evidence in the healthcare sector where the majority of the study population was females as well as the major work labor was in young age.¹⁹⁻²⁰⁻²¹ The data presented also in Table 1, show that More than half of the study respondents were married, representing approximately 55% whereas 41.2% were singles. Additionally, the mean of the study

respondents was (9.25 ± 5.96), ranging from 6 to up to 10 experience years and 11 to up to 15 experience years. On other hand, round 12% of respondents had experienced up to 5 years. They perhaps were graduated recently so they had limited knowledge of how to practice the job task. A study in Kenya assessed the level of practice among nurses after implementing training on (immunization pre-service training). It has been established that the level of nurses' performance was very limited due to lack of experiences and practices as they were all recently graduated nurses,²²⁻²³ have found similar outcomes after evaluating various healthcare facilities in developing countries among inexperienced staffs.

Respondent's participation in training (Table2), the remaining 14, representing a 27.5%, point out that they have not experienced any sort of training at work. This infers that the case institution does not provide training for all HCWs but probably for specific staffs. In contrast, the training may be directed for specific staffs from specific work levels. These finding agreed with any evidence that has high response rate among the study respondents toward undergoing training programs.¹⁹⁻²² The proportion of respondents who reported their requirements for training at work is approximately 11%. In contrast, a study was conducted to investigate the effects of such a training program (in immunization) on worker's performance of HCWs in the African area. The majority of training programs often recommended from supervisors and sometimes compulsory before conducting work. These training programs were implemented in term of improvement of the level of worker's performance, resulting in better health services about 19% of the respondents reported their participation in training every two years, while 13.5% join in once a year, 8.1% every six months. Several studies argue that implementing specific training program based on the type of profession can significantly improve worker's performance.²⁴ Methods of facilitation at the training representing 35.1% is discussions, conversely, evidence in public health services in Kenya described that most of the HCWs depended on training programs in form of lectures (35% of the respondents) and seminar workshops (40% of the respondents) to be updated with the new knowledge regarding their jobs.²²

Regarding the effect of training methods on the skills (Table 3), the results existing that most of the respondents (73%) supposed that the training methods used affected their skills. But, 27% (n=10) believed otherwise. These findings agreed with some recent studies²⁴ this effect shows that the training methods conducted during training in the healthcare sector focus on certain skills so skill enhancement is emphasized. The findings also point out that most of the respondents (31 respondents) were satisfied with the quality of the training programs. This shows a clear release of

training content to the trainees during the training program. In contrast, the 6 respondents indicated otherwise. More than half of the respondents (n=29) also stated the clear effectiveness of these training on their work.

A study conducted at first-level primary health centers in Bangladesh, more than 30% of the study respondents reported increases in work performance after participating training program. Using pre-and post-training tests to evaluate their knowledge. However, another evidence indicates the importance of conducting an assessment of the behavioural change of the HCWs after attending training programs. This assessment is critical in determining whether the training will have an impact on patient care and disease control indicators. At present, most evaluations of behavioural change have been conducted using qualitative research methods asking participants, for instance, whether they have applied newly acquired skills.¹⁹ It clear that post-training tests have limitations, as it can only assess whether trainees know about the guidelines or best practices, but cannot determine whether trainees have actually applied these strategies in their jobs.

Regarding the effect of training on the performance of the respondents HCWs, the outcomes clearly describe that the respondents signifying a high percentage of 75% associated training to their improved performance. In Nigeria, a study aimed to assess the level of knowledge, attitudes and practices among healthcare workers after participating training program, where 89% reported their higher improvement level.²¹ Investigated the training impacts on worker's performance, who reported partly improving in their knowledge and asking for further training on regular basis.

Study Limitations, Researchers views and Suggestions:

Small sample size because there were limited number of HCWs who have conducted training programs so there is a need to conduct further researches on the factors determining the implementation of training programs. In other hand, the researchers found that managers do not recognize regard the significance of training programs and its effect on employee performance because they believe that training raises the company cost. In an effort to correct this problem, management should decide that what these poor healthcare performers need is training. But if poor performance is caused by an actual lack of knowledge or skill, training will have little or no effect on the problem. Consequently, how do you recognize when training is the remedy? The researchers planned suggestions suitable for all companies to evaluate the employee performance in order to determine the accurate cause(s) of the performance problem and how best to correct it. These suggestions are:

- Evaluate the HCW's physical ability and health issues, to decide to what extent he/she can perform the job.

- Evaluate if the HCW's background knowledge and proficiency are compatible with tasks and duties.

- Evaluate how the HCWs recognize their jobs to understand their tasks and easy cooperate with their supervisors and aware the time work limits.

- Check if the HCW receives regular feedback on his/ her performance or not. So, if there is any incentive for good performance or punishment for bad performance.

CONCLUSION

Training programs can be considered as a motivational factor that can positively enhance the knowledge of the HCWs towards the job by which HCWs can become proficient in their jobs and they also become able to provide better services. Besides, training is seen as a useful means of handling with changes raised by technological innovation, organizational structuring and most notably it can play a key role to improve worker performance. However, still it is not the only factor that leads to good performance rather it is a combination of factors. A lot of future research can be done on different factors in the healthcare sector, but especially about workers' performance factors such as training needs assessment, training programs design, development is significant to study for exploring their effects on the resulting workers' performance in the healthcare sector. Thus, it is essential to examine any issues related to training and development in any healthcare sector. The role of managerial factors in workers' training and performance is also of unique importance and hence need to be also explored because a good manager either can increase or decrease the efficacy of training which in end affect workers' performance.

