

Effectiveness Of Breastfeeding Counseling Training Programs In Efforts To Increase The Competency Of Health Human Resources In West Java

¹Ratna Sari, ²Rindu, ³Dina Indriyanti

^{1,2}Prodi Magister Kesehatan Masyarakat, Fakultas Ilmu Kesehatan, Universitas Indonesia Maju, ³Balai Pelatihan Kesehatan Cikarang, Kementerian Kesehatan RI

Article Info	ABSTRACT
<p>Keywords: Training program, Competency improvement, Competency</p>	<p>One of the main health problems faced by children in Indonesia is malnutrition Malnutrition in toddlers, one of which is caused because in infancy and childhood they do not getting intake in accordance with the best feeding patterns for infants, this shows the need to increase the competence of This shows the need to increase the competence of Human Resources for Health Health Human Resources to improve public knowledge about breastfeeding and increase exclusive breastfeeding coverage. This study aims to determine the breastfeeding counseling training program and to determine and analyze the effectiveness of the breastfeeding counseling training program on improving the competence of Health Human Resources Health Human Resources in West Java region. A quantitative approach was used with an explanation of relationship between variables. The samples used were grouped based on region of the breastfeeding counseling training participants. Secondary data that is Quantitative secondary data were obtained from Bapelkes Cikarang documentation, annual reports and questionnaires. Data processing was carried out using Microsoft excel and Smart PLS 3 applications. Data analysis using analysis (Structural Equation Modeling) SEM analysis. The results of the research and hypothesis testing illustrate that the training program which includes effective facilitators, organizers and participants has an effect on increasing the competency of breastfeeding counseling training participants and the Facilitator variable through organizing the training plays the most important role in increasing the competency of training participants, this can be seen in the interpretation of the results (Inner Model) indirect relationship where the p value of the Facilitator's influence on increasing competence through implementation is 0.042, this can be interpreted as meaning that there is a significant influence between the Facilitator Variable on increasing Competency through the implementation Variable.</p>
<p>This is an open access article under the CC BY-NC license</p> 	<p>Corresponding Author: Ratna Sari Prodi Magister Kesehatan Masyarakat, Fakultas Ilmu Kesehatan, Universitas Indonesia Maju ratnarandieztha@gmail.com</p>

INTRODUCTION

Child health issues in Indonesia are influenced by several factors such as cultural norms, socioeconomic status, and accessibility to health services. Some of the main health problems in children in Indonesia that are in the spotlight are nutritional deficiencies, this can be seen

in the prevalence of stunting toddlers which is currently at 21.6%, prevalence of wasting toddlers 7.7% and prevalence of underweight toddlers 17.1% (Kementerian Kesehatan Republik Indonesia, 2022). Poor nutrition in early life in children will have a major impact on the quality of future generations of human resources. Nutritional deficiencies in children can be caused by infancy and children not being fed according to the best feeding patterns for infants. The Indonesian Ministry of Health determines the Gold Standard of intake in infants and children by providing recommendations for feeding patterns for infants and children up to 2 years of age, including: Giving the baby Early Breastfeeding Initiation immediately after the baby is born, Exclusive breastfeeding from birth until the baby is 6 months old, Giving complementary foods with high nutrition starting at the age of 6 months and continuing to give breast milk until the child is 2 years old or older.

Toddlers with exclusive breastfeeding will have a better nutritional status than those who are not given, the nutritional status of toddlers aged from 12 months to 24 months is also influenced by the provision of complementary foods and the type of complementary foods given to children (Ichwan et al., 2015). One of the efforts to provide more knowledge to the public about breastfeeding and increase exclusive breastfeeding for children, trained breastfeeding counseling personnel are needed at service centers that provide health services for mothers and children. This staff's job is to convey information and help mothers who experience problems when giving breast milk to their children. Community health centers and their networks, special maternity hospitals, as well as private practical midwives, and so on are expected to have staff trained in breastfeeding counseling who have competence as counselors. This trained and competent workforce is obtained through HR development, HR development is a facility provided by an organization to its workers so that the knowledge, skills and or attitudes needed to complete the work given to them (Dr.H.Hasan Basri, M.Ag, 2015).

