

## Community Empowerment to Increase The Willingness to Quit Smoking in Home, Tokke and Tolada Village, North Luwu Regency, Indonesia

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### Abstract

Smoking is one of the biggest causes of death in the world. Secondhand smoke contributes to more than 7 million deaths per year. The tobacco atlas shows that 66% of men in Indonesia are smokers, this condition has the potential to increase the number of passive smoking in the home. This study aims to know the effect of community empowerment on to willingness quit smoking in the home before and after the intervention. This type of research is a quasi-experimental with a pretest-posttest control group design on 40 respondents who were selected by purposive sampling. This research was conducted in Tokke Village and Tolada Village, which are coastal areas and are two of the 14 villages in Malangke District, North Luwu Regency, Indonesia. The selection of the intervention and control groups was carried out using the simple random sampling method. This is because the two groups have the same characteristics. Based on this method, Tolada Village was made into an intervention group and Tokke Village was made a control group. To see the effect of community empowerment on community willingness, data were analyzed using an independent t-test and paired t-test. The results showed a significant difference in pre-post test willingness ( $p = 0.014$ ) in the intervention group and willingness ( $p = 0.006$ ) in the control group. However, the results of the independent-test showed no significant difference in willingness between the intervention and control groups ( $p = 0.471$ ). This shows that community empowerment does not have a significant effect on people's willingness to stop smoking in the house. It is recommended that health workers carry out community empowerment that is tailored to the characteristics of the local community.

**Keywords:** Willingness, Communtiy Empowerment, Quit Smoking in Home

Received: October 24, 2020

Received in Revised: November 6, 2020

Accepted: November 10, 2020

### Introduction

Smoking is one of the largest preventable causes of death in the world, the department of health and human services in 2018 stated that cigarette smoke contributes to more than 7 million deaths per year. The tobacco atlas (Global Adult Tobacco Survey, 2015) shows that 66% of men in Indonesia are smokers, this condition has the potential to increase the number of passive smoking in the home. South Sulawesi Province is in the 29th position with a prevalence of 23.6% of the population who smokes every day and this figure tends to increase every year (Ministry of Health, 2018).

This is supported by the results of research (Crone et al., 2010) in the Netherlands showing that 19% of all children up to the age of four are exposed to cigarette smoke in the home. Azhari (2011) states that passive smoking in the home is proven to be a risk factor for hypertension in women aged 40-70 years. In addition, exposure to secondhand smoke increases the risk of lung cancer (Taylor et al., 2007). The results of the study by Herawati et al (2019) that the national prevalence of cigarette smoke exposure in the home in Indonesia reaches 80%. The highest prevalence occurred in Gorontalo Province 90% and the lowest was in DKI Jakarta Province 65%.

Children as passive smokers cannot make their own decisions about the smokers around them. The best way is to provide a smoke-free environment for children with the role of parents to keep children away from cigarette smoke or instill children's initiatives to stay away from cigarette smoke (Indrajati et al., 2017). Whereas according to Aula (2010) the house should be a comfortable place for the family to rest, but due to cigarette smoke caused by one family member, especially the husband, other family members feel disturbed. Besides that, the biggest factor of smoking habit is social and environmental factors.

The results of Goleccha's research state that the community empowerment intervention method is very effective than other smoking prevention methods in bringing about changes in the social and sustainable domain. There are significant changes, namely lower smoking prevalence, less cigarette consumption per capita or a decrease in the number of smokers (Golecchha, 2016; Lim et al., 2019). This shows that a community empowerment process is needed so that residents become empowered in protecting themselves and or their family members from exposure to cigarette smoke.

Based on the results of the SMD (Self-Awareness Survey) carried out by the Malangke Health Center in North Luwu Regency in 2020, the results of smoking behavior in the house were 2606 people. This shows that exposure to cigarette smoke in the house is still high enough to increase the risk of cigarette smoke-related diseases considering the number of pregnant women is 442 people and the elderly are 1685 people. Therefore, it is necessary to empower the community in providing a means of putting out cigarettes, especially in the coastal areas of Malangke District, North Luwu Regency to minimize passive smoking in the home.

## Methods

This type of research is a quasi-experimental pretest-posttest control group design. This research was conducted in Tokke Village and Tolada Village, which are coastal areas and are two of the 14 villages in Malangke District, Luwu Utara Regency, South Sulawesi. The selection of the intervention and control groups was carried out using the simple random sampling method. This is because the second group has the same characteristic. Based on this method, Tolada Village was made into an intervention group and Tokke Village was made a control group.

The data in the study used univariate analysis to get an overview by describing each variable used in the study. Bivariate analysis was carried out to see differences in the willingness to provide a means of putting out smoking in the intervention and control groups.

