

# ONLINE CONSULTATION EFFECTIVENESS IN COMMUNITIES AND DATA PROTECTION REGULATION DURING COVID-19 PANDEMIC

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## ABSTRACT

All countries in the world have faced a global pandemic called the Coronavirus or SARS-CoV-2. Indonesian Government has implemented several policies such as by regulating the social distancing. The community was also asked by the government to avoid hospital visits and switch to using telemedicine services. To date there have been reported increases in the use of telemedicine services in the community during the COVID-19 pandemic. This research is cross sectional study using an online survey method. Primary data were collected using google form questionnaire. This study consisted of 155 respondents who are using online consultation services during the COVID-19 pandemic and willing to be the subject of this research. Out of 155 respondents which fulfilled the inclusion criteria, the result showed that the respondents are dominated by female (51 aged 22 years old (25,2%), from South Sumatera (59,4%), last education college or equivalent (76,1%), using private telemedicine (60,6%). Respondents claimed that the operation of telemedicine or online consultation services was normal (52.9%) and satisfied (62.6%). Online consultation or telemedicine is considered effective as a digital health service measured by the satisfaction of the Indonesian people during the COVID-19 pandemic. ( $p = <0,0001$ ). The result also showed that Indonesia regulates the protection of the citizens data of in the constitution 1945 particularly in Article 28G (1) that each person shall have the right their personal selves protected, families, respect, dignity, and possessions under their control. Indonesia enacted on 2022, a specific law stipulated personal data protection, i.e., Law No. 27 of 2022 regarding Personal Data Protection. Before, the previous regulatory regime that focused on personal data processed through an electronic system, currently it applies to personal data processed by both electronic and non-electronic means.

**Keywords:** COVID-19, effectiveness, online consultation, telemedicine, data protection law

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## 1. INTRODUCTION

Technology has also experienced significant advances. The development of digital technology has penetrated various aspects of life, including aspects of health services. A new phenomenon known as telemedicine has emerged, which consequently will create changes in medical services so far.<sup>1</sup> In general, telemedicine can be said to be the

use of information and communication technology to provide medical services from a distance apart or not face to face. The communication facilities used can be in the form of telephones, video calls, internet sites or other sophisticated communication tools. This communication can occur between doctors and patients, as well as between health workers, for example in a tiered consultation from a general practitioner to a specialist. In Permenkes

Number 20 of 2019, telemedicine is defined as the provision of remote health services by health professionals using information and communication technology including exchange of information on diagnosis, treatment, prevention of disease and injury, research and evaluation and continuing education of health service providers for the benefit of individual health and public.<sup>2</sup>

One form of telemedicine that has emerged recently is the development of medical services, both limited to online consultations and application-based home visits that involve general practitioners and specialists. Briefly, online medical consultation services or home visits benefit the community, especially in the aspect of facilitating access to health services for the community, especially those with immobility or disabilities. These services can also help fulfill the rights of everyone to gain access to resources in the health sector as well as quality, safe, and affordable health services as mandated in Law Number 36 of 2009 concerning Health Article 5 paragraphs 1 and 2.<sup>3</sup>

Both private and government telemedicine have become quite popular recently, such as Halodoc, Alodokter, and MobileJKN. This can be seen from the download of the application in the app store or play store. Halodoc and Alodokter are private health service platforms, while MobileJKN is a privately owned digital health consulting service. Of course, these telemedicine applications have their own advantages and disadvantages. In 2020, all countries in the world are faced with a global pandemic called the Corona Virus or Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). This virus is a virus that attacks the respiratory tract. Since it was discovered in late December 2019 in the city of Wuhan, China, the World Health Organization (WHO) has declared this virus a disease with a very fast transmission pattern. As many as 29 countries have confirmed positive cases of Covid-19. Cases found

outside China were recorded in 28 countries including: America, Thailand, Hong Kong, France, Malaysia, Singapore, Taiwan, Macau, Japan, South Korea, Vietnam, Australia, Nepal, and others.<sup>4,5</sup>

In order to break the chain of the spread of Covid-19 in Indonesia, the government has implemented various policies, one of which is an appeal to the public to carry out physical and social distancing, namely an appeal to maintain a minimum distance of one meter, stay away from activities in all forms of crowds, associations, and avoidance. a meeting involving many people. This appeal does not only apply to certain sectors but all sectors.<sup>6</sup>The presence of the COVID-19 pandemic and limited contact with each other requires people to work remotely. This also makes people reduce their activities to visit health services such as health centers or hospitals. Diseases that are not categorized as emergencies are urged to make people stay at home. Online public health consultation in the midst of this pandemic is a solution.<sup>7</sup>

