Original Research

General public's perspectives on telemedicine during the COVID-19 pandemic in Korea: an analysis of the nationwide survey

Running Title: General public's perspectives on telemedicine

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Abstract

Purpose: We investigated the awareness, experience, approval, and intention to use, and the desired type of telemedicine among the public of Korea.

Methods: From November 2020 to December 2020, we conducted an online self-reported survey on awareness, experience, approval, and intent to use telemedicine services among residents aged 20 years or older. A total of 2,097 participants completed the survey.

Results: Of the 2,097 participants in total, 1,558 (74.3%) were aware of, 1,198 (57.1%) approved of, and 1,474 (70.3%) had the intention to use telemedicine. Other regions (aOR 1.29, 95% CI 1.02 - 1.63), households with a household income of \$6,000 or more (aOR 1.44, 95% CI 1.01 - 2.08), College / university graduation or associate degree (aOR 1.35, 95% CI 1.04 - 1.75), Master's degree or above (aOR 1.73, 95% CI 1.20 - 2.50), and housewives (aOR 1.30, 95% CI 1.03 - 1.64) had higher odds of approval. Elderly, participants with chronic disease (aOR 1.26, 95% CI 1.04 - 1.54), experiences in delays of healthcare services (aOR 1.94, 95% CI 1.27 - 2.96), and experience with telemedicine (aOR 4.28, 95% CI 1.69 - 10.82) were more likely to intend to use telemedicine services. Regarding types of telemedicine, teleconsultation between doctors reported the highest approval rate (73.1%).

Conclusions: After the COVID-19 pandemic, more than 70% of the participants had already used or intended to use telemedicine at some point. Groups with a substantial need for telemedicine were more in favor of telemedicine.

Keywords COVID-19, telemedicine, awareness, experience, intention

Introduction

Following the World Health Organization (WHO)'s pandemic declaration in March 2020, the Coronavirus disease (COVID-19) outbreak has resulted in an unprecedented global health crisis [1-3]. Social distancing became the global norm in order to prevent the spread of the novel disease. In addition, as a sub-optimal substitute for in-person care, telemedicine has been recommended for patients with both chronic and acute diseases to prevent the transmission of the virus [4]. In Korea, telemedicine first emerged in Daegu and Gyeongsangbuk provinces, which were most affected by COVID-19 in the early stages of the outbreak.

Globally, telemedicine services have emerged as an alternative to in-person care that does not interfere with the continuity or quality of care. Before the pandemic, telemedicine improves access to care for those in underserved areas who experience difficulty accessing healthcare [5, 6]. Previous studies have reported that telemedicine positively affects various aspects, such as prevention, evaluation, management, and monitoring of disease [7], and lower healthcare costs due to a decrease in emergency room visits and hospitalizations [8]. Patients who have received telemedicine services report satisfaction with the overall services, most specifically in regards to communication with healthcare professionals, cost-effectiveness, and time savings [9]. Healthcare professionals have also reported that telemedicine is advantageous for communicating with patients, as it is cost and time effective. However, despite these benefits for expanding healthcare access, there are concerns about health inequities among vulnerable populations who are in a lower socioeconomic status and less likely to have access to the necessary technology and knowledge of how to use it [10, 11].

It is argue that the telemedicine system, which was efficiently built during the COVID-19 pandemic, should be actively utilized after COVID-19 [12, 13]. Telemedicine, from the

doctor's perspective, has had its desirable outcome, such as efficiency and cost-effectiveness of care. However, there has been limited research from the patient's and general population's perspective towards telemedicine so that demand, attitude, and desired type of telemedicine is not fully understood. In Korea, changes in telemedicine patient's and general population's perspective may occur, since telemedicine has been temporarily allowed during the pandemic. The aim of this study is to investigate the awareness, experience, approval, and intention to use telemedicine, as well as the perceived reasonable cost range and the desired type of telemedicine in nationwide sample.

