International Journal of Allied Medical Sciences and Clinical Research (IJAMSCR)

ISSN:2347-6567

IJAMSCR | Volume 9 | Issue 2 | Apr - Jun - 2021
www.ijamscr.com

Research Study *Medical research*

The Effectiveness of Hands-On and The Involvement of Dental Health Personnel on The Prevention of Cross Infections on Sangging in Bali

Dr. drg. I. A DewiKumala Ratih[1], Drg. Sagung Agung Putri Dwiastuti[1], Dr. Ida Bagus Wiryanatha[2]

[1]*PoltekkesKemenkes Denpasar, Bali, Indonesia*
[2]*UNHI Denpasar, Bali, Indonesia*

Corresponding Author: Dr. drg. I. A DewiKumalaRatih
Email: idadkr@gmail.com

ABSTRACT

Preliminary study on one of the mass teeth-cutting ceremony (metatah) places in 2019, it was known that Sangging (person in charge of cutting teeth) had not cut the teeth according to health rules, did not use gloves because it would reduce the essence of metatah. The general purpose of this study was to determine the effectiveness of giving hands-on and involvement dental hygiene on the prevention of cross-infection Sangging in Bali in 2020. The research design is a Quasi Experiment, with a Non-randomized Pretest-Posttest with a Control Group Design model and Multistage sampling. There are two mass metatah foundations that followed by Sangging or Sangging candidates from all over Bali. The data were analyzed univariately and to measure the effectiveness of Hands-on and the involvement of dental health workers, the ANCOVA test was used. The conclusion that there was no difference in the hands-on control group and the treatment group, proven there is an influence of the involvement of dental health workers on the success of cross-infection prevention efforts with hands-on, and changes in behavior in an effort to prevent cross-infection in Sangging are influenced by the knowledge possessed by respondents before and after hands-on, through counseling during the pandemic

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Keywords: Sangging, hands-on, involvement

INTRODUCTION

Teeth-cutting ceremony or Metatah is a ceremony that must be carried out by Hindus (Sudarma, 2009 and Purwita in Ernawati 2012). At the time of metatahSangging uses tools that come into contact with saliva. If it is not carried out according to health rules, it can have a detrimental impact on the metatah person, as well as the Sanggging itself. especially at this time, there is a tendency for Hindus to do mass Metatah. Sangging is a group at high risk of contracting infectious diseases and can also transmit infection from the person who cut teeth to Sangging or vice versa, which is known as cross-infection. Infection Prevention and Control is an effort to prevent and minimize the occurrence of infections in patients, officers, visitors, and the community around health care facilities (Ministry of Health, Republic of Indonesia, 2017). Diseases that can be transmitted through the mouth are hepatitis, HIV/AIDS, sexually transmitted diseases that have manifestations in the oral cavity such as syphilis, tuberculosis, herpes, and fungal infections (Mulyanti& Putri, 2011).

Taking into account the research results of Ratih et al. (2018) showed that hands-on was effective in preventing cross-infection in dental health personnel. The author assumes that Sangging must be given education in a way that is more likely to allow Sangging to experience it themselves employing hands-on. With hands-on, Sangging will get this knowledge directly through his own experience, so that what is obtained by Sangging is expected not to be easily forgotten, this is in line with the opinion of Hatta, 2003 in Amin, M. (2007).

A preliminary study conducted during a mass metatah (tooth cutting) ceremony in 2019, obtained information that some of the Sangging were not worried about contracting the disease, considering that during the procession they had taken precautions through the use of natural ingredients to

clean the teeth and mouths of the people who would be encrusted employing participants bite turmeric, chew betel, given prestige, honey, or young coconut water. Sangging doesn't want to wear a mask, let alone disposable gloves because according to the belief, the tips of the hands have good energy in the ceremony process, so they shouldn't be blocked. However, from the research of Dwiastuti, Ratih, Wardani (2019) conducted on Hindu Religion Experts, information was obtained that the Expert did not mind if Sangging used gloves or a mask.

Based on these phenomena and descriptions, the research problem formulation was formulated, namely: "Are hands-on involvement and involvement of dental health workers effective in preventing cross-infection in Sangging, Bali in 2020". This study aims to determine the effectiveness of giving hands-on and involvement of health workers teeth against cross-infection prevention efforts in Sangging in Bali in 2020.

METHOD

Type and Design of Research

This research is a Quasi Experiment, with a Non-randomized Pretest-Posttest model with a Control Group Design. In this design, the respondent group was divided into two groups, namely the treatment group and the control group. The Treatment group was given hands-on about preventing cross-infection, when respondents were asked to do it themselves if they had difficulties, they would be accompanied by dental health personnel, while the Control group was given counseling and hands-on by dental health workers when observed the dental health workers just kept silent. Pretest to determine the stages of the stage of change, so that it is known the level of readiness of respondents to receive hands-on.

