Analysis of Competency Factors Affecting the Performance of Laboratory Staff About Plebhotomy at UPT. Medan Regional Health Laboratory Center in 2019

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Article Info	Abstract
	Performance is the work achieved by a laboratory officer in carrying out its functions in accordance with the responsibilities assigned to it by following the rules applicable in the laboratory. The purpose of this study was to determine the effect of training, documentation, and skills on laboratory staff performance about phlebotomy in UPT. Medan Regional Health Laboratory Center in 2019. This study used a quantitative type with a cross-sectional design. The research was conducted at UPT. Medan Regional Health Laboratory Center in 2019. The data collected is primary data with a questionnaire tool. The informants in this study were 45 people, namely all laboratory staff. The results of the study based on data analysis using SPSS show that the training, documentation, and skills factors have a relationship with the laboratory staff's performance, and the most dominant factor affecting the staff's performance is skills. Therefore, suggestions for UPT leaders. The Regional Health Laboratory Center of Medan in order to give more serious attention to staff and to the deficiencies in the laboratory both in terms of infrastructure.

Introduction

Health laboratory services are an integral part of health services and are carried out by various types of health laboratories, both organized by the government and the private sector in a network of health laboratory services from the sub-district level to the national level. With the epidemiological transition, new and re-emerging diseases, the implementation of free markets, and following the development of science and technology and the demands of the community for laboratory services, including Balai Labkes (Health Laboratory), which are fast, precise, accurate, and affordable. To be able to achieve the services of Balai Labkes as mentioned above, a standard of Health Laboratory Centers is required. The scope of standards for Balai Labkes includes service standards, peace standards, facility standards, infrastructure and tools, media and reagent standards, laboratory work health and safety as well as recording and reporting in accordance with the Regulation of the Minister of Health of the Republic of Indonesia Number 43 of 2013, Regulation of the Minister of Health of the Republic. Indonesia Number 43 of 2013.

Many activities are carried out in the clinical laboratory, one of which is phlebotomy which is part of the pre-analytic stage examination. Phlebotomy (English: phlebotomy) comes from the Greek phleb and tomia. Phleb means vein and tomia means cutting. Formerly known as venesection (Netherlands), venesection, or venesection (UK). To carry out phlebotomy requires professional human resources. Human Resources are people who work and function as quantitative or quantitative organizational assets and HR is the potential driving force of the organization. Human resources are a determining factor for the success of an organization (Taylor et al., 2008; Mello, 2014).

Decree of the Minister of Health of the Republic of Indonesia No. 04/MENKES/SK/2002 Regarding private laboratories, it is written that one of the duties and responsibilities of health workers working in private laboratories is to take action to collect laboratory specimens. Duties of health laboratory administrators: Laboratory services in the fields of hematology, clinical chemistry, immune serology, microbiology, toxicology, environmental chemistry, and anatomical pathology. Point 26: Taking specimens or samples with simple actions, namely taking specimens or samples using easy techniques and procedures and recording the specimen's identity.

Some observations in the laboratory, namely when doing phlebotomy, selecting a blood vessel that is small/difficult to see/winding, piercing too deep or too close to the surface, if the first injection fails to change direction without removing the needle, forgetting to remove the tourniquet after taking blood samples, Handscund which is thin so it is easily torn causing the officer to be affected by dropping blood samples, there is no special sputum collection room, there is no specific documentation for the employee's achievement, there are still short-sleeved lab coats at risk of being spilled/reagent while working, rarely found The leader pays direct attention, does not immediately replace the syringe cover after completing the blood draw (phlebotomy) and does not throw away needles that have been used in the needle box. Based on the facts in a laboratory, the inspection stage which is often supervised in quality control is only the analytical and post-analytic stages, while the pre-analytic stage receives less attention. Even though this pre-analytic stage can contribute about 61% of the total laboratory errors, while analytic errors are 25%, and post-analytic errors are 14% (Yaqin, 2015).

Based on the existing description, the authors are interested in conducting research on the title: Analysis of Competency Factors that affect the performance of Laboratory staff about Plebhotomy at UPT. Medan Regional Health Laboratory Center in 2019.

Methods

This research is descriptive-analytic research that is quantitative in nature. Where the study design used was a cross-sectional study. The purpose of this study was to determine the effect of competency factors on laboratory staff performance about phlebotomy at UPT. Medan Regional Health Laboratory Center in 2019.

This research was conducted at the Clinical Laboratory, UPT. Medan Regional Health Laboratory Center. The population in this study were all laboratory staff on duty at the UPT. Regional Health Laboratory Center of Medan, as many as 45 people. The sampling technique in this study was the total population. The sample in this study was the entire population, namely 45 people who served in UPT. Medan Regional Health Laboratory Center.

