

THE EFFECT OF OCCUPATIONAL SAFETY AND HEALTH PROMOTION RELATED TO PREVENTION OF THE SPREAD OF VIRUSCORONA (COVID-19) ON PANDAI IRON HOME INDUSTRY WORKERS IN PANGUR-ACEH TAHUN 2020

Budiman¹, Wan Syarifah²

^{1,2} Program Study Public Health Stikes Jenderal A. Yani Cimahi

E-mail:budiman_1974@yahoo.com

ABSTRACT

Coronavirus (Covid-19) is a large family of viruses that cause diseases ranging from mild to severe symptoms. Up to 15 Mei 2020 in Aceh there were 17 positif cases of Covid-19 with the dead 1 person and recovery of 13 people, therefore health promotion needed to increase the knowledge of blacksmith officers about Covid-19. Blacksmith workers work without using PPE, do not routinely wash their hands and there is no health promotion from local health center regarding how to prevent Covid-19. The purpose of the research is to know the effect of health promotion to the knowledge of Covid-19 on home industry workers in Pangur Village. The research method used was pre eksperimental with one group pretest – posttest without control design. The sample in this research is 25 workers blacksmith home industry with technical total sampling. The data analysis used was univariate and bivariate analysis (Dependent t Test). Univariate analysis using frequency distribution, before health promotion there is 6 (24,0%) respondents who have good knowledge about Covid-19 and after health promotion there is 21 (84%) respondents who have good knowledge about Covid-19. Bivariate analysis using t-dependent test with p-value=0,0001 ($p\text{-value} \leq \alpha$) so there is an effect of health promotion on the knowledge of Covid-19 workers blacksmith home industry in the Pangur village. Home industry owners suggested doing a health promotion program for the workers blacksmith related to increased knowledge about Covid-19 during the pandemic

Keywords : Knowledge, covid-19, health promotion, pre-eksperimen

1. INTRODUCTION

The world is currently witnessing a new coronavirus outbreak that is spreading rapidly across China, and now China is a Public Health Emergency for International Concern. WHO says there is a high risk of the 2019 coronavirus (COVID-19) spreading to other countries around the world. WHO and public health authorities around the world are taking action to control the COVID-19 outbreak. However, long-term success cannot be taken for granted. All sections of society, including businesses and entrepreneurs must play a role if we are to stop the spread of this disease (WHO, 2020a).

Coronavirus (CoV) is a large family of viruses that cause diseases ranging from mild to severe symptoms (Ministry of Health, 2020). In December 2019, cases of mysterious pneumonia were first reported in Wuhan, Hubei Province. The source of the transmission of

this case is not certain, but the first case was linked to a fish market in Wuhan. From 18 December to 29 December 2019, five patients were treated with Acute Respiratory Distress Syndrome (ARDS). From December 31, 2019 to January 3, 2020, this case increased rapidly, marked by the reporting of 44 cases. In less than a month, the disease has spread to various other provinces in China, Thailand, Japan and South Korea (Susilo et al., 2020).

This virus can be transmitted from person to person and has spread widely in China and more than 190 other countries and territories. On 12 March 2020, WHO declared COVID-19 a pandemic. As of May 15, 2020, there were 4,307,287 cases and 295,101 deaths worldwide. Meanwhile, in Indonesia there have been 16,006 positive cases of COVID-19 and 1,043 cases of death with 215 affected countries (WHO, 2020b). On May 15, 2020, there were 17 confirmed cases of COVID-19 in Aceh with 1 death and 13 recovering. Gayo Lues Regency is one of the areas in Aceh Province which is the spread of COVID-19 with an incidence of 2 positive people for COVID-19 (Aceh Health Office, 2020).

Health promotion is an effort to market or introduce health to the public so that they are willing and able to maintain and improve their health independently. In health promotion, there are five structures, namely household arrangements, school arrangements, workplace arrangements, public places arrangements, and health facilities arrangements (Notoatmodjo, 2018).