Population and Samples

The population in this study is all Sangging in Bali Province, which usually hangs in mass metatah places. Sampling in this study is by multistage sampling, obtained two (2) Foundations that will conduct leadership and metatah training in Bongkasa Village, Badung Regency and Tampaksiring Village, Gianyar Regency.

DATAANALYSIS

To measure the effectiveness of Hands-on in efforts to prevent cross-infection and involvement of dental health workers, the ANCOVA test was used

RESULTS

Table 1: Characteristics of Respondents

No.	Characteristics	amount			Percent
	Respondent	K	P	K&P	tase
	Gender				
1	Men	26	36	62	95.384
2	Women	3	0	3	4.616
	Age				
1	Less than 33 years old	1	2	3	4.615
2	34 years old─40 years old	5	3	8	12.307
3	41 years—48 years	10	8	18	27.692
4	49 years—56 years	8	11	19	29.230
5	57 years—64 years	4	8	12	18.461
6	65 years—72 years	1	3	4	6.153
7	over 73	0	1	1	1.538
	Last education				
1	middle school	0	1	1	1.583
2	SMA/SMK	11	27	38	58.461
3	Diploma	4	2	6	9.230
4	S1	12	6	18	27.692
5	S2	2	0	2	3.076

Stage of Change

1 Very Good (80-100) 29 33 62 95.384
2 Good (70-79) 3 3 4.616
3. Enough (60-69)
4 Less (50-59)

Source: Primary Data that has been processed. 2020

After carrying out Hands On. respondents conducted a self-assessment with the following results.

Table 2. The results of the implementation of the hands-on Observation Phase I (self-assessment)

No	Category	Group			
		Frequency		Percentage	
		Treatment (36)	Control (29)	Treatment	Control
1	Very Good (Ac)	22	24	61.1	82.76
2	Good (Prep)	1	2	2.8	6.90
3	Enough (Contem)	0	1	0	3.44
4	Less (Precon)	0	0	0	0
5	Filed	0	2	0	6.90
6	amount	23	29	63.9	100
7	Not Filling	13		36.1	

Based on Table 2 above. it can be said that most of the self-assessment results are in the Very Good category; this means that Sangging's behavior is already at the Action stage. two people failed. Quite a lot of respondents in the treatment group did not fill out the form.

Changes in Sangging Behavior after hands on according to the Stage of Change stages as follows.

Table 3: Changes in Sanggging Behavior after hands on

Stage of Change	**Treatment**		**Control**	
Pre	n	%	n	%
Action	33	91.7	29	100
Preparation	3	8.3		
Contemplation				
Precontemplation				
	36	100	29	100
Post				
Action	22	61.1	24	82.76
Preparation	1	2.8	2	6.90
Contemplation			1	3.44
Precontemplation			2	6.90
Not filling	13	36.1		
	36	100	29	100

Based on Table 3 above. it can be said that most of the Sangging Behaviors in both the Treatment and Control groups before and after hands on were in the Action stage. this means that Sangging behavior was ready to make efforts to prevent cross infection. Quite a lot of respondents in the treatment group did not fill out the form.

The results of the Hands on Different Test were observed three times in the Treatment Group. The results of the study were conducted twice self-assessment. and one online interview with the following results.

Table 4: Results of Different Tests for Cross-Infection Prevention Efforts in the Treatment Group

No		Assessment I	Assessment II	Assessment III	
1	mean	50.1389	46.5278	57.7778	
2	median	75.0000	35.0000	87.5000	
3	Std. Deviation	47.69675	47.64181	44.37574	
4	Minimum	0.00	0.00	0.00	
5	Maximum	100.00	100.00	100.00	
6	Mean Rank	2.08	1.96	1.96	
7	Chi-Square				1.059
8	df				2
9	asymp. Sig				0.589

Based on Table 4. it is known that there is a slight difference in the average scores in the first assessment. second assessment. third assessment. a decrease in the second assessment. an increase in the behavior of Sangging in the third assessment.The results of the Treatment Group's assessment of the involvement of Dental Health Workers with 10 questions. Likert scale 1-5 are shown in Table 5.

Table 5: Results of the Treatment Group's assessment of the involvement of Dental Health Workers

No	N Valid	23
1	Missing	13
2	mean	42.9565
3	median	45.0000
4	Std. Deviation	8.85991
5	Minimum	10.00
6	Maximum	50.00

In Table 5. it can be seen that the mean of the treatment assessment results was 42.9565. which means that the Treatment Group assessed Strongly Agree with the involvement of the Dental Health Officer in the teeth-cutting procession.