Data collection was carried out by collecting laboratory staff at the UPT. Medan Regional Health Laboratory Center and distributed questionnaires. Data were tested using the frequency distribution of the independent and dependent variables. Bivariate analysis is used to see the relationship to determine the relationship (correlation) between the Independent variables: Competence (Training, Documentation, Skills). As well as the dependent variable (Laboratory

2

Staff Performance), using Chi-square analysis and Multivariate analysis was carried out to see the effect of each independent variable and jointly on the dependent variable, and to find out which of the independent variables had the most influence by using the test. multiple logistic regression analysis at the significance level of the p-value <α (0.05).

Results and Discussion

Based on the data obtained from the results of research with 45 respondents, it can be seen in the frequency distribution table as follows:

Table 1. Frequency Distribution of Respondent Characteristics in UPT. Medan Regional Health Laboratory Center in 2019

No	Characteristics	F	%
	Age		
1	22-31 Years Old	1	2,2
2	32-41 Years Old	3	6,7
3	42-51 Years Old	19	42,2
4	52-61 Years Old	22	48,9
	Total	**45**	**100**
No	**Characteristics**	**F**	**%**
	Sex		
1	Female	37	82,2
2	Male	8	17,8
	Total	**45**	**100**
No	**Latest Education**		
1	Diploma	12	26,7
2	Bachelor Degree	32	71,1
3	Master Degree	1	2,2
	Total	**45**	**100**
No	Years of service		
1	1-11 years	1	2.2
2	12-22 years	8	17.8
3	23-33 years	32	71.1
4.	34-44 years	4	8.9
	Total	**45**	**100**

Source: Primary data, 2019

Based on table 1, it is known that respondents have more age (52-61 years), namely 22 respondents (48.9%), 37 respondents (82.2%) are female and most of the respondents have S1 education as many as 32 respondents (71, 1%). Furthermore, most of the respondents have work mass/length of work 23-33 years, as many as 32 respondents (71.1%).

Table 2. Analysis of the Relationship of Competency Factors Affecting the Performance of Laboratory Staff About Plebhotomy at UPT. Medan Regional Health Laboratory Center in 2019

Training	PERFORMANCE				Total		P-value
	Not Good		Good				
	F	%	F	%	F	%	

	20	44,4	5	11,1	25	55,6	
Not Good							
Good	4	8,9	16	35,6	20	44,4	0,000
Total	**24**	**53,3**	**21**	**46,7**	**45**	**100**	

	PERFORMANCE				Total		
Documentation	Not Good		Good				*P-value*
	F	**%**	**F**	**%**	**F**	**%**	
Not Good	16	35,6	6	13,3	22	48,9	
Good	8	17,8	15	33,3	23	51,1	0,024
Total	**24**	**53,3**	**21**	**46,7**	**45**	**100**	

	PERFORMANCE				Total		
Skill	Not Good		Good				*P-value*
	F	**%**	**F**	**%**	**F**	**%**	
Not Good	19	42,2	4	37,8	23	51,1	
Good	5	11,1	17	8,9	22	48,9	0,000
Total	**24**	**53,3**	**21**	**46,7**	**45**	**100**	

Source: Primary data, 2019

Based on Table 2, it shows that of the 45 respondents, the training factor of 25 respondents (55.6%) who had bad training had the worst performance on duty and from 20 respondents (44.4%), who had the best training performance on duty. From the results of the chi-square analysis in the attachment of the chi-square test table between the relationship between training and staff performance in the clinical laboratory, UPT. The Regional Health Laboratory Center of Medan. It is known that the probability value (0,000) <sig_α = 0.05. The results of this analysis meet the requirements of the relationship hypothesis, so it can be seen that training has a significant relationship with the performance of the officers.

Documentation factors from 22 respondents (48.9%) who had bad documentation at most, not good performance on duty, and from 23 respondents (51.1%), who had good documentation had the best performance on duty. From the results of the chi-square analysis in the attachment of the chi-square test table between the relationship between documentation and the performance of staff at the clinical laboratory, UPT. Regional Health Laboratory Center of Medan. It is known that the probability value (0.024) <sig_α = 0.05. The results of this analysis meet the criteria for the relationship hypothesis, so it can be seen that the documentation has a significant relationship with the performance of the officers.

The skill factor of 23 respondents (51.1%) who had bad skills had the poorest performance on duty and 22 respondents (48.9%), who had good skills had the best performance on duty. From the results of the chi-square analysis in the attachment of the chi-square test table between the relationship between skills and performance of staff at the Clinical Laboratory, UPT. Regional Health Laboratory Center Medan. It is known that the probability value (0,000) <sig_α = 0.05. The results of this analysis meet the requirements of the relationship hypothesis, so it can be seen that skills have a significant relationship with the performance of the officers.