The Ministry of Health has released Circular number HK.02.01 / MENKES / 303/2020 concerning the Implementation of Health Services using Information and Communication Technology in the Context of Preventing the Spread of COVID-19, dated 29 April 2020. This Circular explains that health services are carried out through telemedicine to prevent the spread of COVID-19 from health service activities. The circular letter is addressed to all Heads of Provincial and District / City Health Offices, Chairman of the Indonesian Doctors Association (PB IDI) Executive Board, Chairman of the Indonesian Dentists Association (PB PDGI), and General Chair of the Indonesian Pharmacists Association (PP IAI) throughout Indonesia.<sup>7</sup> Through telemedicine services, people do not need to travel to the hospital to just consult a doctor

or buy medicine. Until now there has been reported an increase in the use of telemedicine services in the community.<sup>7</sup> The other it also interesting to examine about the law protection of patient's personal data. Based on the description above, this study aimed to analysis of the online consultation on communities' effectiveness and data prorection regulations during COVID-19 pandemic.

## 2. METHOD

This research is a cross sectional study using an online survey method. The research was conducted on Indonesians who used online consultation services during the COVID-19 pandemic, which was conducted in July – December 2020. The data in this study are primary data collected by distributing questionnaires online to Indonesians who meet the research criteria.

This questionnaire contains questions to measure the effectiveness of consultation on community satisfaction. The data that has been obtained from the data collection process will be converted into tables, then the data is processed using the SPSS 25 computer program. Data were analyzed by using descriptive analysis. Univariate data analysis was used to determine the frequency distribution of each variable studied. Bivariate data analysis was used to assess the relationship between the effectiveness of online consultation and community satisfaction with the Chi-square test and the law of community data protection.

## 3. RESULTS

Table 1 shows the distribution data of respondents according to their origin.

Table 1. Distribution of respondent's origin

<b>Origin (area)</b>	<b>N</b>	<b>%</b>
Aceh	1	0.6
Bangka belitung	2	1.3
Banten	1	0.6
Bengkullu	4	2.6
D.I. Jogjakarta	9	5.8
DKI jakarta	5	3.2
Jambi	3	1.9
Jawa Barat	8	5.2
Jawa Tengah	2	1.3
Jawa Timur	8	5.2
Kalimantan Barat	1	0.6
Kalimantan Tengah	3	1.9
Kalimantan Utara	1	0.6
Kepulauan Riau	1	0.6
Lampung	1	0.6
Nusa Tenggara Timur	2	1.3
Papua	3	1.9
Sulawesi Tengah	1	0.6
Sulawesi Barat	1	0.6
Sulawesi Selatan	92	59.4
Sulawesi Utara	6	3.9
<b>TOTAL</b>	<b>155</b>	<b>100</b>

This study was found that female respondents consisted of 79 respondents (51%), while male respondents were 76 respondents (49%). The ages of the respondents who participated in this study were the ages ranging from 18 years to 58 years. Most of them were 22 years old as many as 39 (25.2%) of 155 respondents, followed by 23 years old as many as 34 respondents (21.9%) and the third largest age of respondents was 24 years as many as 15 respondents (9.7%). Most regions of origin who participated in this study were from South Sumatra Province as many as 92 (59.4%) of 155 respondents and followed by Special Region of Yogyakarta with 9 respondents (5.8%). Respondents who took part in the study had the most recent level of education, college or equivalent as many as 118 respondents (76.1%) followed by high school or equivalent as many as 37 respondents (23.9%). Respondents who took part in this study chose the most telemedicine applications from the private sector as many as 94 respondents (60.6%), a

combination of 31 respondents (20%) and the government as many as 30 respondents (19.4%). Respondents who took part in this study used online consultation during the COVID-19 pandemic 1-3 times, there were 131 respondents (84.5%), followed by 4-6 times as many as 21 respondents (21%) and > 7 times as many as 3 respondents (1, 9%). Respondents who took part in this study in using online consultation during the pandemic felt the normal way of operating telemedicine was 82 respondents (52.9%), 61 respondents (39.4%) felt easy, and 12 respondents (7.7%) felt it was difficult. Respondents who took part in this study were satisfied with using online consultation during the pandemic as many as 97 respondents (62.6%), 52 respondents (33.5%) were dissatisfied and 6 respondents (3.9%) dissatisfied. Respondents who took part in this study felt that online consultation was effective during the pandemic as many as 85 respondents (54.8%), 57 respondents (36.8%) felt less effective and 13 respondents (8.4%) ineffective.

