

## Enhancing Knowledge of Community and Preventive Measures in facing Covid 19 Towards a New Norm

*Etti Sudaryati<sup>1</sup>, Ida Yustina<sup>1</sup>, Heru Santosa<sup>1</sup>, Nurmaini<sup>1</sup>, Indra cahaya<sup>1</sup>, Fazidah A Siregar<sup>1</sup>, Destanul Aulia<sup>1</sup>, Aniza Ismail<sup>2</sup>, Shubash S<sup>3</sup>*

<sup>1</sup>Faculty of Public health, Universitas Sumatera Utara, Medan, Indonesia.

<sup>2</sup>Community Health Departement, Medical faculty, University Kebangsaan Malaysia, Kuala Lumpur.

<sup>3</sup>Institute of Public Health, National Institue of Health, Ministry of Health Malaysia.

**Abstract.** Covid 19 is health problem in many countries with high number of cases and death. The implementation of health protocols is necessary to take preventive measures and break the chain of transmission. In fact, there are many people had not implemented yet health protocol properly. The purpose of this activity was to educate the community regarding Covid 19 and implement health protocols. This activity started with assess the knowledge of community and practice in preventive measures and then followed by educate community regarding disease and the importance of health protocol. Out of 203 respondents in Medan, 59.1% had good knowledge regarding Covid 19, 21.2% had fair knowledge and 19.7% had poor knowledge. While 27.9% had poor practice in applying health protocols. Out of 317 respondents in Malaysia, 78.9% of respondents had knowledge regarding symptoms, 69.1% of respondents had knowledge cause of the disease, 71.6% had knowledge about transmission of the disease. Most of them (96.3%) had good practice to preventive measures for Covid 19. After giving education, the community had better knowledge and practice in facing Covid19. It was concluded that education regarding Covid 19 and applying health protocols is important to improve capability of community in facing Covid 19.

**Keywords:** Knowledge, Prevent, covid-19, new norm

**Abstrak.** Covid 19 merupakan masalah kesehatan di banyak negara dengan jumlah kasus dan kematian yang tinggi. Penerapan protokol kesehatan diperlukan untuk melakukan tindakan preventif dan memutus mata rantai penularan. Faktanya, masih banyak masyarakat yang belum menerapkan protokol kesehatan dengan baik. Tujuan dari kegiatan ini adalah mengedukasi masyarakat tentang Covid 19 dan menerapkan protokol kesehatan. Kegiatan ini diawali dengan mengkaji pengetahuan dan praktik masyarakat dalam tindakan pencegahan kemudian dilanjutkan dengan penyuluhan

\*Corresponding author at:

E-mail address: fazidah@usu.ac.id

*kepada masyarakat tentang penyakit dan pentingnya protokol kesehatan. Dari 203 responden di Medan, 59,1% memiliki pengetahuan baik tentang Covid 19, 21,2% memiliki pengetahuan cukup dan 19,7% memiliki pengetahuan kurang. Sedangkan 27,9% memiliki praktik buruk dalam menerapkan protokol kesehatan. Dari 317 responden di Malaysia, 78,9% responden memiliki pengetahuan tentang gejala, 69,1% responden memiliki pengetahuan penyebab penyakit, 71,6% memiliki pengetahuan tentang penularan penyakit. Sebagian besar (96,3%) memiliki praktik yang baik untuk tindakan pencegahan Covid 19. Setelah diberikan edukasi, masyarakat memiliki pengetahuan dan praktik yang lebih baik dalam menghadapi Covid 19. Disimpulkan bahwa edukasi mengenai Covid 19 dan penerapan protokol kesehatan penting dilakukan untuk meningkatkan kemampuan masyarakat dalam menghadapi Covid -19.*

**Kata Kunci:** *Pengetahuan, tindakan pencegahan, covid 19, norma baru*

Received 11 December 2020 | Revised 19 December 2020 | Accepted 30 March 2021

## **1. Introduction**

In beginning of 2020, the world was shocked by Covid 19 that initially was occurred at Hubei, Wuhan Province in China [1]. The disease transmitted almost all countries in the worldwide and then WHO declared as a global emergency [2]. In Indonesia, the first cases was reported at March 2, 2020 and at November 30, 2020, revealed that the total number of confirmed Covid 19 cases reached 62,363,527 cases [3]. Indonesia was the 21 ranked of the the highest Covid -19 cases in the worldwide with the cases confirmed reported increased to be as much as 522.581 with high death rate as much as 9% [4]. North Sumatra Province ranked the 9<sup>th</sup> position in the number of Covid 19 patients in Indonesia, with the number of patients Covid 19 was amounted to 15,585 cases. Medan was an area with the highest Covid 19 cases in North Sumatra and at October 11, 2020, there are 6175 of Covid 19 confirmed cases with 264 total death [5].