Methods

Data Collection and Recruitment

We performed a cross-sectional study using survey data (n=2,097) from November 10 to December 4, 2020. The study candidates of survey were selected from stratified sampling by age, sex, and geographical regions. Those who were informed of the purpose of the study and consented to participate were enrolled into the study. This study protocol was approved by the Seoul National University Hospital Institutional Review Board (IRB approval number: E-2011-102-1173).

Measurements

The online survey consisted of a set of questions on basic demographics, self-reported changes in health status during the COVID-19 pandemic, chronic disease management, and awareness and attitude toward telemedicine. In the survey, telemedicine was defined as “the remote consultation and prescription to patients over wired/wireless phone and video without a direct visit to healthcare providers when safety is guaranteed according to the physician's judgment”.

The demographic variables included age, sex, area of residence, household income, education level, supplementary private insurance, marital status, and occupation. Participants were categorized into five age groups, (20-29, 30-39, 40-49, 50-59, and 60 and older), and three groups of the area of residence (Seoul metropolitan area, Daegu-Gyeongbuk province, and others) which were categorized according to the magnitude of COVID-19 outbreak. Monthly household income was divided into four groups ($\leq \$2,000$, $\$2,000$ - $3,999$, $\$4,000$ - $5,999$, $\geq \$6,000$), and education level was divided into three groups (high school graduate and under, college/university graduate or associate degree, and Master's degree or above). Marital status was categorized into three groups (single, married, and divorced or widowed), and the occupation was divided into four groups (office worker, manual worker, self-employed, and housewife/student/unemployed). Self-reported health status before and after the COVID-19 pandemic was measured on a 5-point Likert scale, and then divided into three groups (unchanged, improved, or worsened) [14, 15]. In the questions regarding chronic disease management, the participants were asked if they currently have a chronic disease (yes/no); then, those who did were further asked whether they have experienced delays in healthcare services after the COVID-19 outbreak, for either chronic disease management ("Have you ever experienced delays in consultation or had problems while you needed a prescription refill or consultation resulting from uncontrolled chronic disease?"), or any other conditions ("Have you ever experienced delays or disruptions in healthcare services, such as consultation, test, and treatment?").

Lastly, the participants were asked about their awareness, experience, approval, and intent to use telemedicine services. They were asked to identify a reasonable range of cost as well as other factors important for telemedicine use. Regarding awareness, the participants were asked to indicate whether they have heard of telemedicine. Those who indicated they were aware

were further asked whether they had experience with telemedicine. Then, a yes-or-no question inquired about participants' feeling of approval of telemedicine after COVID-19 pandemic. Participants were also asked to indicate whether they had a very low, low, high, or very high degree of intention to use telemedicine services. Additionally, participants were asked to choose their level of approval for each of the six types of telemedicine, which included 1) Teleconsultations within doctors, 2) Telemedicine between doctor and patient, 3) Telemedicine between doctor and patient's caregiver, 4) Telemedicine for diagnosis or consultation (e.g. telepathology, teleradiology), 5) Remotely cares for a ward or ICU (e.g. Tele-ICU), 6) Telemedicine in which the doctor continuously monitors the patient's condition. Regarding the reasonable cost of telemedicine, participants were asked an open-ended question and answered with a specific amount. Lastly, regarding the factors to be considered for telemedicine, participants were asked, among a choice of 5, to select the factor with the highest priority. The choices included 1) Possibility of connecting to face-to-face treatment, if necessary, 2) Availability whenever patient needs, 3) Management tailored to each patient's situation and characteristics, 4) Accessibility for use independent of disease type, and 5) Availability without economic burden.

Statistical Analysis

We performed descriptive statistics and chi-square tests on demographics, awareness, experience, approval, intention to use, approval rate by types of telemedicine, and factors to be considered for telemedicine. Then, we performed multivariate logistic regressions on factors associated with approval and intention to use telemedicine and t-test or ANOVA on the average of reasonable copay amount for telemedicine. Statistical significance was defined as a two-tailed P-value < .05. All statistical analyses were performed using STATA version 23 (StataCorp LLC, TX, USA).

