

POST-TRAINING EVALUATION: BEHAVIOR OF COMMUNITY HEALTH CENTER MANAGEMENT TRAINING ALUMNI

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ABSTRACT

The management of the Community Health Center (CHC) has not been optimal. In 2022, management training was carried out by the West Java Health Training Unit for CHC staff and the results needed to be evaluated for improvement and feedback. The purpose of the study determined the behavior of training alumni in implementing the training results in their workplaces. The research was mixed methods with an explanatory sequential design. The research population was 60 alumni, the quantitative research sample was 49 people, and the qualitative research informants were alumni, superiors and co-workers, 13 people each selected purposively. Quantitative data was collected through questionnaires in Google Forms and analyzed descriptively, comparatively and correlatively. Qualitative data was collected through in-depth interviews, and processed using a framework analysis approach. The results of the study were that less than half of the alumni had good knowledge and skills, and 7 out of 10 alumni had good attitudes. Most of them have carried out planning and implementation of PHC management, but only 3 out of 5 alumni carried out monitoring and evaluation. This condition requires support and assistance from organizational leaders so that CHC management is carried out properly to support quality health services.

Keywords: alumni, behavior, training, management, community health center

INTRODUCTION

Community Health Centers (CHC) are first-level health service facilities that organize public health efforts and individual health efforts that prioritize of promotive and preventive efforts in their work areas (Indonesia Health Minister 2019). The CHC management is carried out (Kemenkes RI 2016), but several previous studies have stated that CHC management has not been implemented optimally as outlined (Darsun, Firdawati, and Astiena 2022; Al Hikami, Marianah, and Haksama 2022). CHC management is very important because it is related to the quality of CHC services (Aswad Rotasouw, Andi Alim, Zamli Zamli 2024; Faizal, Riu, and Talibo 2019). One aspect that is constrained in the implementation of CHC management is the human resources factor, both in terms of quantity and quality (Al Hikami, Marianah, and Haksama 2022). The efforts made include conducting training for officers who lead programs at CHC, which are suspected in several studies to be able to improve the performance of these officers (Lestari 2018; Wulandari and Fajrah 2021). A leader at a CHC must have strong and established management skills in integrating all programs/services, resources, facilities and infrastructure, implementing CHC information systems and empowering the community so that the

services provided by the CHC are of high quality.

The West Java Provincial Health Training Unit is an A-accredited training institution, with the main task of organizing health training in accordance with West Java Governor Regulation Number 71 of 2017. In 2022, the West Java Provincial Health Training Unit organized the CHC Management Training (CHC-MT) for CHC officers from Majalengka and Cirebon Districts for 60 people. The implementation of the training refers to the module developed by the Ministry of Health, where the evaluation of training stages 1 (implementation) and stages 2 (learning outcomes) is carried out by conducting a post-test at the end of the training (Pusat Pelatihan Sumber Daya Manusia Kesehatan Kementerian Kesehatan RI 2020). A post-training evaluation in the form of a behavioral review of the implementation of the results of the CHC-MT in the alumni's workplace has not been carried out. One of the training evaluation models, namely Kirkpatrick's model (Smidt et al. 2009), proposes four levels of evaluation, namely level 1 evaluation of reactions, level 2 evaluation of knowledge as a result of learning, level 3 evaluation of behavior as a result of training after returning to the workplace, and level 4 evaluation of results, namely the effect on organizational performance (Don Kirkpatrick 2012).

Kirkpatrick's model can be used to assess evidence of training results, as well as evaluate whether training can meet the needs of training alumni and the needs of the organization. The purpose of training is basically to meet the needs of training participants and their application in the organization where they work (Pusat Pelatihan Sumber Daya Manusia Kesehatan Kementerian Kesehatan RI 2020). Level 3 evaluation has not been widely carried out, although several publications have presented the results, which include providing input for reviewing the curriculum / training modules and organizing training and follow-up in the field where training alumni work (Tuti Surtimanah, Dean Rosmawati, Gina Zulfah, Nuraini, Yeni Mahwati 2014). Based on the background above, the purpose of the research was to determine the behavior of alumni of CHC management training in implementing CHC management in their workplace.