The Health Training Center (Bapelkes) located in Cikarang is a unit that carries out technical activities under the Ministry of Health of the Republic of Indonesia which has the main tasks and functions as a provider of health training, appointed to organize Breastfeeding Counseling Training to produce professional and competent counseling personnel.

Previous research relevant to this research regarding effectiveness training programs for increasing competency (Richa Kartika Kristin Dain Yunitasari, 2023), concluded that effectiveness training contributed significantly to increasing employee competency. Other research states that effective training programs increase participant competency covering 4 dimensions, namely task skills, task management skills, contingency management skills, and work role environment skills (Aprilia Wulandari, Sahrin, 2022). The difference between this research and previous research is that the training program variables include Facilitators, Organizers and Participants.

Researchers consider it necessary to carry out this research, considering that the first breastfeeding counseling training has been carried out by Bapelkes Cikarang, and has never been carried out in a comprehensive evaluation and this research provides other benefits in

the form of saving the state budget in the form of implementing post-training evaluation activities.

METHODS

Quantitative approach with Pre-Experimental Design research design and design model, namely One group Pretest posttest Research Design, this design is used because of the use of pretest before the implementation of the training program, the results of the training can be known by comparing with the situation after the implementation of the Posttest program. The depiction of this design is as follows:

Tabel 1. Desain One Group Pre-test post-test (Sugiyono, 2013)

Pre Test	Pelaksanaan Program Pelatihan	Post Test
O1	X	O2

Information:

O1 is the pretest value before

O2 is the posttest value after

X is treatment by implementing a process

Cikarang Health Training Center is the location where the research was conducted. This place was chosen because it is an institution that organizes breastfeeding counseling training. In this study, the target population is breastfeeding counseling training participants in 2023 implemented by Bapelkes Cikarang, due to limited time and cost the authors used a sample of breastfeeding counseling participants with the position of agencies located in West Java totaling 50 people, as well as 1 beneficiary of the implementation of breastfeeding counseling, namely pregnant women or breastfeeding mothers in each participant with a total of 50 beneficiaries. The data processing and analysis process in this study was carried out using Microsoft Excel software and the Smart PLS application. Partial Least Square is an analytical method that can relate a set of independent variables (independent) to a number of dependent variables. On the predictor side, PLS can handle a large number of independent variables, although the predictors indicate how many. PLS is implemented as a regression model and predicts one or more sets of independent variables (Garson, 2016).

RESULTS AND DISCUSSION

Validity Reliability

Convergent validity aims to measure the validity of indicators as measured variables can be seen from the outer loading on each indicator. Indicators are good if they have reliability in outer loading for each indicator greater than 0.70. When using the Convergent Validity standard value of more than 0.70, the loading value of less than 0.70 will be removed from the model. The purpose of the reliability of an evaluation index is to assess whether the indicators that measure latent variables are reliable or not. This is done by evaluating the results of outer loading on each indicator. For a loading value above 0.7, it indicates that the construct is able to explain more than 50% of the variance in its indicators (Wong, 2013). In stage 1 of the outer loading data processing, the outer loading value table can be seen on all items or indicators where the outer loading value is greater than 0.7, meaning that the outer

loading data processing is valid. For an outer loading value of less than 0.7, it is said to be NOT valid. The Outer Loading value limit of greater than 0.5 is still acceptable, provided that the validity and reliability of the construct meet the requirements. Based on testing the validity of outer loading, it is assumed that there are several indicators that are said to be invalid based on convergent validity, for example in the PK21 and PK28 constructs, so the next step is to delete items that are less than 0.5. In the outer loading stage 2, the overall indicator is produced, namely the outer loading value is greater than 0.7, this means that the indicator is valid. A value that is still less than 0.7 means that it is NOT valid. The outer loading value limit of greater than 0.5 is still acceptable provided that the validity and reliability of the construct have met the requirements. Based on the results of the outer loading validity test, it is stated that all items or indicators have valid convergent validity.