Results

Baseline characteristics of participants and telemedicine experienced people

Table 1 shows the basic demographics and awareness of telemedicine among the study participants. The study participants were evenly distributed across sex and all aged groups. Of the 2,097 participants, 401 (19.1%) lived in the Seoul metropolitan area, 196 (9.4%) lived in Daegu-Gyeongbuk province, and 1,500 (71.5%) lived in other areas. The lowest house income group with a monthly salary of below \$2,000 was the least frequent with 192 (9.2%) participants. Majority of participants were college/university graduates or associate degrees (n=1,498, 71.4%), and 1,718 (81.9%) held supplementary private health insurance. Married (n=1,251, 59.7%) and office workers were the most frequent (n=1,110, 52.9%). Participants with more than one pre-existing chronic condition were 1,081 (51.6%). The majority of participants responded that their health had no change (70.5%) after the COVID-19 pandemic. 108 (10.0%) participants reported delays in healthcare services for chronic diseases, while 159 (7.6%) reported delays for any other conditions besides chronic diseases. When we examined the characteristics of participants receiving telemedicine services among those **who are aware of telemedicine** (n=1,558), those who lived in the other area were the least received telemedicine services, compared to Seoul metropolitan area (3.3% vs 7.9%, $P = .001$). Participants with supplementary health insurance were more likely to receive telemedicine than those without (4.8% vs 1.6%, $P = .03$), while participants with pre-existing chronic disease were more likely to receive telemedicine than those without (6.3% vs 1.8%, $P < .001$). There was no statistically significant association between receiving telemedicine services and household income, education level, marital status, and occupation (Table 1).

Awareness, approval, and Intention to use telemedicine

Of the 2,097 participants, 1,558 (74.3%) responded that they were aware of telemedicine. Older populations were more likely to be aware of telemedicine. All age groups showed a higher awareness rate than 20-29 years old ($P \leq .05$). Participants with higher monthly household income of \$4,000-\$5,999 (75.6% vs 64.6%, $P = .003$) and $\geq \$6,000$ (78.8% vs 64.6%, $P < .001$), participants who had supplementary health insurance (75.7% vs 67.8%, $P = .001$), participants who married (78.2% vs 67.6%, $P = .031$), and participants with underlying chronic disease were more aware of telemedicine than those without (78.9% vs 69.4%, $P < .001$). Participants with experiences in delays in healthcare services for reasons other than chronic disease were more aware of telemedicine than those without (85.5% vs 73.4%, $P = .001$).

With regard to approval, 1,198 (57.1%) of the total study population approved telemedicine services. Women had a lower rate of approval than that of men (53.4% vs 60.3%, $P = .001$). All age groups showed a higher approval rate than 20-29 years old ($P \leq .02$). Participants those with a monthly income of more than \$6,000 (60.3% vs 50.0%, $P = .01$), participants with a Master's degree or above (63.8% vs 54.0%, $P = .02$), married participants (61.7% vs 49.3%, $P < .001$), Self-employed participants (65.8% vs 55.7%, $P = .009$) had a higher rate of approval of telemedicine. Participants with chronic disease (60.8% vs 53.3%, $P = .001$), and participants who experienced delays in healthcare for conditions (66.0% vs 56.4%, $P = .02$) other than chronic disease were more likely to approve telemedicine.

Among all participants, 1,474 (70.3%) participants intended to use telemedicine. Compared to those in their 20s, all other age groups were significantly more likely to use telemedicine ($P \leq .03$). Those without supplementary health insurance were less likely to use telemedicine treatment (62.5% vs 72.0%, $P < .001$). Married participants, (74.3% vs 63.7%, $P < .001$), those

with chronic diseases (66.6% vs 73.7%, $P < .001$). Additionally, those experiencing delays in healthcare for the chronic disease after the COVID-19 outbreak (72.6% vs 84.3%, $P = .01$), and for any other conditions (69.4% vs 81.8%, $p = 0.001$), as well as those previously receiving telemedicine (72.6% vs 92.5%, $P = .001$) had relatively more intent to use telemedicine (Table 2)

Rate of approval according to the type of telemedicine

Among the types of telemedicine, teleconsultation between doctors (73.1%) had the highest rate of approval, followed by telemedicine for diagnosis or consultation, and telemedicine in which a doctor continuously monitors the patient's condition. Telemedicine between a doctor and a patient's caregiver (62.0%) had the lowest rate of approval. Each type of telemedicine showed differences with respect to **sociodemographic factors; including age**, household income, supplementary private insurance, marital status, and pre-existing chronic disease (Table 3).