METHOD

The research design used mixed methods with sequential explanation, the study begins with a quantitative descriptive design using a cross-sectional approach, followed by a qualitative explanation. The population is alumni of CHC-MT held by West Java Provincial Health Training Unit in 2022, totaling 60 people. The inclusion

criteria were participating in and completing the entire training process in 2022, the exclusion criteria were not willing to participate in the research and not filling out the questionnaire completely. The selection of quantitative research samples is the total sample, however, in data collection only 49 people (81.7%) filled out the questionnaire completely even though they had been followed up to complete it but did not respond again. Supporting data collected from direct superiors (only 30% collected) and alumni colleagues (only 46.7% collected). The selection of qualitative research informants was carried out purposively with the main informants of training alumni by considering the district of work, a total of 13 alumni from Majalengka and Cirebon Districts in West Java Province. Source triangulation was carried out with 13 informants of direct superiors and 13 colleagues of training alumni. The research was conducted in July - December 2023, approximately one year after the CHC – MT was held. In-depth interviews were conducted by researchers who are Widyaaiswara and lecturers of the Health Program Evaluation Planning course. They were considered competent in both the material and the methods being studied.

The quantitative data collection instrument was a questionnaire in the Google Form filled out by respondents, compiled by

researchers with reference to the training learning outcome indicators. In this study, the questionnaire used did not undergo statistical validity and reliability testing. Instead, the validity of the questionnaire content was obtained through assessment by experts, namely widyaiswara (expert judgment) who have expertise and experience in related fields. These experts were asked to evaluate the feasibility and relevance of the items in the questionnaire to ensure that the instrument was in accordance with the research objectives. The questionnaire for alumni contained respondent characteristics, 15 knowledge questions with one correct multiple choice answer, 15 scale questions (scale 0 = none to scale 4 = very good) alumni self-assessment of the application of CHC management skills consists of 15 types of skills, namely building holistic leadership capacity, building anti-corruption leadership capacity, conducting health center data and information management, conducting health center financial management instrumentation, conducting planning and budgeting for health centers, conducting asset management in health centers, conducting human resource management in health centers, conducting management of equipment and infrastructure, conducting management of medicines and consumables in health centers, conducting community health

efforts management at health centers, conducting community empowerment management at health centers, conducting explanations of patient safety concepts and health center risk management, conducting health center planning, conducting mobilization and implementation, and conducting supervision, control and performance assessment. Besides that, 7 attitude questions (scale 1 strongly disagree to scale 4 strongly agree for positive questions; scale 1 strongly agree to scale 4 strongly disagree for negative questions) towards the application of CHC management. In addition, questions were asked about the implementation of the training follow-up plan prepared at the end of the training as well as the supporting and inhibiting factors that were felt. Respondents' superiors and alumni colleagues were asked about their opinions on the attitudes and skills of training alumni at their workplace. Quantitative data analysis was carried out through the stages of data completeness screening, data entry, data processing and merging according to analysis need, variable description analysis, different tests and correlation tests.

Qualitative data collection instruments are basically researchers, but in-depth interview guidelines are developed which are used to guide interviews so as not to deviate from the purpose of exploring explanations of the implementation of CHC

management. To enhance the accuracy and increase the trustworthiness of this qualitative research, a triangulation of sources was conducted. This triangulation involved gathering data from multiple perspectives, including training alumni, their supervisors, and their colleagues. By comparing and contrasting the viewpoints of these different sources, we aimed to ensure the validity and reliability of the findings. In addition to triangulation, the research process was carried out in a systematic and transparent manner. The process began with data collection, followed by the transcription of interviews. The transcripts were then analyzed using a framework analysis approach, which was based on the skills that were expected to be implemented as part of the training. This structured approach allowed for a thorough examination of the data and ensured that the analysis was aligned with the research objectives. In other words, the qualitative analysis in this study follows a framework analysis approach. The process consists of

several stages: first, compiling the transcripts; second, identifying meaningful expressions within the transcripts; third, coding and identifying themes and sub-themes; and finally, organizing these themes. Afterward, the qualitative findings are connected with the results of the quantitative data analysis and discussed in relation to the research objectives

RESULTS AND DISCUSSION

The gender of male and female alumni respondents was balanced, as were the respondents from Majalengka and Cirebon Districts. More than half of the respondents are 40-50 years old, most of them have a bachelor's degree, and work in CHC. The alumni positions are 1/3 of the heads of CHC, another 1/3 of them are heads of CHC administration sub-sections, and the rest are outside these positions. In detail, the characteristics of quantitative research respondents are listed in the following table.

