THE RELATIONSHIP BETWEEN KNOWLEDGE AND COMMUNITY BEHAVIOR IN UTILIZATION OF TELEPHARMACY SERVICES IN THE TABANAN CITY

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ABSTRACT

Background: Telepharmacy appears to be a technology that represents a unique and innovative way to deliver quality pharmaceutical services to rural and regional areas in particular. Providing appropriate pharmaceutical services to patients and conducting consultations with other health workers have an important role in reducing the use of inappropriate and less effective drugs. The development of telepharmaceutical services can be influenced by the knowledge and practice of the community. **Objective:** to determine the relationship between knowledge and community practice on the use of telepharmaceutical services in Tabanan City. **Methods:** This research is an observational study using a cross-sectional design. The sample in this study amounted to 100 people who met the inclusion and exclusion criteria. The sample was taken from the population using a purposive random sampling technique. The research instrument used in this study was a questionnaire (questionnaire), collecting data formally for the subject to answer questions in writing. Data were analyzed using computer software, namely the Chi-square test. **Results:** The respondents who have sufficient knowledge, as many as 55 people have sufficient behavior, and as many as 42 people, while those who have good behavior, 13 people and respondents who have good knowledge, 45 people have sufficient behavior, as many as 23 people and behavior well as many as 22 people (p-value <0.05). There is a relationship between knowledge and practice regarding the use of telepharmaceuticals in the community of Tabanan City. **Conclusion:** there is a relationship between knowledge and practice regarding the use of telepharmaceuticals in the community of Tabanan City.

Keywords: Knowledge; Practice; Telepharmaceutic

INTRODUCTION

Telepharmacy is one part of the practice of telemedicine which refers to the provision of pharmaceutical services by a pharmacist. The provision of this service is carried out with a distance between the pharmacist and the patient as the recipient of health services. Telepharmacy is also used when a pharmacist is needed but the pharmacist cannot be present in person to provide services[1].

According to the Decree of the Minister of Health of the Republic of Indonesia Number 51 of 2009, telepharmacy is a pharmaceutical service through the use of telecommunications technology and information systems to patients over long

distances. Pharmacies can provide Pharmaceutical Services electronically (Telepharmacy) and drug delivery. In providing telepharmaceutical services on a network, pharmacies must partner with Pharmacy Electronic System Operators (PSEF) in the use of electronic systems in the form of online retail or marketplaces on special pharmaceutical features in accordance with the provisions of the legislation[2].

The development of telepharmaceutical services can be influenced by the knowledge and behavior of the community. The better the knowledge of information regarding the use of telemedicine, the more optimal a person will be in using this service during the Covid-19 pandemic. Based on ADA research in 2020, this condition, coupled with the application of physical distancing, led to new consumer behavior[3]. Through a circular on the use of information and communication technology to carry out medical services for medical institutions HK. 02. 01 / MENKES / 303 / 2020, the Indonesian government also supports health services by encouraging people to use telemedicine services before entering health institutions[4]. With this technology, Indonesia can reduce disease transmission. President Joko Widodo said that to prevent the spread of this virus, people don't need to go to the doctor, they don't need to go to the hospital, but they can consult their health through the telemedicine platform (except for emergencies).

In the previous study (Fathoni,2021) from 96 pharmacy respondents, as many as 69 pharmacies (71.88%) have used technology-based pharmaceutical services, including providing virtual payments (38.5%), providing drug delivery services to home (46.9%), providing online prescription services (38.5%), and providing self-medication services and providing drug

information to customers via online (59.4%). The online prescription and self-medication services use chat applications (WhatsApp, Telegram, Line), email, other online applications (Halodoc, Klikdokter), and/or video call applications (Skype, Zoom, Google Meet). Chat applications are most often used both in online prescription services (50%) and self-medication (87%)[5].

Telepharmaceuticals have been shown to be effective in the delivery of pharmaceutical services. Several hospitals reported that the application of telepharmacy reduced the incidence of medication errors. Other studies have also proven that telepharmacy reduces acute complaints in elderly patients within 30 days after discharge from the hospital by providing interventions in the form of adjustment of medication history, adherence, and identification of medication that is not in accordance with the patient's condition[6]. Although proving to be useful, telepharmacy is a relatively new concept[7], so research is needed to optimize the application. Tabanan City is one of the districts where the population in Tabanan City continues to increase from 445,70 people in 2019 to 462,652 in 2021. In addition, no research has been conducted on telepharmacy in Tabanan City, making this research necessary in Tabanan City.

METHODS
1. Research design

The research conducted was an observational study using a cross-sectional design. Data collection was carried out at one time and looked at several variables at once. The research was conducted by distributing instruments in the form of questionnaires to collect primary data from respondents containing several questions related to knowledge and behavior regarding the utilization of telepharmacy services in

the Tabanan community. The questionnaire used has been tested for validity and reliability and translated with www.DeepL.com/Translator (free version).

