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The role of tele-education in conveying COVID-19 patient's death to family members

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ABSTRACT

Introduction: Deaths due to the novel coronavirus (COVID-19) infection in Indonesia continue to increase each day. Limiting patient contact with family and health workers directly in the inpatient room can raise suspicion and complaints from the patient's family being treated. The risk of medical disputes can also arise due to the limited fulfillment of obtaining information from the patient or family. This study aims to highlight the role of hospital-assisted Tele-education in conveying information to family members regarding the death of their loved ones.

Methods: This study is a descriptive quantitative study by taking secondary data from medical records and quality committee data in hospitals to compare patient complaints that arise before and after hospital tele-education policy in COVID-19 cases at Prof.dr.R.D Kandou hospital.

Results: Tele-education implementation appears to increase. From 14.43% in the first month of implementation to 80.46%, after the policy was set at the end of the 6th month. The number of complaints related to patients hospitalized due to COVID-19 before the use of virtual education in the patient's family was 18.26%, and in cases where patients died, family complaints before the use of virtual education had a mean of 39.1%. After implementing the policy, the complaint rate for patients being treated fell to an average of 5.06%, and in deceased cases, the complaint rate decreased to an average of 8.95%.

Conclusion: The number of cases that using virtual education increased each month, and the peak was in December 2020; meanwhile the lowest percentage was in July 2020. The use of virtual media in delivering family information and education reduces the barriers that are formed due to hospitalization in isolation rooms.

Keywords: COVID-19, communication, death
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INTRODUCTION

The COVID-19 pandemic in Indonesia has been seven months since March 2020. The confirmed cases of COVID-19 still tend to increase. Due to novel coronavirus (COVID-19) infection in Indonesia until January 31, 2021, the number of deaths has reached 29,998 people, with a percentage of 2.78% of cases infected with COVID-19.[1] These deaths generally occur in health facilities, especially in hospitals. Limitation of contact with COVID-19 patients from their family and loved ones pose unique challenges, especially in conveying information to family members when their family has passed away. Delivering information to the deceased patient's family will not reduce the impact of the loss of a family member that is being experienced, but accurate and adequate information can reduce questions that arise in the family's mind. The delivery of this information will also describe health services that are empathetic, professional, and culturally sensitive.[2,3] The culture in Indonesia, especially in the eastern part, accompany the health workers to clothe the corpse and to brought home the deceased in the family home, often causing conflicts in the care of COVID-19 patients who have died. Limiting patient contact with family and health workers directly in the inpatient room can raise suspicion and complaints from the patient's family being treated. The risk of medical disputes can also arise due to the limited fulfillment of obtaining information from the patient or family.[4] The use of technology in patient meeting sessions with the patient's family or the patient's family with health workers through a virtual meeting application is offered to overcome the communication limitations. This study aims to highlight the role of hospital-assisted tele-education in conveying information to family members regarding the death of their loved ones. This paper is expected to assist the process of conveying information to the patient's family in a complex situation.[1,5]

MATERIALS AND METHODS

Study Design

This research uses descriptive quantitative research methods with a secondary data analysis approach. This method makes use of secondary data and makes use of it using the appropriate statistical test techniques.

Population and Study Setting

This research was conducted at Prof.dr.R. D Kandou central general hospital, the primary teaching hospital for the Medical Faculty University of Sam Ratulangi and the only national referral hospital in North Sulawesi. The research was conducted from November 2020 to January 2021. The population of this study is all confirmed COVID-19 patients admitted to Prof.dr.R.D Kandou hospital from the beginning of the COVID-19 pandemic in March 2020 to December 2020. This study uses a total sampling technique. The number of samples in this study was determined by the total sampling method, resulting in 328 research samples. The inclusion criteria in this study were patients confirmed with COVID-19 by PCR examination who were admitted to Prof. Kandou hospital. The exclusion criteria for this study were patients with suspected COVID-19, probable COVID-19, or non-COVID-19 patients.

