

The Effectiveness of Management Training for Childhood Illness with Integrated Management of Childhood Illness toward Behavior of Health Worker in Management of Childhood Illness

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Abstract: The implementation of standard Integrated Management of Childhood Illness (IMCI) is still experiencing problems in the field. One of the contributing factors is the lack of knowledge, skills, and experience of health workers in optimally handling illness infants or toddlers. The purpose of this study was to identify the effect of training in the management of illness toddlers with the IMCI approach on the behavior of health workers in the management of illness toddlers. This study used a Quasi-experimental research design using a pre-post-test design with one group. Thirty health workers were a participant on duty at the Medan Sunggal Public Health Center using purposive sampling. Data were collected by a demographic data questionnaire, and questionnaire on knowledge, attitudes, and observation sheets to measure actions about IMCI. The univariate analysis was descriptive statistical analysis to present the characteristics of the respondents and the behavior of health workers in handling illness childhood under the IMCI approach. The bivariate analysis was inferential statistical analysis, namely, the Wilcoxon test was used to compare the behavior of health workers in handling illness childhood with the IMCI approach before and after being given IMCI training. The results showed that the management training for illness toddlers with the IMCI approach was effective for the knowledge of health workers in the management of illness toddlers (p-value 0.0001), the training for the management of illness toddler with the IMCI approach was effective for the attitudes of health workers in the management of illness toddlers (p-value 0.0001). Training on the management of illness toddlers with the IMCI approach was effective for the actions of health workers in the management of illness toddlers (p-value 0.0001).

Keywords: IMCI training; Toddler; Health worker behavior

1. INTRODUCTION

The World Health Organization (WHO) introduce the concept of the Integrated Management of Childhood Illness (IMCI) which is a strategy in health service efforts that are shown to reduce mortality and morbidity in infants and young children under five in developing countries [1]. IMCI includes various efforts that are closely related to curing diseases in infants in the form of pneumonia, diarrhea, measles, malaria, ear infections, malnutrition, as well as efforts to improve health services, prevention of diseases such as immunization, giving vitamin K, vitamin A and counseling on breastfeeding or feeding [1].

Based on the results of 2012 Indonesian Demographic and Health Survey (IDHS), it was found that the under-five mortality rate in North Sumatra was 54/1,000 live births. Meanwhile, the national average in 2012 was 43/1,000 live births. According to district/city health profile data in 2016, the number of under-five deaths was 1,219 when converted to

under-five mortality, it would be 4/1,000 live births. The target of direct infectious disease control activities is to reduce morbidity and mortality due to direct infectious diseases. One of the indicators for achieving these targets is the percentage of districts/cities where 50% of the public health center carry out the examination and management of pneumonia through the IMCI program by 60% [2].

IMCI is an integrated approach in the management of illness toddlers who come for treatment at outpatient basic health care facilities which include curative efforts against pneumonia, diarrhea, measles, malaria, ear infections, malnutrition, and promotive and preventive efforts which include immunization, vitamin A administration, and feeding counseling. IMCI is the management of children under five years of age for 2 groups, namely 1 day to 2 months and 2 months to 5 years [3].

The implementation of standard IMCI is still experiencing obstacles in the field, one of the causes is the lack of knowledge, skills, and experience of the staff at the health center in handling ill babies or toddlers optimally. The results of research by Rusmilawati, Adhani, and Adenan [4] reported that the knowledge of health workers who were not given IMCI training had insufficient knowledge (55.6%) and negative attitudes (60%). The results of research by Wira [5] showed that the implementation of IMCI in handling upper respiratory tract infection was not going smoothly. This is indicated by the IMCI implementation flow that is not by the IMCI module, the assessment and classification of illness children are not carried out as a whole, follow-up for illness children is not carried out, there is still a lack of infrastructure and equipment for the implementation of IMCI and there is still a lack of health personnel who are trained in IMCI so that there is no IMCI team. Besides, the mother's compliance in implementing IMCI in the care of toddlers at home has not been implemented properly.

The results of Pasaribu's [6] study showed that the implementation of IMCI in handling pneumonia in children under five was not going well. This is indicated by the lack of IMCI training health workers, such as doctors, lack of preventive and promotive services, lack of facilities, infrastructure, and equipment for handling pneumonia with IMCI. Besides, the supervision and guidance carried out by the Head of the Medan Sunggal public health center has not been implemented optimally. Based on the description above, the researchers are interested in knowing the effectiveness of training in the management of illness toddlers with the IMCI approach to the behavior of health workers in the management of illness toddlers.

