



Participatory Action Research Methods in Promotive and Preventive Dental Health Programs in Traditional Communities of Kampung Naga in Tasikmalaya Regency

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Abstract

Background: Kampung Naga is one of the traditional villages in Neglasari Village, Salawu District, Tasikmalaya Regency. The traditional community of Kampung Naga is known for its strength in maintaining and preserving ancestral traditions. As a traditional village, people's lives are inseparable from customary rules, including in terms of health. Self-cleaning activities such as bathing are carried out in a fish pond. Interestingly, the people here do not use cosmetics such as soap, shampoo and toothpaste in their self-cleaning activities. The ingredients used for bathing and shampooing are "taneuh porang" (clay), crushed orang-arang leaves or aloe vera and some use lime. Meanwhile, for brushing teeth using "eurih jeung lebu" (fiber from weed leaves and rubbing ash). The results of the pre-study showed that the majority of the people of Kampung Naga in carrying out oral hygiene / brushing their teeth using traditional materials tend to be abrasive such as rubbing ash, this will cause the teeth to wear out / eroded the enamel layer, causing caries. Furthermore, people who experience toothache are still often treated by local "kuncen" and given certain incantations. The purpose of this study is to implement the Participatory Action Research method in the Promotive and Preventive Program for dental disease in the Naga village community in Tasikmalaya Regency. Methods This research is a qualitative research using an observational approach supported by a literature review. Results: Knowledge before and after treatment with p value = 0.000 and OHI-S before and after treatment obtained p value = 0.000. Conclusion: The application of the Participatory Action Research method to the Kampung Naga community in Tasikmalaya Regency can increase the knowledge and status of dental and oral hygiene as an effort to promotive and preventive dental disease.

Keywords – *Participatory Action Research, traditional, community, promotive, preventive dental disease*

I. INTRODUCTION

The people of Kampung Naga are part of the Sundanese people who live in isolation from modernization. The people of Kampung Naga live in a village located at the foot of Mount Galunggung in Neglasari Village, Salawu District, Tasikmalaya Regency. The Kampung Naga community is a village inhabited by a group of people who are very strong in upholding the customs, culture, and beliefs of their ancestors [1,2].

Self-cleaning activities such as bathing are carried out in a fish pond. Interestingly, the people here do not use cosmetics such as soap, shampoo and toothpaste in their self-cleaning activities. The ingredients used for bathing and shampooing are "taneuh porang" (clay), crushed orang-arang leaves or aloe vera and some use lime. Likewise for the behavior of brushing the teeth of the Kampung Naga community using "eurih jeung lebu" (fiber from weed leaves and rubbing ash). Uniquely, this habit that has long been adopted by the Sundanese people has begun to be glimpsed and developed by cosmetic industries that use clay, aloe vera, orang aring leaves, lime and charcoal as the basic ingredients of their products as local wisdom in an effort to empower the community independent [3–5].

Community empowerment efforts are a process of independence and increasing community value on the ability to maintain dental and oral health so that it can be used as a solution to overcome problems that exist in the community. One of them is the Participatory Action Research method [6–8].

This action research method is used not to make the assisted community as an object, but to make it the subject of research. The community itself understands, wants, and solves the problems that surround it. The position of the researcher is more as a facilitator for the community to achieve their goals and provide solutions and formulate strategies that can be used by the community to find solutions to their problems. However, the formulation of a solution and this strategy still involves the people of Kampung Naga in the hope that if the community experiences dental health problems, they can solve their own problems without the help of others. Participatory Action Research (PAR) is useful to facilitate and motivate the community, especially Kampung Naga [9–11].

II. METHODOLOGY

The design of this study used a quasi-experimental design with one group pre-test and post-test design. This research was conducted on the community in Naga Village, Neglasari Village, Salawu District, Tasikmalaya Regency. Sampling in this study using a purposive sampling technique as many as 110 community leaders in Naga Village, Neglasari Village, Salawu District, Tasikmalaya Regency. The inclusion criteria for sampling include: Community leaders; have never participated in dental health training; willing to be a respondent; registered as a resident of Neglasari Village, Salawu District, Tasikmalaya Regency.

The stages of implementing the research are starting with giving explanations to community leaders, then for community leaders who are willing to take part in the research, they are welcome to sign the informed consent first. Furthermore, with the PAR (Participatory Action Research) approach in the form of providing material on disability, examination of dental and oral diseases and referring skills carried out before and after being treated, then observed to see the progress of activities carried out by local community leaders at least once a month.

Data collection instruments were obtained through knowledge questionnaires, dental examination sheets, promotive assessment sheets, mentoring activity forms and referral forms. Analysis of the research data using the paired sample test.

