Knowledge, Attitude, and Practice Towards Social Distancing Among Undergraduate Students in Medical Fields during rapid rise of COVID-19 in Samarinda City, Indonesia: A Cross Sectional Study

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A Thesis Submitted in Partial Fulfillment of the Requirements
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ความรู้ ทัศนคติ และการปฏิบัติตัวตามหลักการเว้นระยะห่างทางสังคม ช่วงระบาดของโคโรน่าไวรัส 2019 ในนักศึกษาระดับปริญญาตรีทางการแพทย์ เมืองซามารินดา ประเทศอินโดนีเซีย: การศึกษาแบบภาคตัดขวาง

น.ส.ซิทิ ฮาดิจาห์ แอสปาน

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรมหาบัณฑิต
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อ.ที่ปรึกษาหลัก : ดร.ประมณฑ์ วิวัฒนากุลวาณิชย์

การเว้นระยะห่างทางสังคมเป็นแนวทางด้านสุขภาพที่แนะนำโดยองค์การอนามัยโลกเพื่อควบคุมการแพร่กระจายของโรคโควิด19 ในช่วงที่มีการแพร่ระบาดที่ยาวนานนี้นักศึกษาระดับปริญญาตรีสาขาการแพทย์มีความรับผิดชอบในการเผยแพร่ให้ข้อมูลแนวทางส่งเสริมสุขภาพที่ถูกต้อง การศึกษานี้จึงมีวัตถุประสงค์เพื่อประเมินการปฏิบัติตนในการเว้นระยะห่างทางสังคมและปัจจัยที่เกี่ยวข้อง, หาสาเหตุของการไม่ปฏิบัติการเว้นระยะห่างทางสังคมควบคู่ไปกับแหล่งข้อมูลเกี่ยวกับการปฏิบัติการเว้นระยะห่างทางสังคมที่ใช้โดยนักศึกษาระดับปริญญาตรีในสาขาการแพทย์ เมืองซามารินดา ประเทศอินโดนีเซีย การศึกษานี้เป็นแบบสำรวจออนไลน์แบบภาคตัดขวาง (ช่วงเมษายน ถึง พฤษภาคม 2564) ในนักศึกษาระดับปริญญาตรีจำนวน 422 คน จาก คณะแพทยศาสตร์ คณะสาธารณสุข และคณะเภสัชศาสตร์ โดยใช้เทคนิคการสุ่มตัวอย่างแบบตามความสะดวก การวิเคราะห์การถดถอยโลจิสติกแบบ 2 กลุ่มนำมาใช้เพื่อหาปัจจัยที่เกี่ยวข้องกับตัวแปรตาม โดยมีค่านัยสำคัญน้อยกว่า 0.05 แบบสอบถามเป็นแบบตอบด้วยตนเอง โดยได้มีการทดสอบความเที่ยงตรงด้วยวิธี Item-Objective Congruence (IOC) และทดสอบความเชื่อมั่นด้วยค่า Cronbach's Alpha และ KR 20 ก่อนการรวบรวมข้อมูล ผู้ตอบแบบสอบถามทั้งสิ้น 422 รายมีช่วงอายุ 18-25 ปี ส่วนใหญ่เป็นนักเรียนหญิง (76.8%) และเป็นนักศึกษาเภสัช (45.0%) ผลการวิจัยพบว่าผู้ตอบแบบสอบถามส่วนใหญ่มีความรู้ในระดับดี (65.5%) มีทัศนคติเชิงบวก (53.3%) และมีการปฏิบัติการเว้นระยะห่างทางสังคมในระดับดี (52.1%) นอกจากนี้ผลการวิเคราะห์การถดถอยพบว่า อายุ (AOR 1.47; 95% CI 1.97-2.22, p=0.045), เพศ (AOR 2.26; 95% CI 1.38-3.69, p=0.001) และทัศนคติ (AOR 2.61, 95% CI: 1.75, 3.90 , p<0.001) สัมพันธ์กับการปฏิบัติการเว้นระยะห่างทางสังคม แหล่งข้อมูลของการปฏิบัติการเว้นระยะห่างทางสังคม 3 อันดับแรกที่ใช้เป็นหลัก ได้แก่ โซเชียลมีเดีย (80.6%) เว็บไซต์ (14.0%) และโทรทัศน์ (3.8%) สาเหตุหลัก 3 อันดับแรกของการไม่ปฏิบัติการเว้นระยะห่างทางสังคม ได้แก่ 1) แรงกดดันทางสังคม 2) หน้าที่การงาน และ 3) ความรู้สึกไม่สบายใจ อายุและเพศเป็นปัจจัยสำคัญที่สำคัญของการปฏิบัติการเว้นระยะห่างทางสังคมของนักศึกษาระดับปริญญาตรีในสาขาการแพทย์ ผลการศึกษานี้แนะนำให้รัฐบาลเผยแพร่ข้อมูลด้านสุขภาพมากขึ้นผ่านช่องทางโซเชียลมีเดียและจัดให้นักศึกษาสายการแพทย์มีส่วนร่วมในการรณรงค์ด้านสุขภาพ

สาขาวิชา	สาธารณสุขศาสตร์	ลายมือชื่อนิสิต .....
ปีการศึกษา	2563	ลายมือชื่อ อ.ที่ปรึกษาหลัก .....

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KEYWORD: Knowledge, Attitude, Practice, Social distancing, Undergraduate students, Medical fields

Siti Hadijah Aspan : Knowledge, Attitude, and Practice Towards Social Distancing Among Undergraduate Students in Medical Fields during rapid rise of COVID-19 in Samarinda City, Indonesia: A Cross Sectional Study. Advisor: PRAMON VIWATTANAKULVANID, Ph.D.

Social distancing is health guidelines recommended by World Health Organization (WHO) for controlling the COVID-19 transmission. Undergraduate students in medical fields had responsibility in spreading accurate health promotion during this prolong pandemic. This study aimed to determine the practice of social distancing and its associated factors, to find out the reasons for not practicing social distancing along with the source of social distancing information used by undergraduate students in medical fields in Samarinda, Indonesia. This cross-sectional online survey study (April to May 2021) involved 422 undergraduate students from medicine, public health and pharmacy faculty using convenience sampling technique. Binary logistic regression was conducted to identify factors associated with the dependent variable with a significance value <0.05. A self-administered questionnaire was validated with Item-Objective Congruence (IOC) index and reliability tested with Cronbach's Alpha and KR 20 prior to data collection. Out of 422 respondents involved with age range 18-25 years old, dominantly female students (76.8%), and mostly are pharmacy students (45.0%). The result indicated that majority of respondents have good knowledge level (65.5%), positive attitude (53.3%), and good level practice of social distancing (52.1%). Regression analysis showed that age (AOR 1.47; 95% CI 1.97-2.22, p=0.045), sex (AOR 2.26; 95% CI 1.38-3.69, p=0.001) and attitude (AOR 2.61, 95% CI: 1.75, 3.90, p<0.001) were associated with social distancing practices. Top three source of social distancing information mainly used were social media (80.6%), websites (14.0%), and television (3.8%). Top three reasons for not practicing social distancing were 1) Social pressure, 2) work duties and 3) uncomfortable feelings. Age and sex were the important significant factors of social distancing practice among undergraduate students in medical fields. Our study findings suggest the government to disseminate more health education using social media and involve students in medical fields on deploys health campaigns.

Field of Study:	Public Health	Student's Signature .....
Academic Year:	2020	Advisor's Signature .....

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INTRODUCTION

1.1 Background and Rationale.

Corona Virus Disease 2019 is the new global pandemic which affects all countries in the world. This pandemic has an impact on many sectors from various important aspects including mentally, physically and materially. COVID-19 was firstly found in Wuhan, China in December 2019, and on March 11, 2020 the World Health Organization (WHO) declared the status of a global pandemic for the COVID19 (Bedford, 2020).

Worldwide, in 203 countries the reported cases of COVID-19 since April 2020 reached 937,976 confirmed cases and 47,279 deaths. Indonesia showed a high number of confirmed cases and deaths in the COVID-19 outbreak, and a mitigation strategy was necessary to control the pandemic (Yanti et al., 2020). In Indonesia, during December 2020 as much as 20,847 people died from a total of 700,097 confirmed cases. The figure of COVID 19 cases in Indonesia continues to increase with the total confirmed cases in 12 February 2021 increasing to 1,217,468 cases and with 33,183 deaths (ICTF, 2020a; WHO, 2021).

Globally, citizens are urgently encouraged to implement the social distancing protocol (Pedersen & Favero). Health authorities and experts insist that maintaining a physical distance from others and avoiding crowds are crucial for mitigating both the extent and the speed of COVID-19 spread (Ahmed, Zviedrite, & Uzicanin, 2018; Chen, Yang, Yang, Wang, & Bärnighausen, 2020; Fong et al., 2020; Rashid et al., 2015). Social distancing as the one of non-pharmaceutical intervention recommended by WHO is able to inhibit the spreads of virus from one person to the others by implementing physical distance between people or decreasing congregation in the community in public places (Ahmed et al., 2018).

Social distancing is efficient and effective preventive action to combat Covid-19 (Adisasmito, 2020). Wearing mask and hand washing is not enough to prevent the transmission since the contaminated droplets could stay longer in surface for long hours at maximum 72 hours (Health, 2020). Another important reason is mostly active

carriers are asymptomatic. This condition leads the virus infected the population rapidly worldwide and let the figure of Covid-19 confirmed cases continues to increasing(WHO, 2020b).

Social distancing in Indonesia is often ignored by young people such as students because of their ego to gather with their peers even though the government has issued a work from home (WFH) recommendation and it has led to an increase in the number of people with COVID 19. Accordingly, the neglect may be related to adulthood and law-abiding orientation (ICTF, 2020a). Older people practice social distancing better than younger people, but this difference is probably due in large part to the age-based differences that underlie actions in terms of attention to related news, attitudes and beliefs regarding COVID-19 (Ahmed et al., 2018).

Social distancing is the most efficient non pharmaceutical preventive action to control the transmission as long as the implementation is been done collectively correct (Kelso, Milne, & Kelly, 2009). Nevertheless, social pressure, personal ego, ambiguous information and wrong beliefs has become a big obstacle for the society to obey and implement the social distancing correctly and collectively (Dwivedi et al., 2020; Yanti et al., 2020). Ineffective socialization as the results of insufficient evidence also caused the society to practicing social distancing carelessly (Yanti et al., 2020). Therefore, the adequate research of the implementation of this health protocol for public health goods is needed.

As the effective health promotor, student holds important roles in bringing positive change in nations scope (Khusairi, 2020). Therefore, they should have good knowledge and show positive attitude to be actively promote health protocol in proper way. Moreover, students in medical fields are the key agents as role models as well as activators of the healthy life movement for the community (Istiningtyas, 2010). Especially in the midst of a pandemic like this they play an important role in preventing the spread of COVID-19. Undergraduate students as part of the community who tend to be more active outside the home should know the correct rules and information about COVID 19 so they can protect themselves from COVID 19 and help the government in fighting the pandemic. At least, they comply with the protocol related to social distancing as the act with the most potential rule to be

violated. Mass movement such as demonstration that recently happened in the middle of Covid-19 pandemic is the best examples of social distancing violation by undergraduate students (Yanti et al., 2020).

However, the study regarding the level of knowledge, attitudes and practices towards social distancing as one of the protocols for preventing COVID 19 among Indonesian undergraduate students is still inadequate, especially students in health domain. In general, students in college have good level of KAP's towards social distancing. Nevertheless, there is still a limitation from the previous study for respondents with educational backgrounds such as Bachelor's degree, Master degree and Doctoral degree. The previous study did not focus on undergraduate students that dominantly fill in with young people rather than on master or doctoral student (Yanti et al., 2020).

Such research data are needed as an evaluation material on community participation in carrying out the COVID 19 prevention protocol during the rapid rise of the number of coronavirus positive patients also they play an important role as role model and will spread the correct information and action in preventing COVID-19 spreads. We must put our concern to undergraduate students which is come from young people that has been the second biggest contributor of positive coronavirus cases in Indonesia (ICTF, 2020a).

By examining the important factors such as knowledge and attitude on social distancing practice, we can assess how the social distancing been implied among undergraduate medical student along with the determination which is expected we can promote this important prevention action to reduce the increase in the number of sufferers of the Covid-19 pandemic disease. The results of study can be used to stimulating the students in medical fields to be actively participates their self in activating and invite community to raise the awareness of how important to comply health protocol such as social distancing as the efforts to combats the pandemic and also provide the pictorial evidence based of real condition of social distancing implementation for local government and policy maker in evaluate this protocol.

1.2 Research Questions

1 What is the proportion of social distancing practice level among undergraduate students in medical fields at Samarinda city, Indonesia?
2 What are the general characteristics, knowledge level and attitude level towards social distancing practice level among Undergraduate students in medical fields at Samarinda city, Indonesia?
3 Is there any association between general characteristics, knowledge level, and attitude level towards social distancing practice level among Undergraduate students in Medical fields at Samarinda city, Indonesia?
4 What are the reasons for not practicing social distancing among Undergraduate students in Medical fields at Samarinda city, Indonesia?
5 What source of information used by Undergraduate students in Medical fields at Samarinda city, Indonesia?

1.3 Research Objectives

1 To determine the proportion of social distancing practice level among Undergraduate students in Medical fields at Samarinda city, Indonesia.
2 To assess the general characteristics, knowledge level, attitude level towards social distancing practice among Undergraduate students in Medical fields at Samarinda city, Indonesia.
3 To identify the association between general characteristic, knowledge level, attitude level and social distancing practice level among Undergraduate students in Medical fields at Samarinda city, Indonesia.
4 To explore the reasons for not practicing social distancing among Undergraduate students in Medical fields at Samarinda city, Indonesia.
5 To find which source of information used by Undergraduate students in Medical fields at Samarinda city, Indonesia.

1.4 Research Hypothesis

H1: There is an association between general characteristic and practice of social distancing among Undergraduate students in Medical fields at Samarinda city, Indonesia.

H2: There is an association between knowledge and practice of social distancing among Undergraduate students in Medical fields at Samarinda city, Indonesia.

H3: There is an association between attitude and practice of social distancing among Undergraduate students in Medical fields in Samarinda city, Indonesia.

1.5 Conceptual Framework

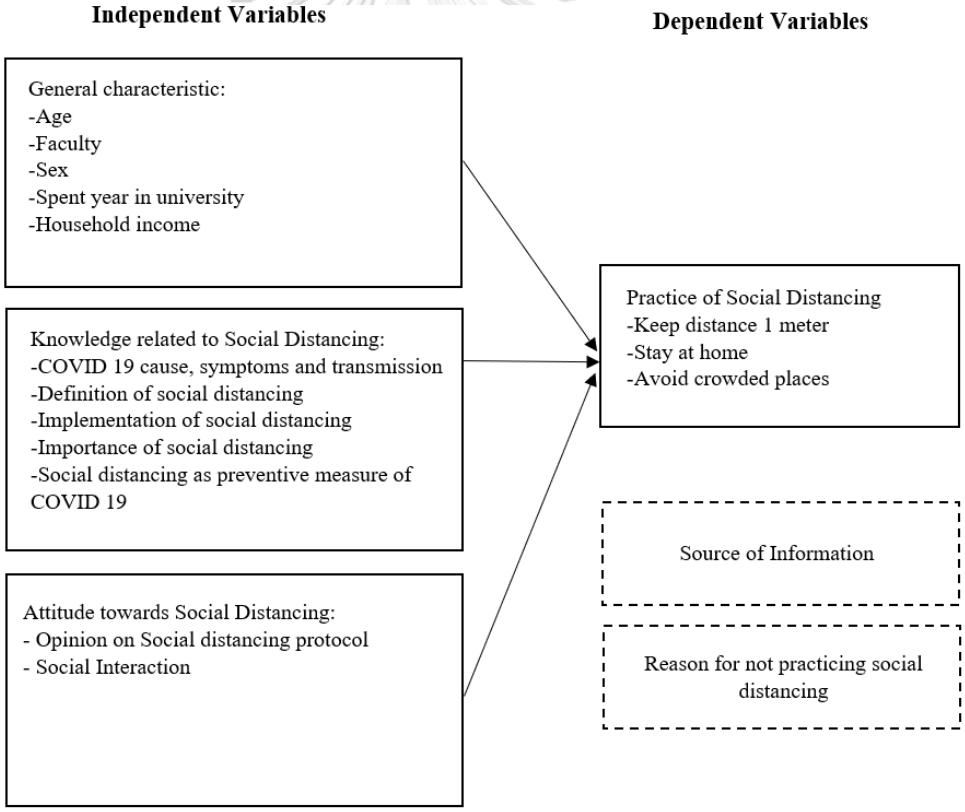

Figure 1. Conceptual Framework of Knowledge, Attitude and General characteristics with the Practice of Social Distancing among Undergraduate Students in Medical Fields in Samarinda City, Indonesia.

1.6 Operational definitions

Table 1. Operational definition for the study of Knowledge, Attitude and Practice of Social Distancing among Undergraduate Students in Medical Fields at Mulawarman University in Samarinda City, Indonesia.

Variables	**Operational Definition**
Dependent Variable **Practice of Social Distancing**	Respondents practice in doing social distancing includes keep distancing at least 1 meter, staying at home and avoiding the crowds indoors or outdoors.
Independent Variables **1. Age**	Age referred to young people (university students), in this study the respondents is aged above 18 years old
2. Sex	male or female by birth
3. Spent year in university	the duration of the study period that has been taken by the respondents starts from the first to the sixth year
4. Household income	refers to parent's income according to Samarinda city minimum wage and categorize into 2 groups; < 3.100.000 IDR and ≥ 3.100.000 IDR
Knowledge related to social distancing	the knowledge level of the respondent regarding social distancing as one of prevention of COVID 19 which includes COVID 19 cause, symptoms and transmission and also the definition, implementation and importance of social distancing.
Attitudes towards social distancing	the thoughts and believes of respondent toward social distancing which include opinion on social distancing and social interaction.
Student in medical fields	Students who studying in undergraduate level at the medical fields includes medical faculty, pharmacy faculty or public health faculty.
Source of information	the source of social distancing information obtained as a preventive measure for the spread of coronavirus from Television, social media, official website from Ministry of health /Indonesia covid-19 task force/WHO, mouth-to-mouth way by friends relative, parents or teacher in university, banner/poster and Radio.

