Dominant Factors Affecting the Implementation of the Intregated Managing Toddler Sick (MTBS) in Public Health Center Tasikmalaya West Java

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Abstract
According to the WHO and UNICEF, there are several indicators of implementation of MTBS, among other indicators, management support officer skills, and level of satisfaction indicators against the introduction of service provided. The purpose of this research aims to know the dominant factor affecting the implementation of the MTBS in Publick Health Center Tasikmalaya. This research is a type of analytic survey research with cross sectional design research. The sample in this research is all officer health MTBS that totaled 106. The instrument used in this research is the observation sheet and questionnaire. Analysis of the data used is a simple Linear Regression for bivariat and multivariate Factor Analysis. The results of the research there are three factors i.e. Factor 1 (leadership and ability of health workers) consists of the knowledge, leadership support, supervise, completeness of form completion. Factor 2 (Internal health workers and supporters) is composed of demeanor, motivation, the completeness of the drug. Factor 3 (infrastructure) consists of the presence of poly and the completeness of the instrument. Dominant factors affecting implementation of the MTBS supervise, namely the attitude of health workers, the completeness of the tools for the implementation of the MTBS. Based on the results of the research recommended that to the increases of MTBS in the publick health center need to be more in enhance supervised by health services and publick health manager, improved attitude from implementing MTBS and planning to complement the equipment.

Key words: Attitude, dominant factors, MTBS, supervision, the completeness of instruments

Introduction

Millennium Development Goals (MDGs) was established to improve child and maternal health significantly. It shows in target 4 which aimed to decline neonatal mortality rate and target 5 focused on reducing child mortality rate. However, Sustainable Development Program (SDGs) has been launched to change this program in 2015 with ensure to reach the targets set out by 2030 directly related to health. Target 3 out of 17 in this program is proposed to support healthy life and promoted wellbeing for all at all ages. SDGs were successful to improve child and maternal health, whereas target 3 is set to decrease child mortality. This target is significantly proposed to end the preventable neonatal mortality rate at least as low at 12 deaths per 1.000 live births and to reduce child mortality rate at least as low as 25 deaths per 1.000 live births *(Kemenkes RI, 2015).* Almost of 5,9 million children under 5 years of age died in 2015 but this condition shows the different rate which decreased by 12 million. In this sense, all global of neonatal deaths are commonly caused by preterm birth complications, pneumonia, birth asphyxia, diarrhea and malaria while about 45% of all child deaths are linked to malnutrition (WHO, 2016). Moreover, a half of this major condition causing child mortality actually can be prevented by getting the easier access or the basic medical services with affordable intervention.

World Health Organization (WHO) and United Nations Children‘s Fund (UNICEF) developed a strategy called as Integrated Management of Childhood Illness (IMCI) to reduce the rate of child mortality, illness and disability. This strategy has been explored in Indonesia since 1996 and its implementation began to 1997.

A preliminary study conducted by the author are interview and observation the healthcare professionals including CEO, nurses and midwife in 4 of Tasikmalaya Municipal Health Center where IMCI has been implemented. The condition shows that 1 of Municipal Health Center have no healthcare professional who already get IMCI training though the special room of examination with management of IMCI is already provided.

Otherwise, 1 of Municipal Health Center have one healthcare professional who has attended IMCI training but it does not have IMCI examination room, thus the service of this program still merged with *KIA/KB*. In addition, 2 of Municipal Health center already have IMCI examination room but the implementation of this program in one out of 2 Municipal Health Center is directly conducted by doctors. Furthermore, 2 of Municipal Health centers provides the IMCI tools completely while the rest have not provided these completed tools yet. The result shows that IMCI program is successfully supported by all of CEO in Tasikmalaya Municipal Health Center. Likewise, the supervision of the health department to Tasikmalaya Municipal Health center has been done although the implementation is conducted in different time and the general supervision is not specifically controlled to the evaluation of the implementation of IMCI.

Method

This study employed cross sectional design and 106 of nurses, midwife and doctors in Tasikmalaya Municipal Health Center participated in this study. The sampling technique used in this study is total sampling involving all population as well as 106 medical social workers.

Results

a. Distribution of Factors Contributing to The Implementation of IMCI at Tasikmalaya Municipal Public Health Center.