2. Population

The population in this study is the people of Tabanan City, especially those who are willing to be respondents.

3. Sample

Inclusion Criteria are People who live in Tabanan City, male/female community aged 17-45 years, People who are willing to be respondents and fill out a questionnaire, and people who know or use telepharmaceutical services. Exclusion Criteria include people who can not read and write and those with visual and hearing impairments.

In this study, samples were taken from the population using a purposive random sampling technique. Purposive random sampling is a sampling technique used if the sample to be taken has certain considerations[8].

4. Research Instruments

According to the research instrument is a tool used to measure the value of the variables studied. The research instrument used in this study was a questionnaire (questionnaire), and by conducting formal data collection, the subject answered questions in writing. Questions are asked directly or orally by the researcher from a list of existing questions. Before the questionnaires were distributed to respondents, the researchers tested the validity and reliability first.

5. Validity test

Validity test is an equation of data reported by researchers with data obtained directly that occurs in research subjects,[8] Validity test is used to measure the validity of a questionnaire. The validity test of the questionnaire was analyzed using computer statistical processing software with testing techniques using Bivariate Pearson correlation (Pearson Moment Product). This analysis is done by correlating each item's score with the total score. If r count r table (2-sided test with sig. 0.05), then the instrument or question items are significantly correlated with the total score or declared valid[9].

6. Reliability Test

Reliability limits how consistent the results of measuring a variable are[8]. Reliability testing is used to obtain an instrument which, when used several times, to the same symptoms and with the same measuring instrument will be able to produce the same data. The reliability test was carried out using calculations of Cronbach's Alpha values. If the Cronbach's Alpha value is greater than 0.60, then the questionnaire used is declared reliable[10].

RESULTS

This research was carried out in the community in Tabanan City in the month of March–April 2022 to determine the effect of community knowledge and behavior on the efficiency of telepharmaceutical services in Tabanan City. The research sample is based on the characteristics of the respondents consisting of age, gender, occupation, and income. The descriptive results of the respondents' characteristics can be seen in the following table 1.

The number of samples in this study was 100 respondents. The description of public knowledge in this study consisted of 10 questions. Based on the tests that have been carried out, the results are shown in Table 2.

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Table 1. Characteristics of Respondents

	Information	Frequency (f)	%
Age	17-25	15	15
	26-35	31	31
	36-45	54	54
Gender	Man	64	64
	Woman	36	36
Education	College	12	12
	SD	3	3
	SMA/SMK	74	74
	JUNIOR HIGH SCHOOL	11	11
Work	Working	93	93
	Not yet/Not working	7	7

Table 2. Overview of Community Knowledge

	Frequency	
Information	**Amount**	**N(%)**
Enough ≤ 75	55	55%
Well > 75	45	45%

Table 3 Overview of Community Behavior

	Frequency	
Information	**Amount**	**N(%)**
Enough ≤ 75	65	65%
Well > 75	35	35%

Table 4 Relationship of Knowledge with Community Behavior

Information		Behavior		Total N(%)	X^2	P-Value
		Enough N(%)	Well N(%)			
Knowledge	Enough	42	13	55		
		42%	13%	55%		
	Well	23	22	45		
		23%	22%	45%	6.938	0.008
Total		65	35	100		
		65%	35%	100%		

Based on the results of the bivariate
analysis, the results are shown in Table 4
below. Based the test results in Table 4
shows that respondents who have sufficient
knowledge, as many as 55 people have
sufficient behavior, and as many as 42
people, while those who have good
behavior, 13 people, and respondents who
have good knowledge, 45 people have
sufficient behavior as many as 23 people
and behavior well as many as 22 people.
The p-value is 0.008 (<0.05). This shows if
there is a relationship between knowledge
and behavior regarding the use of
telepharmaceuticals in the community in
Tabanan City.

DISCUSSION
Description of Respondent's Characteristics

Based on the results of the questionnaire collection, the number of samples in this study was 100 respondents. Based on Table 1 shows that the number of respondents 36-45 years as many as 54 people or 54%. The gender of the respondents and more respondent is male, 64%. Based on the education of the respondents, the higher education is 74 high school/vocational high school.

Description of Public Knowledge of the Utilization of Telepharmaceutical Services in Tabanan City

Basic knowledge is somebody changing behavior so that the behavior carried out will be more lasting than behavior that is not based on knowledge. Knowledge can be interpreted to know or understand after seeing (witnessing, experiencing or being taught). Several other studies on knowledge suggest that knowledge is the dominant factor that influences the occurrence of a person's behavior towards health behavior. Knowledge according to Lewin's Gestalt theory is a person's cognitive response to a stimulus obtained from motor sensors, preoperational, concrete operational, formal operational, both cognitive, psychoanalytic, and phenomenological approaches[11].

