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"CREATE" Triggering Model for Improving Stop Open Defecation Behavior

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Abstract

Based on the program that had been implemented with community empowerment approach through triggering activity, the progress result of STBM (Community Based Total Sanitation) has not yet reached the target (62,5%, in 2015), and also still far from the 100% target of sanitation universal access in 2019. This is due to the slowness of behavior change of open defecation free (ODF). Results of monitoring and evaluation of post-triggering activity from some areas showed that the "traditional" existing triggering concept which is used by governments as the effort for changing community's defecation behavior, in fact needs relatively long time to give effect. Therefore, a more comprehensive strategy is needed for implementing the alternative solution on that problem, especially for ODF as the first pillar of STBM. This study proposed an alternative of triggering model, which is called CREATE, abbreviation for Creative Resources Essentials and Tools for Emergencies. The model is a creative idea rooted from the community itself (and subsequently is perfected by facilitators), in the forms of professional creations (poster, leaflet, t-shirt, song, etc) and a commitment that is developed from mutual agreement. The objective of the study was to understand the influence of CREATE triggering model on the improvement of ODF behavior and willingness. The study employed randomized post-test only control group design, with 180 respondents as the study sample, taken from three areas, i.e. Muntilan, Surabaya, and Jambi, which were chosen purposively. The study results shows that CREATE triggering model affects and improves ODF behavior and willingness, even though could not yet reach 100%. Based on the study results, the government and STBM facilitators are advised to implement CREATE triggering model for STBM activities, as well as to develop the model for other health programs.

Keywords: triggering model, ODF, creative resources essentials and tools for emergencies

A. Background

The challenges which are related with health development, especially in hygiene and sanitation area, are still huge. Therefore, it needs integrated interventions through STBM (Community Based Total Sanitation) approach. Based on the decree of the Ministry of Health No. 3 in 2014 about STBM, in order to enforce the efforts of healthy and clean behaviors, to prevent the spread of environmental based diseases, and to improve the access to potable water and basic sanitation, STBM should be implemented.

STBM is consisted of five pillars, namely: stop open defecation, wash hands with soap, manage household's potable water and food, secure household's waste, and secure household's liquid waste. These pillars will enable the efforts for improving community's access to better sanitation, and will transform and maintain the sustainability of healthy and clean behaviors. The conducting of STBM program is started from the first pillar, i.e. stop open defecation or is known as open defecation free (ODF). The very first focus is given to this pillar because ODF have function as the entering gate to total sanitation, and is the tool to cut off the contamination chain of human excreta toward water sources, food and others (Ditjen PP dan PL, 2011).

Based on the program that had been implemented with community empowerment approach through triggering activity, the STBM progress results had not yet reach the target (62,5%, in 2015), and also still far from the 100% target of sanitation universal access in 2019, and this is due to the slowness of behavior change of ODF (Indriyani, et.al. 2016; Soedjono dan Indriani, 2016). Results of monitoring and evaluation of post-triggering activity from some areas showed that the "traditional" existing triggering concept which is used by governments as the effort for changing community's defecation behavior, in fact needs relatively long time to give effect. Therefore, a more comprehensive strategy is needed for implementing the alternative solution on that problem, especially for ODF as the first pillar of STBM.

Based on this problem, this study proposed an alternative of triggering model, which is called CREATE, abbreviation for Creative Resources Essentials and Tools for Emergencies. The model is a creative idea rooted from the community itself (and subsequently is perfected by facilitators), in the forms of professional creations (poster, leaflet, t-shirt, song, etc) and a commitment that is developed from mutual agreement. The objective of the study was to understand the influence of CREATE triggering model on the improvement of ODF behavior and willingness.

