

# Evaluation of Hong Kong Medical Students' Knowledge, Attitude, and Intention towards the Use of Telemedicine

Ka Chun Fung

JC School of Public Health and Primary Care  
Faculty of Medicine, The Chinese University of Hong Kong  
Shatin, Hong Kong  
Email: 1155163664@link.cuhk.edu.hk

**Abstract**— With the increasing adoption of telemedicine in Hong Kong after the COVID-19 pandemic, increased attention has been given to the future development of telemedicine in both private and public healthcare settings because it plays a role in diversifying the demand in medical support by providing a flexible supply of services. Hence, it is important to understand whether the future doctors are ready for the new trend in the health system. The study examines the knowledge, attitude, belief towards telemedicine, and the intention to use telemedicine of medical students enrolled in their clinical years in Hong Kong. Two research questions have been formulated to understand the mechanism of associating knowledge, attitude, and belief with the intention towards telemedicine. A cross-sectional study was conducted on medical students enrolled in their clinical years in Hong Kong from February to April 2023, in which the subjects were required to complete a questionnaire through Qualtrics after offering informed consent. Convenience sampling was adopted for data collection. 135 invitations were sent online, and 83 valid responses were received. After the data collection, descriptive analysis, bivariate correlation and mediation analyses were conducted. Two main results were identified. First, attitude is a necessary step in developing the connection between knowledge of telemedicine and belief towards telemedicine. Second, belief is not the only factor in developing the connection between attitude and intention towards the use of telemedicine. Based on the results, it was concluded that it is critical to have the medical school curriculum incorporate elements of telemedicine to prepare students to embrace the new practicing mode in Hong Kong.

**Keywords**- *Telemedicine; Knowledge; Attitude; Intention; Medical students; Hong Kong.*

## I. INTRODUCTION

The World Medical Association defined telemedicine as the practice of medicine over a distance, including diagnostic judgment and therapeutic treatment [1]. However, it does not fully replace the need for face-to-face medical consultations because remote physical examination and imaging tests are difficult to perform. Therefore, the use of telemedicine has been relatively limited since its debut in 1998 and was mostly employed to manage geriatric outreach patients [2]. Nevertheless, the series of healthcare reforms and technological advancement has encouraged more use of healthcare technology and big data. In 2019, the Medical Council of Hong Kong (MCHK) revised its previous

guidelines to introduce recommended ethical requirements for doctors to practice telemedicine [3]. However, the usage of telemedicine did not improve much because doctors tend to be confused about the requirement that teleconsultations must provide a standard of care equivalent to in-person medical practice, which is not an absolute parameter to assess the level of care needed to uphold professionalism.

In the meantime, the Hospital Authority has been keen on designing mobile apps for patient management and health education for the past decade, allowing more people to be aware of telemedicine [4]. Around 13,000 patient consultations and health education initiatives have been completed remotely when specialty and outpatient clinics are not in service since the launch of teleconsultations in Hong Kong public healthcare institutions [5]. In 2022, the Hospital Authority also adopted teleconsultation to relieve the burden of public healthcare institutions while handling the fifth wave of the COVID-19 pandemic. Nevertheless, it does not change the fact that Hong Kong is a conservative adopter and lags significantly behind other regions [6].

In contrast, the use of telemedicine in other parts of the world is very prevalent, and medical students have been exposed to telemedicine in their studies. Studies in Nepal, the United States, and Pakistan showed that most students understand telemedicine well and have telemedicine as part of their clinical learning experience [7][8][9]. In most countries worldwide, medical students have a positive perception of telemedicine and are eager to apply telemedicine in their future careers [7][8][9][10]. Nevertheless, Asian countries tend to have less of a positive attitude towards telemedicine due to the limited development of telemedicine in these regions [6]. In terms of specialties where telemedicine could be applied, over half of the student subjects expect a more extensive use in radiology, teleconsultation, and digital documentation of patient's medical history [11]. Meanwhile, the current training may not be adequate for students to face potential challenges [12].

Telemedicine is a dominant change in the healthcare industry. However, medical education traditionally focuses on theories and face-to-face clinical exposure. Given the global trend for shifting towards the adoption of telemedicine, Hong Kong medical schools have attempted to incorporate telemedicine, particularly during the COVID-19 pandemic. At the University of Hong Kong (HKU), a teaching grant has been applied for developing telemedical

applications in clinical teaching and learning in different specialties [13]. Thus, it is important to understand whether future doctors are ready for the new trend in the health system.