Of the total 100 respondents, most answered: "agree." However, only a small number of respondents answered "strongly agree", namely 20-27 respondents from each question, and as many as 11 respondents answered "disagree". This shows that respondents are still unsure about their knowledge of telepharmaceutical services. Based on the results of the study, it was found the description of the knowledge of respondents who have a sufficient category as many as 55 people or 55% and who have a good category, as many as 45 people or 45%, where it means that most of the respondents have good knowledge of the use of telepharmaceutical services. The better the knowledge of information regarding the use of telepharmaceuticals, the more optimal a person will be in using this service during the Covid-19 pandemic.

Low knowledge can be caused by the information provided is not clear and incomplete or in a period that is too short, so someone will tend to experience ambiguity in the interpretation of the information. The most dominant result is that a person will experience the effects of limited information obtained by manifesting a psychic condition that tends to lead to an emotional state. This is commonly called confusion[12].

Description of Community Behavior Towards the Utilization of Telepharmaceutical Services in Tabanan City

According to Express that a person will behave based on knowledge he had by thinking of the benefits that would occur if he acted[13]. Behavior is all the biological manifestations of an individual in interacting with the environment, starting from the most visible behavior to the invisible one, from what is felt to the most that are not felt. Behavior is the result of all kinds of experiences and human interactions with their environment which are manifested in the form of knowledge, attitudes, and actions. Behavior is the response/reaction of an individual to a stimulus that comes from outside or from within himself[11]. Behavior is an action that can be observed and has a specific frequency, duration, and purpose, whether consciously or not. Behavior is a collection of various interacting factors[14].

From a total of 100 respondents, only 9-21 people answered "strongly agree" on each question, and most of the

respondents answered, "agree". Based on the results of the study, it was found that descriptions of the behavior of respondents who have a sufficient category of as many as 65 people or 65% and who have a good category of as many as 35%. This shows that some people have sufficient behavior in the use of telepharmaceutical services in Tabanan City.

Some countries have also started implementing technology-based services. In the Netherlands, only a small number of pharmacies use telepharmaceuticals, such as video calling, during patient education and counseling[16]. The use of online prescription services in Zimbabwe with the WhatsApp application is common way. Pharmacists conduct counseling using the application and then deliver grouped drugs. Personnel who deliver drugs use full PPE, including masks and gloves. The use of online prescriptions is quite effective in reducing the risk of transmission of COVID-19, in which the pathogen can spread through contact between pharmacists and patients in direct prescription delivery. To support telepharmacy in pharmacies, payments can be made non-cash using the mobile platform.

Relationship between Community Knowledge and Behavior regarding the Utilization of Telepharmaceutical Services in Tabanan City

Someone who is well-informed about technology is defined as having knowledge consisting of understanding the use of technology so that they will have good behavior as well.In an effort to prevent the spread of COVID-19 from increasing, the government urges the public and medical personnel to use Telepharmacy as a remote or online public health service application between hospitals and patients[17]. However, in practice, there are several challenges that

arise, such as technological capabilities, data security and patient privacy, laws and regulations, usage guidelines, and individual patient issues[16]. Action is needed to see the knowledge and attitudes of the community in utilizing telepharmaceuticals during the pandemic.

Knowledge is the result of knowing, and knowledge occurs after people sense a certain object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste, and touch. Most of human knowledge is obtained through the eyes and ears. The stronger the human curiosity, the more knowledge[18].

Based on the test results in a table, it shows that respondents have positive correlation who have sufficient knowledge of 55 people have sufficient behavior as many as 42 people, while those who have good behavior are 13 people, and respondents who have good knowledge of 45 people have sufficient behavior as many as 23personand good behavior as many as 22 people.It can be said that public knowledge regarding the use of telepharmaceutical services in the city of Tabanan is still quite sufficient and efforts are needed in the form of counseling regarding telepharmaceutical services.

The knowledge and attitude of the people of Medan City about telemedicine during the COVID-19 pandemic was good[17]. Curiosity drives people to ask questions. Asking about himself, the environment around him, or various events that occur around him.

CONCLUSION

The description of the knowledge of respondents who have sufficient categories was 55%, and respondents who have good categories were 45%. The behavior of respondents who have a sufficient category was 65%, and who have a good category

was 35%. This shows that some people have sufficient behavior in the use of telepharmaceutical services in the city of Tabanan. There is a relationship between knowledge and behavior regarding the use of telepharmaceuticals in the community in the city of Tabanan.

CONFLICT OF INTEREST
No conflict of interest in this paper. This paper was written independently without being affiliated with another party.

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