III. RESULT AND DISCUSSION

The people of Kampung Naga are known for their strength in maintaining and preserving ancestral traditions. As a traditional village, people's lives are inseparable from traditional rules, including in terms of maintaining dental health. However, Kampung Naga is not a group of people who are anti-Modernism. They consider modernism is not forbidden, as long as it does not violate customary provisions. The problem of high dental disease and poor maintenance of dental hygiene is one of the problems encountered in the research area. The research method applied is qualitative research with surveys using an observational approach, which is supported by a literature review. The purpose of this research is the implementation of the Participatory Action Research (PAR) method through promotive and preventive dental disease programs for the Kampung Naga community. The results of this study are expected that community leaders understand how to overcome the prevention of dental diseases that occur in their communities. Researchers apply the implementation of the PAR method. The details of the activities are as follows: this year's research for initial planning activities (plans): namely the identification of strengths: the people of Kampung Naga were very enthusiastic and willing to

participate in promotive and preventive dental health program activities. Weaknesses: people still believe in traditional dental treatment, it is enough to add crushed garlic to the cavities even if the toothache is only inflicted by the local “kuncen”, so the problem is that the prevalence of dental disease in the dragon village is still high, around 87 % of the population. This is also related to the lack of dental health workers at the local health center to examine the teeth of the Kampung Naga community, from the problems above, researchers are interested in implementing the PAR method in the local community. Researchers have conducted dental examinations for the people of Kampung Naga, from 110 respondents, the caries experience rate (DMF-T) averaged 5 teeth per person. With this data, the researchers continued their activities (Action), namely the implementation of dental and oral health promotive programs in the community 16 times per three weeks for one year along with the implementation of preventive dental disease prevention programs. Before implementing the promotive program: The people of Kampung Naga are first measured for their knowledge. Initial understanding of dental knowledge from 110 people in the community 70 of them achieved the criteria of less (63.6%) and knowledge of moderate criteria (24.5%) and good criteria as many as 10 people (11.8%) but after being given promotive there was a change from 83 people community there is an increase in knowledge of (75.5%) which has good criteria

Table 1: Knowledge Test Results before and after treatment

Variables	Before- After (n = 110)		t	p-value
	Mean	SD		
Knowledge	1.200	0.764	16.476	0.000

Table 1 shows that the results of the knowledge test before and after treatment obtained a mean of 1.200 standard deviation values of 0.764 with p value = 0.000. This study was statistically very significant because $p < 0.005$

Initial measurements of OHI-S from 110 people in the community 82 people achieved (74.5%) OHIS criteria were bad, OHI-S criteria were moderate 21 people achieved (19.1%) and OHI-S criteria were good only 7 people (6.4%), but after being given directions on brushing techniques, there was a change in the OHI-S value of poor criteria to 17 people (15.5%) with moderate OHI-S criteria of 18 people (16.4%), there was an increase in OHI-S with good criteria of (68.2%).

Table 2: OHI-S Test Results before and after treatment

Variables	Before- After (n = 110)		t	p-value
	Mean	SD		
OHI-S	1.209	0.779	16.273	0.000

Table 2 shows that the OHI-S before and after treatment obtained a mean/mean of 1.209, a standard deviation value of 0.779 t-count 16.273 with a p value of 0.000. this study is statistically very significant because $p < 0.005$.

The next step, the researchers formed 10 groups of dental health cadres for each group consisting of 11 residents, then from each group 2 people were appointed as chairman and vice chairman of monitoring promotive and preventive activities for the Kampung Naga community. The number of cadres is 20 people to carry out FGD activities according to a predetermined schedule, this is intended to help monitor the dental and oral health of the people of Kampung Naga. Activity (Research): continued by holding dental health training for 20 dental health cadres to monitor the people of Kampung Naga on a regular basis based on a predetermined program of activities.

The program continued with observations, observations were made to pay attention to and analyze the successes, weaknesses, and shortcomings of strategies and methods used in solving dental problems that occur in the community. Similarly, the supporting and inhibiting factors identified during the activity and reflection activities: The efforts that have been made in solving dental problems in the Kampung Naga community are reflected and evaluated, both shortcomings, weaknesses, and the success of strategies and methods in solve the community's problems. After implementing the PAR method through promotive and preventive programs, significant changes occurred in the local community, including; First, dental health cadres have the skills to examine teeth; Second, increasing public awareness of the importance of early dental care to avoid caries; Third, increasing the understanding/knowledge of the local community about dental health and the dangers of persistent toothache, the leaders/cadres can socialize their knowledge and skills to the entire Naga village community.

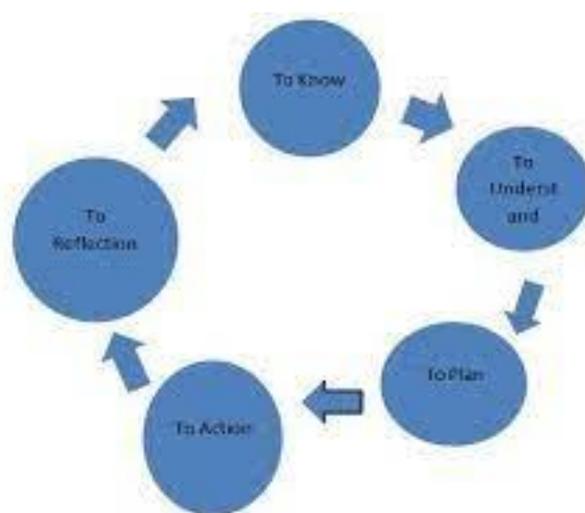


Figure 1: Action research strategy

IV. CONCLUSION

Based on the results of the study, it can be concluded that there is the application of the Participatory Action Research method to the Kampung Naga community in Tasikmalaya Regency can increase the knowledge and status of dental and oral hygiene as an effort to promotive and preventive dental disease.

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