B. Methods

This study employed randomized post-test only control group design. In the treatment group, CREATE triggering model was applied; meanwhile in the control group, the existing "traditional" triggering model is used. The selection of study areas were chosen purposively based on the consideration of ODF percentage, i.e. 75% in Central Java Province, 60% in East Java Province, and <50% in Jambi Province. One regency sample from each of those three provinces was then randomly selected (i.e. Muntilan, Surabaya, and Jambi, respectively); and subsequently, one village/urban kelurahan with under 50% ODF from the selected regencies was then also chosen. The categorization of urban and rural was based on the classification used by BPS (the central agency of statistics).

As the study population were all people living in the selected villages and kelurahans based on June 2018 data. The sample or respondents were randomly selected in each study location, and then they were randomized into the treatment group or the control group (Kasjono, 2010). The sample size for each village/kelurahans was 60 respondents and is divided into 30 respondents for treatment group and the other 30 respondents for control group. Since there were three study sites, the total size of respondent was 180. All eligible respondents were asked for signed informed consent. Compensation for their involvement was provided, and their data were kept confidential. The ethical clearance for this study was obtained from Ethic Committee of The Polytechnic of Health of Yogyakarta.

The collected data were comprised of primary and secondary. The primary data were willingness and behaviors of stopping open defecation; meanwhile, the secondary data were in forms of supporting data obtained from various sources, namely: sites characteristics from BPS, and data about households that have not implemented ODF until June 2018 from the local community health centers.

All data were then tabulated based on their categories, and were analyzed tailored with study needs. To reveal the effect of CREATE triggering model toward the open defecation behavior, independent t-test were employed, because the test of data normality proved that the assumption was fulfilled. On the other hand, non-parametric Mann Whittney test is used to measure the differences of willingness for ODF between the two study groups. All statistical tests are at 95% level of confidence.

C. Results

Characteristics of respondents in the three study locations comprises of demographical factors, occupation and house ownership. Table 1 shows that between treatment and control groups, the differences of all respondents' characteristics are not significant, except for types of occupation in Surabaya. In

terms of the measured outcomes, as shown in Table 2 and Table 3, the behavior of ODF for each study location in the third weeks after the triggering activity shows significant results, since in that week the majority of respondents were no longer doing open defecation, even though few people still did so. If it is looked based on the duration after the triggering, in Jambi and Surabaya in the first week the difference is not significant, but then a change is observed after three weeks.

The willingness of responden to stop open defecation also shows similar trend. In Table 3 it can be seen that in the first week only in Muntilan the difference is observed. However, in the third week, all locations show same results of significant differences. The joint data from all study locations, in terms of the outcome of changing behavior and willingness of ODF, is presented by Table 4. It is seen that the change of ODF behavior in the first week and third week is very significant. It means that the alteration of defecation behavior of respondents, either in the first week or third week after been given triggering activity, is very different between the treatment and control groups.

However, in terms of the willingness for stopping open defecation, in the first week no significant difference between treatment group and control group are shown. But, in the third week after triggering activity, the difference between the two groups is detected. It means that the better changing in the willingness of not doing open defecation is taken place after week three in the treatment group, meanwhile in the control group, the willingness shift is not significant.

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Tabel. 1. Karakteristik Responden Penelitian

Karakteristik	Muntilan			Jambi			Surabaya		
	P	K	p	P	K	p	P	K	p
1. Jenis Kelamin									
Laki-laki	22	20	0,58	26	26	1	26	27	0,32
Perempuan	8	10		4	4		4	3	
2. Pendidikan			0,69			0,96			0,65
Tidak Sekolah	2	2							
S D Tidak Tamat	5	2		0	6		0	6	
SD Tamat	9	7		14	8		14	8	
SLTP Tidak Tamat	1	8							
SLTP Tamat	10	9		7	15		7	15	
SLTA Tidak Tamat	0	1					1	0	
SLTA Tamat	1	1		8	1		7	1	
PT Tamat	2	0		1	0		1	0	
3. Pekerjaan			0,74			0,09			0,03
Tidak Bekerja	0	0		12	16		8	12	
Petani	1	2		3	14		0	0	
Pedagang	9	14		2	0		9	16	
Wiraswasta	14	12		9	0		8	0	
Karyawan Swasta				1	0		1	0	
PNS/POLRI/TNI	2	0		0	0		1	1	
Jasa	0	0		0	0		0	1	
Lainnya	4	2		3	0		3	0	
4. Status Perkawinan			0,65			0,18			0,18
Belum Kawin	1	1		2	0		2	0	
Kawin	28	27		27	28		27	28	
Duda/Janda	1	2		1	2		1	2	
5. Kepemilikan Rumah			0,49			0,59			0,58
Milik Sendiri	26	24		19	21		16	18	
Sewa/Kontrak	0	0		0	0		3	3	
Milik Orang Tua	4	6		11	9		11	9	

