The Effect of Poster-Based Pictorial Health Warning Quit Smoking Behavior Toward the Adolescents of Tlogo, Tamantirto, Kasihan, Bantul

I. INTRODUCTION

In developing countries such as Indonesia, in the book-IAKMI TCSC, the number of smokers aged>15 years with the intensity of daily cigarette consumption reached 34.2% in 2007 and increased in 2013 to 36.3% [1]. In 2012, the smoking behavior of teenagers in Yogyakarta province with an average of smoked cigarettes is 31.6%. The results of preliminary surveys on the number of teenage smokers in Tlogo Village, Tamantirto, Kasihan, Bantul showed that there are 32 people out of 112 teenagers are active smokers.

Smoking is a problem in the society that can cause much harm in terms of social, economic, health, and even death [2]. Smoking behavior is detrimental for health because it can lead to a lot of non-communicable diseases such as infectious and respiratory infections, pneumonia, bronchial lung cancer, nasopharyngeal cancer, diabetes mellitus, and stroke [1]. WHO reports that in 2011, more than 6 million people die from diseases caused by smoking [3].

In order to control the behavior of smoking, Indonesia has issued Regulation of the Minister of Health of the Republic of Indonesia Number 28 Year 2013 about Inclusion Health Warning and Information Health on Packaging of Tobacco Products in which it described the use of health warnings that must be used on packs of cigarettes known as the Pictorial Health Warning (PHW). PHW consists of five kinds of images which purpose is to give a warning about the dangers of smoking [4]. The effectiveness of pictorial warning labels on cigarette packs have shown their effects on smoking behavior [5].

Therefore, due to the importance of behavior change, adolescent smokers to quit smoking with a focus to provide interventions in the form of posters based on PHW make researchers feel the need to conduct a study on the effect of poster based Pictorial Health Warning against teenage smoking behavior in Tlogo Village, Tamantirto, Kasihan, Bantul. Administration PHW-based poster is expected to be the choice in shaping behavioral interventions for smoking cessation among adolescents and may be a reference and is expected to be a source of scientific contribution to research related to similar like teenage smoking behavior.

II. METHOD

This study used quantitative research methods with experimental quasi pretest-posttest control group design. The total sample used in this study were adolescents aged 10-19 in Tlogo village comprising of 32 people who were then divided into 10 treatment groups by PHW-based...
intervention in the form of a poster-sized 20% of wall room with a ratio of 7:5 and 16 control group using simple random sampling technique. The study was conducted from January to March, 2016.

Smoking behavior will be measured at the time of pretests and posttest (1 month after exposure posters) with the Questionnaire of Smoking Glover - Nilsson Smoking Behavior questionnaire (GN - SBQ). The analysis of data using a hypothesis test was Wilcoxon paired and unpaired test, while the hypothesis used Mann-Whitney. In this study, there are four points of research ethics and have obtained ethical approval from the research ethics commission of the faculty of medicine and health sciences. The principles that must be considered in the research comprising of respect for human dignity, respect for privacy and confidentiality, respect for justice and inclusiveness, and respect for balancing harms and benefits.

III. RESULT

Table 1 shows the results with the majority of respondents by age in the study group was 16 years with the number of six respondents (37.5%) in the treatment group and eight respondents (50%) in the control group.

| Characteristics                  | treatment group | Control group |
|----------------------------------|-----------------|---------------|
|                                  | Number (n)      | percentage%   | Number (n) | percentage% |
| Gender                           | treatment group | Control group |
| a. Man                           | 16             | 100          | 16         | 100         |
| b. Woman                         |                |              |            |             |
| Age now                          | treatment group | Control group |
| a. 15 years                      | 1              | 6.3          | 1          | 6.3          |
| b. 16 years                      | 6              | 37.5         | 8          | 50          |
| c. 17 years                      | 2              | 12.5         | 2          | 12.5         |
| d. 18 years                      | 4              | 25           | 2          | 12.5         |
| e. 19 years old                  | 3              | 18.8         | 3          | 18.8         |
| Religion                         | treatment group | Control group |
| Islam                            | 16             | 100          | 16         | 100         |
| Tribe                            | treatment group | Control group |
| a. Java                          | 13             | 81.3         | 15         | 93.8         |
| b. Dayak                         | 1              | 6.3          | 1          | 6.3          |
| c. Malay                         | 1              | 6.3          |            |             |
| d. Sunda                         | 1              | 6.3          |            |             |
| The age of first smoking         | treatment group | Control group |
| a. 5-11 years                    | 8              | 50           | 8          | 50          |
| b. 12-15 years                   | 8              | 50           | 8          | 50          |
| Reasons to smoke                 | treatment group | Control group |
| a. Parents and siblings          |                |              | 4          | 25          |
| b. The influence of friends      | 14             | 87.5         | 4          | 25          |
| c. The influence of the mass media | 5              | 31.4         |            |             |
| d. The influence of social media | 2              | 12.5         | 3          | 18.8         |
| e. And others                    |                |              |            |             |
| Frequency of smoking             | treatment group | Control group |
| a. Several times a day           | 5              | 31.3         | 4          | 25          |
| b. Several times a week, especially weekend | 6  | 37.5 | | |
Whenever while hanging out with friends.