In Malaysia, the first Covid 19 cases was reported at January 25, 2020 as a imported cases from Chinese. At March 9, 2020 reported there was 19 of confirmed Covid 19 cases. At July13, 2020, the number of cases increased to 8725 cases with total death of 122. Until December 6, 2020, total Covid 19 cases reported was 72.294 with new cases of Covid 19 cases was 1.325 cases and total death was 384 [6].

Since February 29, 2020, the Indonesian government had taken steps to break the chain of transmission by maintaining a safe distance from other humans of at least 2 meters, not making direct contact with other people and avoiding mass meetings. Likewise, in

Malaysia had conducted the movement control order (MCO) during 14<sup>th</sup> March till 31<sup>st</sup> March 2020 to break the Covid 19 infection Chain.

Discipline in applying the principles of a healthy lifestyle is the best way to control Covid 19, and this was supported by implementing prevention, case finding and controlling quickly and effectively [7]. However, many people did not respond it properly. In fact, many people have not implemented health protocols properly. The government policy to implement the new normal adaptation should be supported by the role of academics in educating and disseminate information on prevention of virus transmission Covid 19 in the community. The aim of the community activities was to educate community regarding Covid 19 and implemented health protocols in facing Covid 19 among community in Malaysia and Indonesia towards apply a new norm.

## **2. Methods**

In the community service, the first activity was to identify knowledge and practice of community in facing Covid 19 both in Medan and Malaysia. In Medan, data was collected in public places using questionnaire with the mobile data collection platform. The public places consist of 9 locations of worship places (mosques/prayer rooms, churches, temples, temples), 5 locations for cafes/food stalls, 2 traditional market locations and 3 modern shopping centers located in Medan City. In Malaysia, data was collected using phone call survey among general public from 16 location of states in Malaysia. Then this activity was followed by educate community using virtual platform to improve knowledge and practice of community in facing Covid 19.

## **3. Results and Discussion**

Community services activity was carried out in Medan and Malaysia. In Medan, community services activity was conducted in 19 public places such as worship places 9 location (mosques/prayer rooms, churches, temples, temples), 5 location of minimarket, 2 location of traditional market, and 3 location of supermarket/modern shopping centre. In Malaysia, community services activity was conducted at 16 location of states in Malaysia.

Out of 203 respondents in Medan, the mean age of respondents was 32.98 years old, majority was male (60.1%), have senior high school was 59.1%, Entrepreneur/Trader was 30.1% and moslem was 71.4%. Half of respondents (59.1%) had good knowledge and one fourth (19.7%) had still poor knowledge. Although majority of respondents (72.9%) had good practice in preventive measures for Covid 19, however as much as

27.1% had still poor practice (Table 1). Based on this data, education activities for community is necessary to improve knowledge and practice in facing Covid 19.

**Table 1.** Knowledge and Practice of respondents regarding Covid 19 and preventive behavior in Medan

Variable	Frequency (n)	Percentage (%)
Knowledge		
Good	120	59.1
Fair	43	21.2
Poor	40	19.7
Practice		
Good	148	72.9
Poor	55	27.1

The distribution of question related to knowledge regarding disease and preventive measures such as cause of the disease, modes of transmission, type of mask and length of time that was used and preventive measures have high percentage of wrong answer (Table 2). This indicated that knowledge of community was poor that could impact on practice in preventive measures as presented in Table 3. Some respondents had not implemented yet health protocols properly such as keep a distance from other people and avoid to a crowded people. Likewise, some respondents had not implemented preventive measure such as do physical activity regularly, sunbathing in the morning, changing a mask per 4 hour and eats nutritious foods to keep immunity (Table 3). Therefore, improving knowledge by health education for community is necessary.