Factors associated with Intention to use telemedicine

When we analyzed the factors associated with approval of telemedicine, women had lower odds than men (aOR 0.73, 95% CI 0.61 - 0.88). Participants in their 60s had the highest odds (aOR 2.59, 95% CI 1.74 - 3.86). The aOR was higher in other regions (aOR 1.29, 95% CI 1.02 - 1.63), households with a household income of \$6,000 or more (aOR 1.44, 95% CI 1.01 - 2.08), College / university graduation or associate degree (aOR 1.35, 95% CI 1.04 - 1.75), Master's degree or above (aOR 1.73, 95% CI 1.20 - 2.50), and housewives (aOR 1.30, 95% CI 1.03 - 1.64). Also, those who experienced delays in treatment due to circumstances other than chronic diseases (aOR 1.65, 95% CI 1.16 - 2.35) and those who experienced telemedicine (aOR 1.16, 95% CI 1.01 - 1.32) were more likely to agree with.

As for the factors associated with intent to use telemedicine, participants with older age had

higher aOR, while those without supplementary health insurance had lower aOR (0.65, 95% CI 0.51 - 0.84). Participants with chronic disease (aOR 1.26, 95% CI 1.04 - 1.54), experiences in delays of healthcare services (aOR 1.94, 95% CI 1.27 - 2.96), and experience with telemedicine (aOR 4.28, 95% CI 1.69 - 10.82) were more likely to intend to use telemedicine services (Table 4).

The appropriate amount of copay for telemedicine and factors to be considered important in telemedicine

The average of reasonable copay amount for telemedicine was \$29.54. In particular, participants with chronic disease and those with improved health status after the COVID-19 pandemic were willing to pay higher rates for telemedicine (\$32.61, $P = .01$; \$49.49, $P < .001$ respectively). Further, participants who experienced delays in healthcare services for both chronic disease (\$75.03, $P < .001$), and other conditions (\$51.01, $P < .001$) were likely to pay more for telemedicine than other groups (Supplementary Table 1).

When participants were asked factors to be considered important for telemedicine, the most frequently chosen was that management is tailored to each patients' situation and characteristics (24.9%), followed by the possibility of connecting to face-to-face treatment if necessary (23.6%). Sociodemographic factors were associated with setting priority in factors to be considered important for telemedicine, including sex, monthly household income, education level, supplementary private insurance, and occupation (Supplementary Table 2).

Discussion

Telemedicine has contributed to delivering healthcare services continuously under emergency circumstances in order to prevent the collapse of the health systems [16]. The use of

telemedicine to contain the spread of COVID-19 has become a global phenomenon [17, 18]. Correspondingly, Korean government has temporarily allowed teleconsultation from March 2, 2020 [19]. In this study, we investigated the public opinion on telemedicine through a representative sample of the Korean population. We found that more than half of the total study population agreed with the implementation of telemedicine. Although telemedicine has been useful during emergency circumstances like COVID-19 [20], several concerns remain that it is difficult to conduct direct consultation and complete lab tests. It is reported that the main barriers to the implementation of telemedicine are a shortage of understanding by users and access by users [21], furthermore, the sustainability of telemedicine in Korea is still controversial due to legal and ethical issues, as well as safety and responsibility among healthcare providers [22]. We have explored these questions through the perspective of the public, as healthcare consumers, towards telemedicine which affects the longevity of telemedicine.

