BKM Public Health & Community Medicine
Berita Kedokteran Masyarakat

Volume 40 **Number** 5, 2024, **Pages** e9156
DOI: 10.22146/bkm.v40i05.9156

The empowerment perspective of implementation one house one jumantik (G1R1J) in sub-urban area

Tri Isnani[1]*, Tri Ramadhani[1], Bina Ikawati[2]

Submitted:
July, 26th 2023
Accepted:
May, 14th 2024
Published:
May, 27th 2024

[1]Research Center for Public Health and Nutrition, Research Organization for Health, National Research and Innovation Agency, Indonesia

[2]Banjarnegara Public Health Laboratory Unit, Ministry of Health Republic Indonesia

***Correspondence:**
isnani3tri@gmail.com

Abstract

Purpose: To examine the effectiveness of one house one larva monitor program as a community empowerment. **Methods:** The research was conducted using the PAR approach by collecting data by observation, in-depth interviews, and discussions with samples/informants including health workers at the public health center, cadres/jumantik, jumantik rumah, community leaders, and local village and sub-district government figures. The team formed jumantik followed by training and assistance for five months for jumantik. The research location is in an urban village in Mempawah Regency, West Kalimantan Province, with data collected from March to October 2019. **Results:** The research location is an area with a socio-cultural geographical character that is between rural and urban characters. Knowledge about dengue fever and G1R1J is still lacking. Problems in the implementation of G1R1J are related to participation issues, namely the awareness and acceptance of residents towards activities, replacement of cadres/volunteers, and wrong perceptions. Socialization, which is the first step in empowerment, has not been carried out. Socialization is also a step in growing knowledge and awareness that will influence the growth of community participation. **Conclusion:** The problems faced include the problem of participation of cadres and community members. The socialization stage as the introduction stage influences knowledge and behavior. The condition of the community as social capital is incredibly supportive in empowerment. Empowerment requires adjustment to each condition. Therefore, mapping of initial conditions and comprehensive mass outreach is needed.

Keywords: community empowerment; dengue fever; Indonesia; one house one larva monitor program

INTRODUCTION

Dengue Fever is still a health problem in Indonesia. The number of cases in the last five years peaked in 2019 with a total of 138,127 cases, a morbidity rate of 51.48/100,000 population and occurred in 481 districts in Indonesia [1,2]. The national target for dengue haemorrhagic fever (DHF) management in the Draft Minister of Health Regulation (RPM) and the National Strategy (Stranas) for Dengue Management 2021-2025 sets a mortality target of 0.2% and an incidence rate of less than 37 per 100,000 population in 2030.

Decree of the Minister of Health Number 581/Menkes/SK/VII/1992 concerning Eradication of Dengue Fever and Decree of the Minister of Health Number 92 of 1994 concerning amendments to the appendix which focuses on Mosquito Eradication Program (PSN) 3M, namely Draining, Closing, Burying. In 2000 it was further developed into PSN 3M plus, by adding larvicides. The role of larva monitors (Jumantik) began to be encouraged in 1992 and Jumantik was quite successful in preventing DHF [3]. Furthermore, it is still growing because it is difficult to bury used goods in urban areas and then it is added or replaced by utilizing or recycling (reusable). The

strategy for increasing partnerships in control is in Operational Operational Group (POKJANAL) activities, which is an organization that is a coordination forum and partnership network in DHF control.

The One Home One Jumantik Movement (G1R1J) is a development of PSN 3M. This movement has been echoed since 2015. G1R1J is defined as community participation and empowerment by involving every family in examining, monitoring and eradicating mosquito larvae to control vector-borne diseases, especially DHF through the cultivation of PSN 3M Plus [4]. The success indicator for G1R1J is achieving a 95% larva free rate (ABJ).

The first G1R1J implementation technical manual was completed in 2016 and revised in 2017. The guidebook contains definitions, structure, work procedures and coordination, selection of Jumantik, duties and responsibilities, as well as equipped with knowledge or information about DHF and control, examples the necessary forms, such as the larva monitoring form, the jumantik coordinator form, and the ABJ form [4]. The activity phase begins with the socialization and training of jumantik officers, organizing and dividing tasks.