Table 2. Respondents' distribution based on online consultation frequency during pandemic

Variable	N	%
Frequency consultation		
1-3	131	84.5
4-6	21	13.5
>7	3	1.9
Telemedicine Operation		
Easy	61	39,4
Normal	82	52.9
Difficult	112	7.7
Online Consultation Satisfaction		
Satisfied	97	62.6
Less satisfied	52	33.5
Unsatisfied	6	3.9
Effectivity of Online Consultation	N	%
Effective	85	54.8
Less effective	57	36.8
Uneffective	13	8.4

Table 3 presents the relationship between the effectiveness of online consultation and community satisfaction. This table is feasible to be tested with Chi Square because there is no expected value that is less than five. Based on the results of

the analysis using the Chi Square test, the p value was 0.000 ( $p < 0.05$ ), which means that statistically there is a relationship between the effectiveness of online consultation and community satisfaction during COVID-19 pandemic.

Tabel 3. The analysis of the effectiveness of online consultation and community satisfaction during COVID-19 pandemic

		Community Satisfaction								P value
		Less agree		Agree		Not agree		Total		
		N	%	N	%	N	%	N	%	
Effectiveness Online Consultation	Less agree	35	61,4	21	36,8	1	1,8	57	100	<0,0001
	agree	11	12,9	74	87,1	0	0,0	85	100	
	Not agree	6	46,2	2	15,4	5	38,5	13	100	

#### 4. DISCUSSION

The results showed that most respondents in this study were dominated by women with 79 respondents (51%) while male respondents were 76 respondents (49%). This is appropriate if it is associated with the Balitbang Kominfo survey in 2017 where the largest number of social media users are women (93.68%) compared to men (92.07%).<sup>14</sup> However, the difference in the percentage between the sexes is very small, therefore it can also be This was due to the distribution of questionnaires which were mostly aimed at the researcher's friendship circle, the majority of whom were women. Most respondents aged were respondents aged 22 years, namely 39 respondents, followed by 23 years old as many as 34 respondents and the youngest respondent age was 18 years. Based on a previous survey, social media users were dominated by users aged 17-27 years (95.96%).<sup>14</sup> This could also be related to the distribution of many questionnaires to the scope of friends

of researchers, the majority of whom were 20-25 years old. Most regional origins were respondents from South Sumatra province, as many as 92 respondents. This is quite different from several provinces that have spread almost all over Indonesia. This could also be related to the distribution of many questionnaires to the scope of the friendship of researchers who are from South Sumatra province. The most recent education is the respondent who has the latest education in tertiary education or equivalent, namely 118 respondents and is followed by the latest education in high school or equivalent as many as 37. Based on a previous survey, individual internet users are dominated by users with education. tertiary institutions (85,735%).<sup>14</sup> This could also be related to the distribution of many questionnaires to the scope of the researcher's friendship, the majority of whom had completed their education at college or equivalent.

Respondents used the telemedicine application or online consultation mostly from the private sector as many as 94 respondents. This is in accordance with the fact that private telemedicine applications such as Halodoc, Alodokter, KlikDokter are becoming popular health platforms, as seen from their downloads on Android and iOS.

The respondents who used the telemedicine application or online consultation felt that the normal operation method was 82 respondents and only 12 respondents felt that the operation of using online consultation was difficult. This proves that Indonesians are accustomed to using digital-based health applications. Respondents who used the telemedicine application or online consultation were satisfied as many as 97 respondents, 52 respondents were less satisfied and only 6 respondents who were dissatisfied. This is in accordance with a survey conducted by Deloitte Indonesia in collaboration with Bahar and the Center for Healthcare Policy and Reform Studies (Chapters) Indonesia, where 84.4% of digital health service users claim to be satisfied with existing services.

The results showed that there was a significant relationship between the effectiveness of online consultation and community satisfaction. This is evidenced by giving a rating / star  $\pm$  4.5 on the telemedicine application in the app store or playstore and accompanied by positive comments. During the COVID-19 pandemic, the government also urged people to stay at home but did not limit the need for health services by inviting them to use telemedicine services or online consultations. This is also in accordance with the statement of the Government Spokesperson for Handling COVID-19 that telemedicine users in Indonesia are increasing.

The importance of telemedicine services has been recognized in various

countries, one of which is in Indonesia, even before the COVID-19 pandemic. Indonesia has a very large population, sometimes those who live in rural areas often do not have access to health services and health information. Telemedicine services can save time and money for Indonesians, as well as help patients decide whether to stay at home alone, or need to visit a doctor, or enter the emergency room when sick. Seeing a doctor can be a difficult decision because of the travel hours and costs for people living in rural areas. By using telemedicine services, patients can consult online with qualified specialists to discuss health care options, where patients will get important health information efficiently and effectively.<sup>15</sup>