In this study, more than 70% of the participants intended to use telemedicine, a finding was associated with older age. Considering that the usage rate of telemedicine was higher among the younger age group [23], our study result suggests that the relatively older people have high awareness of telemedicine and their intention to use it, but there are barriers to actual use. The presence of additional private health insurance and the presence of pre-existing chronic disease also showed a positive association with intention to use telemedicine. These findings aligned with previous studies that populations with higher household income and chronic diseases were more likely to receive telemedicine services during the COVID-19 pandemic [23]. Similar to previous findings that people who received guidance on how to use the telemedicine platform and who had previously experienced telemedicine were more likely to approve telemedicine, we found that those who previously used telemedicine were more in favor of the long-term use

of telemedicine. In addition, participants who experienced delays in healthcare due to the COVID-19 outbreak were more likely to approve telemedicine, which may reflect the need for remote care [24]. The main advantage felt by patients who have actually experienced telemedicine was convenience; non-delayed care delivery and the benefits of having care in their own home were important factors for patients [25].

In regard to types of telemedicine services, teleconsultation between doctors had the highest approval rate followed by teleradiology or telepathology. These results were as different from the results that patients agreed in the order of routine doctor visits, post-surgery visits, expert consultations, and surgical remote mentoring in previous studies [26]. Teleconsultation between doctors was already occasionally used in practice prior to the pandemic because it promoted access to healthcare in rural areas and increased the capacity of primary healthcare physicians [27, 28], and there was a report that medical staff working in private hospitals experienced fewer restrictions or barriers to telemedicine compared to medical staff working in university hospitals [29]. Thus, there was already a certain level of social acceptance for teleconsultation prior to its widespread use during the pandemic. Telemedicine between a doctor and a patient's caregiver had the lowest approval rate, which may reflect the anxiety of the public in conducting non-face-to-face care through a patient's caregiver without direct patient contact.

In this study, the factor to be considered most important among study participants was management tailored to each patient's situation and characteristics. According to Alexander E et al, selecting appropriate patients for telemedicine should be included in the task checklist for telemedicine launch [30]. Likewise, it is remarkably important that not only appropriate patients should be selected for telemedicine services, but types of telemedicine should be tailored to each individual [31]. In previous studies which dealt with the pros and cons of

telemedicine, the main advantage was a reduction in travel and associated costs. Then, tailored care should be considered important, considering that the physical examination was limited in telemedicine. The possibility of connecting to face-to-face treatment if necessary is also considered as an important factor responding to previously reported limitations. The factor rated important by the smallest number of participants was accessibility for use independent of disease type, reflecting that patient-specific characteristics were considered more significant than disease-specific characteristics in telemedicine.

We have several limitations in this study. First, since the study population was limited to those speaking Korean and residing in Korea, our results may limit the generalization of findings among other populations. Second, although the study participants were recruited by stratifying the Korean population by age, sex, and region, selection bias may occur because they were given the option to participate in this study.

In conclusion, the COVID-19 pandemic has marked a turning point for not only healthcare providers, but patients and society. When we analyzed the survey, after COVID-19, the majority of the public was in favor of the use of telemedicine. Interestingly, the approval of telemedicine had a positive correlation with age, indicating that technology use may not be a barrier to using telemedicine. Individuals with healthcare needs, for example, those with chronic disease and experiences of delays in healthcare services due to COVID-19 had a higher approval rate of telemedicine. Additionally, the financial status of patients such as having supplementary health insurance may potentially affect the approval of telemedicine. The general population considered individually tailored management is important. Aspects to ensure safety in care should be also considered while building infrastructure for telemedicine services after the COVID-19 pandemic. Telemedicine has demonstrated advantages in delivering timely care while minimizing exposure to the novel virus and protecting healthcare providers and patients

amid the COVID-19 pandemic, and may be thoroughly utilized after the pandemic.

Conflict of interest

The authors have no conflicts of interest to declare for this study.

Funding

None

Statement

This work has not been presented, submitted, or published elsewhere in any form or any language.

Author contribution

Conceptualization: Kang E, Lee H, Lee JY, Hong YC. Data curation: Kang E, Lee JY. Formal analysis: Kang E. Funding acquisition: Hong YC. Investigation: Kang E, Lee H, Hong KJ, Yun J. Methodology: Kang E, Lee H, Lee JY, Hong YC. Project administration: Kang E, Hong KJ. Resources: Hong YC. Software: Kang E. Supervision: Lee JY, Hong YC, Lee H. Visualization: Yun J, Lee H. Writing—original draft: Kang E, Lee H, Yun J, Lee JY. Writing—review & editing: Kang E, Lee H, Hong KJ, Yun J, Lee JY, Hong YC. Approval of final manuscript: all authors.