The members of team in G1R1J were Jumantik Rumah, Jumantik Coordinator, Environment Jumantik, and Supervisor. Environment Jumantik is a person who checks, monitors, and eradicates mosquito larvae, especially *Aedes aegypti* and *Aedes albopictus*. Jumantik rumah are household members who are assigned to monitor the larvae in their respective homes. The Jumantik Coordinator is one or more jumantik/cadres appointed by the Head of the jumantik program in selected households in a specific area Supervisors are members of the Working Group for dengue control (POKJA DBD) appointed by the head of hamlet or Lurah/Village Head to process data.

The work system in G1R1J is that there is a Jumantik in each household (Jumantik Rumah) whose job is to monitor the larvae in their respective homes and report the results to the Jumantik coordinator. Monitoring results are written in the monitoring form in each house. The Jumantik coordinator goes around and looks at the larva monitoring forms once every two weeks. Environmental Jumantik is an officer who monitors larvae in public buildings. Jumantik house and environmental Jumantik monitoring results are examined by the Jumantik Coordinator. The analysis of this initiative within the city of Padang reveals numerous obstacles in its execution, including uneven socialization efforts, suboptimal guidance, and the absence of a comprehensive monitoring system [5].

The focus of dengue haemorrhagic fever control in G1R1J is on community participation or empowerment. Community participation is empowering or involving the community in activities or movements. An indicator of the success of an empowerment is the participation of the community and is sustainable. Self-empowerment in health promotion is one of the strategies to change behavior, where empowerment is a change to enable oneself to be healthy. Health promotion according to the World Health Organisation (WHO) is a process aimed at enabling individuals to increase control over their health and improve their health based on a philosophy of self-empowerment. The fundamental aspect of health promotion is empowerment so that individuals are better able to control aspects of life that affect health. Community empowerment in the health sector is an effort to foster the community's ability to have the power and strength to live independently. Empowerment is a process with community independence as output.

Community empowerment is a key strategy in controlling dengue fever. Numerous factors that influence the implementation program in public. One crucial aspect of empowerment is the participation of the community itself. This article describes the implementation process of the one house one Jumantik movement from an empowerment perspective. Empowerment carried out in sub-urban area has challenges related to the condition or character of society, such as heterogeneous society, social relation tend to be individualistic, and the value of volunteers has faded.

METHODS

The research was conducted in an urban village in East Mempawah District, Mempawah Regency, West Kalimantan Province for eight months, from March to October 2019. The research used a Participatory Action Research (PAR) approach. This location was chosen because there was already a decree from the head of the health service regarding the One House One Jumantik Movement and there were still cases of dengue fever. Data collection was carried out qualitatively by means of in-depth interviews and focus group discussions as well as observation. In-depth interviews were conducted with community leaders (n=2), health workers (n=7), village officials(n=3), health/Jumantik cadres(n=2), and community members(n=2). Discussion participants were the Jumantik Coordinators(n=10) and Supervisors(n=4). Furthermore, socialization and formation and training of G1R1J were carried out. Furthermore, assistance is provided to Jumantik who is carrying out his duties. This assistance takes the form of monthly meetings held for five months, with participants including

Jumantik/cadres, public health center officers, and village officials. The meeting discussed the problems encountered and discussions discussed solutions and plans for further activities. Trustworthiness with triangulation of methods and sources. Data in the form of interviews and discussions were processed into transcripts which were then analysed thematically.

RESULTS

Area overview

The geographical condition of the research location is a coastal area with soil conditions in the form of peatlands, swampy areas, and frequent flooding and has experienced forest fires in the dry season. The water is reddish brown. The need for clean water in this area is rain-fed water and some use refilled water or commercially supplied pipes water (PDAM). Jars as containers for rain-fed water are found in all houses in this area. This container is made of cement with a capacity of up to five hundred liters. Well and river water is used for bathing and washing purposes, while for cooking with treated water or rainwater.