ACKNOWLEDGEMENTS: We thank all the healthcare workers who participate in this study.

FUNDING: No funding was received.

CONFLICT OF INTEREST: None declared.

ETHICAL APPROVAL: Ethical approval was obtained from the Ethics Committee of faculty of public health.

REFERENCES

1. Onyango JW, Wanyoike DM. Effects of training on employee performance: a survey of health workers in Siaya County, Kenya. *Eur J Mater Sci (EJMS)*. 2014 Mar;1(1):11-5.
2. Bataineh KA. Impacts of employee training on the performance of commercial banks in Jordan. *Eur J Bus & Manag*. 2014;6(27):192-6.
3. BAAH I. The Influence of Training and Development on Employee Performance: A Case Study of Cocoa Research Institute of Ghana (CRIG). Master. Ghana Business University 2019.
4. Al Karim R. Impact of different training and development programs on employee performance in Bangladesh perspective. *Int J Entrepreneurial Res*. 2019 Mar 23;2(1):8-14
5. Dwomo E, Kofi J, Owusu C. Training and Development: A Tool for Employee Performance in the District Assemblies in Ghana. *Int J Educ & Res*. 2014; 2(5):513-522.
6. Ampomah P. The Effect of Training and Development on Employee Performance in a Private Tertiary Institution in Ghana" (Case Study: Pentecost University College (PUC) – Ghana. *Asian J Soc Sci Manag Stud*. 2016 :3(1) :29-33.
7. Younas W, Farooq M, Khalil-Ur-Rehman F, Zreen A. The impact of training and development on employee performance. *IOSR Int J Bus & Manag (IOSR-JBM)*. 2018;20(7):20-3.
8. Sasidaran S. Impact of Training on Employee Performance: A Case Study of Private Organization in Sri Lanka. *IOSR Int J Bus & Manag (IOSR-JBM)*, e-ISSN. 2018:13-21.
9. Githinji A. Effects of training on employee performance: a case study of United Nations Support Office for the African Union Mission in Somalia (Doctoral dissertation, United States International University-Africa). 2014.
10. Talabi S. Employee's Training and Development for Optimum Productivity: The Role of Industrial Training Fund (ITF) Nigeria. *Dev Ctry Stud*. 2012; 2(3):79-89.
11. Ahmed E .Gender Differences in Decision-Making Styles of Malaysian Managers. *Eur J Sci Res*. 2008; 19(3): 1450-216.
12. Al-Mzary MM, Al-rifai AD, Al-Momany MO. Training and Its Impact on the Performance of Employees at Jordanian Universities from the Perspective of Employees: The Case of Yarmouk University. *J Educ & Pract*. 2015;6(32):128-40.
13. Elnaga A, Imran A .The Effect of Training on Employee Performance. *Eur J Bus & Manag*. 2013;5(4):137-147.
14. Bhat Z .Impact of Training on Employee Performance: A Study of Retail Banking Sector in India. *Indian J Appl Res*. 2013;3(6):293-293.
15. Bhartiya C. Impact of training and development on employee performance in selected public sector organizations. *Int J Enhanc Res & Manag Comput. Appl*. 2015;4(8):8-11.
16. Saleem Q, Shahid M, Naseem A. Degree of influence of training and development on employee's behavior. *Int J Comput & Bus Res*. 2011 Sep;2(3):2229-6166.

17. Khan U, Haleem R, Kanwal S. Effect of Training and Development on Employee Attitude: A Study on Karachi. *Int. J. Multidiscip Curr Res.* 2017; 5:347-351.
18. Nassazi A. Effect of Training on Employee Performance: Evidence from Uganda, Thesis, University of Applied Science 2013.
19. Ciccio L, Makumbi M, Sera D. An evaluation study on the relevance and effectiveness of training activities in Northern Uganda. *Rural and remote health.* 2010 Mar;10(1):51.
20. Nicol E, Bradshaw D, Phillips T, Dudley L. Human factors affecting the quality of routinely collected data in South Africa. In *MEDINFO 2013* 2013 (pp. 788-792). Ios Press.
21. Loignon C, Hudon C, Goulet É, Boyer S, De Laat M, Fournier N, Grabovschi C, Bush P. Perceived barriers to healthcare for persons living in poverty in Quebec, Canada: the EQUHealThY project. *Int J Equity Health.* 2015 Dec;14(1):1-1.
22. Hossain I, Mokaya E, Mugoya I. Evaluation of the initiative to strengthen nurses' expanded programme on immunization pre-service training in Kenya. 2017. Available from: https://pdf.usaid.gov/pdf_docs/PA00SZDS.pdf
23. Vasan A, Mabey DC, Chaudhri S, Brown Epstein HA, Lawn SD. Support and performance improvement for primary health care workers in low-and middle-income countries: a scoping review of intervention design and methods. *Health Policy Plan.* 2017 Apr 1;32(3):437-52.
24. Mutabaruka E, Dochez C, Nshimirimana D, Meheus A. Evaluation of mid-level management training in immunisation in the African region. *East African J Pub Health.* 2010;7(1):37-43.