Inner Model Multicollinearity

Smart PLS version 3 uses the variance inflation factor (VIF) to assess collinearity. Multicollinearity is often found in managing statistical data. Multicollinearity is an independent variable or external construct that has a significant correlation that weakens the predictive power of the model (Sekaran, Uma. & Bougie, 2016). The VIF value should be less than 5, if it is greater than 5, it indicates that there is a relationship between the constructs (Sarstedt et al., 2021). In the multicollinearity test there is a strong correlation between the independent variables which is shown in the VIF Inner model value below:

Table 2. Inner Model Multicollinearity

Hypothesis	Facilitator (X1)	Competency Improvement (Y)	Organizing (X2)	Trainees (Z)
Facilitator (X1)		1.180	1.000	1.043
Competency Improvement (Y)				
Organizing (X2)		1.126		1.043
Trainees (Z)		1.177		

Based on the VIF values in the table above, there are no VIF values > 10 so there is no multicollinearity problem. This fact is supported by the lack of strong correlation between independent variables.

Coefficient of Determination: R-Square and Adjusted R-Square

The R-Square value is also called the goodness-fit-model test, the coefficient of determination (R²) is a method used to assess endogenous constructs explained by exogenous constructs. The coefficient of determination (R²) value is 0 and 1. R² value of 0.75 means strong, 0.50 means moderate, and 0.25 means weak (Sarstedt, M., Ringle, C.M., & Hair, 2017), while Chin provides criteria for the R² value of 0.67 which means strong, 0.33 which means moderate and 0.19 which means weak. (Chin, 1998).

Table 3. The Results of R Square and Adjusted R Square analysis

	R Square	R Square Adjusted
Competency Improvement (Y)	0.294	0.248
Organizing (X2)	0.041	0.021

	R Square	R Square Adjusted
Trainees (Z)	0.150	0.114

The effect of the R Square value together on Z is 0.150 with an adjusted r square value of 0.114, which means that all exogenous variables together affect Z by 11.4% which is smaller than 19%, meaning that it is very weak. The influence of all exogenous variables on Z is very weak. This also happens to X2 by 2.1%, which is less than 19%, which can be categorized as very weak, and the effect on variable Y is weak because 24.8% > 19%.

Model Fit Test

Model fit criteria that have been met are seen in the SMSR value which is less than 0.05 (Chin, 1998). The limitations or criteria for model fit based on the explanation from the SMARTPLS website include The RMS Theta or Root Mean Square Theta value is smaller than 0.102, the SRMR or Standardized Root Mean Square value is smaller than 0.10 or smaller than 0.08, and the NFI value is greater than 0.9.

Table 4. Fit Summary

	Saturated Model	Estimated Model
S R M R	0.067	0.067
D_ ULS	0.939	0.939
Chi-Square	234.777	234.777
N F I	0.832	0.832
Rms Theta	0.205	

It can be seen in the SRMR value of 0.067 which is less than 0.08 so that the model is Fit, meaning that the difference between the observed data and the prediction model is quite small, which indicates a good fit. Based on the assessment results on RMS Theta / Root Mean Square Theta is 0.205 greater than 0.10, it is not fit, meaning that the tested model does not have an adequate fit when compared to the basic model used. While the NFI value is 0.832 smaller than 0.9, it is not fit, this means that the model has a significant estimation error, indicating a poor fit between the model and the data.

Paired Sample t -Test

Paired Sample t Test, also called the paired t-test, is a method used to test the hypothesis that the data used is not free or also called paired. (Sarstedt, M., Ringle, C.M., & Hair, 2017). To interpret the t-test first determine the significant value α which is 0.05. After that compare the value of t count with t table, if t count is smaller than t table then there is no difference said to be significant, and if t count is greater than t table then there is a significant difference. Paired t - test was conducted to measure the average increase in competence of breastfeeding counseling training participants in 2023 at Bapelkes Cikarang before receiving the training program compared to after receiving the training program whether it has a significant difference. This test was conducted on the results of the Pretest and Posttest assessment of Breastfeeding Counseling Training Participants with West Java regional agencies totaling 50 participants.