Most of the residents of this village work in the service sector with most of the high school education, with the condition of small houses, clustered and dense housing, and clustered around Mempawah River. There is Amantubillah Palace building which is Mempawah Kingdom's palace. Rituals related to belief are still carried out, such as a series of Robo robo ceremonies which are carried out once a year on the last Wednesday of the month of Safar. While the number of DHF cases at the research location in 2017 was ten cases and in 2018 there were nine cases.

Table 1. Participants characteristics (n=30)

Method	Group	N	Gender
Indepth interview	District Health Office	3	M = 1, F = 2
	Public Health Center	4	M = 1, F = 3
	Local Government	3	M = 3
	Health Cadre	2	M = 1, F = 1
	Community Leaders	2	M = 2
	Community Members	2	F = 2
Group Discussion	Jumantik Coordinators	10	M = 1, F = 9
	Jumantik Supervisors	4	M = 4

There were 30 informants in the research (**Table 1**), including 16 informants in in-depth interviews and 14 participants in group discussions, as well as observations of 10 residents' houses. The characteristics of the 30 informants were that gender was 50% male and 50% female. If we look at the type of work, health and local government workers are government employees, and 90% of the Jumantik Coordinator group are women who work as housewives who act as health cadres in the community.

DHF control methods

DHF control that has been carried out includes fogging, larvacidacing, and Periodic Larvae Monitoring (PJB). The executors of the activities were public health center health workers involving health cadres because Jumantik did not yet exist.

"*So far the distribution of abate only. But I have never really checked what it is, looking for the larvae to see if it is true or not. It is never really like that, but at most, cadres just give an abatement, right? we hit the fund. What do we sometimes want to give?" (Public Health Center Informan 1).*

Another informant added,

"*Sometimes we have a problem with funds, ma'am. We sometimes want to give what, we want to ask the cadres, really oh like this, what is it, ma'am, we are sometimes confused ourselves not to give funds to them. So far, at most, sometimes fifty thousand one uh, sometimes 50 thousand a month, for him it is quarterly, how do you do it ma'am, I am confused too. Where do you want the funds to come from, I am sorry for people sometimes, sometimes we really want them to. How much? "(Public Health Center Informan 2).*

Even though most of the people accept fogging and larvicidation and even ask for this activity, there are still those who refuse fogging because it smells, is lazy to close it and is slippery. As conveyed by the following health workers and cadres,

"*There are also those who refuse ma'am, the reason is they are afraid it smells bad, it's slippery, it's so and so, it's all kinds of things" (Public Health Center Informan 1).* The same information from other public health center officers, "*How many are there, do not want to be complicated, are you tired of being clean, slippery? There is nothing bad yet, I do not want to, sometimes that is how it is" (Public Health Center Informan 2).*

Meanwhile, giving larvicides will cause the plants to die if they are used to water the plants, as complained by cadres/jumantik when dealing with residents.

Daily habits that are still found are related to cleanliness and transmission of DHF such as the habit of burning trash, being lazy to empty water jars. As the midwife said about cleanliness, "*The important thing is cleaning, you don't have to burn it."(Public Health Center Informan 3).*

Another informant added,

"*Actually, if we say they don't care, they care, they care either. It is just that sometimes the most fatal*

habit is not covering things, for example, the jar is left open, right? There is nothing wrong with that, they just have to close tight, so they don't, sometimes they keep opening the jars, even though they've been told. The order is to close tight, yes, let this be, it is still like that, where are we, if you can get dengue fever from places like that. "(Public Health Center Informan 1).

Implementation of the One House One Jumantik Movement

One indicator of the One House One Jumantik Movement is the existence of a document in the form of a Decree either issued by the Regional Head or the Head of Service (in this case Health Office) or also other stakeholders regarding the existence of this activity. It is written in G1R1J implementation technical guidebook. In 2018 it was recorded that in Mempawah Regency there were eight villages and sub-districts that already had this letter. Preparation based on understanding of the existing Technical Manual. There has already been this movement in other locations but with modifications, namely empowering elementary school students as larva monitoring officers, but there is no letter or legal document or decree yet.