Table 1. Characteristics of Alumni Respondents Quantitative Data (n=49)

Variable	Variable Categories	Alumni	
		f	%
Gender	Man	24	49,0
	Women	25	51,0
Age	Under 40 years	8	16,3
	40 – 50 year	30	61,2
	50 years and above	11	22,5
Education	D3	1	2,0
	D4	6	12,2
	S1	41	83,7
	S2	1	2,0

Variable	Variable Categories	Alumni	
		f	%
Workplace agency	Community Healt Center	48	98,0
	District Hospital	1	2,0
Origin of participants	Majalengka District	24	49,0
	Cirebon District	25	51,0
Position	Head of CHC	18	36,7
	Head of CHC administration	15	30,6
	Others	16	32,7

The number of alumni superior respondents was 18 people, 8 of whom were male (44.4%) and 10 of whom were female (55.6%). Meanwhile, the number of alumni

colleagues respondents was 28 people, 10 of whom were male (35.7%) and 18 of whom were female (64.3%).

Table 2. Description of Alumni Knowledge, Attitude, Skills Scores in Health Center Management According to Respondent Type

Variable	Alumni			Alumni Superior			Alumni colleagues		
	M	Md	SD	M	Md	SD	M	Md	SD
Knowledge	72,4	73,3	17,5	-	-	-	-	-	-
Attitude	76,60	75,0	12,7	82,5	82,1	10,7	79,7	76,7	11,3
Skills	68,8	73,3	15,9	81,3	81,6	16,7	89,7	94,1	10,6

All scores transformed to a score of 100. The distribution of knowledge scores is not normal (Shapiro Wilk test 0.003), as are attitude and skill scores (Kolmogorov Smirnov test <0.05). Using the concept of mastery learning which refers to a benchmark value of 75, the good knowledge category is 44.9%. While the good attitude category according to alumni is 69.4%, according to superiors 94.4%, according to colleagues 71.4%. The good skill category according to alumni is 44.9%, according to superiors 77.8%, according to colleagues 96.4%.

The difference test of attitude scores according to alumni, superiors and colleagues showed no significant difference

(Kruskal Wallis test p 0.162), while the difference test of skill scores showed a significant difference (Kruskal Wallis test p 0.000). Significant differences in skill scores occurred between scores according to alumni and superiors (U Mann Whitney test p 0.007), and between scores according to alumni and their co-workers (U Mann Whitney test p 0.000) where skill scores according to superiors and co-workers were higher than those according to the alumni themselves. The Spearman's r correlation test on scores according to alumni respondents, resulted in a low level significant relationship (p 0.002, r 0.441) between attitudes and skills. There was no significant relationship (> p 0.05) between

knowledge and attitudes, and between knowledge and skills.

Table 3. Average Score of Alumni Skills in Health Center Management

Types of skills	Average Score by Respondents *		
	Alumni**	Alumni Superior ***	Alumni colleagues **
1. Building holistic leadership capacity	2,0	3.2	4,0
2. Building anti-corruption leadership capacity	3,0	3.2	4,0
3. Conducting health center data and information management	3,0	3.3	4,0
4. Conducting health center financial management instrumentation	3,0	3.0	4,0
5. Conducting planning and budgeting for health centers	3,0	3.1	4,0
6. Conducting asset management in health centers	3,0	3.0	4,0
7. Conducting human resource management in health centers	3,0	3.2	4,0
8. Conducting management of equipment and infrastructure	3,0	3.1	4,0
9. Conducting management of medicines and consumables in health centers	3,0	3.0	4,0
10. Conducting community health efforts management at health centers	3,0	3.4	4,0
11. Conducting community empowerment management at health centers	3,0	3.4	4,0
12. Conducting explanations of patient safety concepts and health center risk management	3,0	3.2	3,5
13. Conducting health center planning	3,0	3.3	4,0
14. Conducting mobilization and implementation	3,0	3.5	4,0
15. Conducting supervision, control and performance assessment	3,0	3.3	4,0

Based on table 3 according to alumni and superiors, all types of skills still require little supervision, except for "holistic leadership capacity building skills" which still require more supervision according to alumni themselves. According to

colleagues, the skill of "explaining the concept of patient safety and health center risk management" still requires little supervision, while other types of skills have been mastered.