CHAPTER II
LITERATURE REVIEW

This chapter will present literature review regarding; 1) Corona Virus Disease 2019, 2) Social Distancing, 3) Knowledge, attitude and practice, 4) Factors affecting Social distancing, 5) Role of Undergraduate students in Medical fields at social distancing and 6) Previous Researches related to Social Distancing as COVID 19 prevention measures.

2.1 Corona Virus Disease 2019

2.1.1 Etiology

Coronavirus Disease 2019 (COVID-19) is a new type of disease that has never been previously identified in humans. The virus that causes COVID-19 is called Sars-CoV-2. Corona virus is zoonoses (transmitted between animals and humans). Research says that SARS transmitted from civet cats (civet cats) to humans and MERS from camels to humans. Meanwhile, the animal that is the source of transmission of COVID-19 is still unknown. The incubation period averaged 5-6 days with a period the longest incubation of 14 days (Health, 2020).

The cause of COVID-19 is a virus that belongs to the coronavirus family. Coronavirus is a positive, encapsulated and unsegmented single-strain RNA virus. There are 4 main protein structures in Coronavirus, namely: protein N (nucleocapsid), glycoprotein M (membrane), glycoprotein spike S (spike), protein E (sheath). Coronavirus belongs to the order Nidovirales, family Coronaviridae. This coronavirus can cause disease in animals or humans. There are 4 genera, namely alphacoronavirus, betacoronavirus, gammacoronavirus, and deltacoronavirus. Prior to COVID-19, there were 6 types of coronavirus that could infect humans, namely HCoV-229E (alphacoronavirus), HCoV-OC43 (betacoronavirus), HCoVNL63 (alphacoronavirus), HCoV-HKU1 (betacoronavirus), SARS-CoV (betacoronavirus), and MERS-CoV (betacoronavirus)(CDC, 2020b).

The coronavirus, which is the etiology of COVID-19, belongs to the genus betacoronavirus, is generally round with some pleomorphic shape, and is 60-140

nm in diameter. The results of phylogenetic analysis indicate that this virus is included in the same subgenus as the coronavirus that caused the SARS outbreak in 2002-2004, namely Sarbecovirus. On this basis, the International Committee on Taxonomy of Viruses (ICTV) named the cause of COVID-19 as SARS-CoV-2 (Health, 2020).

Remain uncertain how long the virus that causes COVID-19 remains on the surface, but the virus behaves like other types of coronavirus. The length of time the coronavirus lasts may be influenced by different conditions (such as surface type, environmental temperature or humidity). Some study shows that SARS-CoV-2 can last for 72 hours on plastic and stainless-steel surfaces, less than 4 hours on copper and less than 24 hours on cardboard. Like other coronaviruses, SARS-COV-2 is sensitive to ultraviolet light and heat. Effective can be deactivated with lipid solvents such as ether, 75% ethanol, ethanol, disinfectants containing chlorine, peroxyacetic acid, and chloroform (except chlorhexidine) (Health, 2020).

2.1.2 COVID 19 situation

Worldwide, the incidence of new cases of COVID-19 has continues to accelerate (Figure 1). In October, over 40.000.000 confirmed cases and 1.1 million deaths have been reported, with over 2.400.000 new cases and 36.000 new deaths reported in just a week. WHO has reported that the cases in European region has rapidly increasing in both confirmed or death cases which is the confirmed case is over 927.000 new cases that show the increased number up to 25% in just a week(WHO, 2021).

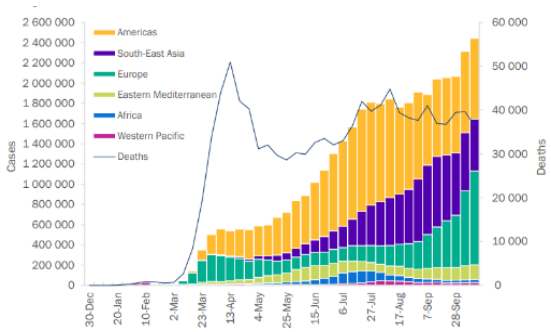

Figure 2 Number of COVID-19 cases reported weekly by WHO Region, and global deaths, 30 December 2019 through 18 October 2020 *(Source: COVID-19 Weekly Epidemiological Update)*

Meanwhile, in Indonesia per October 2020 ministry of health declared that there are few regions with high-risk potential of COVID 19 transmission. In the distribution map of risk status per regions as shown below is denoted by five status categories, 1) Red which means the area with high risk, 2) orange which means the area with moderate risk, 3) yellow means the area with low risk, 4) dark green means the area is not there are cases (ICTF, 2020a).

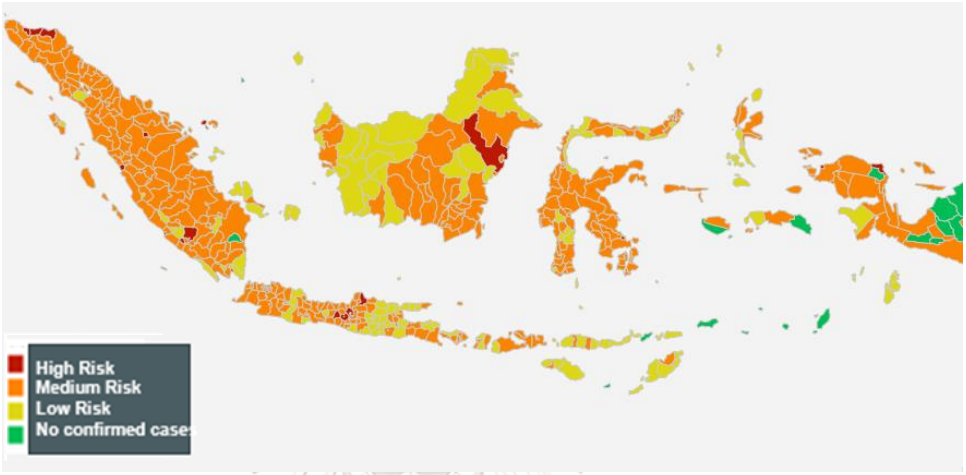

Figure 3 Covid-19 Risk Zonation Map Indonesia *(Source: Covid-19 Task Force)*

As seen in Figure 2 shows that red regions in the middle of map, it shows that Kutai Kartanegara in the province of East Kalimantan is the high level of risk area of spreading the Covid-19 virus in Indonesia. Samarinda City with the middle risk status is surrounded by Kutai Kartanegara which possibly change the status of middle risk into high risk status of spreading the virus (ICTF, 2020a).

2.1.3 Transmission

SARS-CoV-2 transmitted from humans to other humans that will be more potentially occur in family cluster and small group community cluster that has history of travelling from other area or close contact with patients with COVID-19 or people infected with COVID-19 without symptoms (Guo et al., 2020). The transmission of SARS-CoV-2 can occur from humans to other humans, especially among family members and friends who are in close contact with patients with COVID-19 or people infected with COVID-19 but without symptoms. Research

into a vaccine and drugs for SARS-CoV-2 is still underway; thus, a strategy is needed to prevent the process of transmission among humans (Guo et al., 2020).

The incubation period for COVID-19 averages 5-6 days, with a range between 1 and 14 days but can reach 14 days. The highest risk of transmission is acquired in the first days of illness due to high concentrations of the virus in secretions. An infected person can be infectious up to 48 hours before symptom onset (presymptomatic) and up to 14 days after symptom onset. A study by Du Z et. al, (2020) reported that 12.6% showed presymptomatic transmission. It is important to know the presymptomatic period because it allows the virus to spread through droplets or contact with contaminated objects. In addition, that there are confirmed cases that are asymptomatic (asymptomatic), although the risk of transmission is very low there is still a small possibility of transmission (MoH, 2020).

Based on current epidemiological and virological studies, it is proven that COVID-19 is mainly transmitted from symptomatic people to other people who are in close proximity through droplets. Droplets are water-filled particles >5-10 µm in diameter. Droplet transmission occurs when a person is in close proximity (within 1 meter) of someone who has respiratory symptoms (for example, coughing or sneezing) so that the droplets are at risk of hitting the mucosa (mouth and nose) or the conjunctiva (eyes). Transmission can also occur through objects and surfaces contaminated with droplets around infected people. Therefore, transmission of the COVID-19 virus can occur through direct contact with an infected person and indirect contact with surfaces or objects used on an infected person (for example, a stethoscope or thermometer) (MoH, 2020).

In the context of COVID-19, airborne transmission may be possible in special circumstances where aerosol-producing supportive procedures or treatments such as endotracheal intubation, bronchoscopy, open suction, administration of nebulized medication, manual ventilation before intubation, turning the patient into a prone position, disconnecting the ventilator, non-invasive positive pressure ventilation, tracheostomy, and cardiopulmonary resuscitation (MoH, 2020).

Social distancing is one of the community actions that can prevent disease transmission by reducing contact between people who can spread the virus. Social distancing is a way for everybody that could prevent virus transmission by distancing the contact between person who can transmit the virus (Maharaj & Kleczkowski, 2012; Yanti et al., 2020). The transmission way from one person to another could through the droplets by coughing or sneezing, do close personal contact with the others (touch or shaking hands), randomly touching an object or surface that contained the virus then touch our body such as face, mouth, nose and other parts without handwashing first (DHSS, 2020).

2.1.4 Symptoms

Common signs and symptoms of COVID-19 infection include respiratory symptoms acute such as fever, cough and shortness of breath. The incubation period averaged 5-6 days with a period the longest incubation of 14 days (Health, 2020). These symptoms may appear 2-14 days after exposure to the virus: fever, cough, difficulty breathing, body-fatigue, muscle pain, headache, loss of taste or smell, sore throat, congestion, nausea, vomiting and diarrhea (DHSS, 2020).

The symptoms experienced are usually mild and appear gradually. Some people who are infected don't show any symptoms and still feel well. The most common symptoms of COVID-19 are fever, feeling tired and dry cough. Some patients may experience aches and pains, nasal congestion, runny nose, headache, conjunctivitis, sore throat, diarrhea, loss of smell and skin rash (MoH, 2020).

According to data from the countries affected by the start of the pandemic, 40% of cases will have mild disease, 40% will have moderate disease including pneumonia, 15% of cases will develop severe illness, and 5% of cases will be in critical condition. Patients with mild symptoms reported recovery after 1 week. In severe cases, patients will experience acute respiratory distress syndrome (ARDS), sepsis and septic shock, multi-organ failure, including kidney failure or acute heart failure which results in death (MoH, 2020). The COVID-19 virus infects people of all ages. However, the elderly (elderly) and people with pre-existing medical conditions such as high blood pressure, heart and lung

disorders, diabetes and cancer are at greater risk of developing severity (WHO, 2020a).

2.1.5 Diagnostic and Treatment

Molecular testing for all patients suspected of being infected with COVID-19 are recommended. The recommended method is the molecular detection method / NAAT (Nucleic Acid Amplification Test) such as the RT-PCR examination (MoH, 2020).

Until now, the vaccine of this pandemics already shown the positive effects by passing all phase of clinical trials and could be distributed to the society. The effectiveness of the vaccine is up to 90% in preventing COVID-19 virus, but it needs 60% coverage to achieve herd immunity. The other specific drug to treat COVID-19 besides vaccination is not available or still been study through scientific research (Ariawan, 2020).

Treatment that given in healthcare provider is aimed at symptomatic and supportive therapy. Treatment management for patients with positive Covid-19 will be treated in accordance with the triage of case management. Includes early supportive therapy and monitoring including self-isolation, administration of medication to reduce symptoms, management of hypoxemic respiratory distress and ARDS, collection of specimens for laboratory diagnosis, management of shock to prevention of further complications. However, there are no specific treatments that can cure the coronaviruses, its only reduce the symptoms (Health, 2020).

Most people with common human coronavirus illness will recover on their own. Based on Department of Health and Senior Services, there are some things to relieve the symptoms, including (DHSS, 2020): medication (fever drugs and painkiller), humidifier to relieves sore a sore throat and cough, drink sufficiently of water to hydrate the body well, stay home and well rest.

2.1.6 Prevention and control of COVID 19

Since the first cases were announced the spread of COVID-19 transmission has occurred rapidly. This requires a coping strategy in accordance

with the transmission that occurs at both the national and provincial levels, with the goals as follows (MoH, 2020):

1. To slow down and stop the rate of transmission / transmission, and delay the wider spread of transmission.
2. Providing optimal health services for patients, especially critical cases.
3. Minimizing the impact of the COVID-19 pandemic on the health system, social services, economic activities and other sector activities

Based on available evidence, COVID-19 is transmitted through close contact and droplets, not by air transmission. The people most at risk of becoming infected are those who are having close contact with COVID-19 patients or caring for COVID-19 patients. Prevention and mitigation measures are the key to implementation in health services and society(WHO, 2020d).

The most effective preventive measures in society recommended by WHO are: perform hand hygiene using a hand sanitizer if hands are not visibly dirty or wash hands with soap if hands are visibly dirty; not touching the eyes, nose and mouth; practice coughing or sneezing by covering the nose and mouth with the upper arm inside or tissue, then throw the tissue in the trash; wear a medical mask if you have respiratory symptoms and practice hand hygiene after removing the mask and keep a distance (at least 1 meter) from people (social distancing) (Health, 2020).

Based on Indonesia Ministry of Health COVID 19 guidelines there are several strategies that can be taken in preventing transmission, reducing the number of cases, and ending outbreaks in the community, including:

1) Social distancing by avoid to do close contact with other people nearby at least 1 meter and getting touch such as shake hands, elbow bump, or hug. There are alternative way to greeting such as wave and verbally greet them (CDC, 2020c).
2) Hand hygiene. Washing hands before and after touching mask or doing activities with water and soaps or hand sanitizer. Avoid touching eye, nose, mouth and face before washing the hands.
3) Cough / sneeze etiquette. Cover the mouth with tissues or use elbow everytime wants to cough or sneeze.

4) Use a mask. Recommended mask to be used are have two or more layers of washable and breatheable fabric mask, completely cover the nose and mouth area, fit snugly against the sides of the face and do not have gaps. Wear a mask in correct way and consistently to maximize the benefits of it. Avoid touching the mask when wearing it and ensure to putting mask on with washed hands (CDC, 2020a).
5) Ensure access to hand hygiene in front of public facilities and transportation centers (eg markets, shops, places of worship, educational institutions, train or bus stations). Hand washing facilities with soap and water are available within 5m of all toilets, fine in public and private facilities (MoH, 2020).

2.2 Social Distancing

2.2.1 Definition

Social distancing is an action that is keeps a distance of at least 1 meter from other person and avoid the crowded places or in groups (WHO, 2020c). The practice of social distancing means staying home and away from others as much as possible to help prevent spread of COVID-19. The implementation of social distancing to avoid larger crowds or crowded spaces such as working from home instead of at the office, closing schools or switching to online classes, visiting family and friends by electronic devices instead of in person and cancelling or postponing conferences or large meetings (Maragakis, 2020). The purpose of this action is to break the chain of transmission (WHO, 2020c). This action become an important part of pandemic control in minimizing the chance of the virus spread (Kelso et al., 2009).

2.2.2 Social distancing implementation in Indonesia

As the Indonesian government has forced citizen to implementing social distancing during COVID 19 such as giving commands to study or work from home (WFH), stay at home and reducing contact, prohibiting activities in large numbers, and limiting operating hours in public places.

Social distancing can reduce the mortality and morbidity of the disease, but the benefits of this action will be only happened if everyone in the community understand the importance and obligated it well (Kelso et al., 2009).

Based on the UNICEF data on monitoring the implementation of health protocol in public places, the percentages of Indonesian people in complying the social distancing is only as much as 44% on several province in Indonesia (Ariawan, 2020). In university area, from previous studies conducted on Jakarta in April 2020, the proportion of good physical distancing behavior was 55.9% among undergraduate students (Syadidurrahmah, Muntahaya, Islamiyah, Fitriani, & Nisa, 2020).

This effective strategy is expected to reduce and control the Covid-19 transmission during this rapid rise period. However, the big problem is that most of the Indonesian people still have disobeyed this strategy. The Indonesian are still doing activities outside the house, going on vacation to various places, and returned to their home towns (Saifulloh, 2020). The implementation in Indonesia as a new protocol, social distancing facing many obstacles, such as ineffective socialization, careless implementation, ambiguous physical contact solutions to official conditions that force people to violate this protocol. Social pressure such as being on an official event can force them to shake hands and even ignore social distancing (Yanti et al., 2020). Social pressure defined as external pressure on the social life of individual to achieved acceptance in society (Bursztyn & Jensen, 2015).

There are still many violate acts of this preventive strategy such as mass movements from protester who was mostly undergraduate students. Basically, human behavior is governed by the principle of reciprocity. Someone will follow the rules if they get something in return. For example, not getting sick with COVID 19 is the reward for following the rules. However, rewards like this will not last long because from the start people did not suffer from COVID 19. The belief that “will not be

infected" will strengthen over time. Linear with the anxiety and threats will also decrease. People have become tired of the long period of COVID 19 (Dwivedi et al., 2020).

In addition, many violators of this health protocol are examples for other people, such as continuing to travel without wearing masks and playing or picnicking in parks are making people confused about what to do and what not to do. In uncertainty period like recent days, people will look for other people to determine their attitudes so they tend to imitate the behavior of most people (Dwivedi et al., 2020).