Table 1 Distribution of Factors Contributing to The Implementation of IMCI at Tasikmalaya Municipal Public Health Center

No	Factors	Total	Percentage
1.	Knowlegde		
	1.Good	26	24,5
	2.Fair	77	72,6
	3.Lack	3	2,8
2.	Attitude		
	1.Positive	47	44,3
	2.Negative	59	55,7
3.	Motivation		
	a.High	45	42,5
	b.Low	61	57,5
4.	IMCI room		
	a.Available	14	66,7
	b.Unavailable	7	33,3
5.	IMCI tools		
	a.Completed	15	71,4
	b.Partially Completed	6	28,6
	c. Incompleted	0	0
6.	Medicine		
	3.Completed	0	0
	4.Partially Completed	21	100
	5.Incompleted	0	0
7.	CEO‘s Support		
	b.Supported	50	50
	c. Lack- Supported	50	50
8.	Supervision		
	a.Appropriate	54	50,9
	b.Inappropriate	52	49,1
9.	Form Filling		
	1.Appropriate		
	2.Inappropriate	47	44,3
		59	55,7

b.The Development of Factors Contributing to The Implementation of IMCI in Tasikmalaya Municipal Health Center.

Table 2 The Development of Factors Contributing to The Implementation of IMCI in Tasikmalaya Municipal Health Center.

The Development of Factors	p-value
1st Factor : Leadership & The Ability of Healthcare Professionals	
1.Knowledge	-0,456
2.CEO's Support	0,876
3.Supervision	0.879
4.Form Filling	0.606
2nd Factors : Internal Healthcare Professional & other supported factors	
5.Attitude	0, 823
6.Motivation	0,589
7.Medicine	0,481
3rd Factors : Facilities and Infrastructure	
8.IMCI room	0,469
9.IMCI tools	0,835

c. The scheme of The Finding Dominant Factors Affected to The Implementation of IMCI in Tasikmalaya Municipal Health Center.

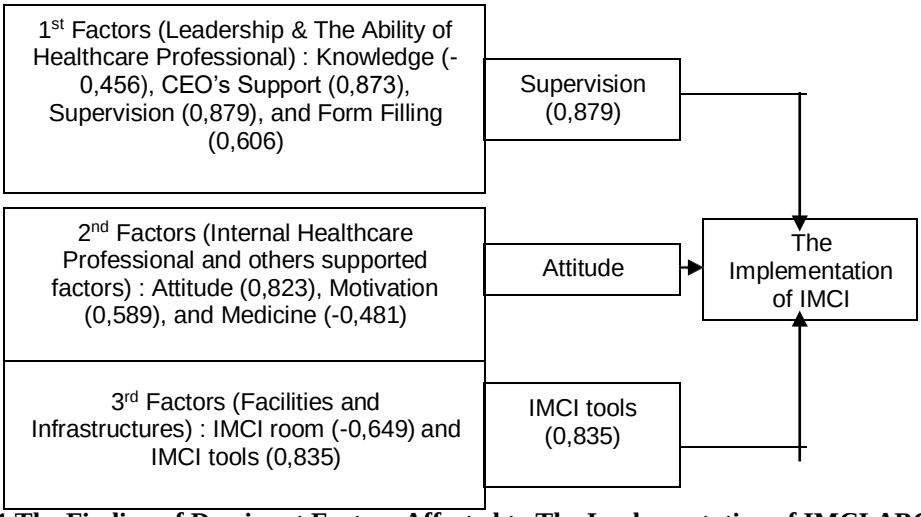

Fig 1 The Finding of Dominant Factors Affected to The Implementation of IMCI ABC Model (Asep, Budiman, Chatarina) in All of Tasikmalaya Municipal Health Center

Discusion

Factor 1 (leadership and ability of health workers) consists of the knowledge, leadership support, supervise, completeness of form completion. This means health workers carry out the MTBS in the public health center because it has knowledge of the MTBS, support the leadership of the health centers, like he did supervise by health services and by the leadership of public health center as well as trying to complete form completion MTBS.

