
THE ROLE OF “MY VILLAGE MY HOME” IN THE KNOWLEDGE AND ATTITUDES OF INTEGRATED HEALTH POST CADRES AND MOTHERS

Peran Rumah Imunisasi bagi Pengetahuan dan Sikap Kader Posyandu dan Ibu

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ABSTRACT

Background: The percentage infants with complete basic immunization is still below the minimum target of immunization coverage. The immunization coverage survey showed that complete basic immunization and valid dose immunization status in Surabaya City is still below the international averages. **Purpose:** The purpose of the study was to describe the knowledge and attitudes of cadres and mothers with under two years child (Baduta) towards My Village My Home (MVMH) in the City of Surabaya, Indonesia **Methods:** Sampling was done by simple random sampling method. Samples were grouped into exposed groups and unexposed groups. The sample comparison was 1: 2. The respondents of the exposed group were 20 cadres and 20 mothers who had received MVMH training. The respondents of the unexposed group were 40 cadres and 40 mothers who did not receive training. Data collection was done using interviews. The study was conducted in 30 Health Centers. **Results:** Most cadres in the group who had received training or had not received training had good knowledge, but in the group that had not received training there were 5% of cadres who had poor knowledge. Both mothers in the group of cadres who had received training or had not, had good knowledge, but in the group of cadre that had not received training as much as 10% of mothers had poor knowledge. Both cadres and mothers had a good attitude. **Conclusion:** Both cadres and mothers in two groups had good knowledge and attitude. Cadres who have good knowledge and attitude towards MVMH have the potential to apply MVMH to the community.

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ABSTRAK

Latar Belakang: *Persentase bayi dengan imunisasi dasar lengkap masih dibawah target minimal cakupan imunisasi. Survei cakupan imunisasi menunjukkan bahwa pencapaian status imunisasi dasar lengkap dan valid dose imunisasi di Surabaya masih rendah. Tujuan:* Penelitian ini bertujuan untuk menganalisis pengetahuan dan sikap kader serta ibu Bayi dua tahun (Baduta) tentang Rumah Imunisasi di Kota Surabaya. **Metode:** *Desain penelitian adalah kohort retrospektif. Pengambilan sampel menggunakan simple random sampling. Perbandingan sampel antara kelompok terpapar dan kelompok tidak terpapar adalah 1:2. Responden kelompok terpapar adalah 20 kader dan 20 ibu baduta yang telah memperoleh pelatihan Rumah Imunisasi. Responden tidak terpapar adalah 40 kader dan 40 ibu balita yang tidak memperoleh pelatihan Rumah Imunisasi. Teknik pengumpulan data primer dengan kuesioner melalui wawancara. Penelitian dilakukan di 30 Puskesmas Kota Surabaya. Hasil:* Sebagian besar kader memiliki pengetahuan baik, namun pada kelompok kader yang tidak mendapatkan pelatihan terdapat 5% kader memiliki pengetahuan kurang. Sebagian besar ibu baduta baik pada kelompok kader yang telah atau tidak mendapatkan pelatihan memiliki pengetahuan baik, namun pada kelompok kader yang tidak mendapatkan pelatihan sebanyak 10% ibu memiliki pengetahuan kurang. Baik kader dan ibu pada kelompok kader yang mendapatkan pelatihan dan tidak mendapatkan pelatihan memiliki sikap baik. **Kesimpulan:** *Rata-rata kader serta ibu baduta baik pada kelompok kader yang sudah mendapatkan pelatihan atau yang tidak mendapatkan pelatihan memiliki pengetahuan dan sikap yang baik terhadap Rumah Imunisasi. Kader yang memiliki pengetahuan dan sikap yang baik terhadap MVMH memiliki potensi untuk menerapkan MVMH ke masyarakat.*

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INTRODUCTION

Nearly 1.70 million children under five years of age die from diseases that can be prevented by immunization in 2008. At the end of 2010, total of 19.30 million children worldwide did not have complete basic immunization, with more than half of these children located in India, Nigeria, and Indonesia (53%) (Mukherjee et al., 2015). Based on Indonesia Basic Health Research (Riskesdas) 2018, the coverage of complete basic immunization in Indonesia was only 57.90%, and complete basic immunization in East Java Province was only 69.20% (Ministry of Health RI, 2019).

My Village My Home (MVMH) is a community level visual communication tool that provides a picture of the status of infant immunization in the village and allows people to

see and follow-up on the immunization status of each infant (USAID, 2014). The program is intended to support the complete basic immunization service offered, both in quantity and quality, and has been used to assist community participation in basic immunization services.