Table 5. T-Test

	Pretest	Posttest
Mean	58.1	97.2
Variance	298.8673469	22.61224
Observations	50	50
Pearson Correlation	0.262898922	
Hypothesized Mean Difference	0	
df	49	
t stat	-16.57449067	
P(T<t) two-tail	4.99559E-22	
T Critical one-tail	1.676550893	
P(T<=t) two-tail	9.99E-22	
T Critical two-tail	2.009575237	

The results of the Paired t-test above using the Excel Application obtained t count - 16.57 this figure is smaller than t table 2.00 and P Value 9.99-22 this value is greater than 0.05, for that it can be concluded that there is a significant change from increasing the competence of breastfeeding counseling trainees after being given, or it can be said that there is an influence / effective training program on improving the competence of breastfeeding counseling trainees.

Interpretation of Results (Inner Model)

Measurement of path coefficients on constructs is to determine the significance and strength of the relationship also as a test of the hypothesis. The path coefficients value is between -1 and +1. The closer to the value +1, the stronger the attachment of the two constructs. However, if the relationship is closer to -1, it means that the relationship is negative or the relationship is not strong (Sarstedt, M., Ringle, C.M., & Hair, 2017).

The results of the analysis at the inner level are the T value of the loading factor and the t value of the path coefficient, namely the direct effects of the two Bootstrapping T Value and P Value model diagrams, which can be described in detail as follows:

Direct Effects

Below is a table that presents the direct effect of each exogenous variable construct on endogenous variables:

Table 6. Direct Effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (IO/SRDEVI)	P Value	Conclusion
Facilitator (X1) ➔ Competency Improvement (Y)	-0.307	-0.284	0.137	2.248	0.013	Accept H1 (Significant)
Facilitator (X1) ➔ Organizing (X2)	-0.203	-0.193	0.112	1.805	0.037	Accept H1 (Significant)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (IO/SRDEVI)	P Value	Conclusion
Facilitator (X1) → Trainees (Z)	0.323	0.326	0.110	2.947	0.002	Accept H1 (Significant)
Organizing (X2) → Competency Improvement (Y)	-0.426	-0.443	0.114	3.742	0.000	Accept H1 (Significant)
Organizing (X2) → Trainees (Z)	0.168	0.169	0.135	1.240	0.109	Accept H0 (ansignificant)
Trainees (Z) → Competency Improvement (Y)	-0.110	-0.128	0.131	0.837	0.202	Accept H0 (ansignificant)

In the table above it can be seen that the amount of Path Coefficient output is the amount of direct influence (Direct Effect) on each independent variable on the dependent variable. For example: the parameter coefficient value on the X1 variable on the Y variable is -0.307, meaning that there is a negative effect of X1 on Y, in other words, the more the value of X1 increases, the more Y will decrease. An increase in the value of X1 will decrease Y by 30.7%. Calculation based on bootstrap or resampling, the resulting test coefficient estimate of X1 on Y generated by bootstrap is -0.284 and the calculated t value is 2.248, the p value of 0.013 is smaller than 0.05, so accept H1, meaning that the direct effect of X1 on Y is statistically significant or said to be meaningful.

Hypothesis Conclusion:

1. The p value of the effect of X1 on X2 with a value of 0.037 where < 0.05 , then accept H1, this means that there is a significant effect of variable X1 on X2.
2. The p value of the effect of X1 on Z with a value of 0.002 where < 0.05 , then accept H1, this means that there is a significant effect of the X1 variable on Z.
3. The p value of the effect of X2 on Z with a value of 0.109 where > 0.05 , then accept H0, this means that there is no significant effect of the X2 variable on Z.
4. The p value of the effect of X1 on Y with a value of 0.037 where < 0.05 , then accept H1, this means that there is a significant effect of variable X1 on Y.
5. The p value of the effect of X2 on Y with a value of 0.000 which is < 0.05 so accept H1, this means that there is a significant effect of the X2 variable on Y.
6. The p value of the effect of Z on Y with a value of 0.202 which is > 0.05 so accept H0, this means that there is no significant effect of Z on Y.