2.2.3 The importance of social distancing

COVID-19 spreads mainly among people who are in close contact (within about 1 meter) for a prolonged period. Spread happens when an infected person coughs, sneezes, or talks, and droplets from their mouth or nose are launched into the air and land in the mouths or noses of people nearby. The droplets can also be inhaled into the lungs. However, some individuals might not show the symptoms at all but still be active carriers. In fact, 80% of the cases people will only experience a mild version of the disease and are late to know that they infected after they went to many places and infecting the others. This is why the virus has been able to spread across the globe so aggressively (WHO, 2020b).

Since people can spread the virus before they know they are sick, it is important to stay at least 1 meter away from others when possible, even for a person without symptoms (WHO, 2020c). Social distancing is especially important for vulnerable people such as elderly that has 5 folds risk to be hospitalized for severe illness from COVID-19 (CDC, 2020c).

COVID-19 can live for hours or days on a surface, depending on factors such as sunlight, humidity, and the type of surface. It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or eyes. However, this is not thought to be the main way the virus spreads. Social distancing helps limit opportunities to come in contact with contaminated

surfaces and infected people outside the home (CDC, 2020c).

To avoid many individuals infected by COVID 19 at once that can cause many hospitals full and making the uninfected patient that needs other medical care cannot get their treatment because the health workers are focusing on taking care of the COVID 19 patients. This is the part where social distancing taking big role to slow down the spread of COVID 19, especially those with asymptomatic from keep infecting other people widely. By avoiding the potential high risk spread such as crowded places, public transportation, movie halls, schools and offices, everyone can slow the spread of the virus and ensure that hospitals are able to accommodate severe case while manage their regular workload (WHO, 2020b).

The importance of complying social distancing still needed even when the vaccine has passed all the clinical trials phase and distributed to all people, worldwide. Because, to achieved the Herd immunity, Indonesia must vaccine at least 60% of the entire population of the country and this process might be takes time to achieved this coverage. This is why the vaccine must go along with the non-pharmaceutical strategy or 3M. In preventing and controlling the spreads of COVID 19 while waiting for this vaccine are successfully distributed evenly, the non-pharmaceutical strategy is needed which are wearing mask, social/physical distancing and washing hands or 3M in Indonesia language (Menggunakan masker, Menjaga jarak dan Mencuci tangan) (Adisasmito, 2020).

2.3 Knowledge, Attitude and Practice.

In the past the knowledge, attitude and practice developed for family planning and population studies in the past and currently used in cross sectional studies study (Launiala, 2009; Vandamme, 2009). KAP model has been commonly tool used in research for long time to collect patients' and practitioners' information (Kishore, 2016). The correlation between knowledge-attitude-practice was developed based on cognitive, affective and behavior theory by Schwartz to study relation of knowledge, attitude and practice of diet (Bano, AlShammari, Fatima, & Al-Shammari,

2013).

The KAP model is a rational model in health education that easy to be conducted. The findings also relatively not hard to be interpret with a concise presentation. It is based on the notion that improving a person knowledge might affects the personal behavior (Hou, 2014).

Figure 4 The knowledge-attitude-practice model (Bano et al., 2013)

This model is based on the theory that action, practice or behavior of individuals are more or less derived directly from the knowledge obtained from experiences and education and mediated by the attitude or beliefs that are also rooted in that knowledge. If the information received for knowledge is incorrect or inconsistent with existing knowledge, it can lead to misconceptions, thereby negative attitude and negative behavioral choices (Hou, 2014).

Knowledge is the result of knowing, and this happens after people have sensed a certain object. Most of human knowledge is obtained through the eyes and ears (McQueen, 1999; Notoatmodjo, 2010). There are several level of knowledge that is known, understand, applications, analysis, synthesis and evaluation (Maulana & Sos, 2009; Notoatmodjo, 2012). Factors that influence the attainment of knowledge include educational level, the type of information, culture, and experience (Yanti et al., 2020).

Attitude is a reaction or response that is still closed from someone against a stimulus or object. Meanwhile, according to Newcomb, attitude represents readiness or willingness to act, and not implementation of certain motives. So based on the above understanding, attitude is closed and

predisposes a person's behavior to a stimulus. Many factors could affect attitudes such as personal experiences, culture, information, educational institutions or religious institutions, as well as emotional factors within individuals (Ilmu, 2007; Notoatmodjo, 2012).

In the Attitude section, a numerical value can be assigned to each choice in the range of responses, with the middle response given a score of positive and negative scores assigned to those around it. In this way a score can be calculated for each individual in relation to the highest possible score (Kaliyaperumal, 2004).

Human behavior is all of human activity or activity, either which can be observed directly or that cannot be observed from the outside. According to Skinner, behavior is a person's response or reaction to an external-stimuli. Based on the form of response to stimulus, behavior can be divided into two namely closed behavior (covert behavior) and open behavior (open behavior) (Maulana & Sos, 2009; Notoatmodjo, 2010). Not all actions manifest in an action. This is because for the realization of an action several factors are needed such as the facilities and infrastructure (Ilmu, 2007).

2.4 Factors affecting Social distancing

2.4.1 General characteristic

Age has its own influences on individual behavior and decision making. A cross sectional study by Defar *et al*, 2021 that had found association between older age and prevention of COVID-19 (Defar et al., 2021). Similar with study findings conducted in Thailand that revealed health sciences students in age of 20 years and upper had better COVID-19 prevention behaviors rather than lower age (Singkun, Patiwikriwong, Chainapong, & Weerakhachon, 2020).

In previous studies conducted on Jakarta in April 2020, the proportion of good physical distancing behavior was 55.9% among undergraduate students. As many as 63.1% of women had good physical distancing behavior (Syadidurrahmah et al., 2020). In high income countries, females were found to be more adherent in practicing social distancing (Coroiu, Moran, Campbell,

& Geller, 2020). In addition, female students tended to apply good physical distancing behavior 3.4 times compared to men (95% CI 2.037-5.804). This is because women generally emphasize the notion of health related to relaxation, rest, feeling well, and nutrition, while men emphasize the state of not being sick (Syadidurrahmah et al., 2020).

Therefore, women are more careful, tend to adopt healthy behaviors. In fact, based on data from the Ministry of Health in 2020 as of June 30, 51.5% of confirmed cases of the corona virus occurred in men (MoH, 2020). In the research results of Zhong *et al*. 2020 found that there was a significant relationship between male gender and potentially dangerous practices towards COVID 19. This is due to man that more careless than woman (Zhong et al., 2020a).

Household income also affects the knowledge of research subjects conducted in Malaysia in May 2020 ago. Where it was found that research subjects with low monthly income had low knowledge of the prevention of Covid-19. This might indicate limited access to credible and timely information about the virus (Mohamad, Azlan, Hamzah, Tham, & Ayub, 2020). This is similar to the results of a study in Bangladesh which showed that Bangladesh residents with high family income tended to practice more often and have a positive attitude towards covid-19 prevention measures than those with low family income(Azlan, Hamzah, Sern, Ayub, & Mohamad, 2020).

2.4.2 Knowledge

Social distancing is included in the form of behavior. Behavior themselves can be influenced by several aspects such as knowledge, perception, emotions, motivation and environmental factors. Knowledge is a fundamental aspect for the formation of an individual's behavior. Knowledge of social distancing will determine attitudes towards taking preventive actions and influence behavior. Previous study that conducted in Indonesia shows that the better level of citizen knowledge, the better their social distancing practices (Madden, Leacy, Zgaga, & Bennett, 2020).

A person knowledge about social distancing is expected to affect their attitudes and behavior towards the social distancing to prevent the coronavirus transmission. Saunders-Hastings et al in 2016 found that by enhancing knowledge of pandemic disease transmission, various interventions can strengthen the effectiveness of individual action in preventing pandemic (Yanti et al., 2020).

2.4.3 Attitude

Human attitudes are determining how a person will acts, however sometimes attitude is not reflected in action. Consideration of whether something is good or bad will impact personal action. Many factors that may influencing attitudes includes personal experiences, culture, information, educational institutional, and emotional within individual. Attitude will occur when data can be understood, accepted, and approved (Azwar, 2013; Yanti et al., 2020).

Previous study that conducted on Indonesia to citizen in March 2020 shows that respondent with good attitude, indicate that they are aware of the importance of social distancing. Attitudes has main component as awareness, feelings, and behavior. Saying that “Social distancing is important” is an evaluative statement. That opinion is a cognitive component that could determines the level of attitude. The behavioral component of attitude aim to change behavior so as to adjust to a particular condition(Robbins & Judge, 2015; Yanti et al., 2020).

2.5 Role of Undergraduate students in medical fields

In the Big Indonesian Dictionary (KBBI), university students are defined as a person who study in Higher Education. As an educated person and part of society, students have a complex and comprehensive role so that they are grouped into three functions, namely agent of change, social control and iron stock. Due to these functions it cannot be denied how big the role played by students in bringing about national change, especially during this pandemic period (Khusairi, 2020).

WHO reports that social distancing is widely violated by young people throughout the world, including in Indonesia Mass movements such as protest demonstrations in several countries are potentially could cause a second wave of increasing Covid-19. Besides, many people still do not comply the social distancing, such as keep travels to crowded public places and ignoring physical distancing in the crowd (Yanti et al., 2020). This is mostly done by young people in contrast to adults who spend more time at home and adhere to health protocols, namely social distancing. This is related to age, which are adolescents more likely to breaking the rules than adults. This is because the way adults pay attention and take every news seriously and thus have a better awareness of the importance of obeying the rules than young people (Pedersen & Favero; Zhong et al., 2020a)

Based on data on the distribution of COVID 19 cases based on age groups, people in age range 18-22 years is included in the 2 largest contributor groups in Indonesia, namely the 6-18 years old group as much as 24.25% and age group range 19-30 years old as much as 30.97% of the total COVID 19 cases (ICTF, 2020b). According to data on the higher educational statistical year book 2018, Indonesian residents who study undergraduate education are 17-22 years old (PUSDATIN, 2018).

Young people are more likely to listen suggestions from peers and get information more effectively through casual conversations with their peers than with older people. Medical students as an extension of health workers that works in real field (such as hospitals, clinic or health center), could be the closest and effective health promotor to spreads the correct information and encourage young people to properly practicing social distancing (Khusairi, 2020; Sumihudiningsih, Soesilowati, & Atmaja, 2019).

Students in health domain have not become health workers or work directly in the field of work officially but have basic knowledge and understanding that are exposed more intensely than students who are not in the realm of health. Therefore, in the prevention and control of this new pandemic, the role of the medical students is also needed by following the development of Covid-19, being active in conducting studies or research on

Covid-19, conducting risk communication to patients or patients' families to increase awareness in implementing health protocols and reduce stigma and make society the subject. Students in health domain are "born to be a health promoter" and those students from grade 1 to the end must become "agents of change" who become their identities (Yurianto, 2020).

Apart from being responsible for social distancing, medical students have a major role in educating and communicating actively with their peers or the wider community through risk communication and community empowerment. By becoming an extension of health educators in health facilities (such as hospitals or clinics) and agent of change that closest to the second largest contributor to the number of positive corona patients, medical students can build more trust and can more effectively convey health education and a call to comply in doing social distancing through a conversation style that can be simpler and more relaxed so that information can be more absorbed by the peers (Sumihudiningsih et al., 2019).

The main key in combating this pandemic is collaborative governance where all the stakeholders must give the best efforts together, the government and the society must collaborate in synergy. While the government are doing the 3T; Test, Treat and Trace, so the people in society must boost the government efforts by compliance the 3M; Menggunakan masker (wearing mask), Menjaga jarak (social/physical distancing) and Mencuci tangan (washing hands). Even so, in the implementation of 3M is still not effectively applied, for example 3M is only applied as much as 15% in office areas and it could be even worse in market areas (Prahastuti, 2020).

2.6 Source of information related social distancing

In obtaining the information young people are using various platform as source of information to educate themselves about Covid-19. The new normal condition that emphasizes social restrictions to limit the spread of Covid-19 has changed the way people seeking information related to conditions and regulations that have been set by health authorities. Thus, digital advancement in global were accelerated. The shift into online methods

has made internet media mostly visited as a source of information related to the COVID-19 pandemic (Ho, Chen, & Yen, 2020). However, the same tools also amplify the current *infodemic* that continues to undermine the global response and jeopardizes measures to control the pandemic (WHO, 2020e). In uncertain situation such as nowadays, information is rapidly changing, myths, rumors and misinformation are easily found everywhere. Social media and other digital platforms could help spread these myths extremely quickly and make them appear correct as many peoples follow and share that misleads contents. Rumors or misinformation could easily circulate in communities during a crisis (Hopkins, 2020).

Generation Z and Millennial are highly concerned about COVID-19 infection among themselves and their family members. Therefore, they tend to follow up closely the newly updates information during uncertain period (WHO, 2020e). Since the science contents in social media were perceived as share-worthy content and spreads fast. Nevertheless, nowadays WHO keeps fighting the *infodemic* of COVID-19 spreads widely in online source of information (W. Chen et al., 2020).

Some research findings have supported above arguments as previous studies conducted in Pakistan revealed majority of health workers used social media as main source of information of health guidelines. Similar to this, a study by college of medicine in United Emirates Arab that reveals healthcare workers dominantly access the updates of COVID-19 via social media (Bhagavathula, Aldhaleei, Rahmani, Mahabadi, & Bandari, 2020; Hajar & Rachman, 2020; Koptyug, 2021). In university level, college students mostly were familiar using Facebook for updates information of COVID-19 (Radwan, Radwan, & Radwan, 2020; WHO, 2020e). As well as study results conducted in Depok found that college students frequently use social media to gain information of health issue (92,7%). As much as 50,7% was using Facebook to gain information related to Covid-19 (Hajar & Rachman, 2020). In Austria, 35% of young people aged 16 years old and older also using Facebook platform to inform themselves about Covid-19 (Koptyug, 2021).

Getting the correct information regarding the preventive measure to minimize the spread of Covid-19 is the key access to success in stopping this pandemic. Therefore, accurate information should be disseminated through which platforms are often used by the wider community so that accurate and correct information can reach the entire population including students. Thus, social media users must be wise in filtering news or information, since this platform is vulnerable to be filled by unverified malicious information that could misguide users to misunderstand the contents. The Ministry of Health and the national crisis preparedness and response center are working together in supplying health education through many channels such as advertisements on TV through collaboration with Ministry of communication and information technology, socialization through counseling or banners, or social media via Telegram, Whatsapp group and Instagram (MOHA, 2020b).

2.7 Previous Researches related to Social Distancing as COVID 19 prevention measures.

An online survey-based research conducted by Yanti *et al.* in March 2020 in Indonesia examines the knowledge, attitude and practices of the Indonesian people regarding social distancing policies as a covid-19 prevention measure. This study shows that the majority of respondents have good knowledge (99%), positive attitudes (59%), and good behavior (93%) related to social distancing. Among the respondents who have good knowledge also show a positive attitude (58.85%) and good behavior (93.3%). Respondents who have positive attitudes also show good behavior (96.7%). This research examines the Indonesian people widely spread across 34 provinces in Indonesia and comes from various backgrounds (Yanti et al., 2020).

Another study was a cross sectional study conducted in Jakarta, Indonesia within the scope of a university and using students as research respondents. This research was conducted to determine the determinants of physical distancing behavior among students of National Islamic University in Jakarta at the beginning of the COVID-19 pandemic. The population was

students in health study program and non-health study program. The study find that good physical distancing behavior is carried out by 55.9% of students. The results of multivariate analysis showed that the determinant of physical distancing behavior was female gender, good knowledge regarding physical distancing as well as family support. Public figure support was not significantly related to physical distancing behavior (Syadidurrahmah et al., 2020).

CHAPTER III
MATERIALS AND METHODS

3.1 Study Design

This study was a cross-sectional online survey study.

3.2 Study Area

Study area in this study were medical faculties at Mulawarman University in Samarinda city, Indonesia.

Mulawarman University is a public university located in Samarinda, East Kalimantan, Indonesia. It was established on September 27, 1962, the oldest tertiary education institution in East Kalimantan. With more than 35,000 students, Mulawarman University is the university with the most students in Kalimantan. This university has 14 faculties which are divided into two based on the scope of study includes medical and non-medical faculties with education levels from bachelor, master up to doctoral. There are 3 faculties of health including faculties of medicine, pharmacy and public health. Moreover, non-health faculties consist of the Faculty of Agriculture, Cultural Sciences, Economics, Engineering, Fishery and Marine Sciences, Forestry, Information and Communication Technology, Law, Mathematics and Natural Sciences, Social and Political Sciences and the Faculty of Teaching and Education Sciences (PDDikti, 2020b).

3.3 Study Population

The population observed in this study were undergraduate students of Mulawarman University from faculty of medicine, faculty of public health and faculty of pharmacy.

East Kalimantan is the leading province with positive confirmed cases of Covid-19 in Kalimantan. Meanwhile, Samarinda as the capital city of East Kalimantan province is the most populous city on entire Kalimantan island. With land area width reach 718 km2 (277 sq mi) and total population 872.768 person (CBS, 2020). Moreover, Indonesia Covid-19 Task Force reported that Samarinda city are classified as High-Risk Zonation of Covid-19 transmission (ICTF, 2020a).

There are three university provides faculty related to health and sciences. Mulawarman University is providing three health and sciences faculty covers; medical, pharmacy and public health. The total of undergraduate students under those three faculty is 2.624 person (PDDikti, 2020a).

3.4 Duration of Study

This study was conducted in 31 March - 30 April 2021.

3.5 Sample size

The Sample size of this study was calculated by using Infinite population formula method. Proportion of doing social distancing (P) = 0.55 (Syadidurrahmah et al., 2020) The sample size estimation:

$$n = \frac{Z^2_{1-\alpha/2}\, P\,(1-P)}{d^2} = \frac{1{,}96^2.(0{,}55).(1-0{,}55)}{0{,}05^2} = \frac{0{,}950796}{0{,}0025} = 380{,}3/\ 380 \text{ subjects}$$

n = Required minimum sample size

P = Proportion of study population expected to practice social distancing = 0.55

d = Error allowance = 0.05

$Z^2_{1-\alpha}$ = Standard value from Z table = 1.96

The total number of sample size after been add up 10% was 418 subjects required to anticipate the missing or incomplete data.