| The number of cigarettes in a day | 9  | 56.3 | 4  | 25 |
|----------------------------------|----|------|----|----|
| a. 1-5                           | 2  | 12.5 | 2  | 12.5 |
| b. 6-10                          | 1  | 6.3  | 4  | 25  |
| c. 11-15                         | 8  | 50   | 3  | 18.8 |
| d. 16-20                         | 5  | 31.3 | 5  | 31.3 |
| e. > 20                          | 2  | 12.5 |     |     |

| Number of attempts to quit smoking | 2  | 12.5 | 2  | 12.5 |
|-----------------------------------|----|------|----|----|
| a. 1-2 times                      | 6  | 37.5 | 4  | 25  |
| b. 3-5 times                      | 5  | 31.3 | 4  | 25  |
| c. > 5 times                      | 5  | 31.3 | 8  | 50  |

| Long bed in the room | 2  | 12.5 | 2  | 12.5 |
|----------------------|----|------|----|----|
| a. 1-3 Hours         | 4  | 25   |     |     |
| b. 4-6 Hours         | 2  | 12.5 | 2  | 12.5 |
| c. 7-9 Hours         | 10 | 62.5 | 14 | 87.5 |
| d. 10-12 Hours       | 4  | 25   |     |     |

Table 2 shows that smoking behavior early treatment group (pretest) obtained by the smoking behavior of the most dominant is the medium category were 10 respondents (15.6%). Smoking behavior early control group (pretest) gained the most dominant smoking behavior containing the medium category with the number of 9 respondents (14.1%).

Table 2. Distribution of Frequency of Smoking and Hypothesis Testing Results The treatment group and control group at the beginning (pretest) and End (posttest) (n = 16)

| Groups | smoking behavior | pretest | posttest | Wilcoxon Signed Ranks Test |
|--------|------------------|---------|----------|---------------------------|
|        | total            | %       | total    | %                         |
| Treatment | Low            | 1       | 1.6%     | 2                        | 3.1%          | 0.414        |
|         | Moderate        | 10      | 15.6%    | 10                       | 15.6%         |              |
|         | Strong          | 5       | 7.8%     | 4                        | 6.3%          |              |
|         | Very strong     |         |          |                          |               |              |
| Control | Low             | 2       | 3.1%     | 3                        | 4.7%          | 0.414        |
|         | Moderate        | 9       | 14.1%    | 9                        | 14.1%         |              |
|         | Strong          | 5       | 7.8%     | 4                        | 6.3%          |              |
|         | Very strong     |         |          |                          |               |              |
|         | Total           | 16      | 100      | 16                       | 100           |              |

From the results of Table 3, has done Mann-Whitney Test values obtained P = 0.812, and the results of the Mann-Whitney Test values obtained P = 0.83

Table 3. Results of Analysis of the Mann-Whitney Differences in Smoking Behavior pretest in Treatment Group and the Control and Analysis of Results of Mann-Whitney Test posttest Smoking Behavior Differences In Treatment and Control Group.

| Group | N | mean | Delta mean (ΔX) | Std. deviation | P. value |
|-------|---|------|-----------------|----------------|----------|
| pretest | Treatment | 16 | 16.84 | 0.68 | 0.623 | 0.812 |
|        | Control   | 16 | 16.16 |      |      |      |
| posttest | Treatment | 16 | 16.88 | 0.75 | 0.623 | 0.838 |
|        | Control   | 16 | 16.13 |      |      |      |
IV. DISCUSSION

This research shows that the dominated result is a category change smoking behavior of behavioral categories were (15.6%). This study is not in line with the research [6] which stated that learning using visual media in the classroom can improve student learning outcomes, or there are significant visual media in the classroom that is equal to 57.29%. Argued that the use of visual media posters, leaflets accompanied by presentations is effective in improving students’ knowledge about the dangers of smoking but it cannot affect students’ attitudes toward smoking behavior [7].

The investigators’ analysis revealed that the categories of behavioral changes obtained in this study can be caused by several factors which are television and the mass media or billboard that causes the smoking behavior of adolescents and also to establish a change in smoking behavior need to provide interventions that more is not only a visual medium poster.