Acknowledgements

We would like to express our gratitude to survey participants. In addition, we appreciate the effort made by the field workforce to conduct the survey and for the support and advice provided by the related academic societies and expert advisory groups.

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Epub ahead of print

Table 1. Baseline characteristics of study participants

Variable		Total, No (%)	Experienced, No (%)	P-value
Total		2,097 (100%)	67 (4.3)	
Sex	Men	1,058 (50.5)	37 (4.7)	0.45
	Women	1,039 (49.6)	30 (3.9)	
Age	20-29	377 (18.0)	10 (4.4)	0.72
	30-39	411 (19.6)	14 (5.0)	
	40-49	485 (23.1)	18 (5.0)	
	50-59	479 (22.8)	13 (3.2)	
	≥60	345 (16.5)	12 (4.2)	
Region	Seoul metropolitan area	401 (19.1)	23 (7.9)	0.24
	Daegu–Gyeongbuk province	196 (9.4)	7 (4.8)	
	Others	1,500 (71.5)	37 (3.3)	
Household income	≤\$2,000	192 (9.2)	4 (3.2)	0.34
	\$2,000-3,999	684 (32.8)	26 (5.3)	
	\$4,000-5,999	610 (29.2)	16 (3.5)	
	≥\$6,000	600 (28.8)	21 (4.4)	
Educational status	High school graduate and under	359 (17.1)	7 (2.7)	0.19
	College / university graduation	1,498 (71.4)	51 (4.6)	
	Master's degree or above	240 (11.4)	9 (5.0)	
Private insurance	Yes	1,718 (81.9)	63 (4.8)	0.03
	No	379 (18.1)	4 (1.6)	
Marital status	Single	755 (36.0)	17 (3.3)	0.16
	Married	1,251 (59.7)	48 (4.9)	
	Widowed/divorced	91 (4.3)	2 (2.9)	
Job	Office worker	1,110 (52.9)	40 (4.8)	0.76
	Manual worker	212 (10.1)	8 (5.4)	
	Own business	193 (9.2)	7 (4.5)	
	Housewife/Student/Unemployed	582 (27.8)	12 (2.9)	
Having a chronic illness	No	1,016 (48.5)	13 (1.8)	< 0.001
	Yes	1,081 (51.6)	54 (6.3)	
Subjective change of the health status	No change	1,478 (70.5)	32 (3.0)	0.001
	Getting better	199 (9.5)	13 (8.3)	
	Worsening	420 (20.0)	22 (6.9)	
Delaying treatment for chronic conditions	No	973 (90.0)	22 (2.9)	< 0.001
	Yes	108 (10.0)	32 (34.4)	
Delaying elective and non-chronic condition	No	1,938 (92.4)	33 (2.3)	< 0.001
	Yes	159 (7.6)	34 (25.0)	