Dengue fever, as recognized by residents and cadres, is identified as an illness transmitted by mosquitoes, characterized by symptoms such as fever and the presence of mosquito breeding sites or habitats in moist areas. However, the specific type of mosquito and the exact symptoms remained unknown to the informants. The existence of the 1R1J Movement was not known by residents, even a new cadre heard about it. Health workers' understanding of G1R1J was also lacking, one official said he did not understand Jumantik's supervisor and coordinator's duties, even though there was a Technical Manual. Socialization to

Table 2. The problems and solutions jumantik coordinator

Period	Issues and discussions	Solution
1	- The lack of public response to the movement suggests a lack of acknowledgment - Their presence has not been accepted with the saying "lack of work." - Visits often failed to meet the homeowners, resulting in encounters with empty houses or elderly residents. - Some residents have neglected to conduct larval checks.The elderly residents of the house had difficulty checking the larvae and making notes on the cards. - Jumantik Decree was in the process of being issued by the Village Government.	- Socialization, if needed will ask for help from the Head of the RT as Supervisor. - It is agreed that home visits will be made on Saturday and Sunday in the second and fourth week of each month. - Further coordination with the RT head in dealing with residents
2	- Five Jumantik coordinators could not attend due to work reasons. - There are people still lacking in response to G1R1J. - There are missing monitoring cards in residents' homes	- Innovation uses the "tangguk" (colander) to pick up the larvae from the crock. - Replace lost card. - Continue socialization
3	- The problem is still the lack of citizen response. - Who is responsible for checking larvae in an empty house? - There are still people who are still in lack response. - Some residents have not yet received the Jumantik Coordinator's card and visit. - Replacement of 2 Jumantik Coordinators	- Continuing the activity of giving explanations to residents who have lack response. - The person in charge for checking larvae in an empty house are the Jumantik Coordinator and the Head of the RT - Continue socializing
4	- The problem in RT 2 regarding citizen participation in checking and writing on control cards has not been resolved. - There are 2 Jumantik coordinators and they are still young, all residents receive their visits but have not filled in the control cards. - Residents do not fill out the card. - The local people's perception that larvicides will make plants die. - The agreement gave the name of the Jumantik group the name Membatik (Mempawah Free of Larvae). - In the end, in RT 3 all residents received it well. - One of the last houses with problems has finally received the implementation of G1R1J.	- They remained eager to carry out the task and continuously gave explanations. - Senior Jumantik and midwives assist Jumantik RT 2 - Socialization by Jumantik Coordinator and Midwives/Public health center officers - All Jumantik Coordinators have routinely visited residents' homes every two weeks and sent reports.
5	- There are two new Jumantik Coordinators who replace officers who resigned and have only attended meetings/discussions just two times. - The problems faced are still the previous problems, namely the response and participation of citizens who have not been fully.	- The Jumantik Coordinators will remain and are committed to carrying out their duties.

the lower level regarding the 1R1J Movement has not been carried out. Socialization was carried out at the district level with resource persons from the Provincial Health Office with participants from community health centers and distribution of technical guidebook.

The research team carried out socialization about the 1R1J Movement followed by the formation of jumantik and training. The formation process by proposing the names of each RT so that 10 Jumantik Coordinators were formed. Head of RT as Supervisor. After receiving the training, Jumantik Coordinators carry out their duties. A community figure gave a response or suggestion to give compensation to the Jumantik because they are also active in other community activities organized by the sub-district government.

The team provided assistance to the Jumantik Coordinator in the form of meetings once a month for five months, this meeting discussed the problems encountered in carrying out the task and then carried out discussions discussing solutions. The Jumantik Coordinators have understood and carried out their duties, namely traveling around their respective areas every two weeks. Their job is to record the results of the inspection of the house jumantik written on the larva monitoring card in each house. They also provided explanations or socialization of G1R1J during visits to residents' homes. The village midwives are quite close to the Jumantik Coordinators and facilitate their work a lot. The following table shows the problems and solutions during the five months of assistance.