Variables

The variables used in this study were the number of confirmed COVID-19 patients treated, the number of confirmed COVID-19 patients who died, the number of complaints from the patient's family, whether treated or died due to COVID-19. The number of complaints was compared before implementing the virtual communication implementation policy facilitated by the hospital and after the implementation of the policy. The independent variable in this study was the number of COVID-19 patients hospitalized, with the dependent variable being the number of COVID-19 patients who submitted complaints to the hospital.

Data Collection

This study uses secondary data from hospital units that collect and validate data. The research data were obtained from the directorate of medical, nursing, and hospital support services, recapitulation of patient complaint reports from the subdivision of law, organization, hospital public relations, and the hospital service information balancing team. The number of complaints in this study is the number of complaints submitted in the ward, data on the service balancing team, and complaints submitted directly to the hospital's legal unit, organization, and public relations.

Data Analysis

Data were collected and tabulated in tables. Statistical data analysis was performed with Graphic Interface, not Unix, Partner Support Program Plus (GNU PSPP) software on Windows operating system. In this study, a comparative analysis was carried out to compare the number of patients' complaints while being treated and their families of patients who later died from COVID-19. This study analyzed univariate statistics and compared the mean before and after implementing the tele-education policy.

RESULTS

Prof.dr.R.D Kandou central general hospital has identified the risk of increased complaints and medical disputes from the COVID-19 patient service process through a risk management process. One of the hospital's first follow-ups Hospital regulations was set on July 1, 2020, to be implemented on the same date.

We found 1.527 patients and only 862 families using virtual education from July 2020 until December 2020. In general, the number of cases using virtual education increased each month, and the peak was in December 2020 (80,46%), and the lowest percentage was 14.3% in July. Table 1 describes the number of patients treated each month and the number of cases that have applied tele-education. Patients and patients' families have accepted the policy gradually, although some refused at the beginning of implementing the policy. Difficulties in terms of data networks and communication tools owned by the patient's family also occurred but were then overcome by providing communication facilities at the hospital called "Pojok Baku Dapa," a local terminology that means Meeting Point. Table 1 provided the development of the use of virtual communication and education in COVID-19 patient services.

Complaints tabulated in this study are complaints about COVID-19 patient services submitted directly to health workers by the patient while being treated or to the patient's family to the public relations department at the hospital. Family complaints from COVID-19 patients who die are submitted to the public relations department at the hospital or conveyed to health workers in the funeral service room at the hospital. The highest number of patient complaints about hospital service related to the COVID-19 was in March (21.73%). On the other hand, there was 45 families complaint due to their family member died after took medical care of COVID-19 in this hospital. The highest proportion of families complaint about deceased COVID-19 patients was in May. The tabulation of complaints from patients and their families at Prof.dr.R.D Kandou Hospital can be seen in Table 2.

Changes in the percentage of complaints of patients and patient families before the implementation of the virtual communication policy and after the implementation of virtual communication are seen in Table 3. In Table 3, the average percentage of complaints in the four months before implementing the virtual communication policy is compared with the average percentage of complaints four

Table 1. Total use of virtual education in families of COVID-19 patients

Time	Number of cases using Virtual Education	Number of Patients	Percentage of Cases Using Virtual Education
July 2020	42	291	14.3%
August 2020	68	205	33.17%
September 2020	137	213	64.3%
October 2020	175	279	62.72%
November 2020	197	237	83.12%
December 2020	243	302	80.46%

Table 2. Number of complaints from patients and families treated or died due to COVID-19

Time	Number of COVID-19 patients being treated			Deceased COVID-19 patients		
	Number of complaints	Number of Patients	Percent of Complaints	Number of complaints	Number of Patients	Percent of Complaints
March 2020	5	23	21.73%	1	1	100%
April 2020	14	95	14,73%	5	28	17.8%
May 2020	27	154	17,53%	9	51	17.6%
June 2020	33	173	19,07%	8	38	21%
July 2020	19	291	6,52%	4	39	10.2%
August 2020	16	205	7,80%	3	24	12.5%
September 2020	7	213	3,28%	2	24	8.33%
October 2020	12	279	4,3%	3	31	9.6%
November 2020	10	237	4,2%	2	30	6.67%
December 2020	13	302	4,3%	4	62	6.45%

Table 3. Comparison of the percentage of family complaints of patients who died from COVID-19, before and after implementing the virtual communication policy.