## Results and Discussion

Table 1. Characteristic of Respondents in Intervention Group and Control Group

Characteristic of Respondents	Intervention Group		Control Group	
	N	%	N	%

<b>Age</b>				
< 21 years old	1	5%	0	0%
21-30 years old	5	25%	5	25%
31-40 years old	6	30%	7	35%
41-50 years old	6	30%	4	20%
>50 years old	2	10%	4	20%
<b>Gender</b>				
Male	20	100%	20	100%
Female	0	0%	0	0%
<b>Education</b>				
Primary School	8	40%	3	15%
High School	8	40%	16	80%
University	4	20%	1	5%
<b>Job</b>				
Farmers, Fishermen	11	55%	12	60%
Entrepreneur	1	5%	4	20%
General employees	2	10%	3	15%
Etc	6	30%	1	5%
<b>Marital Status</b>				
Not yet	5	25%	0	90%
Marriage	14	70%	18	10%
Divorce	1	5%	2	
<b>The presence of pregnant women, children or the elderly at home</b>				
There is	20	100%	20	100%
There is no	0	0%	0	0%
<b>Total</b>	20	100%	20	100%

Table 1 shows that the number of respondents for each of the intervention and control groups was 20 people. All respondents in the intervention and control groups were male. In addition, all respondents live at home with groups vulnerable to disease from cigarette smoke, namely pregnant women, children, or the elderly.

The highest number of respondents in the intervention group based on age was 41-50 years and 31-40 years, namely 6 people (30%) respectively, while in the control group the most were 31-40 years (35%). Based on the education in the intervention group, the highest level of education was at primary and high school, namely 8 people (40%) respectively, while for the control group the most were at the high school, namely 16 people (80%). The most occupations are farmers/fishermen, namely 11 people (55%) in the intervention group and 12 people (60%) in the control group. Most of the respondents had married 14 people (70%) in the intervention group. This is also the same as the control group, 18 respondents who were married (90%).

Table 2. Differences in Willingness in the Intervention and Control Groups Before and After Empowerment

Group	Pre Test Mean±SD	Post Post Mean±SD	P value
Intervention	22.90 ± 2.71	24.60 ± 2.74	0.014*
Control	23.05 ± 3.33	24.15 ± 3.01	0.006*
<b>P value</b>	0.327**	0.471**	

Source: Primary Data, 2020

*\*Paired T-Test \*\*Independent T-Test*

Table 2 shows that based on the results of the paired t-test for the willingness of the community regarding the provision of means to extinguish cigarette smoke in the intervention group, it was found that there was a significant difference between the willingness before and after the intervention seen from the average value (22.90 to 24.60) and the value p-value = 0.000 ( $p < 0.01$ ). In the control group also found a significant difference seen from the increase in the mean value of willingness (23.05 to 24.15) and the p-value = 0.006 ( $p < 0.05$ ).

Based on the independent t-test between groups, it was found that before and after treatment there was no significant difference when looking at the p-value before and after the intervention, namely 0.327 and 0.471 ( $p < 0.05$ ). However, if seen from the value, the intervention group had a higher mean value (24.60) than the control group (24.15).

The results of statistical tests show that the increase in public willingness in the intervention group with a significance value smaller than 5% alpha is significant (p-value = 0.014). The control group also had a significant increase (p-value = 0.006). However, awareness analysis between intervention and control performed with independent t-test showed no significant difference after intervention (p-value = 0.471).

Willingness is the driving force that comes from within. Willingness can also be said to be a will that is directed at certain goals (Murdoko, 2006). Based on what was done by (Ardelia, 2018) that each individual has certain factors that affect the willingness to quit smoking. This willingness not only comes from the counseling obtained, but there are other factors that come from outside, which are obtained from spouses or parents.

The results of Dellen's et al (2015) research show that the willingness to quit is related to the partner's support for health care and depends on the smoker's own behavior. In addition, a person's motivation to quit smoking is also influenced by several intrinsic factors such as: age, education, perception and experience, as well as extrinsic factors including the environment and the influence of others, facilities, and economic conditions (Lestari, 2005).

Research conducted by Fadilah et al (2017) shows that there are several things that need to be considered in society to increase the willingness to quit smoking. One thing that can be done is health services that integrate psychological, social, cultural, and physical existential factors of clients by utilizing knowledge and beliefs to provide motivation for changes in smoking behavior.