Tabel 2.Hasil ODF antara Kelompok Kontrol dan Eksperimen

ODF	Muntilan			Jambi			Surabaya		
	P	K	p	P	K	p	P	K	p
A. Minggu 1			0,001			0,393			0,409
Tidak	18	29		20	28		26	30	
Ya	12	1		10	2		4	0	
B. Minggu 3			0,004			0,037			0,004
Tidak	12	23		8	16		17	27	
Ya	18	7		22	14		13	3	

Tabel 3.Kesediaan Stop BABS antara Kelompok Kontrol dan Ekspe

ODF	Muntilan			Jambi			Surabaya		
	P	K	p	P	K	p	P	K	p
A. Minggu 1			0,001			0,393			0,409
Tidak	18	29		20	28		26	30	
Ya	12	1		10	2		4	0	
B. Minggu 3			0,004			0,037			0,004
Tidak	12	23		8	16		17	27	
Ya	18	7		22	14		13	3	

Table 4. Analysis Results of All Study Locations in Treatment Group and Control Group

No	Description	p Value
1	ODF first week	0.001
2	ODF third week	0.001
3	Willingness to Stop OD first week	0.960
4	Willingness to stop OD third week	0.008

D. Discussion

Stop open defecation or ODF, both in the first week and third week after the triggering activity, shows significant results in terms of the difference outcome between those who were obtained the “traditional” model and the “CREATE” one. However, not all respondents in the study locations improved their defecation habit. The difference is caused by a clearly different treatment, namely: the communities were given opportunity to freely develop their own creative ideas, and furthermore is perfected by facilitator in the forms of professional product, such as poster, billboard, and the utilization of public facilities around their

dwelling. We called this CREATE, i.e. abbreviation for Creative Resources Essentials and Tools for Emergencesies. Other than that, the roles of public figures in CREATE method are sufficiently strong, either in the triggering activity, ideas delivering, or in advocacy. CREATE triggering approach which uses participatory learning and action (PLA) and based on participation, is one of empowerment methods that put forward community participation in it process.

CREATE triggering method can be applied for escalating the achievement of stop open defecation or ODF, which is the first pillar of STBM. This study results is similar with that of Tessema (2017), in that CLTSH has improved the reach of latrine ownership, and lowering the practice of open defecation, while the use of latrine and hygienic practice are still worse. Even though some basic misunderstanding are reported, the majority of respondents has accepted CLTSH approach as the means to terminate open defecation in their village. Health promoter and local authority ought to give stressing to reach sustainable behavior of sanitation improvement and good cleanliness practice.

The study results are also consistent with that of Mlenga and Baraki (2016) about CLTS, which is subsidy free and community based disaster risk with reduction approach to decrease open defecation in four electoral districts in Swaziland. In this study, data were collected at household level by knowledge, attitude and practice survey. The results can depict that by conducting appropriate training in CLTS, the involvement of traditional leaders and communities can minimize open defecation behavior. The study suggests that participatory village assessment is needed and can conducted through monitoring meeting and regular community feedback, because sense of disgusting is specifically made for women and teenagers, by means of meeting and group dynamic which leads to sustainable development and utilization of sanitation facilities. Leak of coordination between NGOs leads to the retardation of sanitation coverage improvement, meanwhile in similar condition, community is promoting CLTS and the others are promoting SBSI which is containing subsidy. It is advised to set coordination between partners to harmonize the message and CLTS integration by SBSI approach.