The dominant factor of the first factor is supervision (0.879). The research results showed that supervision implementation MTBS that say according as much as 54 people (50.9%) meaning for this supervision implemented by the health service or leadership public health center already regarded as expected. This corresponds to a factor analysis show that variable has a positive correlation supervise, meaning the more appropriate supervise was done by health service and head of the public health center then the implementing officers by MTBS will continue implemented. To ensure implementation MTBS in the public health center head doctor and public health should always monitor periodically the implementation of the application of the MTBS in the public health center and the networks (DEPKES RI, 2015). The real conditions that occur in the field showed that the weaknesses of the implementation of any program in public health centers, namely weak oversight by the way supervise this rarely performed by therelated parties.

Monitoring and supervision of the application of the MTBS in the public health center of which with the facilitative supervise is part of monitoring and supervision that is direct, systematic activities to ensure implementation of the MTBS into details in, does the giver the Ministry undertakes the MTBS standard, how the application of MTBS in the public health center. Implementers of this facilitative supervise is the head and doctors clinics, assisted by midwife coordinator against health workers involved in the service of MTBS in the public health center and its network. In charge of the program related MTBS health City/County agency and profession (IDI, IBI, PPNI). The time of its implementation could be routinely i.e implemented 2 times a year or when it means to supervise postgraduate training and orientation (4-6 Sunday). The head of the clinic doctor should do da supervise facilitative as often as possible to keep the quality of children's health services at the public health center. Activities supervise facilitative could also be combined with other programs or supervise the distribution of logistic activities (DEPKES RI, 2015).Supervision, evaluation, guidance can be a supervision of the health services, feedback in written form, and monitoring and evaluation meetings run by the Health Office. Nationwide public health center receive supervision, evaluation, supervision and guidance for mothers and children is 51.5% received visits and 48% do not receive visits (Rifaskes, 2011).

According to WHO'S successful implementation of MTBS will be hampered if not supported by the policies and leadership support from the Centre as well as the routine oversight/appropriate. Steinhardt research CL et al. (2015) the importance of the supervision of health care personnel will further improve performance in handling a sick toddler who came to seek cures using closer MTBS. Rowe et al. (2012) the trend of the performance of health workers after applying MTBS results found no evidence that declining performance for 3 years after training MTBS. However, the supervision of the performance of the more important are identified after the training so that the MTBS could survive. Venkatachalam J, et al. (2012) supervision and monitoring is essential for the implementation of a program.

Hilary Rhode (2014) the impact of training on use of the nurses ability against the guidelines of MTBS were significantly better in the usage guidelines of MTBS ($p < 0.05$): check the immunization (68% vs. 93%), making a complete assessment (100% vs. 62%), prescription medications (50% vs. 85%) and the proper dose (42% vs. 85%). Goga Ameena E research and Lulu M Mühe (2011) the challenge of implementation result MTBS of the most common challenges is the high cost and a long time in implementation, the lack of trained health workers, there are still differences of opinion about the role of MTBS in improving the health of children, the lack of support of wisdom, the existence of the rule change and the lack of skilled/trained facilitators. Countries in overcoming these challenges include, intensify training, develop planning conveniently located with other programs, increased advocacy. The most common challenge for follow-up implementation of MTBS including lack of funds (93.1% of respondents), inadequate funding for the planning or supervsi (75.9% and 44.8% respectively), the lack of funds for patient visits (41.4%), less its skilled from supervisors (41.4%) and job aids are inadequate (27.6%). Countries in following up this challenge by using shared the regular supervision visits.

Research Nguyen D et al, (2013) training can improve the skills of health workers implementing MTBS with overall results that health workers trained MTBS implementers can make classification of diseases of the sick children properly (RR = 1.93, 95% CI: 1.66-2.24).

Factor 2 (Internal health workers and supporters) is composed of demeanor, motivation, the completeness of the drug. The officer executing MTBS want execute MTBS in the public health center because it has a positive attitude, have a high motivation as well as supported by the completeness of the medicines. Dominant factor 2 is the attitude (0.823). Results of the study showed health workers implementing MTBS mostly have negative attitudes as much as 59 people (55.7%). The results of the analysis of factors showed positive attitudes have variable correlation, the more positive attitude of the officer executing MTBS then will be more actively to implement the MTBS. Attitude is the evaluative statements against an object, person, or event (in 2007 Stepan Arwana and dear friend, 2013). Evaluation or assessment by health workers towards the MTBS will positively impact will the increasing responsibilities of the officer and is ready to bear the risk if it does not implement the MTBS standard. These conditions will have an impact on the success of the implementation of the MTBS in the public health center because with more responsible officer against his duties as executor MTBS will be increasingly goes with the good execution of the MTBS in the public health center.