3.6 Inclusion and exclusion criteria

a. Inclusion criteria
   1) In the age of above 18 years old.
   2) Willing and cooperative to be respondents of this study and agreed to fill and sign inform consent
   3) Undergraduate students who are still actively studying in at the 3 faculties of medical faculty includes medical faculty, pharmacy faculty or public health faculty.

b. Exclusion criteria
   1) Do not have smartphone and access of internet.
   2) Not able to understand how to fill out questionnaire online.

3.7 Sampling technique

The sampling technique used in this study was a non-probability sampling method. The first step is researchers used purposive sampling to select the campus with the highest number of undergraduate health students. After selecting the campus, in the third step we using inclusion and exclusion criteria in a sampling frame, undergraduate students who studying in three faculties under by the faculty of medicine include medical, public health and pharmacy who meet the inclusion criteria were included to the study.

Finally, in the fourth step we used convenience sampling to recruit students who available and agree to participate in the study by signing the informed consent and further the link of questionnaire were distributed to them through WhatsApp and Instagram direct messages by the main researcher and research assistants.

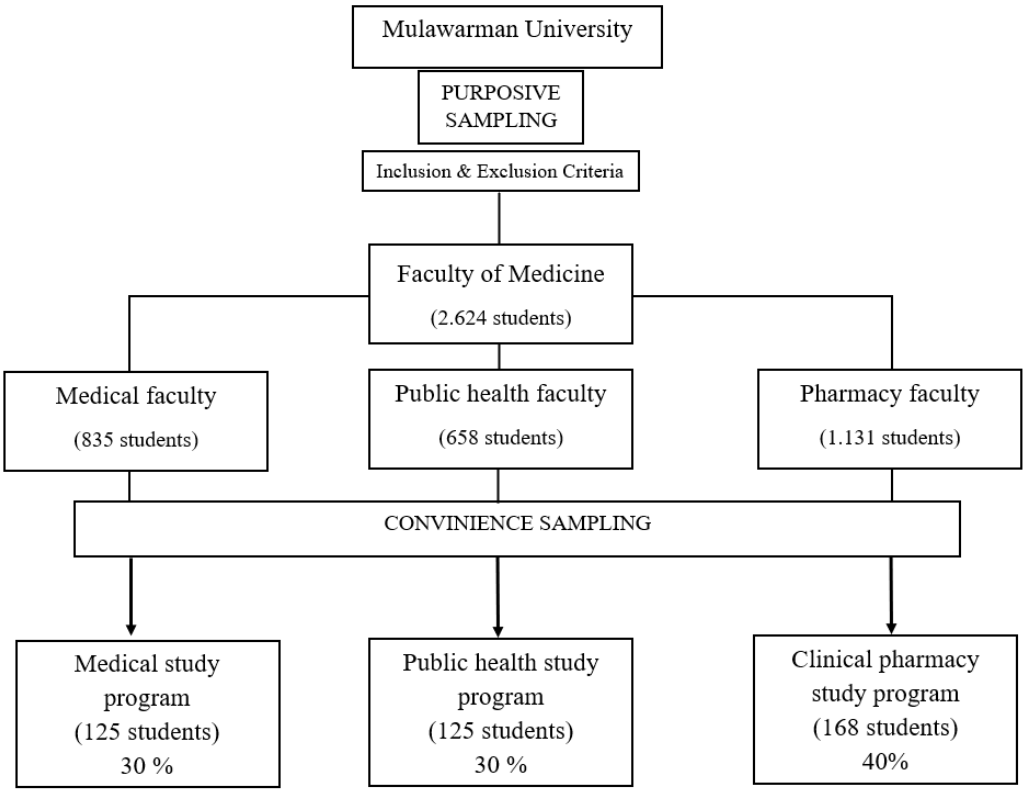

Figure 5 Flow chart of sampling technique

3.8 Measurement tools

In this study, the questionnaires were used to collect the data which includes 6 parts, includes:

1. General characteristics
2. Source of Information
3. Knowledge related to social distancing
4. Attitude towards social distancing
5. Practice of social distancing
6. Reasons for not practicing social distancing.

which were prepared, adopted and modified the standardized questionnaires from official institutional sources, publications and literature reviews (Saefi et al., 2020; Selby et al., 2020; Yanti et al., 2020; Zhong et al., 2020a).

3.8.1 General Characteristics

This part of questionnaire consists of 6 questions required for the respondents' information to characterize them, including 'Age', 'which faculty they registered', 'Sex', 'Spent year in university', and 'Household Income'. The result will be coded according to the number of options provided to see the frequencies and proportions of respondents included in this study.

3.8.2 Source of Information

This part contained one question to find which platform or ways that the respondents has used as sources of information about social distancing. There were 6 kind of answers namely: Television, Social Media (Instagram/ twitter/ telegram/ whatsapp/ line), official website from internet (ministry of health/ Covid-19 Task force/ WHO), Friends/ parents/ relatives/ teacher in university and through media platform such as radio. The data were presented in frequency and percentage as the distribution only and was not included in analysis of relationship between variables.

3.8.3 Knowledge related to social distancing

To assess this factor, there were 24 questions for 4 main parts of knowledge included:

1) COVID 19 cause, symptoms and transmission (Q.7,8,9,10,11,12,13)
2) Definition of social distancing (Q.14,15,16)

3) Implementation of social distancing (Q.17,18,19,20,21,22,23,25)

4) Importance of social distancing (Q.24,26,27,28,29,30)

This part contains 24 questions with 2 responses (Yes/No) with one correct answer. The score was categorized as "1" for correct answer and "0" for incorrect answer. Score of each question were summed up for total score. Median cut off point were used since data was not normally distributed. Measuring the level of knowledge can be categorized into two classification, which were:

Score ≥ Median (score 20) = Good knowledge of social distancing

Score < Median (score 20) = Poor knowledge of social distancing (Azwar, 2013).

3.8.4 Attitude towards social distancing

This section aimed to find out the respondent's attitude towards social distancing which contained 2 parts of:

1) Opinion on social distancing (Q. 31-35, 37-42)

2) Social Interaction Limitation (Q. 36,40,43-46)

This was measured by 16 questions and scale used for statements is Likert's scale. Q. 31-33, 36, 37, 40-42, 44-46 were positive statements and Q. 34-35, 38-39, 43 were negative statements. The response to statements were ranged from "Strongly Agree" to Strongly Disagree" and scored with 5 points Likert's scale as mentioned below.

Table 2 Likert's scale scores for positive statements and negative statements

Positive statement		Negative statement	
Choice	Score	Choice	Score
Strongly agree	5	Strongly agree	1
Agree	4	Agree	2
Neutral	3	Neutral	3
Disagree	2	Disagree	4
Strongly Disagree	1	Strongly Disagree	5

The scaling procedure using the added rating method was based on 2 things:

1. Each attitude question that is written can be agreed upon as a favorable or unfavorable statement(Zhong et al., 2020a).

2. Answers given by individuals who have a positive attitude must be given a weight or value higher than the answers given by respondents who have negative statements.

For calculating scores attitude towards social distancing, the cut-off point was median. All respondents' answer score of 16 questions were summed up and categorized based on the score. The score range is from 16-80. The result was interpreted as follows:

Score ≥ Median (score 63) = Positive attitude towards social distancing

Score < Median (score 63) = Negative attitude towards social distancing (Azwar, 2013).

3.8.5 Practice of social distancing

In this part there are 9 questions with 4 response (always/ often/ sometimes/ never). The score is categorized as "4" =always, "3" = often, "2" = sometimes, and "1" = never. Median cut off point were used since data was not normally distributed. All scores from respondent's answer were summed up and categorized into dichotomous category which were good and poor practice such as in previous study (Yanti et al., 2020). The results will be interpreted as follows:

Score ≥ Median (score 29) = Good practice of social distancing

Score < Median (score 29) = Poor practices of social distancing (Azwar, 2013).

3.8.6 Reasons for not practicing social distancing

This section was instructed to answer by the respondents to identify what are the most influential reasons to not practicing social distancing during rapid rise of Covid-19. This section contained 1 question with list of possible reasons of not practicing social distancing. The respondent can choose one or more reasons which he/she think influencing for not practicing social distancing.

3.9 Validity and Reliability

3.9.1 Validity

A structured questionnaire in English was produced and content will be review validity by experts and give a score for each question (+ 1/0 / -1). Index of

Item-Objective Congruence (IOC) is carried out. After validating the questionnaire, the IOC scores by the experts will sum and divides by three. Items with a score equal to or less than 0.5 will be revised or deleted hence. After the revision, the question is asked to be reviewed by experts again for confirmation. The validated questionnaires will be distributed in Bahasa Indonesia.

3.9.2 Pretest and reliability

Prior to actual data collection, pilot test was conducted to 35 samples at another university in Samarinda City with similar characteristics (10% of total sample size). By used SPSS ver.24, the attitude scale questions obtained Cronbach's Alpha coefficients 0.73 (cutoff 0.5-0.7) and binary knowledge questions has Cronbach's Alpha coefficients 0.65 by using Kudar-Richardson formula 20 (cutoff 0.5-0.7). (Perry Hinton, Hinton, McMurray, & Brownlow, 2004).

3.10 Data collection

In collecting data, the principal researcher was worked with three research assistants from both academic fields and organization of students committee member to accelerate the data collection process. Research assistants consist of members of the Indonesian public health student senate association in East Kalimantan, Head secretary of student executive board for medical faculty and Head of undergraduate program in pharmacy faculty of Mulawarman University. Each research assistant was responsible in disseminating information related to this study (study objectives, procedures and questionnaire link) and ensuring that the questionnaires were evenly distributed to all prospective respondents through follow-up activities according to a predetermined schedule in a coordinated manner.

Data collection process is started with the principal researcher applied for research permit to prospective faculties as the research location of the study (medical, public health and pharmacy). After the involved faculties grant the permission to conducted research at purposed faculties, we requested permission in accessing the student personal data (name, age, contacts and student status) to

the student affairs of each faculties involved in order to validating in determining the number of prospective respondents of this study we have set before by visiting the online database of Mulawarman University.

Furthermore, after obtaining the contacts and exact total number of students the principal researcher was coordinate with research assistant in reaching the whole undergraduate students in medical faculty, public health faculty and pharmacy faculty. Next, the principal researcher and research assistants were broadcasted the link of study recruitment and the online questionnaire to every academic group of faculty and also directly into individuals contact to make sure every student have the link of questionnaire. Verification method was carried out through email verification, where prospective respondents who will fill out the questionnaire are required to sign in using their email before finally enable to go to the questionnaire page. This method aimed to ensure that the questionnaire was filled out by the target subject and not another person, also to prevent one person from filling out the questionnaire multiple times.

After the questionnaire has been distributed, principal researcher and research assistants were coordinate in contacted students to follow up if response rate not reached sample size within 3-6 days until the data collection period is end. Finally, after correcting the completeness by the researcher, the data will be collected for processing. All the steps within the process of data collection were performed digitally.

3.11 Data Entry and analysis

The entry of all responses will be store first in to Ms. Excel to be cleaning and coding process after all of the responses gathered. This study will analyse the data using SPSS 24.0 software. Descriptive analysis using frequency means, and median will be use used. The categorical data will be presented in distribution of frequencies (n) and percentage (%), while the continuous data will be presented its mean, standard deviation, range, frequencies (n) and percentages (%) using frequency distribution table.

In inferential analysis, to examined the association between independent and dependent variables, two steps of analysis were conducted. Bivariate analysis

of Chi square test was performed to screening the significant factors with significance level $p<0.2$. Next, significant factors will be included into regression model with enter method procedure. Finally, Multivariable analysis using Binary logistic regression was conducted to find the final important factors associated with dependent variable with dichotomous outcome of social distancing practice which are poor and good ($p<0.05$).

3.12 Ethical Considerations

Ethical consideration for this study was approved by Ethics Review Committee of Mulawarman University (No.25/KEPK-FK/III/2021) and University of Muhammadiyah Jakarta (No.059/PE/KE/FKK-UMJ/II/2021) from Indonesia. Permission from academic administrators of the University and relating authorities were attained prior to data collection. Moreover, the participation of the respondents was voluntary and the decision to participate in the study are not disclosed to any authority. The researcher was clearly state the objectives of the study to obtain informed consent from respondents before distributions of the questionnaires. Research ethics will be served during and after the data collection.

3.13 Expected Benefit

The result of this study could give contribution for policy maker or local government to evaluate the implementation of social distancing in real condition and what obstacles this health protocol has faced during its implementation. This study will capture the practice of undergraduate student or young people that can assess knowledge, attitude and practice of social distancing. Therefore, if fixer upper is needed this study results could be a reference for students or young people to richen their knowledge and proper up their attitude towards social distancing practice which could leads the undergraduate students in medical fields be able to participate in succeed the social distancing protocol through health promotion.

3.14 Budget

Budget of this study was allocated for participant and research assistance during the collection of the data. Participant and three assistants of research were given some amount of money that was sent to their e-wallet through Go pay or OVO. The incentive was distributed to each person involved after the data collection process has finished.

The details of budget allocation are shown as below:

Table 3. Budget allocation

Allocation	Budget
Participant incentive	1.000.000 IDR/ 71.69 USD
Assistance of study	600.000 IDR/ 42.90 USD

CHAPTER IV

RESULTS

The objectives of this study was to determine the proportion of practice on social distancing among undergraduate students in medical fields, to assess the general characteristics, knowledge level, and attitude level toward practice on Social distancing among undergraduate students in medical fields, to identify association between general characteristics, knowledge level, and attitude level with practice on social distancing among undergraduate students in medical fields, to explore the reasons for not practicing social distancing among undergraduate students in medical fields, and to explore which source of information used by Undergraduate students in Medical fields in Samarinda city, Indonesia. The study population was Undergraduate students in medical fields from 3 faculty in Mulawarman University, Samarinda.

The results are divided into 2 parts; descriptive and inferential findings. The first part contains descriptive findings of general characteristics, knowledge related to social distancing, attitude towards social distancing and practice of social distancing. In this part, other descriptive findings such as source of information for not practicing social distancing among undergraduate students in medical fields are included. The second part contains the bivariate analysis and multivariable analysis to find the association between dependent and independent variables. The dependent variable is practice of social distancing (dichotomous: Poor/Good) and independent variables include age, sex, spent year in university, household income, level of knowledge related to social distancing and level of attitude towards social distancing.

4.1 Descriptive findings

4.1.1 General characteristic

Table 4 shows the general characteristics of the respondents. More than half of the respondents, 50.5% were age between 18-21 years old. Almost half of the respondents (45.0%) were in pharmacy faculty followed by medicine and public health. Majority of the respondents, 76.8% were female students and 23.2% are males. Most of the respondents, 71.8% were spent year at university more than 3

years and 28.2% are only spent less than or equal 3 years. More than half of the respondents 53.3% showed the monthly household income of 3.100.000 IDR or more.

Table 4. General characteristic of respondents (N=422)

Characteristic	Frequency	Percentage (%)
Age		
(Mean±SD: 21±1.76)		
18-21 years old	213	50.5
22-25 years old	209	49.3
Faculty		
Medicine	121	28.7
Public Health	111	26.3
Pharmacy	190	45.0
Sex		
Male	98	23.2
Female	324	76.8
Spent year at University		
<3 years	119	28.2
>= 3 years	303	71.8
Family Income		
<3.100.000 IDR	197	46.7
>=3.100.000 IDR	225	53.3

Currency rate: 1 USD = 14,300 Indonesia Rupiah (IDR), May 2021

4.1.2 Source of information

Figure 6 shows response of the respondents showed top four source of information obtained were from social media such as Instragram/ twitter/ telegram/ Whatsapp/ Line (80.6%), internet source such as ministry of health, WHO, Indonesia covid-19 task force official website (14.0%), television (3.8%), and mouth-to-mouth way by friends, parents, relative and teacher (1.7%).

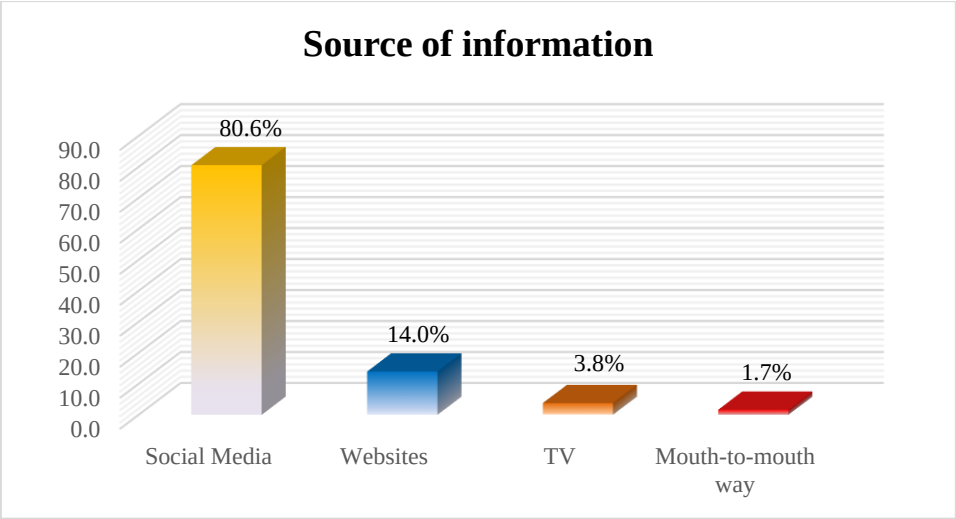

Figure 6 Source of information related to Social distancing

4.1.3 Respondent's practice of Social distancing

Table 5 shows the practice on social distancing as prevention measure of covid-19 among respondents. Most of respondents 195 (46.2%) often maintain a minimum distance of 1 meter in public places or transport facility. More than half of respondents 283 (67.1%) also will isolate themselves when having symptoms of covid-19 or have just met a positive corona patient. More than one third of respondents 162 (38.4%) avoid the crowded or mass gathering. Majority of respondent 208 (49.3%) avoid the physical contact with friends or stranger. As much as 180 (42.7%) from total respondent advise their family and others not to leave the house if there is no urgent need.