Information processing in decision making is a combination of old knowledge with new knowledge (Ardelia, 2018). So that the level of education must be considered in providing information about the dangers of smoking to respondents. This is because the higher the level of education the greater the understanding of health information that has just been obtained (Putra & Putra, 2016)

Providing information must be adjusted to several factors, namely training materials that need to be adjusted to the level of the subject's education, and lack of in-depth analysis of the dynamics of fishing community life. Efforts to increase the father's smoking intention outside the home can be carried out by intervening using emotional-based methods that are carried out regularly as well as ways for health workers to be able to monitor the community for the sake of increasing status in their area and also advocating for local governments to issue regulations on smoking prohibition in the house (Ibnu et al., 2018).

## **Conclusion**

Based on the results of the research conducted, it can be concluded that the intervention group and the control group experienced significant differences before and after the

intervention. However, the willingness to quit smoking between groups did not experience a significant difference. This is because there are several factors that affect the will, such as the level of education. Therefore, it is advisable for health workers to carry out community empowerment that is tailored to the characteristics of the community.

### **Ethical Clearance**

*Health Research Ethics Committee, Faculty of Public Health, Hasanuddin University*

### **References**

- Ardelia, A. (2018). Pencarian dan Pemrosesan Informasi dalam Pengambilan Keputusan untuk Berhenti Merokok. *Interaksi Online*, 6(4), 526-536.
- Ashari, A. (2011). Perokok Pasif Sebagai Faktor Risiko Hipertensi Pada Wanita Usia 40 - 70 Tahun Di Wilayah Kerja Puskesmas Tlogosari Kulon Kota Semarang. *Repository Undip*, 1.
- Crone, M. R., Nagelhout, G. E., Burg, I. v., & HiraSing, R. A. (2010). Passive Smoking in Young Children in The Netherlands Sharply Decrease Since 1996. *Ned Tijdschr Geneeskde*, 154(A1658), 1-6.
- Dellen, M. R., Boyd, S. M., Ranby, K. W., MacKillop, J., & Lipkus, I. M. (2015). Willingness to Provide Support for a Quit Attempt: A Study of Partners of Smokers. *J Health Psychol*, 21(9), 1840-9.
- Fadilah, M., Afriandi, I., & Rinawan, F. R. (2017). Kebiasaan Merokok dan Pemahaman Dampak Merokok terhadap Kesehatan pada Perokok Pemula. *Jurnal Kedokteran dan Kesehatan*, 4(3), 106-116.
- Global Adult Tobacco Survey . (2015). *The Gats Atlass*. UK: CDC Foundation.
- Golechha, M. (2016). Health Promotion Methods for Smoking Prevention and Cessation: A Comprehensive Review of Effectiveness and the Way Forward. *International Journal of Preventive Medicine*, 7(7).
- Herawati, P., Wahyudi, K., & Afriandi, I. (2019). Determinan Paparan Asap Rokok di Dalam Rumah: Analisis Data Survei Demografi dan Kesehatan Indonesia (SDKI) 2012. *Buletin Penelitian Kesehatan*, 47(4), 245-252.
- Ibnu, I. F., Nasir, S., & Saleh, U. (2018). Pengaruh Komunikasi Asertif sebagai Dukungan Sosial Ibu terhadap Intensi Merokok Ayah di Dalam Rumah. *Jurnal Kesehatan Masyarakat Maritim*, 1(1), 14-21.
- Indrajati, T. B., Istiarti, T., & Kusumawati, A. (2017). Faktor-Faktor yang Berhubungan dengan Praktik IbDalam Mencegah Paparan Asap Rokok pada Balita Perokok Pasif. *JKM e-Journal*, 5(5), 1123-1132.
- Lestari, T. (2005). *Kumpulan Teori Untuk Kajian Pustaka Penelitian Kesehatan*. Yogyakarta: Nuha Medika.
- Lim, K. H., Heng, P. P., Nik Mohamed, M. H., Teh, C. H., Mohd Yusoff, M. F., Ling, J. M. Y., & Robson, Z. (2019). Prevalence and factors associated with attempts to quit and smoking cessation in Malaysia. *Asia Pacific Journal of Public Health*, 31(7\_suppl), 22S-31S.
- Ministry of Health. (2018). *Riset Kesehatan Dasar*. Kementerian Kesehatan. Jakarta: Balitbang Kemenkes RI.

- Murdoko, W. H. (2006). *Personal Quaiity Managemen*. Jakarta: PT Elex Media Komputindo.
- Putra, I. G., & Putra, I. W. (2016). Hubungan Karakteristik dan Tingkat Pengetahuan mengenai Bahaya Merokok terhadap Perilaku Merokok pada Laki-Laki Di Provinsi Bali. *BIMKMI*, 4(1), 22-30.
- Taylor, R., Najafi, F., & Dobson, A. (2007). Meta-Analysis of Studies of Passive Smoking and Lung Cancer: Effects of Study Type and Continen. *Int J Epidemiol*, 36(5), 59-1048.