The Ancova test aims to determine the effect of hands on treatment and the involvement of effective dental health workers on efforts to prevent cross infection in Sangging in Bali in 2020. Dependent variable: hands on. Independent variable: efforts to prevent cross infection in Sangging (posttest value). Covariates: involvement of dental hygienists. The results of the Ancova Two-way Test. the value of Hands-On and the Involvement of Dental Health Professionals are shown in Table 6.

Table 6: Ancova Two-way Test Results Hands-On and Involvement of Dental Health Professionals

Dependent Variable: score_hand on

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8359.440a	2	4179.720	2.849	.067
Intercept	38675.207	1	38675.207	26.364	.000
ENGAGEMENT_NAKES	5990.893	1	5990.893	4.084	0.048
KLP	3917.512	1	3917.512	2.670	.108
Error	79216.87554		1466.979		
Total	338250.00057				
Corrected Total	87576.31656				

R Squared = .095 (Adjusted R Squared = .062)

The results of the Ancova Two Ways test as shown in Table 6 provide information on the F value of 4.084 with a calculated significance level of 0.048 because 0.048 <0.050 means that there is an influence of the involvement of dental health workers on hands on.

Table 7: Ancova Test Results Parameter Estimates

Dependent Variable: score_hands on

					95% Confidence Interval	
Parameter	B	Std. Error	t	Sig.	Lower Bound	Upper Bound
Intercept	138.486	40.389	3.429	.001	57.512	219.461
ENGAGEMENT_NAKES	-1.863	.922	-2.021	0.048	-3.710	-.015
[KLP=1.00]	-66.869	40.919	-1.634	.108	-148.907	15.170
[KLP=2.00]	0a	.	.	.	.	.

The results of the Ancova Parameter Estimates test as shown in Table 6 show that there is no difference in the hands-on control group and the treatment group with a significance level = 0.108> 0.05.

DISCUSSION

The results of the research related to measuring Sangging'sbehaviour towards efforts to prevent cross-infection before and after hands-on proved that there was relatively no difference. it was possible because Sangging was already in the Preparation stage. The results of the pre-test knowledge to determine the Stage of Change where 95.384% got a great score. that Sangging already had the readiness to make efforts to prevent cross-infection at the tooth-cutting ceremony. According to the narrative. several respondents had previously received Metatahcounselling according to health rules.

After doing hands-on.there was a change in the behaviour of the respondent. a self-assessment was carried out. as well as observation. The results showed that 61.1% of the Treatment group and 70.6% of the Control group had great behaviour or the behaviour of Sangging was at the Action stage. The results of this study are supported by the results of Mufida's research. N. et al. (2013) concluded that learning with the Hands-on Activity learning model is often referred to as Hands-On only; it has a good effect on student learning activities and improves student learning outcomes.

Based on the results of Ancova's analysis. the value of the significance level (p group) = 108 > 0.05. which proves that there is no difference in hands-on in the Bongkasa control group and the Tampaksiring treatment group. Sanggging

Behavior There were relatively no differences between the Treatment group and Control group. perhaps because Respondents had been exposed to quite a lot of knowledge about Health Protocols. perhaps the impact of fear in the Covid-19 pandemic that forced Sangging to change behaviour. this was in according to the Protection Motivation Theory by Rogers. 1983 (in Cahyawan. W. and Nugroho. WC. 2018 and Naidoo.J.. Jane Wills. 2001). that someone wants to do something because they have protection motivation. individual motivation to avoid threats and fear.

Baumruk (2004) in Knight. R. (2011) defines engagement as an emotional and intellectual commitment to the organization and its goals. Striving to give their best in their work. including giving more than the job requires (Frank et al 2004). Then Bakker (2017) reveals that employee work involvement is identified with authentically engaged employees. employees who can improve their attendance and performance (physical. cognitive. and emotional involvement) which can lead to active and full performance.

The results of the ANCOVA test provide information on the magnitude of the F value of 4.084 with a statistical significance level of 0.048 because 0.048 <0.050 proves that there is an influence of the involvement of dental health workers on the success of efforts to prevent cross-infection with hands-on. this is in line with the research of Dewi. RA.Rahmawati. A. .. and Hastuti. S. (2018) There is an effect of husband's involvement in counselling on knowledge and interest in using modern contraceptives for unmet need in the family planning village in Yogyakarta City. Respondents' assessment of the involvement of dental health workers that received very good attention was that dental health workers dedicated optimal efforts to prevent cross-infection. were happy to be involved in preventing cross-infection. It is important to be involved in preventing cross-infection. Develop a plan for successful cross-infection prevention efforts. Sangging was satisfied with the involvement of the Dental Health Workers. Really enjoyed carrying out the activities.