The research of Ahmed HM, et al. (2010) about compliance implementation MTBS, revealed that most of the officer executing this feel MTBS algorithms take time, and prefer to use another protocol despite having had the basic competence and confidence in the algorithm. Low compliance is also observed in some other countries. One study evaluated compliance with the guidelines of the MTBS in South Africa, and found that after 32 months of training, less than 2% of the health workers refer to the guidelines in carrying out governonce MTBS toddler hurt. Also, only 12% of officers trained MTBS were found to check for signs of danger in every child, and only 18% of the votes of all the main symptoms in each child. Similar findings were reported in Bangladesh, where children often are not fully assessed or properly cared for at facilities with trained officers by MTBS.

Research results Swapna D Kakoty and Priyanka Das (2016) found a lack of compliance in the use of the guidelines of MTBS to manage toddler sicks by implementing officer. One of the reasons is the lack of supervision.

Research results a. Rowe et al. (2009) the importance of supervision of the leadership in the implementation of MTBS in this regard would enhance coordination, implementation, management officer skills, motivation and attitude of the officers. Lange S et al. (2013) lack of knowledge is not the only one that could affect the implementation of the MTBS but motivation and physical condition of the officers is still lacking to be able to comply with the guidelines of the MTBS it is derived is caused by lack of intrinsic motivation. The research of Azza a. El Mahalli, Ola a. Akl (2011) the influence of the use of the MTBS toward administering the treatment in children, the result of the correct choice of drug, dose, dosage form, the way the grant is significantly higher in the public health center adopting MTBS (89.3%, 87.3%, 91.3% and 91.3%, respectively) than in the public health center did not adopt MTBS (78%) respectively

Factor 3 (infrastructure) consists of the presence of poly and the completeness of the tools. Health care personnel who served as implementing MTBS will continue to carry out its duties if supported by the completeness of the tools and political existence or special examination room MTBS that are in the public health center.

Dominant factor of a factor of two is the completeness of the tools (0.835). Research results showed the completeness of the tool indicate the majority of categorized complete i.e. There are 15 health centers (71.4%). This means that most public health center completeness of both consumables and health equipment is in compliance is expected to support the implementation of the MTBS. Factor analysis results showed a positive correlation has tools, meaning that the more complete tool then the clerk will administer MTBS handlers sick toddlers in clinics with the approach of the MTBS. According to WHO the present health system weak Center will affect the implementation of the MTBS in one country, much less if it's not supported do not have good facilities, availability of equipment is lacking, the completeness of the medicines is not complete, reference system is lacking, a lack of regular supervision/supervise and lack of performance managing officer MTBS.

The research of Mugala N, et al (2010) barriers to health workers in the use of the guidelines for HIV in algorima MTBS result 83% of respondents said they had no difficulty in following HIV adapted guidelines MTBS. 17% say they have had trouble. Of those who claim to have difficulty (60%) had difficulty in assessment of HIV.

FGD results indicate difficulties in assessment of HIV is due to a long assessment time, lack of special places for examination and the presence of a negative stigma both from caregivers or health workers. The Ministry of public health-based MTBS are very good if the implementation was done by MTBS officer with the quality of education and knowledge of human resources as well as supported by the facilities and infrastructure in puskemas (Hidayati and Jimbo, 2011).

The research is in line with the research that has been done by Husni, dkk (2012) who is researching about the description of the implementation of the MTBS 2 months – 5 years, obtained the results of research that is highly successful implementation of MTBS on the influence by the the availability of human resources and the availability of infrastructure in the public health center.

Edwar research et al. (2012) stated that the increased implementation of the MTBS can be influenced by the availability of trained health personnel, knowledge of the officers, the availability of clinic/poly and special supervision. Kalu N et al. (2016) identified the use of the tool when the examination of children with pneumonia in which the tool – a tool that should be available including a stethoscope, respiratory, timer thermometer, Oximeter. Mohan P et al. (2011) the assessment of the application of the MTBS in India showed that a lack of supervision and equipment completeness MTBS will affect the performance of the trained officers in the discharge of MTBS. Evaluation of dibanyak State also found a lack of dukugan health system towards the implementation of the MTBS.