Indirect Effects

Indirect effects are the effects of exogenous variables on endogenous variables with intermediate variables. In this model, the intermediate variables are Z and X2. For this reason, the results of the indirect effects analysis, if described in the form of a table image below:

Table 7. Indirect Effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (IO/SRDEVI)	P Value	Conclusion
Facilitator (X1)						
➔ Organizing (X2)	-0.034	-0.031	0.034	0.991	0.162	Accept H0 (ansignificant)
➔ Trainees (Z)						
Facilitator (X1)						
➔ Trainees (Z)						
➔ Competency Improvement (Y)	-0.036	-0.041	0.047	0.753	0.458	Accept H0 (ansignificant)
Facilitator (X1)						
➔ Organizing (X2)						
➔ Competency Improvement (Y)	0.086	0.089	0.049	1.746	0.042	Accept H1 (Significant)
Facilitator (X1)						
➔ Organizing (X2)						
➔ Trainees (Z)	0.004	0.003	0.007	0.540	0.259	Accept H0 (ansignificant)
➔ Competency Improvement (Y)						
Facilitator (X1)						
➔ Competency Improvement (Y)	-0.018	-0.017	0.031	0.603	0.274	Accept H0 (ansignificant)
➔ Trainees (Z)						

Based on the results of data processing on indirect relationships seen in the table image above in the form of the magnitude of the indirect effect (Indirect Effect) on all independent variables on the dependent variable through intermediate variables. The resulting p value of the indirect relationship as in the table above, all indirect effects are not significant or accept H0, this is because all p values are more than 0, except for the variable X1 on Y through the intermediary X2.

the p value in the table above, the total effect is not significant or accept H0 with a p value of more than 0.05 marked with a red block. And the total effect is significant or accept H1 with a p value of less than 0.05 marked with a green block.

Hypothesis Conclusion:

1. The p value of the effect of variable X1 on Z through X2 with a value of 0.162 which is > 0.05 , so accept H0, this means that there is no significant effect between variable X1 on Z through X2.

2. The p value of the effect of variable X1 on Y through Z is 0.227 which is > 0.05 so accept H_0 , this means that there is no significant effect of variable X1 on Y through Z.
3. The p value of the effect of X1 on Y through X2 with a value of 0.042 which is < 0.05 , so accept H_1 , this means that there is a significant effect of X1 on Y through X2
4. The p value of the effect of X1 on Y through X2 and Z with a value of 0.295, which is > 0.05 , then accept H_0 , this means that there is no significant effect between the variables X1 on Y through X2 and Z.
5. The p value of the effect of variable X2 on Y through Z with a value of 0.274, which is > 0.05 , then accept H_0 , this means that there is no significant effect of variable X2 on Y through Z.

Discussion

1. A quantitative approach is used in this research, where the presentation of data used is in the form of figures / tables that are described so that they are easy to understand. The data obtained is too complex so that processing is more difficult. Another drawback in this study is that there are too many relationships studied so that many hypotheses must be tested and other variables may have an effect but have not been included in this study.
2. At the outer and inner stages in this study, the overall p value, namely the indicator on the latent variable < 0.05 , this means that all indicators are valid and reliable on their constructs.
3. The results of the paired T-Test test on the pretest and posttest showed a significant change in the increase in competence of breastfeeding counseling trainees after being given a training program, or it can be said that the training program implemented is effective to improve the competence of breastfeeding counseling trainees.
4. The results of hypothesis testing and interpretation of data testing, it was found that the direct effect on increasing the competence of breastfeeding counseling training participants was influenced by the role of facilitators and organizers but the greatest influence was the implementation of the training program. This is in accordance with what Dr. Benny A. Pribadi M. said in his book entitled Design and Development of Competency-Based Training Programs, that the training program is held to improve the skills, knowledge, and attitudes (competencies) that employees must have in carrying out work and tasks more efficiently and effectively (Dr. Benny A. Pribadi, 2014)
5. From all tests of indirect effects, it is known that the facilitator influences the improvement of competence of breastfeeding counseling participants through the implementation of training.
6. Based on testing the direct effect and indirect effect, the most influential variable is the facilitator on competency improvement through training implementation.

