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Potential Pakraman Village in Achieving Bali Rabies Free

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ABSTRACT

Various ways have been applied to free Bali from the spread of rabies virus. Socialization / counseling to increase knowledge and understanding of the community about rabies and its prevention has been implemented. Rabies vaccination in rabies-transmitted animals has been done, even periodically every year mass rabies vaccinations have been held, and 2015 is the sixth vaccination of rabies. Reduced wild dog populations or elimination have been performed. But rabies never stops, even today all districts in Bali are red zone rabies cases. This study aimed to measure the knowledge level of Pakraman Village leaders and community participation in identifying the potential of Pakraman Village and to analyze the model of community participation in rabies prevention. The subjects were 76 head of family in Tabanan District, Klungkung District, Bangli District, Karangasem District and Buleleng District. This study used pretest and posttest group design, ie a design to determine the impact of the treatment provided by measuring the level of community participation before and after intervention. Data on knowledge was collected by filling out questionnaires by 50 prajuru (administrators) of Pakraman Village before and after being given intervention in the form of counseling with art media of Bondres. Community participation data was collected through interviews before and after intervention. Potential data of Desa Pakraman and the pattern of community participation were collected through in-depth interviews and focus group discussions. Data analysis was done descriptively in the form of central tendency because of numerical data type. Hypothesis testing was done using Wilcoxon signed rank test. Based on the result of the research, it can be concluded that: 1) effective health education to increase knowledge of village administrator and public participation in eradicating rabies virus; 2) pattern / model of community participation in eradication of rabies virus more dominant influenced by visit / suggestion. Furthermore, it is suggested that village administrator pakraman to be more intent to make visits / suggestions to educate the society so that community participation is more increased. In addition it also needs mentoring from the government in educating the community so that more effective coaching.

Keywords: Rabies, Pakraman village, Knowledge, Participation

INTRODUCTION

Bali as a tourist destination feels aggrieved economically by the presence of rabies disease case in November 2008. Bali originally free of rabies has changed status with the occurrence of death from rabies in Badung District. From 2008 to June 2015, 155 villages found positive rabies⁽¹⁾, and 11 people died of rabies and the status of outbreaks of rabies has not been revoked⁽²⁾. To date there have been 17,624 cases of animal bites of rabies transmitters. Of that number, those who received injections of the anti rabies vaccine were 13,638 people, with the stock of anti rabies vaccines all over Bali only 13,795 vials, minus Gianyar districts and Karangasem districts with no stock at all⁽²⁾.

Various ways have been applied to free Bali from the spread of rabies virus. Socialization / counseling to increase knowledge and understanding of the community about rabies and its prevention has been implemented.

Rabies vaccination in rabies-transmitted animals has been done, even periodically every year mass rabies vaccinations have been held, and 2015 is the sixth vaccination of rabies⁽¹⁾. Reduced wild dog populations or elimination have been performed. But rabies never stops, even today all districts in Bali are red zone rabies cases.

The problem of rabies virus eradication is not only the responsibility of the government. The greatest contribution to the success of the rabies-free Bali program is the community's participation in the control of the rabies virus. In this case, the public is aware of the importance of preventing the spread of rabies virus. To restore the predicate of Bali free from rabies, alternative prevention efforts need to be done, such as community empowerment in Desa Pakraman that has been untouched by the government. During this time, the government only empowers the village offices. Whereas Desa Pakraman has a very strategic position in solving the problem, even tends to be independent with more put forward local wisdom, and the existence of these villages quite a lot, that is 1,482 villages⁽³⁾.

Bali has its own distinctive features, consisting of two institutions namely "official institutions" and "traditional institutions". Traditional institutions are institutions that have provided support to people's lives. The interactions in Balinese social and cultural life are strongly supported by existing traditional institutions, such as traditional villages, banjars, subak and sekeha⁽⁴⁾. Desa Pakraman is a community unit with "customary law" in Bali Province which has a unity of tradition and manners of social life of Hindu community from generation to generation in kayangan village which has certain territory and property and is entitled to take care of its own territory⁽⁵⁾.

Based on the above description, this study aimed to measure the knowledge level of Pakraman Village leaders and community participation in identifying the potential of Pakraman Village and to analyze the model of community participation in rabies prevention.

METHODS

The population of this study was 1,028,260 households in Pakraman Village in Bali Province⁽⁶⁾. The sample size was 380 chosen by purposive and random sampling technique. Purposive sampling was used to select districts and pakraman villages, which were 5 districts with the highest rabies positive dog population and rabies deaths. Determination of sample size of head of household on 5 pakraman village divided evenly that was 380 head of family divided 5, so sample size was 76 head of family. Determination of sample point 76 household head in each pakraman village done randomly. The research locations include Tabanan District, Klungkung District, Bangli District, Karangasem District and Buleleng District. Each district is represented by a village of Pakraman, namely Bongan Kaja Village in Tabanan District, Koripan Village in Klungkung District, Antugan Tembuku Village in Bangli District, Selumbung Manggis Village in Karangasem and Kaliasem Villages in Buleleng District.