	Mean	Std. Deviation	Month
Before implementation*	39,10	40,63	4
After implementation*	10,15	1,7559	4

*Using T-test analysis

months after implementing the virtual communication policy.

DISCUSSION

The 2019-nCoV infection caused clusters of severe respiratory illness similar to severe acute respiratory syndrome coronavirus and was associated with ICU admission. This condition causes the patient's ability to communicate with their family to decrease significantly so that the family who has limited encounters with the patient feel as if they do not have any information about the health condition of their family. Fear and family worries about coming to the hospital are also common in North Sulawesi, and this reduces the ability of hospital health personnel to provide information rights to the patient's family regarding the patient's health condition.[4]

Environmental pollution by SARS-CoV-2 can be found on objects and other furniture in inpatient rooms or toilets in Singapore. During the MERS outbreak in South Korea, the coronavirus has been detected on doorknobs, bed guardrails, exhaust dampers, and elevators. For this reason, visits to the isolation room at the hospital where limited or prohibited to prevent further transmission because of the virus detected on objects in the hospital (Phua et al., 2020). Communication-related to COVID-19 between providers and patients/families was affected by isolation requirements, time constraints, and lack of access to families/partners.[3,6]

A key communication facilitator in COVID-19 was highly detected as a family-centered communication. The absence of family or the inability to secure proxy communications made a gap between and created a position to rely on anyone they can relate to as a patient relative. Infection control policies for COVID-19 often create communication barriers among surrogate decision-makers, and most surrogates will not be physically present when discussing treatment options with doctors. Many decision-making discussions will and should be conducted via telecommunications.[4,5]

The death of a loved one becomes the most potent stressor in everyday life and can trigger complaints to the hospital. How family members can cope with the situation after being left by a close person due to COVID-19 is influenced by their personality, coping mechanism, relationship with the deceased, and information received about the death of their family member. In addition, families may have other stressors associated with the pandemic that can also increase their experience of illness and the death of a loved one. Some families experience several members fall ill and die in a short time. Other families may be struggling financially and be unable to provide resources for their dying loved ones. Moreover, other families are still barred from traveling to see their loved ones during their final days or visiting them in hospitals due to visitor restrictions.[5]

Conveying facts to the family that their loved ones must be buried with Covid-19 protocol is essential for the hospital. The implementation of the protocol for the burial of bodies using the COVID-19 protocol is essential because, in several studies, SARS-CoV2 can still survive in the mucosa of the respiratory tract and body fluids for up to 12 days after death, and some sources even suggest that the virus can survive up to 35 days. Education in families regarding implementing the COVID-19 protocol is also essential considering that in Table 2, the high percentage of complaints from patient families in cases of patients who died. The presence of medical personnel to explain the importance of covering the corpse is very important to avoid conflict between the patient's family and the hospital (Edler

et al., 2020). In the observation at Kandou hospital, the family will be offered to view the deceased from a video streaming application, replacing the opportunity to view the deceased directly in non-infectious cases.[5,6]

Research in France shows psychological distress in 83% of the total COVID-19 patients hospitalized and 73% of the patient's families. Patients experience psychological pressure because they cannot be visited by their families and feel left alone. In contrast, the patient's family experiences psychological pressure because of a greater sense of responsibility and concern for the patient's condition because the information obtained was unsatisfactory. Relatives are suddenly immersed in "another world," oscillate between fear and hope, and experience extreme vulnerability and helplessness. Twenty-five to 50% of the relatives would subsequently develop significant anxiety, depression, and stress symptoms.[6]