Table 5. Frequencies and distribution of practice of social distancing (N=422)

Statement	Frequency	Percentage (%)
I maintain a minimum distance of 1 meter from people around in public places or in public transports facility.		
Never	0	0.0
Sometimes	72	17.1
Often	195	46.2
Always	155	36.7
I will isolate myself if I have symptoms of fever, cough, shortness of breath and have just met a positive corona patient		
Never	19	4.5
Sometimes	32	7.6

Often	88	20.9
Always	283	67.1
I avoid the crowded or mass gathering.		
Never	8	1.9
Sometimes	125	29.6
Often	162	38.4
Always	127	30.1
I avoid the physical contact with friends or stranger.		
Never	3	0.7
Sometimes	96	22.7
Often	115	27.3
Always	208	49.3
I advise family and others not to leave the house if there is no urgent need		
Never	13	3.1
Sometimes	80	19.0
Often	149	35.3
Always	180	42.7
I implementing physical distancing when in the crowd at public places such as stations, markets or malls.		
Never	0	0.0
Sometimes	57	13.5
Often	158	37.4
Always	207	49.1
I follow the physical distancing (>1 meter) when I go to meet other people.		
Never	3	0.7
Sometimes	86	20.4
Often	182	43.1
Always	151	35.8
Do you stay at home during this COVID 19 pandemic?		
Never	4	0.9
Sometimes	113	26.8
Often	185	43.8
Always	120	28.4
In recent days, have you gone to any crowded place??*		
Never	58	13.7
Sometimes	289	68.5
Often	52	12.3
Always	23	5.5

*Unfavorable statement

Most of the respondent 207 (49.1%) implementing physical distancing when in the crowd at public places such as stations, markets or malls. One third of respondents 182 (43.1%) often follow the physical distancing (>1 meter) when they go to meet other people. Almost a half of all respondents 185 (43.8%) often stay at home during this COVID 19 pandemic but more than half of them 289 (68.5%) sometimes gone to any crowded places.

Proportion of practice level of Social distancing

Total practice scores are categorized into poor and good practice by median cutoff point (median = 29). Among 422 respondents about 202 (47.9%) had poor practice on social distancing followed by good practice 220 (52.1%).

Table 6. Score and proportion of practice level of social distancing (N=422)

Practice level (N=422)	Frequency (%)
Poor practice	202 (47.9)
Good practice	220 (52.1)
Median (Interquartile Range)	29 (7)
Minimum, Maximum	16, 36

4.1.4 Respondent's knowledge related to Social distancing

Regarding "Covid-19 cause and transmission" topic, all respondents have ever heard of covid-19 (100%), most of the respondents know that covid 19 is one of the infectious diseases (98.6%), they also know the cause off Covid-19 (99.8%). Most of respondents know that covid-19 can transmit by direct contact (94.1%) and the majority of them also know that covid 19 could transmitted through objects and surfaces contaminated with droplets by infected people (97.9%). More than half of respondents understand the main transmission of covid-19 (79.1%) and mostly also know the common symptoms of infected person with covid 19 are (98.1%).

In the "Definition of social distancing" topic, almost all of respondents know that social distancing is an action that is keeps a distance of at least 1 meter from other person and avoid the crowded places or in groups (92.2%), also understand that practice of social distancing means staying home and keep distance from others as much as possible (97.9%) and know the social distancing is one of the community actions that can prevent disease transmission such as covid 19 (99.8%).

Regarding “Implementation of social distancing” topic shows that female undergraduate students in medical fields score is considered as high scores, about (99.1%) of respondents know the purpose of social distancing, followed by (99.8%) of respondents know about social distancing can be applied by keep in touch with others through online media. Most of respondents (76.1%) answer correctly about social distancing is not effective to control the spread of covid-19 and more than half them (79.6%) correctly answer question about going on vacation to various places or going back to hometown are still allowed in this pandemic period. Almost all respondents (94.5%) have correctly answering do shake hands are allowed during this pandemic and also more than half of respondents (93.1%) correctly answer on social distancing is unnecessary anymore when the vaccines has been distributed.

Table 7. Frequencies and distribution of knowledge score (correct and incorrect answer) related to social distancing

Statement	Frequencies (%) N=422	
	Incorrect answer	Correct answer
Covid-19 cause and transmission		
Have you ever heard of covid-19?	0 (0.0)	422 (100)
Is the COVID 19 is one of the infectious diseases?	6 (1.4)	416 (98.6)
What causing COVID-19?	1 (0.2)	421 (99.8)
Can COVID-19 transmit by direct contact?	25 (5.9)	397 (94.1)
COVID 19 could transmitted through objects and surfaces contaminated with droplets around or used by infected people.	9 (2.1)	413 (97.9)
What is the main transmission of COVID-19?	88 (20.9)	334 (79.1)
The common symptoms of infected person with COVID 19 are?	8 (1.9)	414 (98.1)
Definition of social distancing		
Social distancing is an action that is keeps a distance of at least ……. Meter from other person and avoid the crowded places or in groups.	23 (7.8)	399 (92.2)
The practice of social distancing means staying home and keep distance from others as much as possible.	9 (2.1)	413 (97.9)
Social distancing is one of the community actions that can prevent disease transmission such as COVID 19	1 (0.2)	421 (99.8)

Implementation of social distancing		
Do social distancing can be applied by keep in touch with others through online media such as video call.	1 (0.2)	421 (99.8)
The purpose of practicing social distancing is to break the chain of COVID 19 transmission	4 (0.9)	418 (99.1)
Social distancing is not effective to control the spread of COVID 19*	101 (23.9)	321 (76.1)
Are cancelling or postponing large meetings or conference are the one examples of social distancing?	45 (10.7)	377 (89.3)
Switching to online classes could help reduce the spread of COVID 19	11 (2.6)	411 (97.4)
Going on vacation to various places or going back to hometown are still allowed in this pandemic period*	86 (20.4)	336 (79.6)
Do shake hands are allowed during this pandemic period*	23 (5.5)	399 (94.5)
Social distancing is unnecessary anymore when the vaccines has been distributed*	29 (6.9)	393 (93.1)
Importance of social distancing		
Some active carriers of COVID 19 virus might not show the symptoms at all	13 (3.1)	409 (96.9)
Social distancing helps limit opportunities to get contact with contaminated surface by covid-19 virus.	3 (0.7)	419 (99.3)
Social distancing could protect the vulnerable people such as elderly by cuts the COVID 19 transmission chain.	3 (0.7)	419 (99.3)
Social distancing can help the hospitals to accommodate severe case while manage their regular workload outside the COVID 19 cases.	22 (5.2)	400 (94.8)
Social distancing can protect us from COVID 19 virus through airborne transmission that may occur in special circumstances such as aerosol producing supportive treatment	23 (5.5)	399 (94.5)
People can also catch COVID 19 if they breathe in droplets from a person with COVID 19 who coughs or sneeze	24 (5.7)	398 (94.3)

*Unfavorable statement

Regarding “Importance of social distancing” topic, most of the respondents (96.9%) knows that Some active carriers of COVID 19 virus might not show the symptoms at all, followed by (99.3%) of the respondents knows social distancing helps limit opportunities to get contact with contaminated surface by covid-19 virus. Most of the respondents (99.3%) also knows that Social distancing could protect the

vulnerable people such as elderly by cuts the covid-19 transmission chain. Almost all the respondents (94.8%) had knowledge about Social distancing can help the hospitals to accommodate severe case while manage their regular workload outside the COVID 19 cases. Majority of respondents (94.5%) know that social distancing can protect them from covid-19 virus through airborne transmission that may occur in special circumstances and (94.3%) of the respondents had knowledge about people can also catch COVID 19 if they breathe in droplets from a person with COVID 19 who coughs or sneeze.

Level of knowledge related to social distancing

Knowledge scores are categorized into good and poor levels by median cutoff point (median is 20). Among total 422 respondents, majority scored good knowledge level (65.5%) and followed by poor knowledge level (34.4%).

Table 8. Score and level of knowledge related to social distancing (N=422)

Knowledge level (N=422)	Frequency (%)
Poor level	145 (34.4)
Good level	277 (65.6)
Median (Interquartile Range)	20 (1)
Minimum, Maximum	14, 24

4.1.5 Participant's attitude towards Social distancing

There are 16 statements in attitude section (10 positive statements and 6 negative statements). Table 9 shows the frequency of the respondent's response for these statements. The score of each statement is given by 5 points Likert scale, and responses are grouped into 3; strongly agree/agree, not sure, and disagree/strongly disagree for clear understanding in descriptive findings. Most of the respondents agreed that social distancing at least 1 meter could effectively prevent the transmission chain COVID-19 (82.9%) and work from home can prevent the spread of the corona virus (87.2%). Majority of respondents agreed that they and their family should follow the advice to study from home in preventing transmission of COVID-19 (84.6%). More than half of respondents disagreed that social distancing is not effective in preventing COVID 19 because the pandemic has not end yet (72.0%) and disagree that it is okay that getting close to another person <1 meter when many

persons still do it too (74.6%). Almost all respondent agreed with the health protocol to work or study at home to prevent the spread of COVID-19 (82.9%). More than half of respondents disagree about young people with fit and healthy body will not be infected by COVID 19 even though when they are not doing social distancing (80.1%). One third of respondents agreed that COVID 19 pandemic is still exist because social distancing is not effective to prevent the disease (42.4%) and more than half agreed that social distancing is not so effective to prevent the COVID 19 transmission (61.1%). Almost all of respondents agreed that stay at home helps to reduce the spread of the COVID 19 virus (86.7%).

Table 9. Frequencies and distribution of attitude towards social distancing (N=422)

Statement	Frequencies (%)		
	Strongly agree/ Agree	Neutral	Strongly disagree/ Disagree
Opinion on Social distancing			
What is your opinion about keep the distance / social distancing at least 1 meter could effectively prevent the transmission chain COVID-19?	350 (82.9)	50 (11.8)	22 (5.2)
What is your opinion about work from home can prevent the spread of the corona virus?	368 (87.2)	38 (9.0)	16 (9.0)
Do you agree that yourself and your family should follow the advice to study from home to prevent transmission of COVID-19?	357 (84.6)	47 (11.1)	18 (4.3)
I think social distancing is not effective in preventing COVID 19 because the pandemic has not end yet*	64 (15.2)	54 (12.8)	304 (72.0)
I think it is okay to getting close to another person <1 meter when many persons still do it too*	56 (13.3)	51 (12.1)	315 (74.6)
I agree with the health protocol to work or study at home to prevent the spread of COVID-19	350 (82.9)	52 (12.3)	20 (4.7)
I think young people with fit and healthy body will not be infected by COVID 19 even though when they are not doing social distancing*	44 (10.4)	40 (9.5)	338 (80.1)
I think that COVID 19 pandemic is still exist because social distancing is not effective to prevent the disease*	179 (42.4)	126 (29.9)	117 (27.7)
What is your opinion about social distancing that is not so effective to prevent the COVID 19 transmission? *	87 (20.6)	77 (18.2)	258 (61.1)
What is your opinion about stay at home helps to reduce the spread of the COVID 19 virus?	366 (86.7)	44 (10.4)	12 (2.8)
Social interaction limitation			
I feel weird or discomfort when keep my distance with my friends or colleague in formal or informal meeting	136 (32.2)	138 (32.7)	148 (35.1)

What is your opinion towards the recommendation to prohibit your family from leaving the house when he/she is sick or having fever?	377 (89.3)	27 (6.4)	18 (4.3)
What is your opinion about by keep socialize with family and friends without physical distancing could limit the spread of the COVID 19 virus? *	159 (37.7)	93 (22.0)	170 (40.3)
What is your opinion about close the schools and universities can reduce the spread of COVID 19 virus?	308 (73.0)	83 (19.7)	31 (7.3)
What is your opinion closure of malls could reduce the spread of COVID 19 virus?	325 (77.0)	68 (16.1)	29 (6.9)
What is your opinion about stop travelling between cities can control the spread of COVID 19 virus?	334 (79.1)	66 (15.6)	22 (5.2)

*unfavorable statement

In social interaction dimension, as much one third of respondents disagree that they feel weird or discomfort when keep my distance with friends in formal or informal meeting (35.1%) and mostly agree with the recommendation to prohibit their family from leaving the house when they are sick or having fever (89.3%). Almost half of respondents disagree about keep socialize with family and friends without physical distancing could limit the spread of the COVID 19 virus (40.3%) and more than half agree that stop travelling between cities can control the spread of COVID 19 virus (73.0%). More than half respondents agree about close the schools and universities could help reduce the spread of COVID 19 virus (73.0%) and mostly agree the closure of malls could also reduce the spread of COVID 19 virus (77.0%). More than half of respondents agree that stop travelling between cities can control the spread of COVID 19 (79.1%).

Level of attitude towards social distancing

Attitude scores are categorized into negative and positive level by median cut off. The median score of the attitude section is 63. Table 10 shows that more than half of all respondents had positive attitude level (53.3%) followed by some of them scored with negative attitude level as much as 197 (46.7).

Table 10. Proportion of attitude towards social distancing

Level of attitude (N=422)	Frequency (%)
Negative attitude	197 (46.7)
Positive attitude	225 (53.3)
Median (Interquartile Range)	63 (10)
Minimum, Maximum	30, 80

4.1.6 Reason for not practicing Social distancing

Figure 7 shows that top three reasons of respondents for not practicing social distancing were social pressure (22.2%), having some works that only can be done by meeting the person face-to-face (20.9%), and uncomfortable in distancing the seat with friends (13.3%). Followed by family activities that frequently happened outdoor and going out from home (10.1%), seeing others not practicing social distancing (7.4%), don't have much activity at home (5.4%), having problem in accessing works by online, thoughts that social distancing is not effective in combating covid-19 (4.8%) and don't know the benefit of social distancing (1.5%).

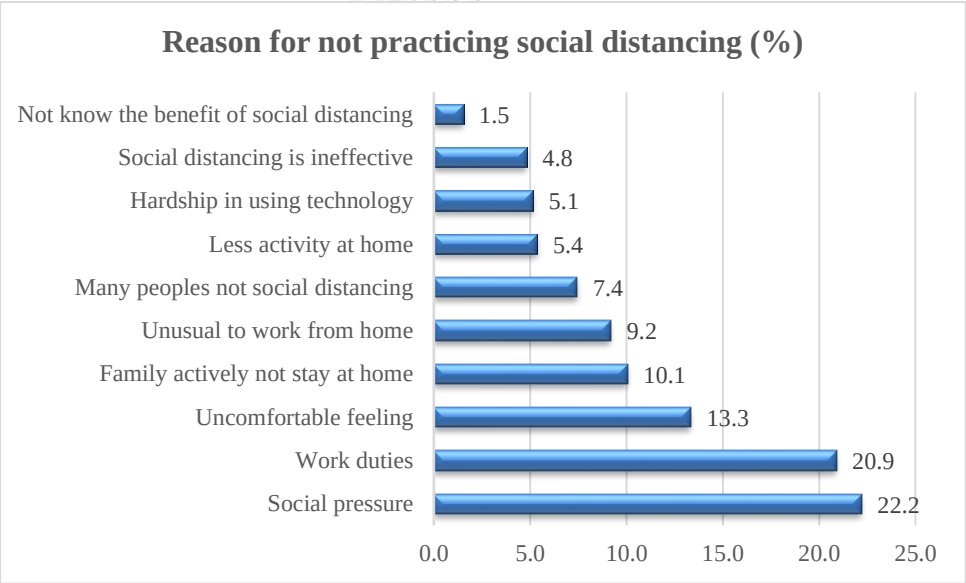

Figure 7 Percentage and distribution of reasons for not practicing social distancing

4.2 Inferential findings

4.2.1 Association between general characteristic, level of knowledge and level of attitude towards social distancing practice by chi square

The dependent variable which is social distancing practice with dichotomous categorical data and all independent variables are also grouped into categorical data as mentioned in data analysis part of methodology. Chi-Square test was used in bivariate analysis to find out the unadjusted association of independent variables and dependent variable and to select independent variables that contributes to the multivariable model (binary logistic regression model). A cut-off p value < 0.2 was used for the selection of the independent variables from bivariate analysis. The results of the Chi-

square test showed the significant association of 2 variables from general characteristic which were age (p value= 0.040) and sex (p value= 0.001) towards social distancing practice. Additionally, attitude level towards social distancing was also statistically significantly associated with social distancing practice with p value <0.001.