Surabaya is the capital of East Java Province and the second largest city in Indonesia, after Jakarta. Surabaya City Health Office launched a complete basic immunization program using the MVMH method, but it has not yet covered all the Integrated Health Posts in the city. MVMH is a method for community empowerment that can also be used as an alternative support strategy to overcome the difficulties of immunization in Surabaya. By providing a visual picture of immunization status, MVMH allows the community to observe immunization directly and mobilizes the community to use immunization

services. Immunizations reduce the morbidity and mortality rates of infants and vaccine preventable disease (PD3I) programs can be strengthened in developing countries by improving access to immunization and reducing the number of immunization dropouts (Zewdie, Letebo, & Mekonnen, 2016). Data obtained from several surveys has indicated that community access to immunization programs is satisfactory, but the number of dropouts is still high. Infants who received their first immunization did not complete the basic immunization (Harfiana, 2019).

Complete immunization status is influenced by several factors. The community components that influence complete immunization status include the community's behaviors, values, and beliefs regarding the immunization program. Community behavioral factors are related to knowledge, attitudes, and actions. Values or norms in the community can influence the family support and assessment of the halal vaccine (Yuda & Nurmala, 2018).

Some of the factors that lead to behavioral changes include knowledge, attitudes, beliefs, trust, values, traditions, etc. For example, a mother may decide to visit an Integrated Health Post because she knows that the purpose of the visit is to measure her baby's weight and immunize him/her against disease. It showed that without the presence of knowledge and a good attitude, the mother might decide not to visit an Integrated Health Post (Notoatmodjo, 2012). Indeed, it has been found that mothers who have insufficient knowledge do not bring their infants to Integrated Health Posts for immunization (Triana, 2016).

A cadre is a person chosen by the community and trained to move the community to participate in community empowerment in the health sector (Ministry of Health RI, 2019). In developing countries, the role of cadres is very important in increasing access to health services (Nzioki, Ouma, Ombaka, & Onyango, 2017), although Integrated Health Post cadres do not directly provide immunizations. Health workers in Integrated Health Posts assess the health of infants each month and therefore have a better knowledge of their health status. Health workers from local communities are considered to have an influence on the local community and are considered capable of providing health services (Profita, 2018). The knowledge and support provided by family members and Integrated Health Post cadres influences the achievement of Universal Child Immunization (UCI). Knowledge, attitudes, and support provided by families can have a positive

influence on the willingness of mothers to give their babies DPT immunizations (Izza, Lestari, & Tumaji, 2017). The current study aimed to evaluate the role of MVMH in terms of the knowledge and attitudes of cadres and mothers of two-year-old infants in Surabaya.

METHODS

This study used an observational design with a retrospective cohort. The exposed population consisted of all cadres and mothers of children aged two years and under in the working area of the health centers who had received training or workshops on MVMH. The unexposed population consisted of all cadres and mothers of children aged two years and under in the working area of the health centers who had not received training or workshops on MVMH. The mothers were selected using simple random sampling from list of cadres and mothers in Integrated Health Post (*Posyandu*). The study was conducted in 30 health centers in Surabaya. The respondents in the exposed group consisted of 20 cadres and 20 mothers who had received training on MVMH, while the respondents in the unexposed group consisted of 40 cadres and 40 mothers who had not received training on MVMH. Data collection was carried out using a readable questionnaire. The variables under study focused more on the methods implemented in the complete basic immunization program.

The cadres' knowledge regarding MVMH was measured using eight questions that had correct and incorrect answers, while their attitude towards MVMH was measured using 10 questions that had "strongly disagree", "disagree", "agree," and "strongly agree" responses. Knowledge and attitudes were classified as "good" when the score was 70, "enough" when the score was 40–60, and "poor" when the score was less than 40. This study received an Ethical Eligibility Certificate from the Faculty of Public Health, Universitas Airlangga, Ethical Commission No. 560/EA/KEPK/2018.

RESULTS

Characteristics of Cadres and Mothers

The results indicated that most of the cadres were aged 41–50 years (38.30%), while the majority of mothers were aged 20–30 years (45%) or 31–40 years (45%). The average age of the mothers was 31.6 years, while the average age of the Integrated Health Post cadres was 47.6 years (Table 1).