DISCUSSION

The One House One Jumantik Movement is a way to control dengue fever through community empowerment. This movement emphasizes the role of the family in PSN, namely having family members appointed as larva monitoring officers in their respective homes or called jumantik rumah. Empowerment in health places the community or targets as subjects so that they are involved from the identification of problems and potentials, planning and implementation with or without the intervention of outsiders, to improve environmental conditions, sanitation and other aspects that directly or indirectly affect public health.

Factors that influence the success of empowering the poor include communication, resources, dispositions, and bureaucracy [6]. The same aspect in health empowerment from Restuastuti et al. includes the activeness of community leaders, the existence of community organizations, utilization of facilities and resources, availability of funds, use of community knowledge and technology, and decision making. In an effort to empower the community, Wiku Adisasmito in Restuastusi et al. also emphasizes the need to pay attention to four main main elements, namely information accessibility, involvement and participation, accountability and capacity of local organizations, so that the goal of community empowerment is achieved [7].

Area character is the initial capital in the community empowerment movement. This character includes local knowledge and technology, local wisdom, resources, and social capital. Administratively, geographically, and geographically, the research location is an urban village with an urban character but still has a rural character. Apart from being close to the district capital and accompanying urban facilities, from a demographic perspective, livelihoods are no longer in the agricultural sector, but the majority are in the service sector, with the densest population density in this sub-district. Strong rural character such as there is still a sense of kinship, preserving traditions and culture is still strong. However, on the other hand, community activities are suspended animation and vacuum, economic motivation in a social activity.

Knowledge about dengue fever and G1R1J is also lacking, among the community, the leaders and health workers. Wrong knowledge and perceptions about fogging, larvicides, transmission, and symptoms of dengue fever. These conditions have an inhibiting and supporting role in community empowerment. In empowerment, there is a stage, namely socialization or literacy, namely the introduction of empowerment and all information related to problems so that it can foster the ability to find problems, explore potential, develop strategies, and find solutions to overcome problems faced. The terms of empowerment according to Krianto are awareness of what will be done, understanding of what will be empowered, and the will and skills of the target to carry out the empowerment process [8].

The table above shows the problems and discussions during the mentoring discussions. The problems that exist and persist are problems related to community participation. This can be seen in the resignation of the officers or the Jumantik Coordinator, the response and acceptance of the Jumantik Coordinator's activities and visits. In addition, the problem was that Jumantik Rumah had not carried out its duties to check the larvae and

record them on the card, so the Jumantik Coordinator did it. The problem of concern and the role of residents is also seen in the problem of monitoring cards that are not filled out or lost, as well as problems where residents are busy and find it difficult to meet at home.

Problems in knowledge and perception, namely refusal to give larvicides, requests for fogging every time there is a case, but some refuse fogging. The results of the interviews show that knowledge about DHF and mosquitoes is still lacking, namely the causes and transmission of DHF are not clearly understood and it is confused with malaria which is another mosquito-borne disease. Wrong knowledge and perceptions have become a problem, namely people prefer to do fogging because they do not know actions that should be taken [9] and the assumption that spraying can be applied at any time and is safe for those near the area [10]. Confused knowledge about dengue fever and malaria was also found from other areas, such as the knowledge of the community in Pak Ngum Laos [11]. The results of Liziawati et all. on empowerment found the need to increase public knowledge about DHF [12].

Socialization or providing information about activities as an initial stage or introduction in community empowerment has not been carried out thoroughly and at all levels. This is the first socialization carried out at the district level involving health center staff. Therefore, knowledge about dengue fever and G1R1J is still lacking. The understanding is based on the technical manual only, but there are media or sources of information about this movement through social media, namely YouTube. The existence of other media is actually helpful in socializing or introducing programs in the community and can use existing media and resources. G1R1J media through video has proven to be effective in increasing public knowledge, as was done by Selviana in Pontianak City [13].