Table 2. Awareness, approval, and intention to use telemedicine

Variable	Awareness		Approval		Intention to use	
	No (%)	<i>P</i> -value	No (%)	<i>P</i> -value	No (%)	<i>P</i> -value
Total	1,558 (74.3)		1,198 (57.1)		1,474 (70.3)	
Sex						
Men	790 (74.7)		643 (60.8)		757 (71.6)	
Women	768 (73.9)	0.69	555 (53.4)	0.001	717 (69.0)	0.20
Age						
20-29	230 (61.0)		169 (44.8)		226 (60.0)	
30-39	278 (67.6)	0.05	219 (53.3)	0.02	278 (67.6)	0.03
40-49	359 (74.0)	< 0.001	263 (54.2)	0.006	342 (70.5)	0.001
50-59	403 (84.1)	< 0.001	312 (65.1)	< 0.001	348 (72.7)	< 0.001
≥60	288 (83.5)	< 0.001	235 (68.1)	< 0.001	280 (81.2)	< 0.001
Region						
Seoul metropolitan area	291 (72.6)		214 (53.4)		279 (69.6)	
Daegu–Gyeongbuk province	145 (74.0)	0.72	109 (55.6)	0.61	137 (69.9)	0.94
Others	1,122 (74.8)	0.36	875 (58.3)	0.07	1,058 (70.5)	0.71
Household income						
≤\$2,000	124 (64.6)		96 (50.0)		126 (65.6)	
\$2,000-3,999	491 (71.8)	0.06	386 (56.4)	0.11	483 (70.6)	0.19
\$4,000-5,999	461 (75.6)	0.003	352 (57.7)	0.06	428 (70.2)	0.24
≥\$6,000	473 (78.8)	< 0.001	362 (60.3)	0.01	432 (72.0)	0.09
Educational status						
High school graduate and under	257 (71.6)		194 (54.0)		249 (69.4)	
College / university graduation	1,121 (74.8)	0.21	851 (56.8)	0.34	1,052 (70.2)	0.75
Master's degree or above	180 (75.0)	0.36	153 (63.8)	0.02	173 (72.1)	0.47
Private insurance						
Yes	1,301 (75.7)		998 (58.1)		1,237 (72.0)	
No	257 (67.8)	0.001	200 (52.8)	0.06	237 (62.5)	< 0.001
Marital status						
Single	510 (67.6)		372 (49.3)		481 (63.7)	
Married	978 (78.2)	< 0.001	772 (61.7)	< 0.001	929 (74.3)	< 0.001
Widowed/divorced	70 (76.9)	0.07	54 (59.3)	0.07	64 (70.3)	0.21

Table 2. Awareness, approval, and intention to use telemedicine (continued)

Variable	Awareness		Approval		Intention to use	
	No (%)	<i>P</i> -value	No (%)	<i>P</i> -value	No (%)	<i>P</i> -value
Job						
Office worker	835 (75.2)		618 (55.7)		781 (70.4)	
Manual worker	149 (70.3)	0.13	125 (59.0)	0.38	158 (74.5)	0.22
Own business	157 (81.4)	0.07	127 (65.8)	0.009	144 (74.6)	0.23
Housewife /Student /Unemployed	417 (71.7)	0.11	328 (56.4)	0.79	391 (67.2)	0.18
Having a chronic illness						
No	705 (69.4)		541 (53.3)		677 (66.6)	
Yes	853 (78.9)	< 0.001	657 (60.8)	0.001	797 (73.7)	< 0.001
Subjective change of the health status						
No change	1,084 (73.3)		843 (57.0)		1,042 (70.5)	
Getting better	156 (78.4)	0.13	117 (58.8)	0.64	144 (72.4)	0.59
Worsening	318 (75.7)	0.33	238 (56.7)	0.89	288 (68.6)	0.47
Delaying treatment for chronic conditions						
No	760 (78.1)		592 (60.8)		706 (72.6)	
Yes	93 (86.1)	0.06	65 (60.2)	0.89	91 (84.3)	0.01
Delaying elective and non-chronic condition						
No	1,422 (73.4)		1,093 (56.4)		1344 (69.4)	
Yes	136 (85.5)	0.001	105 (66.0)	0.02	130 (81.8)	0.001
Experience with telemedicine						
No			965 (64.7)		1,083 (72.6)	
Yes			47 (70.2)	0.36	62 (92.5)	0.001