Tabel 1

Distribution of Cadres and Mothers according to Age in 2018

Variabel	n	%
Age of Cadre (years)		
20–30	2	3.30
31–40	10	16.70
41–50	23	38.30
51–60	19	31.70
61–70	6	10.00
Age of Mother (years)		
20–30	27	45.00
31–40	27	45.00
41–50	4	6.70
51–60	2	3.30
61–70	0	0.00
Total	60	100.00

Knowledge and Attitudes of Cadres towards MVMH Media in Surabaya

When answering the questions designed to measure their knowledge of MVMH, 30% of the cadres who had received previous training answered the seventh question incorrectly. This question was: “Can MVMH display a list of infants and children who have incomplete immunizations?” Similarly, 27.50% of the cadres in the group who had not received training answered the fourth question incorrectly. This question was: “Can MVMH display a list of infants scheduled for immunization on the Integrated Health Post?”

Table 2 shows that most of the Integrated Health Post cadres who had received previous training had good knowledge (80%), while the other 20% had enough knowledge. Most cadres who had not received training had good knowledge (90%), while 5% had enough knowledge and 5% had poor knowledge. The majority of cadres in both groups had good attitudes (Table 2).

Knowledge and Attitudes of Mothers towards MVMH Media in Surabaya

When answering the questions designed to measure their knowledge of MVMH, over a third of the mothers with cadres who had received previous training answered the eighth question incorrectly. This question was: “Does MVMH Home provide an overview of the immunization status of infants in Integrated Health Posts only?” A mother’s knowledge regarding MVMH was only measured if they had previously seen and learned about the MVMH installed at the Integrated Health Post. Most of the mothers from

the cadre group that had received training already knew about MVMH (90%), whereas half of the mothers in the cadre group that had not received any training did not know about MVMH (Table 3).

When answering the questions designed to measure their knowledge of MVMH, some of the mothers with cadres who had not received prior training answered the fourth question incorrectly. This question was: “Does MVMH display a list of infants scheduled for immunization on the Integrated Health Post schedule?” The fifth question was also answered incorrectly some of the time. This question was: “Can MVMH be used as a means of communication between midwives, cadres and the community related to immunization?” Most of the mothers in both groups had good knowledge (Table 3).

Most of the mothers in the cadre group who had received previous training had good attitudes (60%), while the majority of mothers with cadres who had not received prior training had fairly good attitudes (50%) (Table 3).

DISCUSSION

Characteristics of Cadres and Mothers

MVMH is a tool that can increase immunization coverage through the active participation of the community which is the mothers with children aged 2 years or under and the health cadres. The family and cadres have important roles in helping healthcare centers increase coverage and accuracy of basic immunizations (Jain, Taneja, Amin, Steinglass, & Favin, 2015). The majority of cadres included in the study were 40–50 years old. This is important as age is closely related to the level of cadre confidence, with older cadres more likely to have higher confidence and provide a more optimal service. Cadres serve as a link between the community and health workers, and the strength of cadres lies in their accessibility, cultural sensitivity, language, and service to locals (Sommanustwechai et al., 2016).

The majority of mothers included as respondents were aged 20–30 years. This is important as mothers over 20 years of age are more likely to immunize their children compared to mothers under 20 years of age as the former have more mature thoughts and more experience (Harmasdiyani, 2015). Age can affect a person's experience when it comes to decision making, and mothers aged 25 years or over tend to have more experience related to childcare compared to mothers under 25 years of age (Prihanti, Rahayu,

& Abdullah, 2016). An increase in maternal age can correspond to an increase in childcare experience, which can help prevent the occurrence of illness in children (Hudhah & Hidajah, 2017).

Knowledge and Attitudes of Cadres towards MVMH Media in Surabaya

A person's behavior is influenced by three main factors. There are predisposing, reinforcing, and enabling. One of the predisposing factors that has the most influence on health behavior is knowledge. Sufficient knowledge of health is a basic foundation for positive attitudes and actions, and someone who has good health knowledge will also take good health actions. Knowledge itself is the result of understanding something through the five senses. There are sight, hearing, smell, taste, and touch. Most of human knowledge is obtained through the ears and eyes (Notoatmodjo, 2012).

Cadre knowledge regarding MVMH was measured using eight questions about the contents of MVMH, those who played an active role in

MVMH, and its goals and benefits. Most cadres in both groups had good knowledge related to MVMH, however, two of the questions related to the purpose and benefits of MVMH were often answered incorrectly, indicating that these need to be reemphasized to cadres.