Regarding the solution to the socialization problem, it was mentioned that the role of figures and leaders would be involved in the socialization, such as the RT head, RW head, village head, and village midwife who were quite close to the community. Those with their positions and roles in society are an attraction as trusted figures. Apart from being close to the community, their position is also close to other officials above them. Relationships such as social capital can help in community empowerment. The midwife and head of the RT assisted in socialization. Leaders' support and assistance have significant implications as social capital in the prevention and control of DHF [14]. Social capital was originally more associated with economic interests such as poverty alleviation and then developed into community empowerment in various aspects of health empowerment. Volunteering motivation in activities for the common good, without expecting financial rewards, will increase participation and reduce budgetary problems or constraints.

Social capital includes norms, beliefs, and social networks that are utilized by individuals and society in social relations to be beneficial both economically and socially. This social capital plays a very important role in community empowerment [15,16]. We can see other social capital in the problem of difficulty draining the jar due to the large shape of the container with a large amount of water, as well as the natural factor of using rainfed water for daily needs. Jumantik is creative by using “tangguk” (colander) to take the larvae from the crock without wasting the stored water. Local wisdom and technology that they use is social capital.

The problem of volunteering for cadres or Jumantik is also a problem in the implementation of this movement. The hope of receiving honorarium or transportation money in community activities. This has also become a tendency for health workers not to be able to demand the tasks or jobs they are given when there are activities because they do not give rewards. Difficulty finding volunteers in social activities is an erosion of social capital. Character like this is the character of urban areas or the transition of rural values into urban areas.

This response is not yet or lack of awareness of this activity or movement. An indicator of the success of empowerment is participation from the community because empowerment requires programs or activities to be from, by and for the community. Participation in this study is still lacking and is still a problem in every meeting. Participation arises when there is awareness or awareness from the community itself. Residents of the community do not yet feel the importance or need for larva-free housing. Awareness grows if you already have knowledge or literacy about dengue fever, the life of larvae and mosquitoes as DHF vectors. Raising awareness is addressed by education or health literacy. Participation as an indicator of the success of an empowerment can occur because participation is forced by rules or orders from leaders and participation because of self-awareness.

G1R1J as empowerment in controlling dengue fever which is carried out in research starting with forming the organization, training, and implementation. The evaluation of the process shows that the problem faced is a problem of participation

from Jumantik and community members. The character between villages and cities shifts in village and city character values, apart from having an intense sense of kinship but social relations are starting to diminish because of the busyness of the residents. The implementation of G1R1J at this location had an impact on the community, namely increasing knowledge about dengue fever, increasing awareness and involvement of residents, especially families, in controlling dengue fever, and the visit of jumantik strengthened the sense of family.

Research from Hakim et al. showed that family empowerment succeeded in reducing the density of larvae and decreasing dengue case [17]. However, other studies have found the opposite, that is, there is no relationship between jumantik visits and the presence of larvae and 3M plus activities [18,19]. This is of course due to distinct factors from each region. Empowerment in DHF requires cross-sector involvement or collaboration between the government and the community, and in its implementation, it adapts to the conditions of each community. This is in line with the results of literature study from Sukesi et al. that community empowerment is carried out in a way that is appropriate to community character [20].

CONCLUSION

The One Home One Jumantik Movement as a strategy of controlling dengue fever with an empowerment approach. The problems faced include the problem of participation of cadres and community members. The socialization stage as the introduction stage influences knowledge and behavior. The condition of the community as social capital is supportive in empowerment. Empowerment requires adjustment to each condition.