Law No. 1 of 1970 states that the workplace is any room or field that is closed or open, mobile or permanent where workers work, or that workers often enter for business purposes and there are various sources of danger. Health promotion efforts carried out in the workplace, besides being able to overcome, maintain, improve and protect one's own health. By implementing health promotion in the workplace this will increase work productivity and create a healthy work environment. Implementing health promotion in the workplace can have a positive impact on the work environment and society. Broadly speaking, health promotion in the workplace must be able to provide individual protection, both inside and outside the workplace environment to create a sustainable health process (Ministry of Health, 2016). Health promotion in the workplace is a process that allows workers to increase control over their health, namely controlling for determinants or factors that affect their health (Gustiana, 2017).

Home industry or commonly referred to as small industry is an effort to seek benefits or benefits of the physical form of an item so that it can be used to meet needs and be done at home. In this sense it includes handicraft activities. So that small industry can be interpreted as an effort to produce in which there is a change in the shape or physical of an item. Small industrial activities or household handicrafts are generally secondary jobs of farmers and village residents, which have the meaning of being a source of additional income (Central Bureau of Statistic, 2020).

Home industry or commonly referred to as small industry is an effort to seek benefits or benefits of the physical form of an item so that it can be used to meet needs and be done at home. In this sense it includes handicraft activities. So that small industry can be interpreted as an effort to produce in which there is a change in the shape or physical of an item. Small industrial activities or household handicrafts are generally secondary jobs of farmers and village residents, which have the meaning of being a source of additional income (Central Bureau of Statistic, 2020).

Promotion of K3 is very important to do during the Covid-19 pandemic, such as promoting ways to prevent Covid-19 transmission in the workplace, washing hands regularly with soap and running water, wearing masks and maintaining a minimum distance of 1 meter between one worker and another during the pandemic. the chain of the spread of Covid-19.

Based on the results of the study (Restiyani et al., 2017) it shows that there are behaviors of respondents who have implemented a clean and healthy lifestyle at work well (82.9%) because all production workers do not smoke at work (100%), buy and consume food. hygienic workers from the workplace (91%), buying and consuming nutritious food from the workplace (91%), washing hands with soap with clean running water (100%), washing hands before and after doing work (100%) , eradicating mosquito larvae (0%), using clean water (74%), using latrines (100%), disposing of garbage in its place (100%), using PPE (100%), doing sports / physical activity (50%).

Home industry Pandai Besi is a place for processing iron into a machete. Parang is a sharp weapon made of ordinary iron and is used as a cutting tool or slashing tool, machetes are also commonly used for agricultural tools by the community, where this home industry has been established since 1990 until now and has begun to become a Occupational Health Unit (ukk). in 2017. This blacksmith business is a hereditary business and the workers are the neighbors and the local community.

The results of a preliminary study conducted in May 2020 at the Home Industry of Pandai Besi, conducted interviews with 7 workers and found that during work they did not use masks because there was no PPE subsidy from the government, they also did not routinely wash their hands with soap and running water or use their hands. sanitizer due to the unavailability of soap and a place to wash hands in the workplace, workers also do not pay much attention to health protocols because the Covid-19 cases are not too high in the Gayo Lues area, this industrial home also only gets health checks and health promotions every three months even during the pandemic they did not get any health promotion from the local Public Health Center.

Education of workers is still low. 3 workers do not graduate from elementary school, 3 graduate from elementary school, and 1 graduate from junior high school. Based on the results of interviews from 7 workers, they said that they were not too concerned about the spread of Covid-19 because according to them Covid-19 only existed in big cities like what they saw on television. The low level of workers' knowledge about how to prevent Covid-19 is one of the factors causing unwilling behavior about the importance of paying attention to health protocols in preventing the spread or transmission of Covid-19 in the workplace.

2. MATERIAL AND METHODS

The design in this study was a pre-experimental design with one group pretest-test without control, namely the researcher made previous observations, then saw the changes that occurred after the treatment. The sample in this study was blacksmith workers who worked in the blacksmith home industry, namely 25 people. Sampling was done by total sampling technique. Prior to the intervention, respondents were given a questionnaire to measure their initial knowledge (pretest), then the respondents were given an intervention in the form of health promotion. Health promotion lasts 60 minutes consisting of lectures and also 30 minutes consisting of group discussions. After being given the intervention, the respondent was given another questionnaire to measure the final knowledge (posttest).