Table 4. Difference Test of Knowledge, Attitude and Management Skills Scores of Alumni Health Centers According to Alumni Characteristics

Individual Characteristics	p value of knowledge	p value of attitude	p value of skills
Jenis Kelamin*	0,000	0,572	0,325
Umur**	0,445	0,383	0,920
Jabatan**	0,252	0,547	0,193

Pendidikan**	0,059	0,883	0,875
Jabatan**	0,252	0,547	0,193
Asal Kab – Kota*	0,325	0,986	0,901

*U Mann WhitneyTest; ** Kruskal Wallis Test

Based on table 4, there is only one variable that is significantly different (p 0.000) in the alumni knowledge score according to gender, where the female alumni score (mean 81.0 - median 80) is greater than the male alumni (mean 63.3 - median 66.7). Factors that support alumni in implementing CHC management are the desire of alumni to apply the knowledge gained stated as 87.8% of alumni, getting support from superiors stated as 46.9% of alumni, the existence of supporting facilities and infrastructure stated as 36.7% of alumni, and orders from superiors stated as 32.7% of alumni. While the inhibiting factors are limited understanding in implementing training results stated as 51% of alumni, facilities and infrastructure that do not support stated as 42.9% of alumni, and transfer of place or position stated as 22.4% of alumni, 20.4% lack of support and not assigned.

The existence of West Java Province Health Training Center Unit is very useful in efforts to improve the competence of health workers stated as 79.2% of alumni. All alumni (100%) stated that they

implemented the Follow-up Action Plan made at the end of the training. In detail, as many as 87.8% of alumni have reported to their superiors; as many as 77.6% of alumni have carried out the planning stage (P1); as many as 67.3% of alumni have carried out the implementation drive stage (P2) and as many as 57.1% of alumni have carried out the assessment - supervision - control stage (P3). Alumni stated that the reason for participating in the training was of their own free will as many as 24%, the rest because they were assigned by their superiors. A small portion (4%) were job transfer after participating in the training, while 96% were assigned to permanent positions before and after the training.

Next, the following is a connection between the results of quantitative research and qualitative research consisting of the background of participating in the training, implementation of CHC management after training, implementation of skills learned in the training, and responses to the existence of the West Java Province Health Training Center Unit.

Table 4. Connection of Quantitative Results and Qualitative Results

Thema	Quantitative Findings	Qualitative Findings
Background to participating in Community	Reasons for participating in CHC management training as 24% of their own volition,	Reason an assignment: Training alumni are generally assigned to attend CHC-MT, special motivation is needed to be able to attend CHC-MT smoothly; New training

Thema	Quantitative Findings	Qualitative Findings
Health Center Management Training (CHC-MT).	<p>and 76% assigned by superiors.</p> <p>As 96% were assigned to permanent positions before and after training.</p>	<p>participants are needed to maintain the spirit; Assignment is based on considerations of the new CHC head and the health center's preparation for accreditation.</p> <p>Difficulties during online training participants are generally poor internet connection and concerns about not being able to attend the training properly so that they do not pass.</p> <p>Importance of CHC-MT: All informants stated that CHC-MT is important for CHC, especially for accreditation needs; Almost all informants stated that even though there is no accreditation, CHC-MT is needed to improve health centers towards a better direction.</p>
Implementation of CHC management after training.	All alumni (100%) stated that they implemented the follow up plan created at the end of the training.	<p>Implementation of follow up plan: In general, the first follow up plan conducted is socialization to the head of the center and colleagues; Both non head of health center and head of health center informants stated that there were changes or steps that had to be taken in the implementation of follow up plan after training, but in different forms</p> <p>Implementation of CHC management: It has been carried out although not optimally; There were changes in implementation of planning, driving implementation, monitoring, control and evaluation, but district health office informants did not know for sure. There is no special assistance from the District Health Office to CHC after CHC Management Training.</p> <p>Implementation of planning has been carried out especially in the planning stage although the documentation evidence is not yet complete. Data is starting to be used as a basis for planning</p> <p>Implementation of driving implementation has been implemented with several obstacles; Coordination was not good, many staff were busy, the management cycle had not been followed by all staff, the activities documentation has not been recorded</p> <p>Implementation of monitoring, control and evaluation has been implemented with several obstacles: Analysis of the causes of not being implemented, there has been no satisfaction and service survey, poor coordination of monitoring and evaluation and program reporting; Most informants from non-Head of CHC stated that there was document support for the implementation of CHC management.</p>
Supporting and inhibiting factors for CHC management implementation.	Supporting factors for implementation: 87.8% want to apply knowledge; 46.9% support from superiors; 36.7% supporting facilities and infrastructure and 32.7%	Supporting factors for the implementation of CHC-MT obtained from the Cross-sector although still limited, colleagues, and the superiors. Assistance from the District Health Office was obtained prior to the implementation of accreditation.