The factors that influence behaviour according to Green in Notoatmodjo (2007). are determined by three factors. namely: 1) predisposing factors. these factors are influenced by community knowledge and attitudes towards health. traditions. and public trust in matters relating to health. the system values held by society. education level. socioeconomic level and so on. 2) supporting factors. these factors include the availability of facilities and infrastructure or health facilities for the community. 3) reinforcing factors. people sometimes not only need knowledge and positive attitudes and the fulfilment of facilities for healthy behaviour but the behaviour is also required. Examples (references) by health workers.

Based on the information and analysis results indicate that behavioural changes in the effort to prevent cross-infection in Sangging are influenced by the knowledge possessed by respondents before and after hands-on. giving leaflets. explanations during observation and mentoring. as stated in Table 5.1 that 95 % of respondents in the control group and the treatment group had very good knowledge about efforts to prevent cross-infection. was in the stage of change Preparation (stage of change). that Sangging already had/able to carry out efforts to prevent cross-infection infection at the tooth-cutting ceremony. This knowledge was obtained through counselling provided by Parisada Hindu Dharma Indonesia Bali Province. as well as knowledge about Health protocols obtained through electronic media.

The involvement of dental health workers in the treatment group and in the control group has proven to be successful in increasing understanding and changing Sangging's behaviour which is shown when Sangging carries out the Mepandes ceremony at Br. Hill. Tampaksiring. Sangging asked Health Workers. to speed up and expedite by helping to prepare mouth rinses and decontamination solutions to sterilize tools. Sangging argues that it is difficult to prepare the equipment yourself. it is hoped that the organizers will prepare equipment such as gloves for replacement. sanitizer. mouth rinse solution. solution for sterile tools.

UPDATES

The findings of this study are interesting. considering that there have been no previous studies linking Hands-On and the Involvement of Dental Health Workers to Cross-Infection Prevention Efforts in Sangging. considering that so far it is not easy to ask Sangging to use masks and gloves. or to sterilize tools. However. due to limitations. it takes longer for Sangging to be able to sterilize the tools after cleaning every one (1) person. there is even a Sangging who makes a one-time use file because sterilization during the ceremony is considered difficult. in practice. they ask for permission to use sanitizer for sterile tools. From this research. the Mepandes Health Protocol and SOP can be made.

RESEARCH LIMITATION

This study provides both theoretical and practical contributions; however. the results of this study have limitations. The main limitation is related to not carrying out a thorough assessment of the sustainability of Sangging to participate in research to completion for the Treatment group; this is understandable considering that Sangging comes from various districts in Bali. especially during this Pandemic period. Another limitation relates to the initial assessment of the Stage of Change is only measured by Knowledge. while what is evaluated is behavior.

CONCLUSION

Based on the results of the analysis and discussion. it concluded several things as follows:

1. There was relatively no difference between the control group and the treatment group in Sangging's behavior towards preventing cross-infection before and after hands-on. Sangging is already in the Preparation stage. most of the respondents scored very well. that Sangging already has the readiness to make efforts to prevent cross-infection at the tooth-cutting ceremony. It was proven that there was no difference in hands-on in the Bongkasa control group and the Tampaksiring treatment group.
2. There is an influence of the involvement of dental health workers on the success of cross-infection prevention efforts with hands-on. The involvement of dental health workers in the treatment group has proven to be successful in increasing understanding and changing Sangging's behavior. Sangging asked the Dental Hygienist to speed up and expedite the

Mepandes ceremony procession by helping prepare mouth rinses and decontamination solutions to sterilize tools. Sangging found it difficult to prepare the equipment yourself.

3. Changes in behavior in an effort to prevent cross-infection in Sangging are influenced by knowledge about Health protocols during the Covid-19 pandemic that respondents have before and after hands-on. which were obtained through electronic media. leaflets. explanations during observation and mentoring. that Sangging are able to make efforts to prevent cross-infection at the tooth-cutting ceremony.

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How to cite this article: Dr. drg. I. A DewiKumala Ratih, Drg. Sagung Agung Putri Dwiastuti, Dr. Ida Bagus Wiryanatha. The Effectiveness of Hands-On and The Involvement of Dental Health Personnel on The Prevention of Cross Infections on Sangging in Bali. Int J of Allied Med Sci and Clin Res 2021; 9(2): 336-341.

Source of Support: Nil. **Conflict of Interest:** None declared.