3. RESULTS

Table 1. Description of knowledge of blacksmith workers before being given health promotion

Knowledge Workers Before Given Health Promotion	F	%
Less	6	24,0
Enough	13	52,0
Good	6	24,0
Total	25	100

Table 1 shows that before being given health promotion, there were only 6 respondents (24.0%) who had good knowledge about how to prevent Covid-19.

Table 2. Description of knowledge of blacksmith workers after health promotion

Knowledge Workers After Given Health Promotion	F	%
Less	4	16,0
Enough	21	84,0
Total	25	100

Based on Table 2, it is found that after being given health promotion there were 21 respondents (84.0%) who had good knowledge about how to prevent Covid-19

Table 3. The Effect of Health Promotion on Knowledge of How to Prevent Covid-19 Transmission at Home Industry Blacksmith Workers

Variabel	Mean	SD	SE	p Value	n
Knowledge before					

	11,92	2,51	0,50		
				0,0001	25
Knowledge after	15,52	2,05	0,42		

Based on table 4.3, it is found that the average knowledge score of the blacksmith home industry workers before health promotion is 11.92 with a standard deviation of 2.51 and the average score of knowledge of blacksmith workers after health promotion is 12.52 with a standard deviation of 2.05. , it can be seen that the mean difference in knowledge of blacksmith workers before and after health promotion is 3.60 with a standard deviation of 1.87. The results of the statistical test P value = 0.0001, it can be concluded that there is a significant difference, namely an increase in the average knowledge of blacksmith workers before and after being given health promotion

4. DISCUSSION

The results of the univariate analysis of the knowledge of the blacksmith home industry workers on how to prevent Covid-19 transmission before health promotion, there were only 6 respondents (24.0%) who had good knowledge about how to prevent Covid-19. Respondents can be said to have good knowledge when respondents can answer correctly $\geq 75\%$ of the total question items. The workers tended to have sufficient knowledge, namely as many as 13 respondents (52.0%) because workers had a low level of education, and there was no information or health promotion from the local health center during the Covid-19 pandemic so that workers had sufficient knowledge of how to prevent Covid- 19. This was admitted by the home industry owner of the blacksmith in Pangur Village who said that previously no one had provided information or health promotion regarding how to prevent Covid-19. One of the factors that can affect knowledge is education and information, it cannot be denied that the higher a person's education the easier it is for them to receive information and vice versa if a person's education level is low it will hinder the development of one's attitude towards receiving information (Mubarok, 2007).

Before health promotion was carried out, the question of knowledge that was the least answered correctly was question item number 9, which is about how to protect workers from

Covid-19, this question can only be answered correctly by 7 out of 25 respondents, however, after health promotion the number of respondents who answered correctly increased from 7 respondents who answered correctly to 12 respondents who answered correctly.

The next knowledge question that was the least answered correctly was question item number 2, which is about the meaning of Covid-19, this question can only be answered correctly by 8 of the 25 respondents, however, after health promotion the number of respondents who answered correctly increased from 8 respondents who answered correctly to 17 respondents who answered correctly.

The results of the univariate analysis of iron panda workers' knowledge about how to prevent Covid-19 transmission after daily promotion, there were 21 respondents (84.0%) who had good knowledge about how to prevent Covid-19. An increase in the number of respondents who have good knowledge from 6 respondents (24.0%) to 21 respondents (84.0%) can occur because of the provision of information through health promotion and health promotion methods used as needed so that the purpose of health promotion is to increase knowledge occurs optimally (Notoatmodjo, 2018)

The health promotion method used in this research is the mass method with public lectures and the group method with group discussions, the mass health promotion method is used to communicate health messages aimed at the public (Notoatmodjo, 2018) so that researchers use the promotional method. this health because the respondents numbered 25 people. Researchers explain the meaning of the coronavirus (Covid-19), the symptoms of Covid-19, the mode of transmission of Covid-19, clinical symptoms of Covid-19, prevention of Covid-19, treatment of Covid-19 and Covid-19 prevention measures for all workplaces using media slides for 60 minutes followed by group discussion.