The research of Ahmed HM, et al. (2010) the comprehensiveness and completeness of drug tools will further increase its use with the use of the guidelines for MTBS. One study in China found that the use of the scales of children increased from 28% to 91%, 89% of the time device being 97%. This shows that the completeness of the tools should be available in the implementation of the MTBS.

Conclusion

Implementation of the MTBS in the whole area of Public Health Center Tasikmalaya is influenced by three factors that were formed namely leadership and ability of health officers, the internal health workers and supporters, as well as infrastructure.

References

Ahmed MH *et al*. (2010) *National implementation of Integrated Management of Childhood Illness (IMCI): Policy constraints and strategies, Health Policy*

Ameena E Goga and Lulu M Muhe. (2011) *Global challenges with scale-up of the integrated management of childhood illness strategy: results of a multi-country survey*, Goga and Muhe BMC Public Health

Azza A. El Mahalli, Ola A. Akl (20110) *Effect of adopting integrated management of childhood illness guidelines on drug use at a primary health care center: A case study from Egypt,* Journal of Family and Community Medicine.

Budiman, (2011). *Penelitian Kesehatan Buku pertama*. Bandung : PT Refika Aditama.

Depkes RI. (2015). Buku Bagan *Manajemen Terpadu Balita Sakit.* Jakarta : Kementrian Kesehatan RI.

Edward A et al. (2012) *The association of health workforce capacity and quality of pediatric care in Afghanistan*, international Journal for Quality in Health Care.

Kalu N et al. (2016) *Implementation of World Health Organization Integrated Management of Childhood Illnesses (IMCI) Guidelines for the Assessment of Pneumonia in the Under 5s in Rural Malawi*.

Kementerian Kesehatan RI. (2012). *Riset Fasilitas Kesehatan Puskesmas Tahun 2011*. Jakarta: Kementerian Kesehatan RI.

Kementerian Kesehatan, (2015). Pedoman Peningkatan Penerapan MTBS. Jakarta; Kmenterian Kesehatan RI.

Kementerian Kesehatan RI. (2016). *Profil Kesehatan Indonesia Tahun 2015*. Jakarta: Kementerian Kesehatan RI.

Mohan P et al. (2011) *Assessment of Implementation of Integrated Management of Neonatal and Childhood Illness in India,* Bangladesh : International Centre For Diarrhoeal Disease Research.

Mugala N et al. (2010) *Barriers to implementation of the HIV guidelines in the IMCI algorithm among IMCI trained health workers in Zambia,* BMC Pediatrics.

Nguyen CR, et al. (2013) *Does Integrated management of childhood illness (IMCI) training improve the skills of health workers? A systematic review and meta-analysis.* PLoS One.

Peraturan Menteri Kesehatan Nomor 43 tahun 2016, *Standar Pelayanan Minimal Bidang Kesehatan*, Jakarta :Depkes RI

Riyanto, (2012). *Penerapan Analisis Multivariat Dalam Penelitian Kesehatan*. Yogyakarta : Nuha Medika

Rhode Hilary (2014) The effect of an automated integrated management of childhood illness guideline on the training of professional nurses in the Western Cape, South Africa, Stellenbosch University, Tygerberg, South Africa.

Rowe K et al. (2009) *The rise and fall of supervision in a project designed to strengthen supervision of Integrated Management of Childhood Illness in Benin,* The London School of Hygiene and Tropical Medicine.

_____ (2012) *Trends in health worker performance after implementing theIntegrated Management of Childhood Illness strategy in Benin*, Tropical Medicine and International Health.

Swapna D Kakoty dan Priyanka Das, (2016) *Appraisal of integrated management of neonatal and childhood illness program in two districts of Assam*. Department of Community Medicine, Fakhruddin Ali Ahmed Medical College, Barpeta, Assam, India.

Steinhardt C et al (2015) *Predictors of health worker performance after Integrated Management of Childhood Illness training in Benin: a cohort study*, BMC Health Services Research

WHO, UNICEF, (*2012) Care for Child Development. Improving the care for young children*. Geneva: World Health Organization

Venkatachalam J, et al (2012) *Evaluation of IMNCI practices among health care providers in a district of North India*. J Dent Med Sci.