**Table 2.** Distribution of question related to knowledge about Covid 19

Item of question	True	False
Cause of disease	137 (67.5)	66 (32.5%)
Mode of transmission	117 (57.6)	86 (42.4)
Population at risk of infection	187 (92.1)	16 (7.9)
Period of contagion	194 (95.6)	9 (4.9)
Definition of physical distancing	167 (82.3)	36 (17.7)
Use a mask	176 (86.7)	27 (13.3)
Type of mask	112 (55.2)	91 (44.8)
How long to use a mask (4 hours)	82 (40.4)	121 (59.6)
How to increase imunity for prevention	145 (71.4)	58 (28.6)
Benefits of sunbathing in the morning	120 (59.1)	83 (40.9)
Action after coming home from travelling	191 (94.1)	12 (5.9)
Preventive measure	118 (58.1)	85 (41.9)
Diagnosis of disease	117 (57.6)	86 (42.4)
Self isolation	129 (63.5)	74 (36.5)

**Table 3.** Distribution of practice to preventive behavior related Covid 19

Item of practice	Yes	No
Was hand frequently	189 (93.1)	14 (6.9%)
Keep distance from other people	119 (58.6)	84 (41.4)
Use a mask	182 (89.7)	21 (10.3)
Avoid to a crowded people	124 (61.1)	79 (38.9)
Wash hand before touching eye, face and mouth	156 (76.8)	47 (23.2)
Use a mask	176 (86.7)	27 (13.3)
Shower and change clothes after travelling home	192 (94.6)	11 (5.4)
Do physical activity	81 (39.90)	122 (60.1)
Bring personal worship equipment	131 (64.5)	72 (35.5)
Eat nutritious food	181 (89.2)	22 (10.8)
Sunbathing in the morning	117 (57.6)	86 (42.4)
Changing a mask per 4 hour	85 (41.9)	118 (58.5)
Self-isolate if there any symptoms	141 (69.5)	62 (30.5)
Eat at restaurant with family	91 (44.8)	112 (55.2)

In Malaysia, knowledge survey was conducted among those 18 years and above, from 23rd March 2020 to 24th April 2020, using a phone call survey among general public from 16 states in Malaysia. Out of 317 respondents, male was 52.4% and 63.7% was Malay.

Based on distribution of knowledge questions related to Covid 19, generally most of respondents had good knowledge regarding symptoms, knowledge of the disease and mode of transmission ( Table 4). Likewise, most of them had implemented preventive measures in daily such as avoid social gathering and crowded places, keep 1-2 metre distancing, wearing a mask in public places and using hand sanitizer. Only 6.3% had not implemented yet preventive measures (Table 5).

After getting an overview of knowledge and practice of community in facing Covid 19, the community service activities were continued with educate and socialization activities to the community via online in webinars form. The aim of this activity was to provide information and education to the community in an effort to prevent Covid 19 in public places. Webinar was conducted at November 2, 2020 with speakers from Malaysia and Indonesia. Speaker from Indonesia discuss about preventive measures of Covid 19 in public places in Indonesia. While speaker from Malaysia discuss about experience COMBI in prevention Covid 19 in public places in Malaysia including experience the implementation health protocols Covid 19 in Mosque in Malaysia and Mosque as community base in Covid 19 grass roots war.

**Table 4.** Distribution of knowledge related to Covid 19

Knowledge	Percentage (%)
<b>Symptom</b>	
Fever	86.8
Cough	90.5
Short of breath	84.9
Flu	72.2
Diarrhea	37.5
3 main of symptoms	78.9
<b>Knowledge of the disease</b>	
Cause respiratory infection	89.9
Symptoms seen within 14 days	84.9
Asymptomatic people can infect others	79.2
Higher risk for older / those with medical illness	92.1
All item was correct	69.1
<b>Mode of transmission</b>	
Transmits through touching and shaking hands	91.8
Transmit through cough droplets	93.7
Transmit touching infected surface	93.7
Sharing foods and drinks	76.3
All 4 answer correct	71.6