CONCLUSION

This research aims to determine the breastfeeding counseling training program, determine and analyze the effectiveness of the counseling training program in increasing competence and which variables have the most influence on increasing the competence of Health Human

Resources in the West Java region. From the research results, it is clear that the counseling training program includes Facilitators, Organizers and Training Participants. The training program implemented in effective breastfeeding counseling training has an effect on increasing competency for training participants. The most influential variable is the Facilitator variable. Through the implementation of training, it can be said that this variable plays the most important role in increasing the competency of breastfeeding counseling training participants. Facilitators are expected to not only play a role in providing the content or material of the training program, but also facilitate the learning process. Facilitators also provide relevant learning methods and media in accordance with the competencies to be achieved by all trainees, facilitators are also expected to demonstrate/practice the skills being trained with enthusiasm. Facilitators are also expected to provide feedback on the learning outcomes that have been achieved. By performing these tasks, the facilitator demonstrates optimal performance in order to support and create an efficient, effective and interesting training program. In supporting the effective implementation of training programs, the implementation of training programs is expected to be prepared through careful planning starting from identifying needs, providing excellent services needed by participants, supporting facilitators, conducting evaluations, and following up on the evaluation results of the training enthusiastically and relevantly, in order to achieve the objectives of the training program.

REFERENCE

- Aprilia Wulandari, Sahrun, M. (2022). *Efektivitas Program Pelatihan Kerja terhadap Peningkatan Kompetensi Peserta pada Balai Latihan Kerja Kendari*. 8(1), 87–97.
- Chin, W. W. (1998). *The Partial Least Squares Approach to Structural Equation Modeling. Modern Methods for Business Research*.
- Dr. Benny A. Pribadi, M. . (2014). *Desain Dan Pengembangan Program Pelatihan Berbasis Kompetensi - Implementasi Model Addie* (1st ed.). Prenada Media Group.
- Dr.H.Hasan Basri, M.Ag, D. H. A. R. (2015). *Manajemen Pendidikan dan Pelatihan* (M. S. Dr.Beni Ahmad Saebani (ed.); 1st ed., Vol. 14, Issue 1). CV Pustaka Setia.
- Garson, G. D. (2016). *Partial least Squares: Regression & Structural Equation Models*.
- Ichwan, E. Y., Lubis, R., & Damayani, A. D. (2015). Pemberian ASI Eksklusif dan Makanan Pendamping ASI Berhubungan dengan Status Gizi Balita Usia 12-24 Bulan. *Jurnal Ilmu Dan Teknologi Kesehatan*, 2(2), 83–92.
- Kementerian Kesehatan Republik Indonesia. (2022). *BUKU SAKU Hasil Survei Status Gizi Indonesia (SSGI) 2022*.
- Richa Kartika Kristin Dain Yunitasari, R. F. (2023). *Pengaruh Efektivitas Pelatihan dalam Meningkatkan Kompetensi Karyawan*. 516–527.
- Sarstedt, M., Ringle, C.M., & Hair, J. . (2017). *Partial Least Square Structural Equation Modeling*.
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial Least Squares Structural Equation Modeling. In *Handbook of Market Research* (Issue October 2023). https://doi.org/10.1007/978-3-319-57413-4_15

- Sekaran, Uma. & Bougie, R. (2016). *Research Methods for Business: A Skill Building Approach*.
- Sugiyono. (2013). *Metodologi Penelitian Kuantitatif, Kualitatif dan R & D* (Cetakan ke). Alfabeta.
- Wong, K. K. (2013). *Partial least squares structural equation modeling (PLS-SEM) Techniques Using SmartPLS*. Marketing Bulletin.