2. METHODS

This study used a Quasi-experimental research design using a pre-posttest design. This study used one group of subjects, namely the intervention group, where the group was observed before the intervention was carried out and then observed again after the intervention. The population in this study were 42 health workers assigned to the Medan Sunggal Public Health Center. The sampling technique was purposive sampling, where the entire population that met the criteria was used as a sample of 30 people. This study was designed using a survey method with a cross-sectional approach to explore the influence of individual and organizational factors on nurse perception in reporting patient safety incidents in the inpatient room of the true partner hospital of Medan city in 2019. The population in this study was nurses in the hospital inpatient room in Medan as many as 168 people. The study sample selected in this study as many as 88 nurses using probability random sampling with simple random sampling techniques. The bivariate was inferential statistical analysis, namely the Wilcoxon test because the data were not normally distributed, so hypothesis testing used non-parametric testing, namely the Wilcoxon test.

Data were collected by a demographic data questionnaire and a questionnaire on knowledge, attitudes, and action observation sheets about IMCI for 30 minutes before the intervention IMCI training. Then the researcher will conduct IMCI training in dealing with illness toddlers for 6 days. Then the health workers who have been given treatment will be allowed to fill out a questionnaire of knowledge, attitudes, and researchers to observe the actions of health workers regarding the management of illness children under the IMCI approach for 30 minutes. Training method: (1) explanation is given by the facilitator; (2) read independently; (3) demonstrating the case on video; (4) perform written and spoken exercises, play videos, and view photos; (5) discuss each other; (6) role-play; (7) practice working at the public health center. Material for IMCI Training Activities based on the Indonesian Ministry of Health [2].

3. RESULTS

The results of this study indicate the demographic data of health workers at the Medan Sunggal public health center shows that most of them were 30-40 years old (40%), work, as a midwife was 43.3%, length of work, was 6-10 years (53.33%) and had never attended IMCI training was 90%.

Table 1: Frequency distribution of demographic data for health workers at public health center Medan Sunggal

Demographic data	f	%
Age		
- 30-40 years	12	40
- 41-50 years	11	36.6
- 51-60 years	7	23.4
Work		
- Doctor	7	23.3
- Midwife	13	43.3
- Nurse	7	23.3
- Others	3	10
Length of work		
- 6-10 years	16	53.33
- 16-20 years	4	13.33
- > 20 years	10	33.34
Attending IMCI training		
- 1-3 times	3	10
- Never	27	90

The results of the research on the behavior of health workers before the IMCI training intervention showed that most of them had less knowledge (93.3%), sufficient attitudes (66.67%), and fewer skills (100%).

Table 2: Health worker behavior before being given the IMCI training intervention

Behavior	f	%
Knowledge		
- Sufficient	2	6.7
- Less	28	93.3
Attitude		
- Sufficient	20	66.67

- Less	10	33.33
Skill		
- Less	30	100

The results of the research on the behavior of health workers after the IMCI training intervention showed that most of them had good knowledge (70%), good attitude (100%), and good skills (73.3%).

Table 3: Health worker behavior after being given the IMCI training intervention

Behavior	f	%
Knowledge		
- Good	22	73,3
- Sufficient	8	26,7
Attitude		
- Good	30	100
Skill		
- Good	22	73,3
- Sufficient	8	26,7

The result of the significance of the p-value was 0.0001 (<0.05), then H0 was rejected. So that there was a significant difference in the knowledge of health workers before and after participating in the IMCI training (Training on the management of illness toddlers with the IMCI approach was effective against the knowledge of health workers in the management of illness toddlers).

Table 4: The results of the Wilcoxon statistical test on knowledge of health workers before and after being given IMCI training.

	Knowledge pre-post-test
Z	-4.789 ^a
Asymp. Sig. (2-tailed)	.000

The result of the significance of the p-value was 0.0001 (<0.05), then H0 was rejected. So that there was a significant difference in the attitudes of health workers before and after participating in the IMCI training (training for the management of illness toddlers with the IMCI approach was effective towards the attitudes of health workers in the management of illness toddlers).

Table 5: The results of the Wilcoxon statistical test on the attitude of health workers before and after being given IMCI training

	Attitude pre-post-test
Z	-4.788 ^a
Asymp. Sig. (2-tailed)	.000

The result of the significance of the p-value was 0.0001 (<0.05), then H0 was rejected. So that there was a significant difference in the actions of health workers before and after participating in the IMCI training (Training on the management of illness children with the IMCI approach was effective for the actions of health workers in the management of illness toddlers).