Thema	Quantitative Findings	Qualitative Findings
	<p>orders from superiors, 4% moved positions.</p> <p>Inhibiting factors for implementation: 51% limited understanding; 42.9% facilities and infrastructure do not support; 22.4% transfers; 20.4% lack of support and not assigned.</p> <p>The attitude of alumni after training related to health center management: 82.77% positive and 17.23% negative.</p>	<p>Barriers to CHC management implementing as limited direction from superiors, especially about the activities reporting; Limited human resource capacity, resulting in a gap between colleagues; Not all communities are ready to accept the CHC management implementation.</p> <p>Future expectations for CHC management implementation. all CHC staff can participate in CHC Management Training, materials are adjusted to the task. A companions health districts office give the opportunity to participate in CHC-MT.</p>
<p>Alumni behavior after health center management training</p>	<p>The average post-training knowledge as 72.4 with a minimum score as 13.3 and a maximum as 100.</p> <p>The Skills that require a little supervision according to alumni are Building anti-corruption leadership capacity; Data and information management; Health center financial management; Budget planning; Asset management; Human resource management; Management of tools and facilities; Management of drugs and consumables; public health efforts management; Community empowerment management; Risk management;</p> <p>Planning; driving of implementation; monitoring, control and evaluation.</p> <p>Skills that require more supervision according to alumni as holistic leadership.</p>	<p>There was a perceived decrease in knowledge after some time after training for example once every 5 years, so it was felt necessary to refresh the material in addition to possibly providing new material.</p> <p>The superior stated that the alumni of the training should be able to master all the skills learned during training easily because the assigned training participants have gone through the consideration of superiors according to their positions and duties.</p> <p>All skills learned during training support the implementation of CHC management. Most of the skills have been carried out, especially human resources and infrastructure management, anti-corruption, cadre empowerment, and risk management. The skills not yet carried out, according to the head of the health center the skills that have not been carried out are related to financial management. Implementation of these skills requires special personal specifications (educational background) are required.</p> <p>The skills is easy to apply if it is in accordance with the duties and functions, and difficult because not all health center staff have participated in CHC-MT. Supervision and assistance are needed during the implementation of CHC management. such as the District Health Office. But now, the personal of the District Health Office also has limited capabilities because they have never participated in CHC-MT.</p>
<p>Response to West Java Provice Health Training Center Unit.</p>	<p>The existence of West Java Provice Health Training Center Unit according to Cirebon Alumni as 20.8% very useful and 79.2% useful. According to Majalengka Alumni as 25% very useful,</p>	<p>Offline and online training design: Offline learning design is preferred by alumni because it is application or practice-based; Online learning design is less preferred by alumni because it often internet network disruptions but offline learning design is preferred by alumni because it is application-based and has minimal technical disruptions.</p>

Thema	Quantitative Findings	Qualitative Findings
	70.8% useful and 4.2% quite useful.	<p>The method og training were good and varied. The leadership materials are preferred by the CHC head alumni. In general, the training methods used are quite good with the exception of practical training methods such as role play and field practice, which can be deepened or the training hours increased.</p> <p>The learning facilities provided are quite good with suggestions for training space in the hotel is limited if there are many participants. In general, training is preferred if it uses a location at Health Training Center Unit.</p>