This study used pretest and posttest group design⁽⁷⁾, ie a design to determine the impact of the treatment provided by measuring the level of community participation before and after intervention. Data on knowledge was collected by filling out questionnaires by 50 prajuru (administrators) of Pakraman Village before and after being given intervention in the form of counseling with art media of Bondres. Community participation data was collected through interviews before and after intervention. Potential data of Desa Pakraman and the pattern of community participation were collected through in-depth interviews and focus group discussions. Data analysis was done descriptively in the form of central tendency because of numerical data type⁽⁸⁾. Hypothesis testing was done using Wilcoxon signed rank test.

RESULTS

Table 1. Potential of pakraman village

Location	Potential		
	Awig-Awig (written rules)	Norma (unwritten rules)	Sanctions
Bongan Village	There is no	There is	There is no
Kahuripan Village	There is no	There is	There is no
Antugan Village	There is no	There is	There is no
Selumbung Village	There is no	There is	There is no
Kaliasem Village	There is no	There is	There is no

Table 2. Data of knowledge of prajuru (administrators) pakraman village on rabies prevention

No	Statistics	Pre-test	Post-test
1	Minimum	44	64
2	Maximum	72	96
3	Mean	65.28	81.44
4	Standard Deviation	5.63	7.2

Based on Table 2 it appears that there was an increase in knowledge after being given intervention to village administrators.

Table 4. Participation of the villagers of pakraman before and after being given guidance by village administrators on Rabies management

No	Statistics	Pre-test	Post-test
1	Minimum	28	56
2	Maximum	68	88
3	Mean	53.85	81.56
4	Standard Deviation	8.70	7.09

Based on Table 3 it appears that there has been an increase in the participation of masrakat after being given intervention.

Table 5. Pattern of villagers' participation in eradicating rabies virus

No	Items	Answer				Total
		Yes	%	No	%	
1	Consider the level of formal education in rabies prevention	189	49.7	191	50.3	380
2	Consider knowledge in rabies prevention	200	53	180	47	380
3	Consider skills in rabies prevention	103	27	277	73	380
4	Consider health facilities in rabies prevention	120	31.5	160	68.5	380
5	Consider regulations in rabies prevention	167	43.9	213	56.1	380
6	Consider the ability to assess previous extension in rabies prevention	147	38.7	233	61.3	380
7	Taking into account the advice of health workers in rabies prevention	261	68.7	119	31.3	380
8	Consider the recommendation of cadre visit in rabies prevention	213	56	167	44	380
9	Consider the suggestion of formal figures in rabies prevention	254	66.8	126	33.2	380
10	Taking into account the suggestion of informal leaders in rabies prevention	274	76	106	24	380
11	Consider the advice of visiting relatives / friends in rabies prevention	195	51	185	49	380
12	Consider recommendations of print / electronic media advertising visit in rabies prevention	186	48.9	194	51.1	380

Focused Group Discussion Results

1. Rabies disease

For all informants at five FGD sites, rabies disease is known as a deadly disease. At the time of FGD in five villages pakraman, informants even stated that in the village of pakraman already had people died of rabies. This disease they know from the mass media, both print and electronic. There is also a known rabies of extension conducted by public health center officers and livestock officers. Some also get information from families, at work, and from village officials. Informants also have been able to mention how the transmission of rabies through dogs, cats and monkeys infected with rabies virus. But they can not mention the clinical symptoms of rabies disease.

2. How to prevent rabies

Informants mentioned that the most effective preventive measure is to vaccinate all dogs and animals that can be the spreaders of rabies viruses, such as cats and pet monkeys. Efforts to avoid dog bites and rabies virus-bearing animals and to pay attention to pet health are safe measures to reduce the risk of contracting rabies.

3. Treatment of rabies

Informants have not understood early treatment efforts to reduce or kill rabies viruses that enter through animal bite wounds. The most effective effort is to wash the wound with water and soap or detergent for 10-15 minutes and then given an antiseptic (70% alcohol), betadine, iodine in addition to anti-rabies vaccine. The informant only cleaned with water and bite marks attached with garlic scouring, before being taken to the doctor.

4. The role of prajuru (administrators) pakraman village in the eradication of rabies virus

The village officials of the pakraman state that the role that can be taken is to make awig awig (written rules), norms / agreements (unwritten rules), sanctions and direct supervision in the arrangement of dog maintenance for the community in the village area.

Most informants stated that they had not made awig awig yet there was agreement with the community about the management of dog maintenance. In this case they are not ready to give sanction according to customary law to the citizen who is caught that his dogs roam outside the yard, dogs are not made cages, dogs are not vaccinated and do not eliminate dogs that are diagnosed with positive rabies. Efforts are made to call the residents to the Village Head Office (FGD results in the Village Bongan and Village Kahuripan). The village manager of pakraman ready to discuss the problem of handling rabies disease and coordinate with the environment of the village office to be implemented for all citizens, whether those who enter the villagers pakraman or not.