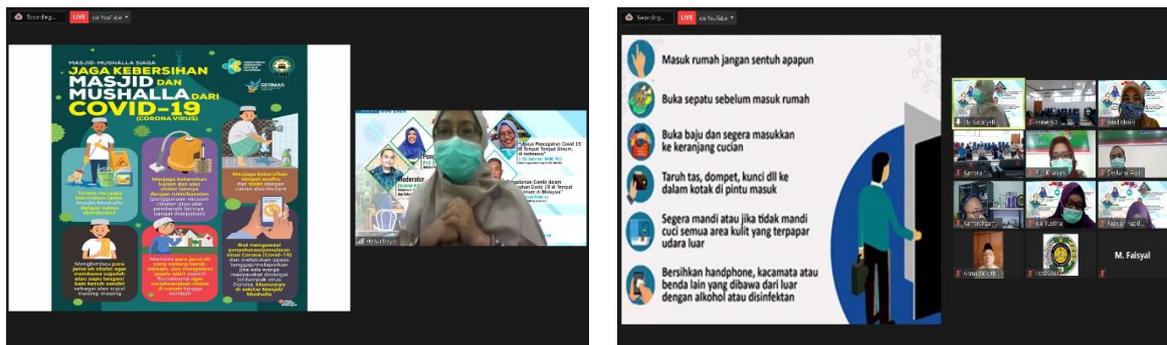
**Table 5.** Distribution of practice of preventive measure related to Covid 19

Preventive measured Practiced	Percentage (%)
Refrain of travelling	96.5
Avoid social gathering	95.3
Wash hand with soap and water	95.3
Avoid crowded places	94.6
Wearing mask in public places	93.7
1 Metre distancing	92.4
Avoid Sharing foods and drink	91.8
Bring and uses own hand sanitizer	77.6
Uses public hand sanitizer	71.6
Did not practice any preventive measure	6.3

The webinar was attended by community of Medan who work in public places every day including worship places, minimarket, traditional supermarket and modern supermarket. During the webinar, participants took seriously and actively engaged in discussions and questions and answers with the speakers. Participants gain knowledge related to the experience of implementing health protocols in Malaysia which can be applied in Indonesia, especially in public places. In addition, participants had been motivated to start implementing health protocols from themselves in public places to break the chain of transmission, therefore the risk of transmission Covid 19 is low.

The results from this community service activity are knowledge was enhanced and practice in implementing health protocols for the prevention of Covid 19. From this community service activity, it was hoped that there were no new clusters of Covid 19

transmission in public places and community can adapt a new norm in daily including implement health protocols to protect themselves mainly from Covid 19 virus infection.



**Figure 1.** Webinar online to prevent Covid 19 between Indonesia and Malaysia

The results from this community service activity are knowledge was enhanced and practice in implementing health protocols for the prevention of Covid 19. From this community service activity, it was hoped that there were no new clusters of Covid 19 transmission in public places and community can adapt a new norm in daily including implement health protocols to protect themselves mainly from Covid 19 virus infection.

#### 4. Conclusions

Although majority of respondents in Medan had good knowledge and good practice in preventive measure, however one fifth of respondents still had poor knowledge and poor practice in preventive measures. Contrary, in Malaysia, most of respondents had good knowledge and practice in preventive measure. Education activities for the community is necessary to improve the capacity of the community including knowledge and practice in preventive measures for Covid 19 and implemented a new norm.

#### Acknowledgments

We want to thank the Rector and Community Service Institute of Universitas Sumatera Utara for approval and financial support. Also, for all those who assist in this activity.

#### References

- [1] Li Q, Guan X, Wu P, Wang X, Zhou L, and Tong Y, "Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus–Infected Pneumonia" *N Engl J Med*; 382 (13): 1199–207, 2020.
- [2] Ceraolo C, and Giorgi FM, "Genomic variance of the 2019-nCoV coronavirus" *J Med Virol*; 92: 522–8, 2020.
- [3] COVID-19 Handling Task Force. RI. Map of the Distribution of COVID 19. Retrieved November 1, 2020, from: <https://covid19.go.id/peta-sebaran-covid19>.

- [4] World Health Organization. Coronavirus disease 2019 (COVID 19) Situation Report. 2020. Retrieved from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>.
- [5] Pemko Medan. General data regarding COVID 19 in Medan City. 2020. Retrieved from: [https://covid19.pemkomedan.go.id/index.php?page=stat\\_medan](https://covid19.pemkomedan.go.id/index.php?page=stat_medan).
- [6] Ministry of Health, Malaysia. COVID 19 latest update. 2020. Retrieved from: <http://www.MCH-gov.my/index.php/pages/view/2019.ncov-wuhan>.
- [7] Ministry of Health. R I. Minister of Health Decree No. HK.01.07/Menkes/382/2020 concerning Health Protocols for Communities in Public Places and Facilities in the Context of Prevention of COVID-19 Control. Jakarta, Indonesia: Ministry of Health of the Republic of Indonesia. 2020.