As the first study of its kind to date in Hong Kong, this work poses two main research questions:

- How does the knowledge of medical students about telemedicine contribute to the attitude and belief towards telemedicine?
- How does the attitude of medical students about telemedicine contribute to the belief and intention towards adopting telemedicine?

The rest of the paper is structured as follows. In the second section, the hypotheses establishment of the study are illustrated. The hypotheses support the discussion of the methodologies adopted in Section III. In Section IV, the results are illustrated and discussed. The paper concludes with the discussion of implication of the study to various stakeholders in Section VI.

## II. HYPOTHESES FORMULATION

Prior to the establishment of the two hypotheses from the two research questions, the definitions and relationships among knowledge, attitude, belief, and intention are discussed.

Knowledge is defined as understanding of an item or individual through experience, communication, or inference based on the organization of meaningful information [14]. In the study, the knowledge would refer to the understanding of the respondents (i.e. the medical students) about the application of telemedicine in Hong Kong.

Attitude refers to the mental disposition individuals have towards certain objects, contexts, or other individuals before attempting to make decisions [15]. There are three components to produce attitude: cognitive content or knowledge received from the experience or external information sources, an affective element from the person creating the attitude, and a tendency for the individual to prepare for action [16]. As telemedicine is a complex concept involving high-order cognitive understanding of the technical competence, the attitude discussed in the study would be about how the subjects feel about the adoption of telemedicine in their foreseeable medical profession development in terms of community-based setting/ clinical setting.

Belief refers to an idea that an individual holds as true [15]. There are various types of beliefs because they depend on how the belief is constructed. For instance, one may develop a belief through personal experience, whereas a belief can also be developed through the socialization with others or based on the norms established in a culture. To be more specific about the belief to be tested, an evaluative belief would be the only type of belief to be tested in the quantitative analysis of the study, which is established from the value and attitude towards the object (i.e. telemedicine). In this context, the belief of medical students towards the effectiveness and efficiency of adopting telemedicine in their foreseeable medical profession development is evaluated.

Intention generally refers to the determination of an individual to act in a certain way [17]. However, intention can be classified from different perspectives. To apply the intention into the study's context, intention refers to the determination of medical students towards the use of telemedicine in the future.

Previous studies concerning telemedicine application around the global community have not explored the mediating effects among the four variables. Yet, health education often makes use of the Knowledge-Attitude-Behavior (KAB) model to explain certain group behavior. With the evaluative belief derived from the attitude towards the telemedicine shaped by the individual, it would be reasonable to develop the following hypothesis (H1).

H1: The relationship between knowledge and belief towards telemedicine is mediated by attitude.

Under rational model, a person's intention of acting in a certain pattern is based on what they believe, so that the intention can be well aligned with belief [18]. With the previous discussion on the formation of belief with the attitude, the second hypothesis (H2) is established.

H2: The relationship between attitude towards telemedicine and intention towards the use of telemedicine is mediated by belief.

By examining the two hypotheses, the project aims to provide insights into how to promote the idea of telemedicine in the Hong Kong medical profession, given that the health system gradually adopts the new mode of practice.

## III. METHODOLOGY

### A. Study design and study population

A cross-sectional study was conducted to collect medical students' opinions concerning telemedicine. In the study, all medical students studying clinical years (years 4-6) in the two medical schools: The Chinese University of Hong Kong (CUHK) and HKU, were the target population. As students mainly get exposed to the clinical setting starting from the fourth year of study in the six-year medical program in both universities and the focus of junior year students is to understand the pre-clinical sciences, medical students in their first, second or third years were excluded from the study. In addition, medical students studying other than the two universities were excluded from the study because the training they receive in a medical school other than CUHK or HKU may not accurately reflect the Hong Kong healthcare setting.

Regarding past studies done in other countries, the non-probability convenience sampling method was adopted. As all medical students studying the clinical years share the common points of being exposed to the clinical setting during their clerkship and specialty training and their sociodemographic background was not a significant factor in the study, it was not necessary to have randomization process to control the factors. Because of the convenience sampling, the response rate varies across different studies. Kong et al. involved soliciting 3500 subjects in the population, and 8.2% of them replied [10]. However, considering the potentially

low response rate due to the clash with examination among medical students or other engagements, a ratio of 6% of the population was used. With the use of a 5% margin of error with a 95% level of significance considering 6% of the population of 1500 students, the minimum sample size is 74, which is approximately 5% of the total number of medical students studying years 4-6 in the two medical schools.