The fact that the majority of cadres in both groups had good knowledge of MVMH shows that it is simple to implement at Integrated Health Posts. Staff at Health Centers and the cadres at Integrated Health Post have the responsibility to provide information and to practice MVMH at Integrated Health Post. Not all cadres with good knowledge can play an active role in MVMH. This was related to social support, family, religious leaders, attitudes, beliefs, community leaders, and approval of facilities to carry out information and motivation. The information conveyed contained important messages, and information that is conveyed clearly and concisely tends to be easily accepted and understood by respondents (Kusyanti, 2015).

Table 2

Distribution of Cadres' Knowledge and Attitudes towards MVMH in Surabaya in 2018

Variable	Cadre who had received training		Cadre who had not received training	
	n	%	n	%
Knowledge				
Good	16	80.00	36	90.00
Enough	4	20.00	2	5.00
Poor	0	0.00	2	5.00
Attitude				
Good	17	85.00	29	72.50
Enough	3	15.00	11	27.50
Poor	0	0.00	0	0.00
Total	20	100.00	40	100.00

Table 3

Distribution of Mothers' Knowledge and Attitudes towards MVMH in Surabaya in 2018

Variable	Cadre who had received training		Cadre who had not received training	
	n	%	n	%
Knowledge of MVMH				
Yes	18	90.00	20	50.00
No	2	10.00	20	50.00
Level of knowledge of MVMH				
Good	10	55.60	17	85.00
Enough	8	44.40	1	5.00
Poor	0	0.00	2	10.00
Attitude				
Good	12	60.00	19	47.50
Enough	7	35.00	20	50.00
Poor	1	5.00	1	2.50
Total	20	100.00	40	100.00

The majority of cadres in both groups also had a good attitude towards MVMH, and they agreed to actively support the program. Cadres with a good attitude are able to understand and carry out their duties and roles in the MVMH program (Triana, 2016).

Knowledge and Attitudes of Mothers towards MVMH Media in Surabaya

Most of the mothers with cadres who had received training already knew about MVMH, whereas half of the mothers with cadres who had not received training did not know about it. Most of the respondents who knew about MVMH had sufficient knowledge about the program, however, there was a significant difference between mothers with cadres who had received training and mothers with cadres who had not received training regarding the needs of MVMH. Mothers with a good attitude towards MVMH are more likely to recognize the need to participate in immunization activities and to improve immunization status, and mothers play an important role in the program. The knowledge that concerning individual feelings daily can be made an important domain self-formation. Individuals who know will apply their knowledge into their daily lives. For example, parents or mothers with good knowledge regarding immunization are more likely to spread correct information and help provide immunizations when appropriate (Triana, 2016). Indeed, mothers who understand the importance of vaccinations can motivate other mothers to immunize their children. In contrast, mothers with poor knowledge regarding immunization are more likely to form unfavorable or negative attitudes (Adefolalu, Kanma-Okafor, & Balogun, 2017; Girmay & Dadi, 2019).

Cadres who have good knowledge and attitude towards MVMH have the potential to apply MVMH to the community. MVMH implementation in the city of Surabaya has a significant impact with increasing immunization coverage of 78.81 in 2017 to 95.77 in 2018 (Hargono et al., 2019).

CONCLUSION

Overall, the majority of cadres and mothers in both groups had good knowledge of MVMH, although it should be noted that the number of cadres and mothers who had good knowledge was higher in the cadre group that had received previous training. Also, half of the mothers with cadres who had not received training did not know

about the existence of MVMH. On average, the cadres answered two questions regarding MVMH incorrectly, whereas the mothers answered an average of four questions incorrectly. The majority of cadres and mothers in both groups had a good attitude towards MVMH.

CONFLICT OF INTEREST

The authors declare that no conflict of interest in this study.

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REFERENCES

- Adefolalu, O. A., Kanma-Okafor, O. J., & Balogun, M. R. (2017). Perception of spirituality, spiritual care, and barriers to the provision of spiritual care among undergraduate nurses in the University of Lagos, Nigeria. *Journal of Clinical Sciences*, *14*(1), 119–125. <https://doi.org/10.4103/jcls.jcls>
- Girmay, A., & Dadi, A. F. (2019). Full immunization coverage and associated factors among children aged 12-23 months in a hard-to-reach areas of Ethiopia. *Hindawi International Journal of Pediatric*, 2019.
- Harfiana. (2019). Faktor risiko drop out imunisasi DPT pada bayi di Kabupaten Pidie. *Jurnal Aceh Medika Universitas Abulyatama*, *3*(1), 28–35.
- Hargono, A., Artanti, K. D., Syahrul, F., Megatsari, H., Wulandari, R. D., Nurwitasari, A., & Pramesti, K. A. (2019). My village my home: community empowerment to increase immunization coverage. *Indian Journal of Forensic Medicine & Toxicology*, *13*(4), 541–546. <https://doi.org/10.5958/0973-9130.2019.00346.3>
- Harmasdiyani, R. (2015). The influence of mother's characteristics toward basic complete immunization non-compliance for children under-two-years. *Jurnal Berkala Epidemiologi*, *3*(3), 304–314.
- Hudhah, M., & Hidajah, A. C. (2017). Perilaku ibu