Table 6: The results of the Wilcoxon statistical test on the actions of health workers before and after being given IMCI training

	Skill pre-post-test
Z	-4.841 ^a
Asymp. Sig. (2-tailed)	.000

4. DISCUSSION

Knowledge is the result of knowing and occurs after people sense a certain object. The results of research by Sagala [7] reported that the majority of health workers' knowledge about the implementation of IMCI in the management of toddler diarrhea was mostly sufficient (56.2%). The results of research by Silviana, Hestningsih, and Wuryanto [8] reported that the knowledge of MTBS officers with coverage of pneumonia case finding was mostly good (75.3%).

Attitude is a reaction or response that is still closed from someone to a stimulus or object. The results of research by Sagala [7] reported that the majority of health workers' attitudes about the implementation of IMCI in handling toddler diarrhea were mostly sufficient (68.8%). The results of research by Rusmilawati, Adhani, and Adenan [4] reported that the knowledge of health workers who were not given IMCI training had a negative attitude (60%), while health workers who were given IMCI training had a positive attitude (66, 7%). The results of research by Silviana, Hestningsih, and Wuryanto [8] reported have good attitudes (61.3%).

To turn attitudes into real actions, supporting factors or enabling conditions are needed. The results of research by Sagala [7] reported that the majority of health workers' actions regarding the implementation of IMCI in handling toddler diarrhea were mostly non-compliant (53.1%). The results of research by Silviana, Hestningsih, and Wuryanto [8] reported that have poor practice (53.8%) in the coverage of pneumonia case finding. The low coverage rate of finding pneumonia in children under five can be caused by the IMCI program implementing officers to detect cases early. The results of research by Angelia and Kusbandiyah [9] reported that they had not implemented IMCI services according to standards, which included initial assessment, classification, action, and counseling in IMCI services, both initial visits and repeat visits and had not implemented appropriate IMCI services with the standard MTBS service schedule and not yet orderly, especially in filling out forms.

Several kinds of procedures for handling children's illness according to IMCI standards include assessment, disease classification, action/treatment, advice for mothers, and follow-up. The implementation of the IMCI strategy includes three components, the first is increasing the skills of health workers in handling cases through the correct use of existing guidelines. The second is to improve the health service system needed to ensure the delivery of effective child health services. The third is the improvement of practices in the family and society. These components are supported by instruments/tools and indicators for monitoring and evaluation. In implementing IMCI, health workers are taught to quickly pay attention to all symptoms of children's illness, so that it can immediately be determined whether the child is seriously ill and needs to be referred immediately. If the disease is not severe, the health worker can provide treatment according to the IMCI guidelines. The IMCI guidelines also describe how to counsel mothers or caregivers of children. Susilaningrum, Suryawati, and Arso's [10] research results on nurses or midwives implementing IMCI from 6 health centers consisting of two health centers with IMCI coverage below 25%, two health centers with around 50% IMCI coverage, two health centers that have implemented IMCI at over 75%

reported that some of the officers said that the current number of IMCI staff was sufficient, although it was not guaranteed to be implemented because there were no rooms, many patients and various tasks that had to be completed.

The results of research by Mansur [11] on 12 IMCI officers in coastal sub-district health centers reported that the number of public health center officers who ran IMCI was 2 people consisting of general practitioners and nurses. This is still said to be insufficient because of the large number of patients and only 2 health workers and there are still IMCI implementing officers who have not attended the training. Research results by Firdaus, Sudiro, and Mawarni [12] on 12 informants, namely IMCI officers (doctors, midwives, nurses) in urban and suburban health centers who carried out IMCI in Pasuruan Regency reported that officers serving toddlers illness had not supported the success of achieving the goals of IMCI by because not all officers have received IMCI training, the number of officers is not proportional to the number of toddlers illness who visit. Puspitarini and Hendrati's [13] stated that the flow of services at one of the public health centers was not following the IMCI pattern and the services provided to children's illness were not yet integrated. Meanwhile, compliance with standards in one public health center was recorded as good, namely 85%, while the other public health center was recorded to be less, namely <60%.

5. CONCLUSIONS

Management training for toddler illness with the IMCI approach is effective for the knowledge, attitudes, and actions of health workers in the management of sick toddlers. It is hoped that the implementation of IMCI, which is a standard of health services for sick children, can be implemented in the public health center by all health workers.

6. REFERENCES

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