REFERENCES

1. Kemenkes RI. Data DBD Indonesia tahun 2021. Kementerian Kesehatan Republik Indonesia. 2021;30.
2. Kemenkes RI. Profil Kesehatan Indonesia 2021. Pusdatin.Kemenkes.Go.Id. 2022. Kementerian Kesehatan Republik Indonesia.
3. Pratamawati DA. Peran Juru Pantau Jentik dalam Sistem Kewaspadaan Dini Demam Berdarah Dengue di Indonesia. Jurnal Kesehatan Masyarakat Nasional. 2010;Vol. 6, No(123):243–8.
4. Dirjen P2P. Petunjuk Teknis Implementasi PSN 3M-Plus dengan G1R1J. Kementerian Kesehatan RI; 2017.
5. Huvaid SU, Zia HK. Policy Analysis of One House One Jumantik Movement in Padang City. Proceedings 1st International Conference Health Science Biotechnology (ICHB 2021). 2022;47:135–40.
6. Daraba D. Factors Affecting the Success Empowerment Program of the Poor. Sosiohumaniora. 2015;17(2):168–9.
7. Restuastuti T, Zahtamal Z, Chandra F, Restila R. Analisis Pemberdayaan Masyarakat di Bidang Kesehatan. Jurnal Kesehatan Melayu [Internet]. 2017 Sep 19;1(1):14–9.
8. Krianto T. Pemberdayaan Masyarakat dalam Promosi Kesehatan. In: Notoatmodjo S, editor. Promosi Kesehatan Teori & Aplikasi. 2nd ed. Jakarta: Rineka Cipta; 2010. p. 254–83.
9. Krianto T. Masyarakat Depok Memilih Fogging yang Tidak Dimengerti. Jurnal Kesehatan Masyarakat Nasional. 2009;Vol. 4 No 1,:29–35.
10. Wijayanti SPM, Octaviana D, Asti AD. Lack of knowledge and false perception on space spraying against dengue in endemic area. International Journal Public Health Science. 2020;9(4):307–13.
11. Mayxay M, Cui W, Thammavong S, Khensakhou K, Vongxay V, Inthasoum L, et al. Dengue in peri-urban Pak-Ngum district, Vientiane capital of Laos: A community survey on knowledge, attitudes and practices. BMC Public Health. 2013;13(1).
12. Liziawati M, Zakiah, Zakiati U, Rachmawati F, Miranti, Pohan T, et al. Pemberdayaan Masyarakat Dalam Pengendalian Demam Berdarah Dengue Melalui Pembentukan Kampung Berbatik Di Kelurahan Pancoran Mas Dan Beji Kota Depok. Journal of Human and Education. 2023;3(1):7–14.
13. Selviana S, Suwarni L. Efektivitas Model Promosi Kesehatan Melalui Media Video Implementasi G1R1J dalam Meningkatkan Angka Bebas Jentik. WAWASAN Kesehatan Jurnal Ilmu Kesehatan. 2019;5(1).
14. Asri, Nuntaboot K, Festi Wiliyanarti P. Community Social Capital on Fighting Dengue Fever in Suburban Surabaya, Indonesia: A qualitative study. International Journal Nurse Science. 2017;4(4):374–7.
15. Fathy R. Modal Sosial: Konsep, Inklusifitas Dan Pemberdayaan Masyarakat. SOSIOGLOBAL Jurnal Pemikir dan Penelitian Sosial. 2019;3(2):36–53.
16. Syahra R. Modal Sosial: Konsep Dan Aplikasi. Jurnal Masyarakat dan Budaya. 2003;5.

17. Hakim L, Puji Astuti E, Prasetyowati H, Ruliansyah A. Pemberdayaan Keluarga Sebagai Upaya Menurunkan Kepadatan Larva Aedes spp. dalam Pencegahan Penularan Demam Berdarah Dengue. ASPIRATOR - Journal Vector-borne Disease Study. 2020 Dec 28 [cited 2022 May 31];12(2):73–84.
18. Santi D, Budiono I, Wahyono B. Faktor Yang Berhubungan Dengan Keberadaan Jentik Aedes Aegypti (Studi Kasus Di Kelurahan Sukorejo, Kecamatan Gunungpati, Kota Semarang Tahun 2014). Unnes Journal Public Health. 2015;4(1):69–75.
19. Rini AS, Efendi F, Misbahatul M Has E. Hubungan Pemberdayaan Ibu Pemantau Jentik (Bumantik) Dengan Indikator Keberhasilan Pemberantasan Sarang Nyamuk (PSN) di Kelurahan Wonokromo Surabaya. Indonesia Journal Community Health Nurse . 2012;1(1).
20. Sukesi TY, Supriyati S, Satoto TT, WIjayanti MA, Padmawati RS. Pemberdayaan Masyarakat Dalam Pengendalian Demam Berdarah Dengue (Literature Review). Jurnal Vektor Penyakit. 2018;12(2):67–76.