### B. Measure

The study mainly used a questionnaire to collect the students' opinions on telemedicine. In most studies, the questionnaire is divided into three parts: knowledge about telemedicine and exposure to telemedical practice in a clinical setting, the perception of telemedicine, and their preparedness to adopt telemedicine [9]. There is no standardized questionnaire in the studies from other countries. However, the questions mainly involve multiple-choice and Likert Scale ratings on the extent to which the subject agrees with the statements presented. The content of the questionnaires shares high similarities. Hence, the questionnaire comprises five sections with 52 questions in total, in which some of the questions have been adapted from past literature to fit the Hong Kong context, as the healthcare system and medical curriculum are not identical between the areas that the literature studies and Hong Kong. At the same time, it is necessary to identify the various dimensions of the variables so that the results can show a more comprehensive picture. All sections except the section about the participants' demographics have included questions with 7-point Likert scales. The main variables to be measured are knowledge, attitude, belief, and intention.

Six items are used to measure knowledge, nine items are used to evaluate attitude, 15 items are used to measure belief, and five items are used to measure intention.

### C. Data validation

Prior to the data collection, the questionnaire had been translated to Traditional Chinese and then back to English to confirm the accuracy of the wording adopted in the questions and choices. A small-scale pilot test with 10 participants was conducted to run through the processes and evaluate whether the participants shared the same understanding as the researcher when providing responses to the questionnaire. Based on the feedback obtained, refinement of the questionnaire was carried out, and the revised questionnaire was distributed to the target sample population.

### D. Data Collection

While some of the studies involved more than one medical school in taking part in the study, the researcher sent out an online questionnaire in the form of Qualtrics and allowed for the receipt of responses in a given period [19][20]. No face-to-face physical data collection session was conducted for the study. After completing the informed consent form, the subjects completed the questionnaire from February to April 2023.

### E. Data Analysis

Statistical Product and Service Solutions (SPSS) version 26 was used to analyze the data. In case of any missing data on a particular question, the whole set of responses was discarded to maintain data integrity. Descriptive statistics were computed. Bivariate correlations among the variables were examined to see whether any hidden relationships would affect the interpretations. For the variables of "knowledge", "attitude", "belief", and "intention", mediation analyses were conducted to find the associations among them. If the direct effect for the independent variable and dependent variable remained statistically significant with the effect of the mediator, a Sobel test would be conducted to verify whether a partial mediation model exists.

## IV. RESULTS AND DISCUSSION

### A. Results

All the measurements applied are reliable with Cronbach's alpha coefficients beyond 0.7 (see Table I):

TABLE I. CRONBACH'S ALPHA

Measured variables	Cronbach's alpha
Knowledge	0.90
Attitude	0.79
Belief	0.81
Intention	0.85

A total of 135 invitations had been delivered, and 83 valid responses were received (61.5% effective response rate). Five incomplete entries were removed to maintain data integrity. The summary of the demographics of the 83 respondents is found in Table II.

TABLE II. DEMOGRAPHIC CHARACTERISTICS OF SAMPLE

Respondents (N=83)	
<b>Gender</b>	
Male	79.5%
Female	20.5%
<b>Age (years)</b>	
21-22	16.9%
23-24	53.0%
25-26	26.6%
27-28	3.6%
<b>Education Level</b>	
Secondary school	42.2%
Associate Degree	3.6%
Bachelor's Degree	38.6%
Master's Degree	15.7%
<b>Medical Year</b>	
Year 4	32.5%
Year 5	30.1%
Year 6	37.3%
<b>Medical School</b>	
The Chinese University of Hong Kong	34.9%
The University of Hong Kong	65.1%

The correlation matrix with means, standard deviations, and Pearson's correlation coefficients for the variables measured were presented in Table III.