In-depth Interview Results

1. Term, cause, mode of transmission, symptoms, treatment and prevention of rabies disease

All informants stated that they had heard the term rabies disease. Most of them stated first heard the term rabies disease from mass media both print and electronic. Others received information from health workers, co-workers and village government officials. Informants have also been able to mention the mode of transmission of rabies through dogs, cats and monkeys infected with rabies virus, but they have not been able to mention the clinical symptoms of rabies disease.

The informants mentioned that the most effective preventive action is to vaccinate all dogs and animals that can be the spreaders of rabies viruses such as cats and pet monkeys. Efforts to avoid dog bites and rabies virus-bearing animals and to pay attention to pet health are safe measures to reduce the risk of contracting rabies.

Informants have not understood the initial treatment effort to kill the rabies virus that goes through the bite wound. The most effective effort was to wash the wound with water and soap or detergent for 10-15 minutes and then given an antiseptic (70% alcohol), betadine, iodine in addition to the vaccine. The informant only cleaned the wound with water, and the bite marks were plastered with garlic scum, before being brought to the doctor.

2. Management of dog and cat pet care

Most informants stated that they have not applied appropriate dog maintenance methods such as providing appropriate feed, regularly in sufficient quantities, lacking a safe and comfortable place of care, not routinely checking their dogs to veterinary workers, allowing dogs pets roam the streets, do not have enough time to care for dogs, regard pet dogs as house keepers, not as pets and there is no awareness to vaccinate pets on a regular basis.

Concerning knowledge, the test result of wilcoxon signed rank test shows p-value 0,000, so it is concluded that there is a difference of knowledge level of the pakraman village administrators before and after counseling. Regarding community participation, Wilcoxon signed rank test results showed p-value 0,000, so it was concluded that there was a difference in the level of public participation in the eradication of rabies virus before and after coaching by the pakraman village administrator.

DISCUSSION

The result of the research shows that there is an increase of knowledge of the village administration administrator after being given counseling. Thus, the counseling that has been done has contributed in increasing the knowledge of the village counselor pakraman. This is supported by various factors such as the education level of administrators namely 55% of high school graduates and 35% of undergraduate graduates, and other forms of coaching are done in addition to counseling in-depth interviews and FGDs. The level of knowledge is one of the main factors affecting human behavior in addition to skills, attitudes, beliefs, traditions, and social norms. The result of the research stated that there is a significant correlation between knowledge, attitude, role of health officer and animal health officer with rabies disease prevention and knowledge is the most dominant variable influencing the prevention of rabies disease. With good knowledge, it is hoped that someone can do what should be done according to what he believes. Likewise the knowledge of village administrators on rabies can increase their confidence in conducting guidance to the community in the prevention of rabies⁽⁹⁾.

The results of this study are in line with the results of other studies that indicate the still low attention of dog owners in support of rabies-free Bali, so the need for socialization and education about dog maintenance in the community^{(10),(11)}. The guidance that has been done by the pakraman village administrator has contributed to increase the participation of the village community of pakraman. The dominant factor to be considered in implementing rabies prevention is the factor of visit / suggestion. This pattern was formed by six variables (recommendations / visits of formal figures (66.8%), informal opinion visits (76%), recommendations / visits by health workers (68.7%), and advice / visit of friends / friends (51%), healthcare visits / visits (56%) and advices /

visits of printed / electronic media (48.9%) Visits and suggestions can increase knowledge, awareness, willingness and ability of people to live healthily and actively play a role in health endeavors The presence of visits and suggestions and cultures of shame and respect to the formal and informal leaders held by the Balinese people in general, and the community in the village of pakraman in particular, make people feel uncomfortable if they do not implement what is recommended / advised by the officers to healthy living.

Factors of knowledge and education are also a consideration in the implementation of rabies prevention. In Lawrence Green Theory says that knowledge gained through formal / informal education has an important role in changing the positive behavior of society in the implementation of health programs in general⁽¹²⁾. Education is an important element in modernization that will change one's knowledge and attitudes toward existing norms and values, because through education the knowledge and understanding of society to something can change. Most of the respondents' education is high school and undergraduate graduates to be considered and tools in implementing change to implement rabies prevention efforts.

CONCLUSION

Based on the result of the research, it can be concluded that: 1) effective health education to increase knowledge of village administrator and public participation in eradicating rabies virus; 2) pattern / model of community participation in eradication of rabies virus more dominant influenced by visit / suggestion. Furthermore, it is suggested that village administrator pakraman to be more intent to make visits / suggestions to educate the society so that community participation is more increased. In addition it also needs mentoring from the government in educating the community so that more effective coaching.

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