Group discussions are used with the consideration that the goals of health promotion can be achieved effectively. Respondents were divided into 5 groups which in one group consisted of 5 respondents and was accompanied by one discussion leader. The discussion was arranged so that each group sat in a circle and faced each other, including the discussion leader, this was made so as not to give the impression that there was a higher level between the discussion leader and the respondent (Notoatmodjo, 2018).

The media used in group discussions is print media. According to (Notoatmodjo, 2018) print media has a main function, namely to provide information. The printed media used in this study were in the form of leaflets to help guide discussions in providing information and also to facilitate respondents' understanding of ways to prevent Covid-19 transmission. Print media was also used in Sugandi's research, Wahyuni (2015) and resulted in an increase in the number of well-informed respondents from 14 respondents (37.8%) to 27 respondents (73%) Respondents who have good knowledge after health promotion are 21 out of a total of 25 respondents, this can happen that not all respondents at the same time have good knowledge because at the time of sensing to produce knowledge it is strongly influenced by the intensity of attention and different perceptions of respondents on the object. (Notoatmodjo, 2018).

Based on the results of the analysis of the effect of health promotion on knowledge about how to prevent Covid-19 transmission in blacksmith workers, there was an increase in the number of respondents who had knowledge both before and after health promotion. Before health promotion there were 6 respondents (24.0%) who had good knowledge and after health promotion the number of respondents who had good knowledge increased to 21 respondents (84.0%).

The results of the bivariate test showed that the average score of knowledge of blacksmith workers before health promotion was 11.92 with a standard deviation of 2.51 and the knowledge score of blacksmith workers after health promotion was 15.52 with a standard deviation of 2.05. value = 0.0001, it can be concluded that there is a significant difference, namely an increase in the average knowledge of blacksmith workers before and after being given health promotion. The results of this study are in accordance with the results of research conducted by Sugandi, Wahyuni, (2015) which shows that there is a significant effect of health promotion using printed media (stickers) on increasing knowledge of bird traders with p-value = 0.002.

This research conducted by Syatiawati et al, (2017) shows that health promotion through lectures and discussion methods is effective in increasing reproductive health knowledge in grade 7 junior high school students with p-value = 0.001 Research conducted by Stauri (2015) also shows that there is an increase in the average knowledge of using PPE after being given health education. The average level of knowledge before being given health education, namely 7.40 (30.4%) was included in the category of poor knowledge and after being given

health education the average level of knowledge was 17.67 (78.2%) into the knowledge category. well, p-value = 0.0001 which means there is a significant difference in knowledge of Personal Protective Equipment before and after being given health education.

Another study conducted by Siregar (2014) also showed that there was an increase in the average knowledge of welding workers before and after health promotion regarding Personal Protective Equipment with the lecture method, namely 11.05 before health promotion was carried out to 15.71 after health promotion, p-value = 0.0001, which means that there is a significant difference in the knowledge of Personal Protective Equipment before and after counseling with the lecture and group discussion methods.

A person's knowledge is mostly obtained through the sense of hearing and the sense of sight (Notoatmodjo, 2018) so that, with the two health promotion methods carried out by researchers, the lecture method uses slide media and videos and the group discussion method with leaflet media that relies on the use of the hearing and senses vision greatly allows the garbage collector's knowledge to increase after being given health promotion.

According to Silberman in Bahruddin, (2015) explains that learning requires mental involvement. Learning by listening alone will make someone forget, seeing will make someone remember a little, and by having discussions will make someone remember also understands what is being said, the method used in this research is the lecture method and group discussion which is a form of learning. by listening, seeing and conducting discussions and based on the existing theory, this research can make someone remember the material or new knowledge given and understand it so that this can be a factor that makes the knowledge of blacksmith workers increase after being given health promotion.

5. CONCLUSION

1.Knowledge of blacksmith home industry workers about how to prevent Covid-19 transmission before being given health promotion, there were 6 respondents (24.0) who had good knowledge.

2.Knowledge of blacksmith home industry workers about how to prevent Covid-19 transmission after being given health promotion, there were 21 respondents (84.0%) who had good knowledge.