Community Health Center Management Training (CHC-MT) is felt to be very necessary to improve the competence of training participants which in turn will improve the quality of Community Health Center (CHC) services to the community (stated by Alumni (A) 1-3-4-5-7), even though for example it is not one of the requirements listed in CHC accreditation (A1-3-4). This is in line with the purpose of the training, namely to improve employee capabilities in carrying out their duties (Gustiana 2022). Training to improve the quality of human resources is needed in the implementation of CHC strategic management, which is ultimately expected to have an impact on improving the quality of CHC services (Agustina, Irawan, and Ginting 2023; Fatma, Rindu, and Lukman 2024) and the effectiveness of CHC which are still felt to be lacking (Fatma, Rindu, and Lukman 2024). Most of the training alumni took part in the training because they were assigned by their superiors, one

alumni superior stated that this selection was based on "... considerations of the newly appointed health center head and the health center that was to be accredited...". Although based on the superior's assignment, in the end they felt the importance of CHC management training. One alumni superior stated "... it is important that the health center head and staff can carry out management well and appropriately...".

Motivation from superiors to prospective training participants is needed to take the training seriously, as well as motivation for training alumni is needed to apply the results of CHC management training (A2). Motivation is a combination of various internal and external factors that encourage someone to take certain actions. Motivation can be developed through effective communication between superiors and subordinates, employees feel respected and more motivated to do their work, without motivation extraordinary work results and

achievements cannot be expected. Professionalism is important in the workplace, but employees who are motivated to work are much more important because they can create a desire to be successful and productive (Fatma, Rindu, and Lukman 2024). There is a strong influence of motivation on employee performance, motivation can be in the form of opportunities for self-actualization, self-esteem, social ownership, a sense of security and physiological needs (Fatma, Rindu, and Lukman 2024). The findings of this study indicate that female training alumni have higher knowledge than male alumni. This is in line with previous research that there are other factors besides motivation that affect a person's performance, such as employee background, length of service (Fatma, Rindu, and Lukman 2024), but were not examined in this study.

Another finding of this study is that although only a small number of training alumni were transferred from the CHC after training, this is very unfortunate. After training, a training alumni should not be transferred to other positions/tasks within 2-3 years so that the training results can be implemented in their workplace. If there is a transfer, it may only be between CHC, and not to other institutions outside the CHC. The time span provided to implement the skills acquired during training is quite

an important factor, because behavioral change requires time according to the work being done. In relation to time and performance, time management is one of the factors that influence employee performance (Muliati and Budi 2021). In this case, the implementation of CHC management also requires time management, because it includes various activities and involves many officers at the CHC.

All training alumni implement the Follow-up Action Plan what made at the end of the training. Most reported to their superiors after training, intended to obtain support in implementing the training results, as well as socialization to colleagues was carried out in the hope of obtaining support and cooperation in implementing the training results (A1-2-3-4). The implementation of the Follow-up Action Plan stages has not been evenly carried out by alumni, the control – supervision and evaluation stages have only been carried out by half of the alumni. This condition often occurs in the field, among other things, due to the habit that is widely practiced where when preparing activity plan, they did not simultaneously prepare how the evaluation of the activity will be evaluated. The implementation of all stages of CHC management is very necessary to achieve CHC performance, previous research suggests a relationship between planning

and driving implementation with CHC performance (Fatma, Rindu, and Lukman 2024). Organizational support for health workers can reduce work fatigue and fulfill high work professionalism, thus organizational support is very important in the implementation of work (Carlasare et al. 2024).

Qualitative results show that there has been a change in the implementation of CHC management after the training, although one of the health service officials (Informant Superior - S 1) could not explain the changes in detail. Informant A2 stated "... the changes are not yet comprehensive, especially for staff ...". There was no special assistance after the CHC Management Training (CHC-MT) for alumni (S-1), but it was integrated with program guidance and assistance when accreditation was about to be carried out (S1). Data began to be used as a basis for planning, although not all alumni explicitly stated this. Coordination in driving implementation was not yet completely good, the management cycle had not been followed by all CHC officers, and activity documentation was incomplete. Informant A4 stated "... activity recording is still lacking, not because of the lack of human resources but maybe because of the lack of time so that people forget ...". The evaluation - supervision and control has not been carried out well enough, this is in line

with previous research where the evaluation - supervision and control in the good category only reached 43.8% (Fatma, Rindu, and Lukman 2024). The analysis of cause the problem steps have not been carried out much, even though this is important for taking corrective or improvement actions appropriately.