Table 11. Association of general characteristic, knowledge level and attitude level towards social distancing practice (N=422)

Variable	Social distancing practice		Crude OR	95% CI		p-value [a.]
	Poor N (%)	Good N (%)		Lower	Upper	
General Characteristic						
Age (years)						
18-21	106 (52.7)	107 (48.6)	1			**0.040***
22-25	95 (47.3)	114 (51.4)	1.178	1.804	2.728	
Sex						
Male	61 (30.2)	37 (16.8)	1			**0.001***
Female	141 (69.8)	183 (83.2)	2.140	1.346	3.402	
Faculty						
Medicine	54 (26.7)	67 (30.5)	1			0.288
Public health	49 (24.3)	62 (28.2)	1.020	0.607	1.713	
Pharmacy	99 (49.0)	91 (41.4)	0.741	0.469	1.171	
Spent time in university						
<3 years	53 (26.2)	66 (30.0)	1			
>=3 years	149 (73.8)	154 (70.0)	0.830	0.542	1.271	0.391
Family income						
<3.100.000 IDR	90 (44.6)	107 (48.6)	1			
>=3.100.000 IDR	112 (55.4)	113 (51.4)	0.849	0.578	1.245	0.401
Knowledge regarding to social distancing						
Poor	68 (33.7)	77(35.0)	1			
Good	134 (66.3)	143 (65.0)	0.942	0.630	1.409	0.773
Attitude towards social distancing						
Negative	119 (58.9)	78 (35.0)	1			
Positive	83 (41.1)	142 (64.5)	2.61	1.761	3.869	<0.001*

[a.] Bivariate analysis, *p value<0.2

4.2.2 Binary logistic regression analysis

After conducting the bivariate analysis, significant variables were age, sex and attitude. Although the variables of knowledge regarding social distancing were found not significantly associated with dependent variable, we still included this variable into the final model together with other significant variables. This action was intended to answer the study hypothesis. The Binary logistic regression with enter method was used to analyze the associations between the selected independent variables and dependent variable which is practice of social distancing (p values < 0.05).

Table 12. Binary logistic regression analysis on factors associated with social distancing practice

Variables	**Practice of social distancing**					
					95% CI	
	B	**SE**	**p-value [b.]**	**AOR [b.]**	**Lower**	**Upper**
Age (18-21y.o [ref])	0.887	0.210	**0.045***	1.473	1.977	2.222
Sex (Male [ref])	0.818	0.249	**0.001***	2.265	1.389	3.693
Knowledge (Poor [ref])	-0.053	0.215	0.806	.948	.622	1.447
Attitude (Negative [ref])	0.961	0.320	**<0.001***	2.614	1.748	3.909

[b.] AOR (adjusted odds ratio) and p value from multiple logistic regression including significant variables from bivariate analysis. * Significance level p <0.05

From table 12 we can imply that older age group of students (22-25 years old) was 1.473 times more likely to have good social distancing practice than younger age group of students (18-21 years old) (AOR: 1.47, 95%CI:1.97, 2.22). Female student were 2.265 times more likely to have good social distancing practice than male students (AOR: 2.26, 95%CI:1.38, 3.69). Students with positive attitude was 2.614 times more likely to have good social distancing practice than group of students with negative attitude (AOR: 2.61, 95%CI:1.75, 3.90).

CHAPTER V

DISSCUSSION, STRENGTH AND LIMITATION

The objectives of this study were 1) To determine the proportion of social distancing practice level among undergraduate student in medical fields, 2) To identify the association of general characteristic factors, knowledge and attitude towards practice of social distancing, 3) To explore the reasons for not practicing social distancing among undergraduate student in medical fields and finally 4) To find out which source of information used by undergraduate student in medical fields to gain information related to social distancing as preventive measure of Covid-19. The study was conducted in Mulawarman University in Samarinda city, Indonesia.

Total 422 undergraduate students participated in the study with age 18-25 years old. Almost half of the respondents, dominantly were in pharmacy faculty followed by medicine and public health and mostly were female students. Most of the respondents were spent year at university more than three years and majority coming from family with monthly household income of 3.100.000 IDR or more.

We observed vast majority of respondent had good practice on social distancing. Majority of students maintain minimum distance of 1 meter in public places or transport facility and avoid the physical contact with friends or stranger. However, most of students was sometimes still gone to any crowded place in recent days. Regarding the knowledge and attitude towards social distancing practice, high proportion of the respondents got good score of knowledge and more than a half of students have positive attitude towards social distancing practice.

Also, the results showed that age, sex, and attitude level toward practice of social distancing were the important influencing factors on the practice of social distancing among undergraduate student in medical fields in this study. Top three reasons for not practicing social distancing were social pressure, having some works that only can be done by meeting the person face-to-face, and feeling uncomfortable in distancing the seat with friends. Meanwhile, the top four sources of information related social distancing as preventive measure of covid-19 obtained were from social media, official websites of health authorities, TV and mouth-by-mouth from friends, relatives, family, or lecturer.

5.1 Discussion

5.1.1 Practice of social distancing among undergraduate student in medical fields at Samarinda city

Out of 422 respondents, 220 (52.1%) had good practice on social distancing and 202 (47.9%) had poor practice on social distancing. This study results in line with results of previous studies conducted in Pakistan, Saudi Arabia and Japan which showed that medical students had proactive practices during the covid-19 crisis. (Aldukhayel, Alhomidani, Almazyad, AlHindi, & Alsudairi, 2020; Baniyas et al., 2021; Hatabu et al., 2020; Noreen et al., 2020). Students in medical fields tends to have proactive practice towards covid-19 (Ferdous et al., 2020; Peng et al., 2020). The obligations and responsibilities to fight against this pandemic as future medical professionals are thought to drive students in medical fields to present more proactive practices during this public health emergency (Heung, Wong, Kwong, To, & Wong, 2005; Peng et al., 2020). Peltzer *et al* has reveals that health science students were fewer found in doing addictive behavior that risk their health (Peltzer, Pengpid, Yung, Aounallah-Skhiri, & Rehman, 2016).

However, even though percentage of the good practice is higher than 50% but the percentage of poor practice is nearly 50%. This study results is lower than previous studies done on college students in Jakarta (55,9%) (Syadidurrahmah et al., 2020) and UK university students (90.7%)(Barrett & Cheung, 2021). This can be explained by the theory of human behavior, this process has not been confirmed in real terms in the real field, only regulations without any enforcement. Because, humans will be moved to do something for 2 things, awards and punishments. Someone will follow the rules if they get something in return. For example, not getting sick with COVID 19 is the reward for following the rules. However, rewards like this will not last long because from the start people did not suffer from COVID 19. Moreover, respondents share their reason for not practicing social distancing is they have less activity and feeling bored to stay at home. In additional, the belief that "will not be infected" will strengthen over time. Linear with the anxiety and threats will also decrease. People have become tired of the long period of COVID-19 (Dwivedi et al., 2020).

Indonesia Ministry of Education and Culture has scheduled a face-to-face school return from early July 2021 while still following the Health protocol. In response to this, in March-June 2021, Indonesia scheduled a mass vaccination for higher education circles including lecturers, staff and students. Samarinda city has supplied 70,680 doses to accelerate herd immunity so that teaching and learning activities could optimally conducted (PPID, 2021). In partial, university student population has received a second shot even though the coverage has not been evenly distributed (MoH, 2021). The slight difference in the proportion of social distancing practices could be due to their status that have been vaccinated. Confidence in the status of having been vaccinated made people tend to ignore health protocols (Motta, 2021).

Furthermore, we found that more than half 289 (68.9%) students still sometimes going to crowded places in recent days. This attributable to the adolescents engage in dangerous or risky behavior as the results of brains development. Based on behavior theory, during adolescence and into adulthood, the brain region most sensitive to social rewards the amygdala develops at a much faster rate than the frontal cortex, the part of the brain responsible for rational, consequence-driven decision making. That imbalance may drive them to make decisions others deem risky, like visiting friends or attending a party. (AACAP, 2011; Alvord, 2020). This study results may beneficial for policymakers identified the specific population for controlling Covid-19 transmission prevention and health education program.

Interestingly, above explanation related with the reason for not practicing social distancing said by respondents, work duties. Students having work that insist to meet person by offline such as consultation with senior doctors or advisor, get wet stemple for paper from faculty or taking care their specimen in lab with assistant for research. The university may not be fully taking correct approach regarding to this issue. The authoritative must have more effort in control moment potentially invite crowd and minimize the opportunities for students to break the health guidelines. Moreover, this currents study found that around thirty percent of respondents always avoid crowded or mass gathering. In similar with other study conducted in Saudi Arabia, where it was reported that about 94% of respondents avoided crowded places and 88% refuse to handshaking (Al-Hanawi et al., 2020).

5.1.2 Association between general characteristics, knowledge, and attitude towards social distancing practice.

The further objectives of this study were to assess the association between general characteristics, knowledge level, attitude level and social distancing practice among undergraduate students in medical fields. According to the statistical analysis, it was found that age, sex and attitude was the significant predictor of social distancing practice. By examining the relationship between general characteristics of knowledge and attitudes towards social distancing practices, we can learn more about the factors that contribute practice of social distancing among undergraduate students in medical fields. Further explanation will be discussed as follows:

5.1.2.1 General characteristic towards social distancing practice among undergraduate student in medical fields at Samarinda city

Binary logistic regression analysis results reveal that undergraduate students in medical fields who in age range between 22-25 years old 1.473 time were more likely to have good practice of social distancing. This study results are in line with research findings conducted in Bangladesh that found more frequent prevention practice were associated with female sex and older age (Al-Hanawi et al., 2020; Ferdous et al., 2020). This means older respondents are tends to be more compliant in some social distancing. This is similar with previous study by Defar et al, 2021 that had found association between older age and prevention of COVID-19 (Defar et al., 2021). Health sciences students in age of 20 years and upper had better COVID-19 prevention behaviors rather than lower age (Singkun et al., 2020). The potential explanation is might be related to adulthood and law-abiding orientation (ICTF, 2020a).

The second significant predictor is the sex, whereas female students are 2.265 times more likely to have good social distancing practice. Similar with previous studies which has conducted on university students in Jakarta which found that as many as 63.1% of female students had good physical distancing behavior, female has higher score on attitude and practice towards COVID-19 among medical students in India and study in Saudi Arabia found that men have less optimistic attitudes towards

COVID-19 (Syadidurrahmah et al, 2020, Maheshwari et al., 2021, Al Hanawi et al, 2020). In addition, female students tended to apply good physical distancing behavior 3.4 times compared to men. In high income countries, females were found to be more adherent in practicing social distancing (Coroiu et al., 2020). This is because women generally emphasize the notion of health related to relaxation, rest, feeling well, and nutrition, while men emphasize the state of not being sick and men tends to have extreme behavior which could dangers their life (Maheshwari, Gupta, Sinha, & Rawat, 2020; Syadidurrahmah et al., 2020). Therefore, the government and healthcare facility should deploy health education program effectively targeted at specific groups such as men.

Therefore, this study findings also supported by study results of Ministry of Health survey that reveals women are more careful, tend to adopt healthy behaviors. In fact, based on data from the Ministry of Health in 2020 as of June 30, more than fifty-five percent of confirmed cases of the corona virus occurred in men (MoH, 2020a). In the research results of Zhong et al. 2020 found that there was a significant relationship between male gender and potentially dangerous practices towards COVID 19. This is due to man that more careless than woman(Zhong et al., 2020b).

Nevertheless, unlike the variables age and sex, household income and the number of years spent at university are not significant predictors of the practice of social distancing among undergraduate students in medical fields. This is in contrast to the results of research conducted in Malaysia in 2020. Where it was found that research subjects with low monthly income had low knowledge of the prevention of Covid-19. (Azlan et al., 2020). However, this current study similar with previous study conducted in US that reveals there was no association between income level and social distancing practice (Canning, Karra, Dayalu, Guo, & Bloom, 2020). The potential reason of contrast is because during the pandemic students understand that socio-economic conditions can change drastically due to the COVID-19 pandemic, so that household income has no effect on COVID-19 preventive measures. In spent years at university variable, our study in contrast with previous study conducted in Thailand that found year students in higher year had more likely better COVID-19 prevention behaviors (Singkun et al., 2020).

5.1.2.2 Attitude towards social distancing practice among undergraduate student in medical fields at Samarinda city

This study categorizing attitude scores into 2 level: negative and positive attitude. In dominant, respondents showed positive attitude. Therefore, we can imply that undergraduate students in medical fields had positive attitude towards social distancing practice. This is because attitudes are formed by several aspects, one of which is opinion (Robbins & Judge, 2015). Saying that "Social distancing is important" is an evaluative statement. That opinion is a cognitive component that could determines the level of attitude. We observe that the majority of respondents response by giving opinion that social distancing measures, namely maintaining a distance of 1 meter in public areas, working from home and staying at home are effective in preventing transmission of the corona virus. Opinions that believe that social distancing able to prevent the transmission of coronavirus construct positive attitude towards social distancing among respondents.

In accordance with the results of international research by Peltzer et al., 2016 which revealed that health science students had a greater awareness of health behavior risks rather than those who non health science students (Peltzer et al., 2016). The obligations and responsibilities to fight against this pandemic as future medical professionals are thought to drive students in medical fields to present more positive attitudes and proactive practices during this public health emergency (Heung et al., 2005; Peng et al., 2020). In agreement with our study, previous studies found that health science students endorsed the benefits of positive health behavior significantly more often than non-health science students(Kumar et al., 2010; Sharda & Shetty, 2008). This finding concurs with previous studies and can be utilized in positive health behavior intervention programs (Steptoe & Wardle, 1992).

In inferential analysis we found attitude is positively correlated with practice of social distancing among respondents. This indicates in having positive attitudes it will leads respondents to practice better in social distancing. This similar with research result conducted in study that conducted on Indonesia to citizen in March 2020 shows that respondent with good attitude, indicate that they are aware of the importance of social distancing (Yanti et al., 2020). A cross sectional study by

Ferdous *et al*, 2020 found more positive attitudes associated with good practice of COVID-19 preventive measures(Ferdous et al., 2020). Moreover, high level of awareness was reflected in positive attitudes (Alahdal, Basingab, & Alotaibi, 2020).

Peng *et al* reveals there was a positive correlation between positive attitude towards covid-19 and proactive practice of covid-19 among medical students in China(Peng et al., 2020). This supported by theory of attitudes has main component as awareness, feelings, and behavior. The behavioral component of attitude aims to change behavior so as to adjust to a particular condition(Robbins & Judge, 2015). We can imply that attitude is important contributor in forming intention to action. This finding may useful for policymakers and healthcare professionals to the further health intervention, raising awareness in complying health guidelines. Health education campaigns for university students in raising health awareness towards social distancing could be beneficial (Peltzer et al., 2016).

5.1.2.3 Knowledge towards social distancing practice among undergraduate student in medical fields at Samarinda city

The knowledge scores were divided into 2 level; poor and good understanding of overall knowledge level of the respondents. Mostly of total respondents had good knowledge score (65.6%). This proportion is higher than accurate knowledge level of COVID-19 prevention among Bangladeshi residence (48.3%) (Ferdous et al., 2020) and lower than university students in United States (Barrett & Cheung, 2021). This means that undergraduate students in medical fields have a fairly good knowledge of social distancing. Most of the respondents understand the Covid-19 cause and transmission and can also correctly answer questions about the definition of social distancing, implementation of social distancing, and the importance of social distancing. This result is in line with the results of previous study which reported that medical students had better score knowledge in the context of healthy lifestyle and habits compared to non-medical students (Sajwani et al., 2009). Generally, students in medical fields seems to have greater knowledge in health behaviors (Baniyas et al., 2021; Peltzer et al., 2016).

Undergraduate students in medical fields are likely to be the leaders of health promotion in future and due to that they supposedly to have good score of knowledge regarding to social distancing. University students can be a source of increased health awareness and health education not only for themselves but also for those around them as they take part in the dissemination of pandemic-related knowledge supporting the prevention and control of the pandemic (Ferdous et al., 2020; Peng et al., 2020). In line with study by Peng et al had reveals students from public schools and medical programs showed a higher score for COVID-19 related knowledge. This could be explained by the exposure of accurate information regarding to covid-19 preventive measures. Medical students showed a good score of knowledge which could be explained by their trainings in clinical medicine and public health (Peng et al., 2020).

The results of this study indicate that the importance of distributing health education from all relevant stakeholders, in this case is the academic community within and outside the campus. Giving or kindly reminder in every zoom meeting or online class, lecturers can remind each other to be obedient in doing 3M, one of which is social distancing. That method is expected to be more effective and efficient to do considering that several responses from the subjects of this study revealed that they felt bored at home and did not know what to do for killing time. In this case, the lecturer can encourage that there are still many useful hobbies or activities that can be done at home, still productive even though living at home or work from home (WFH). The government should also try to actively provide alternative options on this issue or collaborate with the community or influencers, considering that social media is the platform most often reached by respondents in seeking information related to social distancing.

Interestingly, from the results of the association test conducted, we found that there was no significant relationship between knowledge and the practice of social distancing. The possible explanation is the living context of respondents which had impact why knowledge not associated with practice of social distancing. We observed that social pressure was the biggest reason stated by the respondents of why they are not practicing social distancing. Separate from the reason why not practicing social distancing, the environment has its own effect to knowledge and practice relationship. This is the possible explanation why even though the respondent has good knowledge

about social distancing but the surrounding environment and information sources that are often used are not provide accurate information, the end result will be not good, in this case in the form of action. This argument similar with study conducted in Kenya that has found that there was no association between knowledge with practice (Azfar et al., 2017; Mohamed, Ochola, & Owino, 2018). A cross sectional study in China by Peng et al found that there was no significant relationship between appropriate knowledge and proactive practice related covid-19 among medical and non-medical students (Peng et al., 2020).

Moreover, some studies reported that was no relationship between knowledge and preventive behavior (Rakotorisoa,2021., Azfar,2017). The possible reason was that adolescents' health behaviors are highly determined by the living context (Nagy-Pénzes, Vincze, Sándor, & Bíró, 2020). This imply that knowledge is important aspects in health behavior but it is not sufficient by itself and supportive adolescents' living context and school setting are also important (Arlinghaus & Johnston, 2018; Bhagavathula et al., 2020). Our study suggests that comprehensive prevention programs should be designed at living environment and in academic setting.