TABLE III. BIVARATE CORRELATION MATRIX FOR VARIABLES

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Gender	1.20	.41	--								
2. Age	23.83	1.46	.20	--							
3. Educational level	2.28	1.17	.14	<b>.44**</b>	--						
4. Medical Year	2.05	.84	.078	<b>.36**</b>	-.001	--					
5. Medical School	1.65	.48	-.129	<b>-.29**</b>	<b>-.54**</b>	-.018	--				
6. Overall Understanding	4.12	.85	.078	.13	<b>.26*</b>	<b>.24*</b>	-1.74	--			
7. Attitude towards telemedicine	4.84	1.45	.070	<b>.34**</b>	<b>.47**</b>	.17	<b>-3.23**</b>	<b>.62**</b>	--		
8. Intention to use telemedicine	5.05	1.57	.061	<b>.28*</b>	<b>.44**</b>	.05	<b>-.46**</b>	<b>.47**</b>	<b>.34**</b>	--	
9. Belief towards telemedicine	4.70	1.10	.008	<b>.28*</b>	<b>.43**</b>	.20	<b>-.40**</b>	<b>.57**</b>	<b>.76**</b>	<b>.62**</b>	--

N = 83 (listwised), \*p < .05, \*\*p < .00.

The association between the independent variable and mediator of the first hypothesis (the positive relationship between attitude towards telemedicine and overall understanding of telemedicine) was supported by the positive correlation (r = .62, p < .01). The association between the mediator and dependent variable in the first hypothesis (the positive relationship of belief towards telemedicine and attitude of medical students towards telemedicine) was also supported by the positive correlation (r = .76, p < .01). For the direct association between the independent variable and dependent variable (the positive relationship of belief towards telemedicine and overall understanding of medical students on telemedicine), it was supported by the positive correlation (r = .57, p < .01).

For the second hypothesis, the association between the mediator and dependent variable (the positive relationship between intention towards the use of telemedicine and belief of medical students towards telemedicine) was also supported by the positive correlation (r = .62, p < .01). The direct association between the independent variable and dependent variable (the positive relationship of intention towards the use of telemedicine and attitude of medical students towards telemedicine) was also supported by the positive correlation (r = .74, p < .01).

The positive correlations provide a basis for further investigation with the mediation regression. Hayes Process Macro Model-4 was used to evaluate the direct effect, indirect effect, and total effect. If the indirect effect is statistically significant while the direct effect becomes non-significant or is significantly reduced, a full mediation is achieved. If the total effect and indirect effect remain statistically significant, a Sobel test would be conducted to determine whether partial mediation is achieved. Otherwise, no mediation is achieved [21].

TABLE IV. REGRESSION ANALYSIS FOR MEDIATION OF MEDICAL STUDENTS' ATTITUDE BETWEEN KNOWLEDGE AND BELIEF TOWARDS TELEMEDICINE

Variables	B	CI95%	SEB	β	R <sup>2</sup>	ΔR <sup>2</sup>
Step 1					.64	<b>.41**</b>
Constant	1.11	[-2.34,	.69			

Knowledge of telemedicine		5.07]				
	<b>1.01**</b>	[.38, .85]	.15	<b>.59**</b>		
Step 2					.85	<b>.72**</b>
Constant	<b>1.57**</b>	[.27, 5.54]	.37			
Knowledge of telemedicine	.11	[-.10, .03]	.10	.09		
Attitude towards telemedicine	<b>.58**</b>	[.44, .70]	.06	<b>.76**</b>		

N = 83; \*p < .05, \*\*p < .00

Table IV demonstrates the two-step mediation analyses for the first hypothesis. The second condition of the mediation analysis has been fulfilled, as reflected in the positive bivariate correlation between knowledge and belief (see Table III). Knowledge of telemedicine is positively correlated with the attitude (B = 1.01, p < .001). Then, the mediator (i.e., belief) was introduced along with the independent variable (i.e., knowledge). A statistically significant result (B = .58, p < .001) was achieved. The total effect of the two steps creates a statistically significant result (B = .70, p < .001). Meanwhile, the direct effect between the independent and dependent variables has become non-significant (B = .11, p = .25). Therefore, hypothesis 1 was supported with a full mediation effect.

In addition to the regression analysis, the effects of different types of practical knowledge (exposure to what types of telemedicine) were examined. Among the six sources of telemedicine exposure for participants (social media, peers, family members, mass media, medical curriculum, printed material), the variable "family members" did not have statistical significance. In contrast, the variable "mass media" only led to partial mediation. For the remaining sources, the variable "medical curriculum" had the most substantial effect, leading to full mediation.