3. There is a significant difference in the average knowledge of blacksmith home industry workers before and after being given health promotion with P value = 0.0001.

REFERENCES

Badan Pusat Statistik. 2020. *Konsep Perusahaan Industri Pengolahan*.
<https://www.bps.go.id/subject/9/industri-besar-dan-sedang.html#subjekViewTab1>.
Diakses tanggal 11 April 2020.

Badan Pusat Statistik. 2020. *Perusahaan Industri Pengolahan*.
<https://www.bps.go.id/subject/9/industri-besar-dan-sedang.html>. Diakses tanggal 1 Juni 2020.

Budiman dan Riyanto, A. 2013. *Kapita Selekta Kuesioner: Pengetahuan dan Sikap dalam Penelitian Kesehatan*. Jakarta: Salemba Medika

Bahrudin dan Wahyuni. 2015. *Teori Belajar dan Pembelajaran*. Yogyakarta: Ar-ruzz Media.

Dinas Kesehatan Pemerintahan Aceh. 2020. *Data COVID-19 Aceh*.
<https://dinkes.acehprov.go.id/>. Diakses tanggal 13 April 2020.

Dinas Kesehatan Kabupaten Karangasem. 2020. *Peran Promosi Kesehatan Dalam Pencegahan Covid-19*. <http://diskes.karangasemkab.go.id/peran-promosi-kesehatan-dalam-pencegahan-covid-19/>. Diakses tanggal 20 Agustus 2020.

Edberg, M. 2006. *Essentials of Health Behavior*. Massachusetts: Jones and Bartlett

Gustiana E. 2017. *Promosi Kesehatan di tempat kerja*.
<http://rsj.babelprov.go.id/content/promosi-kesehatan-di-tempat-kerja>. Diakses tanggal 5 April 2020.

Husnan. 2019. 'Peran Industri Rumah Tangga (Home Industry) pada Usaha Kerupuk Terigu Terhadap Pendapatan Keluarga di Kecamatan Sakra Kabupaten Lombok Timur'. *Jurnal Manajemen dan Ilmu Pendidikan*. Vol 1 (1): 45-63. Tersedia [online] <https://ejournal.stitpn.ac.id/index.php/manazhim/article/download/136/115/>. (diakses tanggal 10 April 2020).

- Kementerian Kesehatan RI. 2016. *Promosi Kesehatan*. <http://promkes.kemkes.go.id/promosi-kesehatan>. diakses tanggal 5 April 2020.
- Kementerian Kesehatan RI. 2020. *Pedoman Kesiapsiagaan Menghadapi Infeksi Novel Coronavirus (2019-nCoV)*.https://www.kemkes.go.id/resources/download/info-terkini/COVID-19%20dokumen%20resmi/REV-04_Pedoman_P2_COVID-19_%2027%20Maret2020_Tanpa%20TTD.pdf.Diakses Tanggal 8 April 2020.
- Machfoedz, dkk. 2005. *Pendidikan Kesehatan Bagian dari Promosi Kesehatan Masyarakat*.Yogyakarta: Fitramaya
- Mubarok.2007. *Promosi Kesehatan*.Yogyakarta: Graha Ilmu.
- Notoadmodjo. 2011. *Kesehatan Masyarakat: Ilmu dan Seni*. Jakarta: Rineka Cipta.
- Notoadmodjo S. 2018. *Promosi Kesehatan Teori dan Aplikasi*. Jakarta: Rineka Cipta.
- Peraturan Menteri Perindustrian RI. 2016. *Besaran Jumlah Tenaga Kerja dan Nilai Investasi untuk Klasifikasi Usaha Industri*.
https://peraturan.bkpm.go.id/jdih/userfiles/batang/Permenperin_No_64_2016.pdf.
diakses tanggal 14 April 2020.
- Riyanto, A.2011. *Aplikasi Metodologi Penelitian Kesehatan*.Yogyakarta: Nuha Medika.
- Riyanto, A.2013a. *Statistik Deskriptif untuk Kesehatan*.Yogyakarta:Nuha Medika.
- Riyanto, A. 2013b. *Statistik Inferensial Untuk Analisa Data Kesehatan*. yogyakarta: Nuha Medika.
- Restiyani, dkk. 2017. Faktor-faktor yang Berhubungan dengan Perilaku Hidup Bersih dan Sehat pada Pekerja Bagian Produksi PT. Coca Cola Amatil Indonesia Centraljava. *Jurnal Kesehatan Masyarakat (e-journal)* Vol 5 (5): 939-948. Tersedian [Online] <https://ejournal3.undip.ac.id/index.php/jkm/article/download/19222/18249>. Diakses pada tanggal 29 Mei 2020.
- Subargus, A. 2011. *Promosi Kesehatan Melalui Pendidikan Kesehatan Masyarakat*. Magelang: Gosyen Publishing.