A patient who requires ICU care will bring anxiety and concern to the patient and family under normal conditions. Communication between patients, families, and health workers involved during the ICU admission phase can help relieve the patient and family's fear of being left behind, reduce feelings of isolation, and relieve psychological suffering. Establishing two-way communication can help ease the fear of the bereaved family. Ongoing discussions with patients and families about emerging clinical scenarios can encourage joint decision-making.[6,7]

The use of virtual communication is considered to be able to remove the limits created on COVID-19 services. Facilitation by the hospital is carried out by providing an inpatient room with an internet network and gadgets that support virtual communication through easy-to-use applications. Facilitation is also carried out by implementing policies so that health workers appointed as providers of information are required to convey information on medical conditions and answer questions related to family health conditions. For patients' families who come to the hospital, a special room is provided that is equipped with devices that support virtual communication to contact the family.[8]

Patients' families generally want detailed information about the death of their family, but in conveying information to the family, information materials should be selected to help the family accept the death of their loved one. Establishing a standard for information content to be conveyed to the families of patients who have died is also an important thing determined by the hospital. Developing ways to perform ongoing, creating worthwhile communication with patients and/or family caregivers is one of the biggest challenges in this pandemic era.[9]

Before contacting the patient's family, the provider must ensure he knows the patient's identity (important things such as name, age, occupation) and the patient's relationship with the family to be contacted. This information is vital for the successful delivery of information. Although there is no good way or formulation to convey to the patient's family that their loved one has died, it is crucial to convey the information clearly, give an empathic and unambiguous impression. The family's language must be understood by receiving the information, using simple words, and avoiding using euphemisms for delivery. The task of conveying death information is a difficult task and brings pressure to doctors so that in certain conditions, it is necessary to be supported by hospital officials in the field of service when providing information to the families of patients who have died.[10]

Protocols and standard operating procedures implemented at Kandou hospital had succeeded in dropping the mean complaint percentage from 39,1% before implementing the hospital-assisted virtual communication policy to 10,15% after implementing the virtual communication policy. This study proves that virtual communication through telecommunication platforms can fulfill some of the patient and family rights in obtaining information, reducing patient and family complaints about hospital services. This study also provides data on the interaction of patients and families or patients and health workers via virtual communication applications and complements these peer-reviewed articles and service providers were limited to information about face-to-face interactions and also explicitly focused on doctor-patient communication.[11]

There were several limitations in our study as follows: this study excluded data from a group of probable COVID-19 cases or groups of patients with symptoms of severe acute respiratory infection, respiratory failure, or death, but their PCR test results for COVID-19 were negative. This research could not conclude the benefits of virtual communication usage to educate family member from suspected COVID-19 patient that died at the hospital.

CONCLUSION

The number of cases using virtual education increased each month, and the peak was in December 2020. Meanwhile, the lowest percentage was in July 2020. The use of virtual media in delivering family information and education reduces the barriers formed due to hospitalization in isolation rooms. Delivering information and education for families reduces family complaints, especially avoiding conflicts with patient families that often arise in COVID-19 patients who died.

DISCLOSURE

Ethical Clearance

According to Council for International Organizations of Medical Sciences (CIOMS) standards, the research protocol of this study has been reviewed and has obtained ethical clearance from the Health Research Ethics Committee of Prof.dr.R.D Kandou Hospital No.023/EC/KEPK-KANDOU/II/2021.

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Conflict of Interest

E, G, Kristanto., A, F, Sugiharto and F, Nurkolis., stated that there is no conflict of interest from all of us authors. According

to Council for International Organizations of Medical Sciences (CIOMS) standards, the research protocol of this study has been reviewed and has obtained ethical clearance from the Health Research Ethics Committee of Prof.dr.R.D Kandou Hospital No.023/EC/KEPK-KANDOU/II/2021.

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