During COVID-19 pandemic, the application of self-isolation and physical distancing, digital health services can prove their ability to help Indonesian people. Digital services and artificial intelligence solutions such as chatbots can answer various patient questions about the virus, as well as make it easy to get accurate information regarding what things can increase the risk of contracting COVID-19 and provide independent health examination services.<sup>16</sup>

The task force for handling COVID-19 in Indonesia as well as the local government acknowledged that telemedicine services were very useful. The Task Force works together with health technology companies like us to ensure that Indonesians can access information easily and factually through online consultations. The local government also continues to increase public awareness about telemedicine services in order to disseminate accurate health information. Some of the legal problems that occur while using telemedicine are the application users do not understand the dynamics of collecting personal data information, lack of control over the use of personal data information,

lack of understanding of existing privacy protection laws and regulations. Data of patients leaks sometimes being traded or disclosed for insurance purposes, marketing offers, and etcetera.<sup>17</sup>

The usage of this information technology makes citizen Personal Datas are easy collected and transferred from one party to another without the knowledge of the owners. Thereby, is is threatening the constitutional rights<sup>18</sup> is using someone the Personal Data without concern of the datas owner. Futhermore Personal Data Protection is kind of protection of human rights, as stipulated in Article 28 G paragraph (1) of the 1945 Constitution of the Republic of Indonesia. This article stipulated that, "Everyone has the right to protection of himself/herself, family, honor, dignity and property owned by under his control, and is entitled to a sense of security and protection from the threat of fear to do or not do something which is a human right.<sup>19</sup> There are some regulations regarding the protection of Telemedicine patients' personal data;<sup>20</sup>

- a. Government Regulation No. 82 of 2002 on The Implementation of Electronic Systems and Transactions. It is general regulations and has not implemented specific personal data protection principles so that it cannot provide maximum protection.<sup>21</sup> Therefore, personal data or medical records belong to patients can be easily accessed by other parties without the consent of the owner of the data.
- b. Article 15 of Law Number 11 of 2008 concerning Electronic Information and Transactions stated that The platform or application as the operator of the electronic system must take the responsibility for data protection.<sup>22</sup> Telemedicine applications must have a patient personal data security system

and implement a good risk assessment internally.

- c. Article 1 Paragraph (2) of Law Number 27 of 2022 Concerning Personal Data Protection (Personal Data Protection Law) stated that personal data protection is the entire effort to protect personal data processing by guaranteeing the constitutional rights of individual data subjects.

On the regulation of Personal Data ProtectionThe patient have the right to object on the decision-making actions that based on automatic processing.<sup>23</sup> Including profiling, which have legal consequences and have a significant impact on personal data subjects.

In fact, this law provided rights to someone in sueing and receiving compensation because their personal data violated.<sup>24</sup> In fact, this law provided rights to someone in sueing and receiving compensation because their personal data violated.<sup>25</sup> Processing of Personal Data are including:

- a. acquisition and collection;
- b. processing and analysis;
- c. storage;
- d. repairs and updates;
- e. appearance, announcement, transfer, distribution, or disclosure; and/or
- f. deletion or destruction.

Personal Data Processing using the principles of Protection such as;<sup>26</sup>

- a. Personal Data is conducted in a limited and specific manner, legally valid and transparent;
- b. processing of Personal Data is carried out according to its purpose;
- c. processing of Personal Data is carried out by guaranteeing the rights of the Personal Data Subject;
- d. processing of Personal Data is carried out accurately, completely,

- not misleading, up to date and accountable.
- e. processing of Personal Data is carried out by protecting the security of Personal Data from unauthorized access, unauthorized disclosure, unauthorized alteration, loss of Personal Data;
  - f. processing of Personal Data is carried out by informing the purposes and processing activities, as well as failure of Personal Data Protection;
  - g. Personal Data is destroyed and/or deleted after the retention period ends or based on the request of the Personal Data Subject, unless otherwise stipulated by laws and regulations; and
  - h. processing of Personal Data is carried out responsibly and can be proven clearly.

The application manager or Personal Data Controller is obliged to protect and prevent Personal Data from unauthorized processing. This prevention is carried out with a security system for Personal Data that is processed and/or processes Personal Data electronically in a reliable, safe, and responsible manner.<sup>27</sup> The security and confidentiality of patient data is inseparable from the function of the patient's medical record. Increasing the data security is important to protect and minimize cyber attacks happen. This could be caused damage or leakage of patient data. Another important element to combat this pandemic is sharing data / information collected through the telemedicine platform with the COVID-19 task force and other stakeholders so that we can work together to reduce the number of COVID-19 cases.

## 5. CONCLUSION

Online consultation is considered effective to be used as a digital health service measured by the satisfaction of the Indonesian people during COVID-19 pandemic and safety since the data protection also stipulated in some regulations in Indonesia.

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