- Siregar, G.P.2014.Pengaruh Penyuluhan dengan Metode Ceramah dan Diskusi Kelompok Tentang Alat Pelindung Diri Terhadap Peningkatan Perilaku Pekerja Las Di Kecamatan Percut Sei Tuan Tahun 2013.*Jurnal Ilmiah PANMED Vol.8 No.3:272-276.*
- Sugandi, Wahyuni. 2015.Promosi Kesehatan Dengan Media Sticker Terhadap Tingkat Pengetahuan, Sikap Dan Praktik Penggunaan Masker Pada Pedagang Burung di Pasar Depok Kota Surakarta.*Indonesian Journal On Medical Science, Vol.2 No.2:92-98.*
- Stauri, dkk.2016.Pengaruh Pendidikan Kesehatan Metode Demonstrasi terhadap Tingkat Pengetahuan dan Motivasi Penggunaan Alat Pelindung Diri pada Petani Desa Wringin Telu Kecamatan Puger Kabupaten Jember.*E-Journal Pustaka Kesehatan, Vol.4 No.1:95-101*
- Susilo, et al. 2020. ‘Coronavirus Desiases 2019:Tinjauan Literatus Terkini’. *Jurnal Penyakit Dalam Indonesia.* Vol 7 (1): 45-67.
- Surat Edaran No. 1/SE/PP IDKI/III/2020 Pengurus Pusat Perhimpunan Dokter Kesehatan Kerja Indonesia (PP IDKI). *Tentang Pedoman Tingkat Kesiapsiagaan Wabah (Covid-19) Di Perusahaan.* <https://katigaku.top/wp-content/uploads/2020/03/SE-PPIDKI-COVID-19.pdf>. Diakses tanggal 4 Juni 2020.
- Syatiawati, dkk. 2017. *Efektivitas Metode Promosi Kesehatan dalam Meningkatkan Pengetahuan Tentang Kesehatan Reproduksi Siswa SMP Negeri.* Bandung Meeting on Global Medicine & Health (BaMGMH), Vol. 1 No. 1: 42-48
- Undang-undang No 1 Tahun 1970. *Tentang Keselamatan Kerja.* Januari 2016. Himpunan Peraturan Perundang-undangan Keselamatan dan Kesehatan Kerja. Jakarta .
- Undang-Undang No 20 Tahun 2008. *Tentang Usaha Mikro, Kecil dan Menengah.* 10 April 2020. Komisi Informasi Pusat Republik Indonesia. Tersedia [online] <https://komisiinformasi.go.id/?p=1830>.(Diakses tanggal 10 April 2020).
- World Health Organization (WHO). 2020a. *Coronavirus.* https://www.who.int/health-topics/coronavirus#tab=tab_1. Diakses tanggal 8 April 2020.

World Health Organization (WHO). 2020b. *Coronavirus disease 2019 (COVID-19) outbreak Situation*. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019> Diakses Tanggal 13 April 2020.

World Health Organization (WHO). 2020c. *Naming the coronavirus disease (COVID-19) and the virus that causes it*. [https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-\(covid-2019\)-and-the-virus-that-causes-it](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it). Diakses tanggal 2 April 2020.

World Health Organization (WHO). 2020d. *Getting your Workplace ready for COVID-19*. https://www.who.int/docs/default-source/coronavirus/getting-workplace-ready-for-covid-19.pdf?sfvrsn=359a81e7_6. Diakses tanggal 13 April 2020.