TABLE V. REGRESSION ANALYSIS FOR MEDIATION OF MEDICAL STUDENTS' BELIEF BETWEEN ATTITUDE AND INTENTION TOWARDS TELEMEDICINE

Variables	B	CI95%	SEB	β	R <sup>2</sup>	ΔR <sup>2</sup>
Step 1					.74	<b>.55**</b>
Constant	1.13	[-1.52, -.26]	.41			
Attitude towards Telemedicine	<b>.81**</b>	[.56, .92]	.08	<b>.74**</b>		
Step 2					.84	<b>.71**</b>
Constant	<b>.84**</b>	[.27, 5.54]	.23			
Attitude towards telemedicine	<b>.39**</b>	[.11, .68]	.14	<b>.36**</b>		
Belief towards telemedicine	<b>.65**</b>	[.20, .95]	.18	<b>.76**</b>		

N = 83; \*p < .05, \*\*p < .00

Table V demonstrates the two-step mediation analyses for the second hypothesis. The second condition of the mediation analysis has been fulfilled, as reflected in the positive bivariate correlation between knowledge and belief (see Table III). Attitude towards telemedicine is positively correlated with the belief (B = .81, p < .001). Then, the mediator (i.e., belief) was introduced along with the

independent variable (i.e., attitude). There is a statistically significant result ( $B = .65, p < .001$ ). The total effect of the two steps creates a statistically significant result ( $B = .81, p < .001$ ). However, the direct effect between the independent and dependent variables remains statistically significant ( $B = .39, p = .00$ ).

Therefore, a Sobel test was conducted to evaluate whether belief influences the relationship between attitude and intention. The unstandardized beta coefficient (B) and standard error (SEB) were calculated to examine the indirect effect. This satisfied the criteria for a partial mediation effect (Sobel test,  $z = 2.21, p = 0.03$ ). Therefore, hypothesis 2 was partially supported.

### B. Discussion

Full mediation is achieved in the model representing H1, suggesting attitude is necessary for developing the connection between knowledge (overall understanding) and belief towards telemedicine. Telemedicine is a professional and technical development in the medical field, which involves many cognitive processes from learners to understand the new technology. Therefore, it would be logical to have the flow for the students to be first exposed to the concept of telemedicine before they could develop attitudes and beliefs towards telemedicine, justifying the choice of knowing the independent variable. Apart from the logical deduction, past literature can also prove the association between knowledge and attitude, as the finding from the model is consistent with the results of other studies. Kong et al. identified the relationship between telemedicine exposure, interest, and awareness among medical students in the US, in which students with higher exposure to telemedicine would positively associate with the enhancement of awareness and opinion formation of telemedicine [8]. The awareness induced would provoke a higher interest in the use of telemedicine for clinical management. Moser found that 75% of medical students had a positive attitude towards telemedicine while they had knowledge of telemedicine from media and lectures [22].

Concerning the broad scope of the term "belief", the study would narrow the scope of the variable "belief" to evaluative belief. Bramble defined evaluative belief as "a belief that a particular thing is good (or has value) simpliciter. The good simpliciter makes the world go better rather than worse, impersonally considered" [23]. Evaluation derives from the value and attitude towards the object to be discussed (i.e., telemedicine) because the individuals would rely on their values to develop some standards and parameters to compare their understanding of the object with social norms or their internal mindset. From the positive coefficients of the regression model, it is clear that medical students are more positive in having the belief towards telemedicine when they have a positive attitude and knowledge about the new advancement.

The filter of sources of information medical students receive about telemedicine leads to various degrees of mediation in the first hypothesis. Although students can

access a broader range of information in the digital era, information about the advancement of medical technology remains disseminated in credible sources, such as academic studies and clinical cases. Even if students can access the information from other channels (e.g., discussion from family members, mass media), the information received is relatively layman as the general information does not provide much insight on how it would apply to the professional medical practice. Thus, the medical curriculum would be the primary source of information that would influence them to understand the new tools. While some students do not have access to telemedical applications, they desire to incorporate the component into clinical training [12].