5.1.3 Source of information regarding social distancing as preventive measure of Covid-19

Majority of the respondents (80.6%) received information related to social distancing as preventive measure of Covid-19 from social media followed by official websites, TV and mouth-by-mouth way sources of information. This finding is similar to previous studies conducted on healthcare workers in Pakistan that used social media as main source of information of health guidelines or reports published by WHO (45.8%) and study by college of medicine in United Emirates Arab that reveals healthcare workers dominantly access the updates of COVID-19 via social media (61%) (Bhagavathula et al., 2020; Hajar & Rachman, 2020; Koptyug, 2021). College students mostly were familiar using Facebook for updates information of COVID-19(Radwan et al., 2020; WHO, 2020e). Furthermore, science contents in social media were perceived as share-worthy content spreads fast. Generation Z and Millennial are highly concerned about COVID-19 infection among themselves and their family

members; therefore, they tend to follow up closely the newly updates information during uncertain period(WHO, 2020e).

The high use of social media by Health students can be caused by their tendency to be more enthusiastic and motivated to listen to Health education because messages or information are wrapped in interesting video content, so the messages given will also be easier to remember. Social media emphasizes the delivery of information with audio-visual methods through pictures and videos. Audio-visual Health Promotion is more effective than leaflets or the like (Alini & indrawati, 2018). The delivery method is one of the important factors in the Health Education process (Notoatmodjo, 2007).

Getting the correct information regarding the preventive measure to minimize the spread of Covid-19 is the key access to success in stopping this pandemic. Therefore, accurate information should be disseminated through which platforms are often used by the wider community so that accurate and correct information can reach the entire population including students. Given that social media users must be wise in choosing news, because social media tends to be filled with all kinds of information including unverified malicious information that could misguide users to misunderstand.

In this study, we observed that most incorrect answers were still found regarding knowledge about covid-19 and social distancing. Some of them include knowledge about Covid-19 transmission and social distancing implementation which were essentials for respondents to understand. From these findings, we can draw a common thread between social media as the most visited source of information and false answer of respondent. *Infodemic* that widely spreads on that platform might had a role in this condition. Since rumors or misinformation could easily circulate in communities during a crisis (Hopkins, 2020). Thus, further studies assessing the relationship between the sources of information and level of knowledge should be considered in obtaining a deeper understanding related health protocols and its determining factors.

The Ministry of Health and the national crisis preparedness and response center are working together in supplying health education through many channels

such as advertisements on TV through collaboration with Ministry of communication and information technology, socialization through counseling or banners, or social media via Telegram, WhatsApp group and Instagram (MOHA, 2020a). However, nowadays WHO keeps fighting the *infodemic* of COVID-19 spreads widely in online source of information (W. Chen et al., 2020). Relevant Health Officers are expected to be able to use social media as a medium for distributing Health Education in this case is a recommendation to implement social distancing properly and correctly. Local health authority should actively design the health promotion through this platform to eliminate hoax and/or myths of COVID-19 prevention measures.

5.1.4 Reason for not practicing social distancing among undergraduate student in medical fields at Samarinda city

The respondents were asked to answer the reasons for not practicing social distancing where they can choose multiple responses that provided in questionnaire and adding more reasons in open answer option. The most common reason selected is social pressure. Social pressure defined as external pressure on the social life of individual to achieved acceptance in society (Bursztyn & Jensen, 2015). The young should follow the norms in peers group even to the decision that encouraged to let loose and participated in activities that could be detrimental for own health (Roy et al., 2020). Urgency of social distancing among the young has slowly faded (Ricca, 2020). As well as the belief that "will not be infected" will strengthen over time. Linear with the anxiety and threats will also decrease. People have become tired of prolonged period of COVID 19 (Dwivedi et al., 2020). We observed that respondents were driven to ignore social distancing by their peers or seniors such as invitation to hang out together or conducted a meeting. Therefore, the university should encourage its students to comply with health recommendations since students in medical health are expected to be role models in implementing health guidelines. Moreover, penetrating health education effectively through precise way and suitable for students in academics setting is needed. Health education can be spreads through small discussion, meeting, or in the end of lecture session by related stakeholders such as lecturer or university staff.

The second top reason why the respondents tend to violate social distancing protocols is having work that only could be done by meeting person face-to-face that tends to ignore social distancing (20.9%). Moreover, approximately 9.2% of respondents were feeling unusual to working from home. This indicates some institution or organization not yet provides alternatives program that suits new normal condition which obligates social distancing. Reflects from this findings, institution or organization should facilitates the undergraduate students in medical fields some beneficial option in order to suit the new normal era.

The third ranked reason is uncomfortable feeling in practicing social distancing. The definition of uncomfortable is a state of feeling physical discomfort, uneasiness or not pleasant in context of condition or something (Cambridge, 2021). This natural state might occur when individual in position of new condition and linked with fear emotion in behave wrong (Leahy, Tirch, & Napolitano, 2011). Talking in close distance are considered as politeness motion has cultured among Indonesian people. It is common for young generation to feel reluctant to implement or reprimand their peers to keep their distance (Primastiwi, 2020). The fact that social distancing was new measure could explain this sense of unease in implementing it (Dwyer, 2020). The possible explanation of this is because in their ages, students still developing the ability to cope with crises. Social connections build resilience. Having strong bonds and strong friendships helps them get through difficult times, including times like these. For some students, isolation may feel scarier than the virus itself. The sense of belonging and peer acceptance is outweighs judgment (Alvord, 2020).

5.2 Strength and limitation

5.2.1 Strength

This study is the third study conducted to assess the social distancing practice among undergraduate student. The analysis using multivariable analysis test will able to find what factors determined the practice of social distancing. This study using primary data that allows researcher to obtain accurate results because the data gathered in real-time way anticipated from outdated data that could be the strength of this study. In addition, this study also explores the reasons for not practicing social

distancing which is important information for program evaluation that had implemented in Indonesia.

5.2.2 Limitation

In conducting this study non probability sampling technique was used that may limit this study in achieving generalization. Self-administered online survey methods used in this study may leads participant in misinterpretation the question. Future research using mixed methods or qualitative methods to obtain more clear view and sensitive answer from respondent are needed to explore the reason why undergraduate students in medical fields are not practicing social distancing as the barriers of implementing social distancing.

CHAPTER VI

CONCLUSION AND RECOMMENDATION

6.1 Conclusion

The current study aimed to determine knowledge, attitude and the practice towards social distancing among undergraduate students in medical fields, to assess the general characteristics, knowledge and attitude level toward practice of social distancing, identify association between general characteristic, knowledge level, attitude level and social distancing practice level, to explore the reasons for not practicing social distancing and find most frequent used source of information to obtain information related to social distancing among undergraduate students in medical fields in Samarinda, Indonesia.

The proportion of KAP was respectively high, whereas the majority of students has poor score of knowledge regarding social distancing, more than half of total respondents have positive attitude towards social distancing and dominantly show high level of practice in social distancing. Among three predictors it is found that age, sex and attitude has significantly associate with practice of social distancing. However, knowledge is significantly not associated with practice. The main reason for not practicing social distancing is social pressure, work duties and uncomfortable feeling. Social media is the platform mostly used by respondents in obtaining information related to social distancing.

6.2 Recommendation

This study aims to produce factual information related to knowledge, attitudes and practices of social distancing among undergraduate students in medical fields which are the key population of health promotion in controlling the transmission of the covid-19. This data will be useful for Indonesian Covid-19 task force and Ministry of Health as it will present challenges or obstacles of social distancing implementation among undergraduate students in medical fields.

6.2.1 Recommendations for program implementation

Health awareness raising activity:

- Significant relationship between attitudes and practice indicates the need of continuity activities of health awareness raising to achieve optimal social distancing practice among undergraduate students.
- Male oriented health education should be improved to encourage more male students to practice better in implementing social distancing.

Information dissemination program evaluation:

- Since students mostly used social media in obtaining information related social distancing, therefore we suggest for strategic and planning unit in Ministry of Health and Indonesia Covid-19 Task Force to more utilizing social media as medium in disseminating health education regarding social distancing.

Student involvement/collaboration:

- Health workers must cooperate with health students in health promotion campaign activities at university level.
- Academic institution should facilitate option related to academic business which suits with new normal situation.

6.2.2 Recommendation for further research

- Further research studies should involve more academic institutions from other university or cities besides Samarinda in order to be more representative and reflect the whole country situation.
- The method of recruiting research subjects with probability sampling techniques should be considered to achieve generalization and background diversity of sample.
- Qualitative research studies such as focus group discussions or in-depth interviews need to conducted for better understanding of the reasons for not implementing social distancing.
- Further study assessing type of digital platform used as source of information along with the association between source of information and knowledge regarding social distancing should be considered for deeper understanding health guidelines and its determining factors.

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APPENDIX

Appendix A: Ethical Approval

Ethical clearance from University of Mulawarman

KOMISI ETIK PENELITIAN KESEHATAN
FAKULTAS KEDOKTERAN
UNIVERSITAS MULAWARMAN
Jl. Krayan Kampus Gunung Kelua Samarinda-KALTIM 75119
Telp: 0541 – 748581 / 748449 ; email : ppd@unmul.ac.id

KOMISI ETIK PENELITIAN KESEHATAN
FAKULTAS KEDOKTERAN UNIVERSITAS MULAWARMAN
Samarinda

SURAT PERSETUJUAN KELAYAKAN ETIK
NO. 25/KEPK-FK/III/2021

DIBERIKAN PADA PENELITIAN :

Knowledge, Attitude, and Practice Towards Social Distancing Among Undergraduate Students in Medical Fields During Rapid Rise of Covid-19 in Samarinda City, Indonesia: a *Cross Sectional* Study.

Peneliti Utama : Siti Hadijah Aspan
College of Public Health Sciences Chulalongkorn University

Samarinda, 22 Maret 2021

Mengetahui,
Ketua

Dr. dr. Nataniel Tandirogang, M.Si

Anggota :
Dr. dr. Nurul Hasanah, M.Kes, Dr. dr. Eva Rachmi, M.Kes, M.Pd.,Ked,
Dr. dr. Danial, M.Kes, Dr. drg. Sinaryani, M.Kes
Dr. Hadi Kuncoro, M.Farm. Apt, Prof. Dr. Drh. Gina Saptiani, M.Si

Ethical Clearance from University of Muhammadiyah Jakarta

KOMITE ETIK PENELITIAN KESEHATAN
HEALTH RESEARCH ETHICS COMMITTEE
FAKULTAS KEDOKTERAN DAN KESEHATAN UNIVERSITAS MUHAMMADIYAH JAKARTA
FACULTY OF MEDICINE AND HEALTH, UNIVERSITY OF MUHAMMADIYAH JAKARTA

KETERANGAN LAYAK ETIK
DESCRIPTION OF ETHICAL EXEMPTION
"ETHICAL EXEMPTION"

No.059/PE/KE/FKK-UMJ/II/2021

Protokol penelitian yang diusulkan oleh :
The research protocol proposed by

Peneliti utama : Siti Hadijah Aspan, S.Keb
Principal In Investigator

Nama Institusi : college of public health sciences chulalongkorn university
Name of the Institution

Dengan judul:
Title

"Pengetahuan, Sikap, dan Praktik Social Distancing pada Mahasiswa S1 Jurusan Kesehatan selama Pandemi COVID-19 di Kota Samarinda, Indonesia: Studi Cross Sectional"

"Knowledge, Attitude, and Practice Towards Social Distancing Among Undergraduate Students in Medical Fields during rapid rise of COVID-19 in Samarinda City, Indonesia: A Cross Sectional Study"

Dinyatakan layak etik sesuai 7 (tujuh) Standar WHO 2011, yaitu 1) Nilai Sosial, 2) Nilai Ilmiah, 3) Pemerataan Beban dan Manfaat, 4) Risiko, 5) Bujukan/Eksploitasi, 6) Kerahasiaan dan Privacy, dan 7) Persetujuan Setelah Penjelasan, yang merujuk pada Pedoman CIOMS 2016. Hal ini seperti yang ditunjukkan oleh terpenuhinya indikator setiap standar.

Declared to be ethically appropriate in accordance to 7 (seven) WHO 2011 Standards, 1) Social Values, 2) Scientific Values, 3) Equitable Assessment and Benefits, 4) Risks, 5) Persuasion/Exploitation, 6) Confidentiality and Privacy, and 7) Informed Concent, referring to the 2016 CIOMS Guidelines. This is as indicated by the fulfillment of the indicators of each standard.

Pernyataan Laik Etik ini berlaku selama kurun waktu tanggal 26 Maret 2021 sampai dengan tanggal 26 Maret 2022.

This declaration of ethics applies during the period March 26, 2021 until March 26, 2022.

March 26, 2021
Professor and Chairperson,

dr. Rahmini Shabariah, Sp.A

Appendix B: Information Sheet and Consent Form
Dear respondent,

My name is Siti Hadijah Aspan, a Master of Public Health Student at Chulalongkorn University, Thailand. I am currently conducting a study to assess the level of knowledge, attitudes and practice towards social distancing among undergraduate students in medical fields at samarinda city. This study required 418 respondents aged above 18 years old, had internet access and studied undergraduate degrees in the faculties of medicine, pharmacy and public health. Each research subject will need around 10-15 minutes to complete the entire page of questions / statements in the following questionnaire.

This research questionnaire contains statements and questions that have certain value criteria based on your actual experience of practicing social distancing during the period of rapid rise of COVID 19 in Indonesia. On each statement and question provided, give an answer by checking the points according to your actual situation.

By becoming the subject of this research, friends will contribute to providing references or reference materials to improve the development of health science, assist the government in implementing health protocols and participate in controlling the spread of the corona virus during this pandemic. The results of this study will also be taken into consideration for decisions or policies at the district/city or at the national level, related to the implementation of social distancing as a more effective and efficient health protocol in Indonesia.

Your participation will be in voluntary. You have full right to resign or cancel your participation at any time. The subjects in this study are anonymous and all personal information will be guaranteed the confidentiality of the researcher.

By filling in your e-mail address and pressing the '*next*' button (below), you state that you are understand and willing to be the subject of this study and the following procedures are followed:

1. You will fill in 5 parts of the questionnaire consisting of Personal Data (socio-demographic information), Knowledge of social distancing, attitudes towards social distancing, social distancing practice and reasons for not practicing social distancing;

2. Each question and / or statement listed has a certain value and requires 1 answer in each provided column item.

If you have some question or wants to gain more information, please contact the researcher (Siti Hadijah Aspan) via e-mail: shadijahaspan@gmail.com or WhatsApp to +6282156384491. You can also inquire about the research to the Faculty of Medicine's Health Research Ethics Committee of Mulawarman University (e-mail: kepk.fkunmul@gmail.com) and University of Muhammad Jakarta.

Responden yang terhormat,

Nama saya Siti Hadijah Aspan, seorang Mahasiswa Magister Kesehatan Masyarakat di Universitas Chulalongkorn, Thailand. Saat ini saya sedang melakukan studi untuk menilai tingkat pengetahuan, sikap dan praktik terhadap social distancing pada mahasiswa S1 bidang kedokteran di kota samarinda. Studi ini membutuhkan 418 peserta berusia di atas 18 tahun, memiliki akses internet dan menempuh pendidikan sarjana di fakultas kedokteran, farmasi dan kesehatan masyarakat. Setiap subjek penelitian membutuhkan waktu sekitar 10-15 menit untuk melengkapi seluruh halaman pertanyaan / pernyataan dalam kuesioner berikut.

Dengan menjadi subjek penelitian ini, teman-teman akan berkontribusi dalam memberikan referensi atau bahan referensi untuk meningkatkan pengembangan ilmu kesehatan, membantu pemerintah dalam melaksanakan protokol kesehatan dan turut serta dalam pengendalian penyebaran virus corona selama pandemi ini. Hasil studi ini juga akan menjadi bahan pertimbangan dalam pengambilan keputusan atau kebijakan di tingkat kabupaten / kota maupun di tingkat nasional, terkait penerapan social distancing sebagai protokol kesehatan yang lebih efektif dan efisien di Indonesia.

Partisipasi Anda akan bersifat sukarela. Anda memiliki hak penuh untuk mengundurkan diri atau membatalkan partisipasi Anda kapan saja. Subjek dalam penelitian ini bersifat anonim dan semua informasi pribadi peneliti akan dijamin kerahasiaannya.

Dengan mengisi alamat email Anda dan menekan tombol 'berikutnya' (di bawah), Anda menyatakan bahwa Anda memahami dan bersedia menjadi subjek studi ini dan mengikuti prosedur berikut:

1. Anda akan mengisi 5 bagian kuesioner yang terdiri dari Data Pribadi (informasi sosio-demografi), Pengetahuan tentang jarak sosial, sikap terhadap jarak sosial, praktik jarak social dan alasan tidka menerapkan jarak sosial;

2. Setiap pertanyaan dan / atau pernyataan yang tercantum memiliki nilai tertentu dan membutuhkan 1 jawaban di setiap kolom item yang tersedia.

Jika Anda memiliki pertanyaan atau ingin mendapatkan informasi lebih lanjut, silakan hubungi peneliti (Siti Hadijah Aspan) melalui e-mail: shadijahaspan@gmail.com atau WhatsApp ke +6282156384491. Anda juga dapat menanyakan tentang penelitian tersebut ke Komite Etik Penelitian Kesehatan Fakultas Kedokteran Universitas Mulawarman (e-mail: kepk.fkunmul@gmail.com) dan Universitas Muhammadiyah Jakarta.

Appendix C: Self-administered Questionnaire (English)

Knowledge, Attitude, and Practice Towards Social Distancing Among Undergraduate Students in Medical Fields during rapid rise of COVID-19 in Samarinda City, Indonesia: A Cross Sectional Study

Part 1. General characteristics

This survey consists of 5 variables related to general characteristic of participant during the Covid-19 situation (April 2020–March 2021).