- dalam imunisasi dasar lengkap di Puskesmas Gayam Kabupaten Sumenep. *Jurnal Promkes*, 5(2), 167–180.
- Izza, N., Lestari, D., & Tumaji. (2017). Faktor orang tua dan status imunisasi DPT anak 12-36 bulan di Kecamatan Ketapang dan Kecamatan Sokobanah Kabupaten Sampang. *Buletin Penelitian Sistem Kesehatan*, 20(2), 43–51.
- Jain, M., Taneja, G., Amin, R., Steinglass, R., & Favin, M. (2015). Engaging communities with a simple tool to help increase immunization coverage. *Global Health: Science and Practice*, 3(1), 117–125. <https://doi.org/10.9745/ghsp-d-14-00180>
- Kusyanti, F. (2015). The relationship between mother knowledge level of Posyandu with mother obedience coming to Posyandu in Mayungsari Village Bener Purworejo. *Jurnal Medika Respati*, 10(3), 85–94.
- Ministry of Health RI. (2019). *Indonesia basic health research (Riskesdas) 2018*. Jakarta: Ministry of Health RI.
- Ministry of Health RI. (2019). *Regulation of the minister of health RI number 8 of 2019 regarding community empowerment in the health sector*. Jakarta: Ministry of Health RI.
- Mukherjee, S., Madhivanan, P., Li, T., Albatineh, A., Srinivas, V., Jaykrishna, P., ... Krupp, K. (2015). Correlates of completing routine vaccination among children in Mysore, India. *Journal of Infection and Public Health*, 8(1), 62–71. <https://doi.org/10.1016/j.jiph.2014.05.003>
- Notoatmodjo, S. (2012). *Promosi kesehatan dan perilaku kesehatan*. Jakarta: Rineka Cipta.
- Nzioki, J. M., Ouma, J., Ombaka, J. H., & Onyango, R. O. (2017). Community health worker interventions are key to optimal infant immunization coverage, evidence from a pretest-posttest experiment in Mwingi, Kenya. *Pan African Medical Journal*, 28, 1–13. <https://doi.org/10.11604/pamj.2017.28.21.11255>
- Profita, A. C. (2018). Beberapa faktor yang berhubungan dengan keaktifan kader posyandu di Desa Pangadegan Kabupaten Banyumas. *Jurnal Administrasi Kesehatan Indonesia*, 6(2), 68–74. <https://doi.org/10.20473/jaki.v6i2.2018.68-74>
- Sommanustweechai, A., Putthasri, W., Nwe, M. L., Aung, S. T., Theint, M. M., Tangcharoensathien, V., & Wynn, S. S. (2016). Community health worker in hard-to-reach rural areas of Myanmar: filling primary health care service gaps. *Human Resources for Health*, 14(1), 1–7. <https://doi.org/10.1186/s12960-016-0161-4>
- Triana, V. (2016). Faktor yang berhubungan dengan pemberian imunisasi dasar lengkap pada bayi tahun 2015. *Jurnal Kesehatan Masyarakat Andalas*, 10(2), 123–135. <https://doi.org/10.24893/jkma.10.2.123-135.2016>
- USAID. (2014). *My village my home: a tool to optimize immunization coverage: guidance note for using the MVMH tool*. USA: United States Agency for International Development.
- Yuda, A. D., & Nurmala, I. (2018). The Relationship of characteristics, knowledge, attitudes, and mother's action on immunization compliance. *Jurnal Berkala Epidemiologi*, 6(1), 86–94. <https://doi.org/10.20473/jbe.V6I12018.86-94>
- Zewdie, A., Letebo, M., & Mekonnen, T. (2016). Reasons for defaulting from childhood immunization program: a qualitative study from Hadiya zone, Southern Ethiopia. *BMC Public Health*, 16(1), 1–9. <https://doi.org/10.1186/s12889-016-3904-1>