On the other hand, partial mediation is achieved in the H2 model, suggesting that belief is not the only factor in developing the connection between attitude and intention towards telemedicine. Even though attitude, belief and intention are interrelated, other variables can contribute to the explanation. Chen et al. studied the attitude, intention and behavior of medical students towards telemedicine, in which they found that other external and objective factors would contribute to the determination of the association [10]. Hsieh et al. examined the attitude and intention of medical students towards the use of telemedicine with the integration of the Theory of Planned Behavior, Self-determination theory and technology acceptance model. Among the complex network of theories, they concluded that attitude and perceived control leads to the intention towards the use of telemedicine, and subjective norm does not have statistical significance on the intention [24]. On some occasions, even though the students are eager to embrace the new practicing mode, they may feel that they are not fully ready for the change. The lack of confidence in adjusting to the new practice may be attributed to inadequate training on the relevant telemedical applications [25]. Meanwhile, the change in healthcare institutions' perspective would be significant in motivating medical students to understand more about telemedicine, even though some students may not have a positive attitude towards telemedicine. Based on the literature findings, there are other external factors that can also contribute to the development of intention, which is not necessarily explained by the individuals' factors such as belief.

In addition to the presence of external influence in complicating the explanatory model, the significant direct effect between attitude and intention is also another key consideration in the partial mediation model. Fishbein and Ajzen introduced the Theory of Reasoned Action (TRA) in 1975. In the theory, the two researchers suggest that an individual's behavior is determined by the behavioral intention, which is directly influenced by their attitude toward the behavior and subjective norm [26]. There is not any role of belief in the association, which can demonstrate the non-necessarily mediating process. Besides, it is not uncommon for human thoughts to be biased with emotions

and their preferences. Under the circumstances of emotions and preference being dominant, the individual's intention to behave in a certain manner may not necessarily align with their internally constructed belief [18]. The attitude will override the belief to formulate the intention of action directly, which can explain the statistically significant attitude-intention relationship in the mediation process.

Moreover, telemedicine is a new form of technology to be applied in future medical professions, for which the Technology Acceptance Model (TAM) can be used to explain the behavior. Under TAM, the attitude of individuals directly leads to the intention of accepting and adopting the technology [27]. If the attitude among the population is positive, the individuals have a higher intention of using the technology. This echoes the questionnaire result, where the scores for attitude and intention were 4.84 and 5.05 respectively. Based on TAM, the "belief" component does not have any role in the model, suggesting the intention can be directly explained by attitude without belief serving as a mediator.

Therefore, the higher score in the variable "intention" can be explained by possible external influence and a possible non-rational mindset that skips the belief-matching process, demonstrating a partial rather than full mediation.

### C. Limitations and Future Directions

While the study provides promising results, there are some limitations throughout the process. First, the study did not include other allied health professions. As clinical management in Hong Kong's healthcare system tries to become more integrative, the opinions of other allied health professionals are equally vital in shaping professional practice. Therefore, further studies can be done to understand the perspectives of other allied health students (e.g., students in pharmacy, nursing, and physiotherapy).

Finally, and importantly, the adoption of telemedicine is currently a dynamic transformation in Hong Kong, and thus the knowledge, attitude, belief, and intention measured may not be identical in the future setting. To better visualize the trend, more studies will need to be done on recently graduated doctors and compared to the findings of the existing study to identify potential trends in the change of attitude, belief, and intention.

## V. CONCLUSION

Based on the analyses, it is found that medical teaching and learning are essential for facilitating future doctors to embrace telemedicine in their professional careers. The higher knowledge of telemedicine is highly associated with a positive attitude and belief towards it, suggesting that helping medical students embrace this new form of medical practice would allow for a smoother transition from traditional medical care to integrative care with technology incorporated. At the same time, the positive attitude developed could reduce the tension and negative emotions concerning the change in medical advancement, allowing the city to embrace technological solutions for increasingly

complex healthcare problems due to changing sociodemographic factors.

Since the trend of the Hospital Authority and other health institutions in Hong Kong promoting telemedicine is inevitable, medical schools should prepare students at an earlier stage on a gradual basis. For instance, students will be introduced to the concepts and application of telemedicine in pre-clinical years. At the same time, the clinical curriculum should incorporate telemedicine practice in clinical rotations to give students hands-on exposure for future practical application.

## VI. IMPLICATIONS

The cooperation from the medical community is equally important. Even though the newer generations of professionals are willing to include telemedicine as part of their practices, the protocols and regulations are not updated well enough to accommodate the trend. Hence, medical lawmakers and managers have to ensure that a timely, complete, and practical protocol, as well as a set of rules, are produced in the foreseeable future to protect the rights of medical professionals in adopting telemedicine. Besides, existing practitioners should also equip themselves with the knowledge and skills of using telemedicine in clinical settings, so that their application experience can serve as practical information for the mentees to pay attention to.

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