The level of adolescent smoking behavior before and after the control group which did not give poster PHW is increased, and the test results showed that there was no change in smoking behavior early and late in the control group (p = 0.414 <0.05). In health behavior, there are several important things that matter formation and behavior change. It is because behavior change is the purpose of a provision of health information [8]. There are several factors that influence changes in adolescent behavior such as consumption of cigarettes in a day, peers, and media advertising in their environment according to Liem [9] Rosita, et al [10], Nash, et al [11], so that this factor that maintains the smoking behavior of young people who have not been able to control completely in the activities of the adolescents. The researchers’ analysis found the smoking behavior of the control group that there was no change in the control group not given due to treatment or pasted posters PHW based on wall room respondents. Researchers contend with changes in the behavior required the existence of a provision of the information or visual media exposure PHW-based poster to get a change of behavior and minimize or avoid the factors that influence behavior change as peers who smoke.

Test results on smoking behavior research group of p = 0.838, there are no differences in smoking behavior when conducted posttest or given posters PHW in the treatment group and the control group was given a poster. Hosland, et al (1953) in the book says that the change in behavior is essentially the same as the process of learning [12]

V. CONCLUSION

Based on the results of research and discussion in this study, we can conclude several things: the level of smoking behavior in the intervention group was given posters PHW-based and controls that are not given treatment are dominated by the moderate category smoking behavior. The current smoking behavior conducted a pretest in both groups that there was no significant difference between the treatment group and the control group when it is done the pretest. Post-test current smoking behavior in the intervention group were given posters PHW-based and a control group that was not given treatment and there is no influence based on poster PHW against teenage smoking behavior.

The results showed no effect poster PHW based on adolescent smoking behavior in TiLOGO Village, Tanambarito, Kasihan, Bantul. The researchers hope to all respondents to increase knowledge about the dangers of tobacco consumption and improve the smoking behavior to quit smoking. The researchers also hope that this research can be developed better in the future and deepen all the factors associated with adolescent smoking behavior.

ACKNOWLEDGMENT

This article is part of the ICOSI (International Conference Sustainable Innovation) and ICONURS (International Conference on Nursing) programs. The submission of this article to ICONURS is funded by the Departement of Bachelor Nurse, Health Science Faculty, Universitas Muhammadiyah Cirebon.

REFERENCES

[1]. TCSC-IKMA. Fakta Tembakau dan Permasalahan di Indonesia. Jakarta: Bunga Rampai. (2014).

[2]. Kemenkes. R. Informasi Tentang Penanggulangan Masalah Merokok Melalui Radio (2011). Dipetik November 26, 2015, dari Perpuskaana Kementrian kesehatan: http://www.perpustakaan.depkes.go.id/cgi-bin/koha/opac-detail.pl?biblionumber=4219&shelfbrowse_itemnumber=7066.

[3]. Eriksen.M, Judith.M, Hana.R. The Tobacco Atlas Fourth Edition. American Cancer Society , 1,18 dan 28. (2012).

[4]. Indra Firdaus, Penganah Terpana Iklan Rokok Media Luar Ruang Yang Mencantumkan Pictorial Warning Terhadap Sikap Berhenti Merokok Pada Perokok Dewasa Di Kelurahan Pandeyan Kecamatan Umbulharjo Kota Yogyakarta Tahun 2014. (Skripsi) Yogyakarta. Fakultas Ilmu Sosial dan Ilmu Politik Universitas Muhammadiyah Yogyakarta. (2014).

[5]. Sunday Azagaba Msebsh F.Sharaf. The Effect of Graphic Cigarette Warning Labels on Smoking Behavior : Evidence From The Canadian Experience . Nicotine & Tobacco Research, Volume 15 , 3 (2012).

[6]. Soebroto T., Priatmoko S., Siyamita.N. Pengaruh Media Visual di Ruang Kelas Terhadap Minat dan Hasil Belajar Kimia Siswa. Inovasi Pendidikan Kimia Vol. 3 No.1 , 400-405 (2009).

[7]. Sari Zakiah Akmal, Rina Rahmatika, Nurindah Fitria. (Vol.1, No.1). Program Pemberian Informasi Bahaya Merokok Melalui Leaflet, Presentasi dan Poster. Prosiding SNapp 2015 Kesehatan (2015).

[8]. Notoatmodjo. Perilaku Kesehatan dan Perilaku. Jakarta: Salemba (2007).

[9]. Adriaen, L.Pengaruh Media Masa, Keluarga, dan Teman Terhadap Perilaku Merokok Remaja di Yogyakarta. Skripsi Saratama Satus Fakultas Psikologi Universitas Ciputra, Surabaya (2014).

[10]. Riska Rosita, Dwi Linna Suswardany, Zaenal Abidin. Penentu Keberhasilan Berhenti Merokok Pada Mahasiswa. Kesehatan Masyarakat , 1-9 (2012).

[11]. Geoff P. Lovell, Kim Nash, Rachael Sharman and Ben R. Lane. A cross- sectional Investigation of Depressive, Anxiety, and Stress Symptoms and Health-Behaviour Participation in Australia University Student. Nursing and Health Sciences , 134-142. (2015).

[12]. Notoatmodjo. Perilaku Kesehatan dan Perilaku. Jakarta: Salemba. (2007).