The training alumni also stated that not all of them have conducted customer service satisfaction surveys, coordination in monitoring and evaluation and reporting is not good. Most of the CHC management documents exist, but their completeness is not yet known. Regarding the completeness of documentation at the CHC, previous research stated that the use of a Computer-Based Health Center Information System supports the effectiveness and quality of CHC services which are relatively stable, accepted by users and have a fast response time (Halimah et al. 2023). Organizational leaders should understand and developed an integrated service model by utilizing technological developments, and develop leadership that adapts to a transforming environment (Lemak et al. 2024).

The support from the CHC head in implementing CHC management is very important so that it can run well, likewise understanding of CHC management by all CHC officers is very important so that it does not become an obstacle (A1). Basically, supporting and inhibiting factors

could come from internal factors of training alumni and external factors come from the CHC environment where alumni work. The colleague informant (C1) stated "... cross-sectoral support has improved since COVID-19 ...", and "... support is sought through advocacy ..." (A1). The importance of environmental support for the implementation of CHC management is in line with the opinion that increased performance is influenced by the work environment, in addition to job satisfaction factors and organizational commitment (Pusparani 2021).

The average knowledge level of alumni after training as 72.4 with a minimum score as 13.3 and a maximum as 100, there was a fairly wide range between participants. The knowledge score could not be compared with the post-test score at the end of the training because the number, form and construction of the questions were different. Alumni stated that they needed to refresh their knowledge about CHC management (A1-4), especially with the new policies on health centers, for example the CHC management according to the transformation of the primary service integration policy (Kementerian Kesehatan Republik Indonesia 2022). The holistic leadership skills were stated to still require more supervision than other skills that only require little supervision. Leadership should adapt to technological advances and

environmental transformations and policies (Lemak et al. 2024). Competency or skill evaluation of officers in carrying out their work need to be carried out periodically and systematically so that the gap that occurs is known, and then it is one of the strategies carried out in developing health management work teams (Pokhrel, Liang, and Taylor 2024).

The existence of Health Training Center Unit is felt to be very useful, it is hoped that it will develop special CHC management materials according to the different duties of CHC officers. For example, for managers of activities that are in the nature of public health efforts, material for managing activities that are in the nature of individual health efforts (A5). Along with the policy of integrating primary services based on life cycle targets, there also needs to be material that is developed according to the target service cluster. The limitation of this study is that the questionnaire used has not been empirically tested on similar respondents, but judgment is made to experts who are considered to master the material on health center management and to experts in compiling research instruments. Ethics testing of the research was not carried out with the consideration of not intervening during this study, and is mandatory from the main tasks and functions of West Java Province Health Training Center Unit.

CONCLUSION

Approximately one year after the training, alumni knowledge about health center management in the good category was only 44.9%, attitudes in the good category were 69.4% and practices in the good category were 44.9%. The implementation of Community Health Center (CHC) management stages in the form of planning was carried out as 77.6% of training alumni, implementation of implementation was carried out as 67.3% of training alumni and assessment of control supervision was carried out as 57.1% of training alumni. Supporting factors have been felt by alumni in the implementation of CHC management, increasing support from the leaders (superiors), colleagues, provision of work facilities that utilize technological developments and transformative policies can encourage the implementation of CHC management optimally. Refreshing knowledge and continuous competency evaluation become the basic data for mentoring and developing personnel in health centers.

Training activities in the form of internships at CHC that have implemented good health center management are worth trying, combined with classroom reviews to internalize the field experience. Post-training alumni mentoring by mentors from the District Health Office is worth trying,

with the note that the mentors have received training or experience in implementing CHC management. Continuous evaluation of alumni knowledge and skills is carried out for mentoring databases. The formation of peer groups of training alumni as drivers of CHC management can be developed as a means of exchanging experiences of good CHC management practices.

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