The success of triggering approach depends on the involvement individuals and community. At the early stage, input from external facilitator might be high to encourage community members to get involved. As part of development process, the need of external facilitator will diminish and finally will terminate (Sabur 2013), so that advocacy is still needed or use personal approach in order to quickly enforce the community want to change in stopping open defecation.

Currently, the achievement of ODF in Indonesia is not yet optimal. There is an escalating of people behavior for stopping open defecation, but not yet reach 100% ODF. Such change can be categorized as slow. Efforts in form of physical

assistance from governments are not sufficient to increase ODF achievement. To add, trainings which are conducted administratively and technically have not significantly contributed to ODF achievement. CLTS model application by facilitators for first pillar of STBM also has not broken through the 0% stop open defecation.

ODF achievement is not yet 100%, both in CREATE method or the traditional one. This condition can be solved by consistent and on-scheduled advocacy by community figures or cultural leaders among the community. If it is viewed from advocacy strategy used, there was a component which is not maximally applied, i.e. consistent commitment as mentioned and resulted in previous study by Sidjabat (2012). Consistency of ODF commitment can be emphasized via policies which describe the punishment applied for inappropriate behaviors. This will create opportunity for ODF achievement. The punishment can be implemented in forms of pay fine for disposing human excreta into rivers as strict warning to change that sort of behavior. The collected fine furthermore can be used to help people who do not have septic tank. By doing this, people can independently provide access for fecal disposal and to stop discard it into rivers. This method, if is implemented maximally, can give big opportunity for reaching kelurahan ODF.

From STBM program's point of view, especially the first pillar (community), besides those strategies another factor that is contributing to the hamper of ODF status achievement is the low awareness of community (throw away feces into rivers because lack of septic tank). Such people do not aware about the impact or risk they will get from fecal contaminated rivers regarding to environmental based diseases transmission, and the habitat and breeding places for virus and bacteria (Wandansari, 2014). Therefore, it needs efforts that touch people's heart and conscience. This has close relationship with community figures' roles who have obtained STBM training to accompany the community in the effort of stop open defecation (Yimam, et al., 2014). If the awareness of community is in high level, it is able to up-level the commitment to reach kelurahan with ODF. The sense of same need will build strong mutual commitment to improve community sanitation (Windraswara, 2009).

Based on the study results, new strategies is required to fix-up the implementation of STMB's pillars, one of which is through CREATE triggering activity, as cited from Nawawi (2012), that strategic management is manifested in form of big scale planning that cover all components in organization environment, which is stated as strategic plan which is then described into operational plan, and subsequently is also broken down into work programs or annual projects. Those strategies can be describes as follows:

a. Implement punishment for community members who discard excreta into rivers, to achieve ODF
b. Build coordination between RT/RW and village authority, even up to regency level, for together do environment management around river stream, in order to make the river clean and become the source of livelihood for people
c. Provide STBM technical training with CREATE method for community figures to achieve healthy defecation behavior
d. Provide human excreta processing in dwelling/housing block, and provide hand-washing facilities. This can reduce the cases of diarrhea and other diseases (Degebaza, 2018).
e. The recommended areas should be decided based on community desire, including inter village-leaders communication, consistent follow-up after successful implementation, and schooled children involvement (Schneider SM, et.al. 2017)

E. Conclusion

It can be concluded that CREATE triggering model affects and can improves open defecation practice as well as the willingness to stop the practice; but cannot reach 100% yet. CREATE triggering method is needed to be implemented in conducting STBM activities. It is needed also to involve local community figures during and after the triggering activity, until the goals of the program is reached. It advised also to provide efforts for technical training on STBM with CREATE method for community figure to attain healthy defecation behavior.

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