SECTION 1: General Characteristics		
No	Questions	Answer
1	How old are you?	……years old
2	Which faculty do you studying?	o Medical o Pharmacy o Public Health
3	Gender:	o Male o Female
4	How much year do you spent year in university?	o < 3 years o => 3 years
5	How much your family household income in a month during Covid-19 situation?	o < 3.100.000 IDR (< 221.71 USD) o ≥ 3.100.000 IDR (≥ 221.71 USD)

Part 2. Source of Information

SECTION 2: Source of Information		
No	Questions	Answer
6	Which platform do you use as the Source of information regarding social distancing as Covid-19 preventive measure?	o Television o Social media (Instragram/ twitter/ telegram/ Whatsapp/ Line) o Ministry of Health/WHO website o Friends/parents/ relatives/teacher o Banner/poster o Radio

Part 3. Knowledge related to social distancing

Guttman scale questions

SECTION 3: Knowledge related to social distancing				
No	Questions	Answer		Correct answer
		Yes	No	
7	Have you ever heard of covid-19?			Yes
8	Is the COVID 19 disease one of the infectious diseases?			Yes

10	Can COVID-19 transmit by direct contact?			Yes
11	COVID 19 could transmitted through objects and surfaces contaminated with droplets around or used by infected people.			Yes
15	The practice of social distancing means staying home and keep distance from others as much as possible.			Yes
16	Social distancing is one of the community actions that can prevent disease transmission such as COVID 19.			Yes
17	Do social distancing can be applied by keep in touch with others through electronic media such as video call.			Yes
18	The purpose of practicing social distancing is to break the chain of COVID 19 transmission			Yes
19	Social distancing is not effective to control the spread of COVID 19. *			No
20	Are cancelling or postponing large meetings or conference are the one examples of social distancing?			Yes
21	Switching to online classes could help reduce the spread of COVID 19.			Yes
22	Going on vacation to various places or going back to hometown are still allowed in this pandemic period. *			No
23	Do shake hands are allowed during this pandemic period.			Yes
24	People can also catch COVID 19 if they breathe in droplets from a person with COVID 19 who coughs out.			Yes
25	Social distancing is unnecessary to do anymore when the vaccines has been found and distributed. *			No
26	Some active carriers of COVID 19 virus might not show the symptoms at all.			Yes
27	Social distancing helps limit opportunities to get contact with contaminated surface of the virus.			Yes
28	Social distancing could protect the vulnerable people such as elderly by cuts the COVID 19 transmission chain.			Yes
29	Social distancing can help the hospitals to accommodate severe case while manage their regular workload outside the COVID 19 cases.			Yes
30	Social distancing can protect us from COVID 19 virus through airborne transmission that may occur in special circumstances such as aerosol producing supportive treatment (nebulized medication, endotracheal intubation, bronchoscopy, etc).			Yes

Multiple choice questions.

No	Questions	Answer				Correct Answer
9	What causing COVID-19?	Virus	Bacteria	Fungi	Protozoa	Virus
12	What is the main transmission of COVID-19?	Droplets	Sweats	Be close to sufferers		Droplets

13	The common symptoms of infected person with COVID 19 are ……	Fever above 38ºC, cough, short breath, loss of smell sense	Fever 37ºC dizziness, cough, nausea, vomiting	Fever 36ºC, diarrhea, nausea, vomiting		Fever above 38ºC, cough, short breath, loss of smell sense
14	Social distancing is an action that is keeps a distance of at least ……. Meter from other person and avoid the crowded places or in groups.	<1 meter	=> 1 meter			=> 1 meter

Part 4. Attitude towards social distancing

Likert Scale (5 categories)

SECTION 4: Attitude towards social distancing							
No	Questions	Answer					
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Highest score Answer
31	What is your opinion about keep the distance / social distancing at least 1 meter could effectively prevent the transmission chain COVID-19?						strongly agree
32	What is your opinion about work from home can prevent the spread of the corona virus?						strongly agree
33	Do you agree that yourself and your family should follow the advice to study from home to prevent transmission of COVID-19?						strongly agree
34	I think social distancing is not effective in preventing COVID 19 because the pandemic has not end yet. *						strongly disagree
35	I think it is okay to getting close to another person <1 meter when many persons still do it too. *						strongly disagree
36	I feel weird or discomfort when keep my distance with my friends or colleague in formal or informal meeting						strongly agree

37	I agree with the health protocol to work or study at home to prevent the spread of COVID-19						strongly agree
38	I think young people with fit and healthy body will not be infected by COVID 19 even though when they are not doing social distancing*						strongly disagree
39	I think that COVID 19 pandemic is still exist because social distancing is not effective to prevent the disease*						strongly disagree
40	What is your opinion towards the recommendation to prohibit your family from leaving the house when he/she is sick or having fever?						strongly agree
41	What is your opinion about social distancing that is not so effective to prevent the COVID 19 transmission? *						strongly disagree
42	What is your opinion about stay at home helps to reduce the spread of the COVID 19 virus?						strongly agree
43	What is your opinion about socialize with family and friends could limit the spread of the COVID 19 virus? *						strongly disagree
44	What is your opinion about close the schools and universities can reduce the spread of COVID 19 virus?						strongly agree
45	What is your opinion about closure of malls could reduce the spread of COVID 19 virus?						strongly agree
46	What is your opinion about stop travelling between cities can control the spread of COVID 19 virus?						strongly agree

Part 5. Practice of social distancing

Likert scale (4 category)

SECTION 5: Practice of social distancing						
No	**Questions**	**Answer**				**Highest score answer**
		always	**often**	**sometimes**	**never**	
47	I maintain a minimum distance of 1 meter from people around in public places such as minimarket, markets, malls, office, schools, or in public transports facility.					always
48	I will isolate myself if I have symptoms of fever, cough, shortness of breath and have just met a positive corona patient					always
49	I avoid the crowded or mass gathering such as wedding receptions, birthday party, offline meeting with many peoples or hanging out in groups with friends or colleague.					always
50	I avoid the physical contact with friends or stranger such as toss, high five, handshakes or hugs.					always
51	I advise family and others not to leave the house if there is no urgent need.					always
52	I implementing physical distancing when in the crowd at public places such as stations, markets or malls.					always
53	I follow the physical distancing (>1 meter) when I go to meet other people.					always
54	Do you stay at home during this COVID 19 pandemic?					always
55	In recent days, have you gone to any crowded place??*					never

*unfavourable questions

Part 6. Reason for not practicing social distancing

Question	Answer
What do you think the reasons that most influences you for not practicing social distancing?	☐ Do you think what are the reasons that most influences you for not practicing social distancing? ☐ Social pressure such as have to greeting the other with hand shake, hand toss or hugs. ☐ I don't know about the benefits of practicing social distancing ☐ I see others not practicing social distancing ☐ I think social distancing is not so effective to combat COVID 19 ☐ I feel uncomfortable when have to distance my seat with my friends ☐ I do not have much activity doing at home ☐ I will be more productive doing activity outside home since before the Covid-19 pandemic has come. ☐ I am not used to do everything online from home ☐ I have problem in accessing my works online using technology. ☐ My family are still frequently going out or do activities outside the home. ☐ I have some works to be done only by meeting the person in face to face (sign in documents/consultation/conduct research/meeting subject of research) ☐ Others……(please specify)

Appendix D: Self-administered Questionnaire (Bahasa Indonesia)

Pengetahuan, Sikap, dan Praktik terhadap Social Distancing Mahasiswa Sarjana Bidang Kesehatan selama Masa Pandemi Covid-19 di Kota Samarinda, Indonesia: Studi Cross Sectional

Bagian 1. Karakteristik Umum

Survei ini terdiri dari 5 variabel terkait dengan karakteristik umum responden selama situasi Covid-19 (April 2020–Maret 2021).

SECTION 1: Karakteristik umum		
No	pertanyaan	jawaban
1	Berapa usia anda?	……tahun
2	Anda berkuliah di fakultas apa?	o Kedokteran o Farmasi o Kesehatan Masyarakat
3	Jenis Kelamin	o Laki-laki o Perempuan
4	Berapa lama berkuliah ?	o < 3 tahun o => 3 tahun
5	Berapa pendapatan keluarga dalam sebulan selama pandemic Covid-19?	o < 3.100.000 IDR (< 221.71 USD) o ≥ 3.100.000 IDR (≥ 221.71 USD)

Bagian 2. Sumber Informasi

SECTION 2: Sumber Informasi		
No	Pertanyaan	jawaban
6	Platform mana yang sering anda gunakan dalam memperoleh informasi tentang sosial distancing sebagai tindakan pencegahan Covid 19?	o Television o Social media (Instragram/ twitter/ telegram/ Whatsapp/ Line) o Ministry of Health/WHO website o Teman/ortu/ kerabat/dosen o Banner/poster o Radio

Bagian 3. Pengetahuan terkait social distancing

Skala guttman (ya/tidak)

SECTION 3: pengetahuan terkait social distancing				
No	Pertanyaan	jawaban		Jawaban benar
		ya	tidak	
7	Apakah Anda pernah mendengar tentang Covid 19?			Ya
8	Apakah penyakit COVID 19 termasuk salah satu penyakit menular?			Ya
10	Apakah COVID 19 dapat menular melalui kontak langsung?			Ya

11	COVID 19 dapat ditularkan melalui benda dan permukaan yang terkontaminasi droplets di sekitar atau digunakan oleh orang yang terinfeksi			Ya
15	Mana yang merupakan cara penularan utama COVID-19 dari manusia ke manusia lain?			Ya
16	Praktik social distancing berarti sebisa mungkin tinggal di rumah dan menjaga jarak dari orang lain			Ya
17	Social distancing merupakan salah satu indakan masyarakat yang dapat mencegah penularan penyakit seperti COVID 19			Ya
18	Tujuan dari melakukan social distancing adalah memutus rantai penularan COVID 19			Ya
19	Social distancing tidak efektif untuk mengendalikan penyebaran COVID 19*			tidak
20	Apakah membatalkan atau menunda pertemuan atau konferensi besar adalah salah satu contoh jarak sosial?			Ya
21	Beralih ke kelas online dapat membantu mengurangi penyebaran COVID 19.			Ya
22	Berlibur ke berbagai tempat atau mudik masih diperbolehkan di masa pandemic ini. *			tidak
23	Apakah berjabat tangan diperbolehkan selama periode andemic ini?			Ya
24	Orang juga dapat tertular COVID 19 jika mereka menghirup droplets dari seseorang yang terinfeksi Covid-19			Ya
25	Social distancing tidak perlu dilakukan lagi etika vaksin sudah ditemukan dan didistribusikan*			tidak
26	Beberapa pembawa aktif virus COVID 19 mungkin tidak menunjukkan gejala sama sekali			Ya
27	Social distancing membantu membatasi kesempatan untuk bersentuhan dengan permukaan yang terkontaminasi coronavirus.			Ya
28	Social distancing dapat melindungi masyarakat rentan seperti lansia dengan memutus rantai penularan COVID 19.			Ya
29	Social distancing dapat membantu rumah sakit untuk menampung kasus yang parah sekaligus mengelola beban kerja rutin di luar kasus COVID 19.			Ya
30	Social distancing dapat melindungi kita dari virus COVID 19 melalui penularan melalui udara yang dapat terjadi pada keadaan khusus seperti pengobatan suportif penghasil aerosol (obat nebulisasi, intubasi endotrakeal, bronkoskopi, dll).			Ya

*pertanyaan unfavourable

Pertanyaan pilihan ganda.

No	Pertanyaan	Jawaban				Jawaban benar
9	Apa penyebab COVID-19?	Virus	Bakteri	jamur	Protozoa	Virus
12	Mana cara penularan utama COVID-19?	droplets	keringat	Berdekatan dengan penderita		Droplets

13	Gejala umum orang yang terinfeksi COVID 19 adalah ……..	demam di atas 38° C, batuk, sesak napas, hilangnya indra penciuman	demam di atas 37° C, sakit kepala, batuk, muntah	demam di atas 36° C, diare, mual, muntah		demam di atas 38° C, batuk, sesak napas, hilangnya indra penciuman
14	Social distancing adalah tindakan menjaga jarak minimal…… meter dari orang lain dan menghindari tempat keramaian atau berkelompok	<1 meter	=> 1 meter			=> 1 meter

Bagian 4. Sikap terhadap social distancing

Skala likert (5 kategori)

SECTION 4: sikap terhadap social distancing							
No	Pertanyaan	jawaban					
		Sangat setuju	setuju	netral	Tidak setuju	Sangat tidak setuju	Jawaban dengan nilai tertinggi
31	Bagaimana pendapat Anda tentang social distancing minimal 1 meter dapat secara efektif mencegah rantai penularan COVID-19?						Sangat setuju
32	Apakah Anda setuju tentang bekerja dari rumah dapat mencegah penyebaran virus corona?						Sangat setuju
33	Bagaimana pendapat Anda tentang Anda dan keluarga harus mengikuti saran belajar dari rumah untuk mencegah penularan COVID-19?						Sangat setuju
34	Saya pikir social distancing tidak efektif untuk mencegah COVID 19 karena pandemi belum berakhir. *						Sangat tidak setuju
35	Saya pikir tidak masalah untuk mendekati orang lain <1 meter ketika banyak orang masih melakukannya juga. *						Sangat tidak setuju
36	Saya merasa aneh atau tidak nyaman saat menjaga jarak dengan teman atau kolega saya dalam pertemuan formal maupun informal						Sangat setuju

37	Bagaimana pendapat Anda tentang bekerja atau belajar di rumah dapat mencegah penyebaran COVID-19						Sangat setuju
38	Menurut saya, anak muda dengan tubuh bugar dan sehat tidak akan tertular COVID 19 meski tidak melakukan social distancing*						Sangat tidak setuju
39	Menurut saya pandemi COVID 19 masih ada karena social distancing tidak efektif untuk mencegah penyakit tersebut*						Sangat tidak setuju
40	Bagaimana pendapat Anda terhadap anjuran pelarangan keluarga keluar rumah saat sakit atau demam?						Sangat setuju
41	Saya setuju bahwa social distancing tidak begitu efektif untuk mencegah penularan COVID 19? *						Sangat tidak setuju
42	Bagaimana pendapat Anda tentang tetap di rumah membantu mengurangi penyebaran virus COVID 19?						Sangat setuju
43	Bagaimana pendapat Anda tentang bersosialisasi dengan keluarga dan teman dapat membatasi penyebaran virus COVID 19? *						Sangat tidak setuju
44	Bagaimana pendapat Anda tentang penutupan sekolah dan universitas dapat mengurangi penyebaran virus COVID 19?						Sangat setuju
45	Bagaimana pendapat Anda tentang penutupan mal dapat mengurangi penyebaran virus COVID 19?						Sangat setuju
46	Bagaimana pendapat Anda tentang berhenti bepergian antar kota (mudik) dapat mengendalikan penyebaran virus COVID 19?						Sangat setuju

*unfavourable questions

Bagian 5. Praktik social distancing

Likert scale (4 kategori)

SECTION 5: Praktik social distancing						
No	**pertanyaan**	**jawaban**				**Jawaban nilai tinggi**
		selalu	**sering**	**Kadang-kadang**	**Tidak pernah**	
47	Saya menjaga jarak minimal 1 meter dari orang-orang di sekitar tempat umum seperti minimarket, pasar, mall, kantor, sekolah, atau fasilitas angkutan umum.					selalu
48	Saya akan mengisolasi diri jika mengalami gejala demam, batuk, sesak nafas dan baru bertemu dengan pasien positif corona					selalu
49	Saya menghindari keramaian atau pertemuan massal seperti resepsi pernikahan, pesta ulang tahun, pertemuan offline dengan banyak orang atau berkumpul berkelompok dengan teman atau kolega.					selalu
50	Saya menghindari kontak fisik dengan teman atau orang asing seperti tos, kompak tangan, jabat tangan atau pelukan..					selalu
51	Saya menyarankan keluarga dan yang lainnya untuk tidak meninggalkan rumah jika tidak ada kebutuhan yang mendesak.					selalu
52	Saya menerapkan physical distancing saat berada di keramaian di tempat umum seperti stasiun, pasar atau mall					selalu
53	Saya mengikuti jarak fisik (> 1 meter) ketika saya pergi untuk bertemu orang lain.					selalu
54	Apakah anda tinggal di rumah selama pandemi COVID 19?					selalu
55	Belakangan ini, apakah anda pergi ke tempat yang ramai? *					Tidak pernah

*pertanyaan unfavourable

Bagian 6. Alasan tidak melakukan social distancing

Pertanyaan	Jawaban
Menurut Anda, apakah alasan yang paling memengaruhi Anda untuk tidak mempraktikkan social distancing?	☐ Tekanan sosial, seperti harus menyapa dengan salaman, lemparan tangan atau pelukan ☐ Saya tidak tahu tentang manfaat mempraktikkan social distancing ☐ Saya melihat orang lain tidak mempraktikkan social distancing ☐ Saya pikir social distancing tidak begitu efektif untuk mengatasi COVID 19 ☐ Saya merasa canggung ketika harus menjauhkan tempat duduk saya dengan teman-teman saya ☐ Saya tidak punya banyak aktivitas didalam rumah ☐ Saya merasa lebih produktif beraktivitas di luar rumah ☐ Saya tidak terbiasa melakukan semuanya secara online dari rumah ☐ Saya kesulitan mengakses pekerjaan saya secara online menggunakan teknologi ☐ Keluarga saya masih sering keluar rumah atau beraktivitas di luar rumah ☐ Saya punya beberapa pekerjaan yang harus diselesaikan hanya dengan bertemu langsung dengan orang lain (meminta tanda tangan dokumen /konsultasi / melakukan penelitian / menemui subjek penelitian) ☐ Alasan lainnya ..... (jelaskan)

VITA

NAME	Siti hadijah Aspan
DATE OF BIRTH	12 June 1997
PLACE OF BIRTH	Samarinda
INSTITUTIONS ATTENDED	College of Public Health University of Chulalongkorn
HOME ADDRESS	Jalan jakarta Blok J1 nomor 18 perum korpri Loa Bakung Sei Kunjang Kota Samarinda, Indonesia
PUBLICATION	GAMBARAN KEPATUHAN MASYARAKAT DALAM MELAKUKAN PENGOBATAN BEKAM DI KLINIK THIBBUNNABAWI DARUS SYIFA