Table 3. Multivariate Analysis of Competency Factors on Performance

No	Variable	B	*p (Sig)*	Exp (B)	95% C.I	
					Lower	*Upper*
1	**Skill**	2.676	0.003	14.533	2.460	85.870
2	**Training**	2.666	0.003	14.382	2.416	85.624
	Constant	-8.050	.000	.000		

Source: Primary data, 2019

From the multivariate analysis above, the variables both have an influence on the performance of officers, namely the skills and training variables with p-value (sig) = <0.05. The most dominant variable that has a significant effect on the performance of officers is the skills of officers with p (sig) 0.003 and has a value of OR = 14,533, meaning that respondents whose skills are not good to have a chance of 14.1 times their performance is not good. The value of the B coefficient is 2.676 positive, the better the skills of the officers, the better the performance.

Training is an improvement in performance and increases the work motivation of employees that is imposed on it so that employees experience progress in terms of knowledge, skills, and expertise in accordance with their field of work. Based on the research results, it is known that the probability value is obtained (0.000) <sig_α = 0.05, which means that there is a relationship between training and the performance of the Phlebotomy Laboratory Staff at UPT. Medan Regional Health Laboratory Center 2019. This research is in line with the research of Apriyanto et al (2016). The results of the study show that there is a significant influence between training and performance with a p-value of 0,000 or <0.005. Based on the observations of researchers, it is known that not all laboratory personnel have received phlebotomy training and there are still officers who have never attended a phlebotomy seminar, so based on this the officers cannot work optimally to their abilities.

This can happen because the training and seminars are limited by the limited number of participants. So that not all officers can participate in these activities. However, officers who have not had the opportunity can still learn through the media of reading books or from social media such as via YouTube to improve their performance. Meanwhile, according to the assumption of the researcher, training is very useful for officers in improving their knowledge and skills. The benefits of several pieces of training that have been attended by Laboratory staff have been felt. The material they received has supported their work, as well as the facilities provided to undergo the training. However, there are some employees who think that the training time with the material is not sufficient. The training that is attended by laboratory staff is as follows: -Laboratory management training -Flebotomy -Service Excellent -And others. The problems and limitations that exist must be a concern for the organization. This problem can be a strong reason for holding the training mentioned above.

Documentation is a proof, document, or document that is related to the proof of information from a family, company, community, or nation. Archive plays a role in the smooth running of the organization, namely as a source of information, and as a memory center for the organization. Based on the research results, it is known that the probability value is obtained (0.024) <sig_α = 0.05, which means that there is a relationship between documentation and the performance of the Phlebotomy Laboratory Staff at UPT. Medan Regional Health Laboratory Center 2019. With good documentation, it can be used as accurate evidence that will help assess the success and continuity of performance. The effect of document archiving on performance is reflected in the success in carrying out tasks that are used as a measure in filing documents, where officers can be helped by their performance by the documents contained in the UPT. Medan Regional Health Laboratory Center.

In health administration work, keeping records/documentation is not only storing but also regarding placement and recovery. Archive storage is said to be good if when needed it can be found easily, quickly, and precisely (Hanlon, 1974; McCarthy et al., 2009; Agustina et al., 2019). Considering its importance, the government pays considerable attention to archives. Based on the researcher's observations, it is known that documentation or archiving has been

5

stored, but there are still some things that are not well documented. For example, officers' activities related to achievements are well documented so that they can create enthusiasm for officers. Meanwhile, documentation or filing has an effect on performance, where one example is when there is an activity of an officer who in that activity shows an achievement so based on this it should be well documented. Because with this the officers can also perform better.

Laboratory skills are the most important part when assessing psychomotor skills. Laboratory skills include: (1) working with chemical equipment and chemicals, including handling procedures, use and maintenance, and a conscious attitude for safety, (2) working with live specimens, (3) working environment, developing skill areas (Maknun, 2016).

Skills improvement can be obtained through additional education such as special skills education, training (workshops), or internships in other places. Based on the research results, it is known that the probability value is obtained (0.000) <sig_α = 0.05, which means that there is a relationship between skills and the performance of the Phlebotomy Laboratory Staff at UPT. Medan Regional Health Laboratory Center 2019. Having skills at work will improve the performance of laboratory personnel at the UPT. Medan Regional Health Laboratory Center, because by having good mental skills, physical skills, and social skills (communication between employees at work, and good cooperation) in work, positive thinking will emerge supported by high intelligence and ideas. who are creative in doing the work, and will not delay so that the work can be carried out in a timely manner and as expected. This study is in line with Yuliastuti's (2007) research. The results show that the p-value is 0.043, which means there is an effect of skills on performance. Based on the observations of researchers it is known that the skills of officers at UPT. The Medan Regional Health Laboratory Center 2019 is quite good because officers have learned a lot from work experiences. So that researchers assume that a person's skills can improve performance.

Conclusion

Factor Training, Documentation, and Skills have an influence on the performance of laboratory personnel. And the most dominant factor is the skill factor. It is recommended to the UPT leadership. The Medan Regional Health Laboratory Center should give more serious attention to officers and pay attention to deficiencies in the laboratory both in terms of infrastructure.

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