Table 3. Approval rate according to the type of telemedicine

Variable	Tele-consultations within doctors		Telemedicine between doctor and patient		Telemedicine between doctor and patient's caregiver		Telemedicine for diagnosis or consultation		Remotely cares for a ward or ICU		Telemedicine in which the doctor continuously monitors the patient's condition	
	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value
Total	1,533 (73.1)		1,386 (66.1)		1,301 (62.0)		1,497 (71.4)		1,359 (64.8)		1,476 (70.4)	
Sex												
Men	763 (72.1)		711 (67.2)		643 (60.8)		759 (71.7)		687 (64.9)		740 (69.9)	
Women	770 (74.1)	0.30	675 (65.0)	0.28	658 (63.3)	0.23	738 (71.0)	0.72	672 (64.7)	0.90	736 (70.8)	0.65
Age												
20-29	241 (63.9)		214 (56.8)		201 (53.3)		224 (59.4)		206 (54.6)		233 (61.8)	
30-39	275 (66.9)	0.38	240 (58.4)	0.64	238 (57.9)	0.20	253 (61.6)	0.54	239 (58.2)	0.32	258 (62.8)	0.78
40-49	365 (75.3)	< 0.001	314 (64.7)	0.02	298 (61.4)	0.02	364 (75.1)	< 0.001	319 (65.8)	0.001	341 (70.3)	0.009
50-59	381 (79.5)	< 0.001	352 (73.5)	< 0.001	325 (67.9)	< 0.001	375 (78.3)	< 0.001	337 (70.4)	< 0.001	374 (78.1)	< 0.001
≥ 60	271 (78.6)	< 0.001	266 (77.1)	< 0.001	239 (69.3)	< 0.001	281 (81.5)	< 0.001	258 (74.8)	< 0.001	270 (78.3)	< 0.001
Region												
Seoul metropolitan area	310 (77.3)		269 (67.1)		259 (64.6)		302 (75.3)		256 (63.8)		298 (74.3)	
Daegu–Gyeongbuk province	138 (70.4)	0.07	129 (65.8)	0.76	116 (59.2)	0.20	133 (67.9)	0.06	129 (65.8)	0.64	139 (70.9)	0.38
Others	1,085 (72.3)	0.05	988 (65.9)	0.65	926 (61.7)	0.30	1,062 (70.8)	0.08	974 (64.9)	0.68	1,039 (69.3)	0.05

Table 3. Approval rate according to the type of telemedicine (continued)

Variable	Tele-consultations within doctors		Telemedicine between doctor and patient		Telemedicine between doctor and patient's caregiver		Telemedicine for diagnosis or consultation		Remotely cares for a ward or ICU		Telemedicine in which the doctor continuously monitors the patient's condition	
	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value
Household income												
≤\$2,000	135 (70.3)		111 (57.8)		100 (52.1)		124 (64.6)		120 (62.5)		126 (65.6)	
\$2,000-3,999	472 (69.0)	0.73	424 (62.0)	0.30	386 (56.4)	0.28	471 (68.9)	0.26	419 (61.3)	0.75	466 (68.1)	0.51
\$4,000-5,999	466 (76.4)	0.09	427 (70.0)	0.002	402 (65.9)	0.001	450 (73.8)	0.01	396 (64.9)	0.54	434 (71.2)	0.15
≥\$6,000	453 (75.5)	0.15	419 (69.8)	0.002	407 (67.8)	< 0.001	445 (74.2)	0.01	417 (69.5)	0.07	444 (74.0)	0.03
Educational status												
High school graduate and under	251 (69.9)		226 (63.0)		224 (62.4)		232 (64.6)		232 (64.6)		241 (67.1)	
College / university graduation	1,109 (74.0)	0.11	998 (66.6)	0.19	930 (62.1)	0.91	1,093 (73.0)	0.002	961 (64.2)	0.87	1,061 (70.8)	0.17
Master's degree or above	173 (72.1)	0.57	162 (67.5)	0.25	147 (61.3)	0.78	172 (71.7)	0.07	166 (69.2)	0.25	174 (72.5)	0.16
Private insurance												
Yes	1,276 (74.3)		1,159 (67.5)		1,098 (63.9)		1,246 (72.5)		1,131 (65.8)		1,217 (70.8)	
No	257 (67.8)	0.01	227 (59.9)	0.005	203 (53.6)	< 0.001	251 (66.2)	0.01	228 (60.2)	0.04	259 (68.3)	0.34
Marital status												
Single	504 (66.8)		438 (58.0)		408 (54.0)		481 (63.7)		439 (58.2)		477 (63.2)	

Table 3. Approval rate according to the type of telemedicine (continued)

Variable	Tele-consultations within doctors		Telemedicine between doctor and patient		Telemedicine between doctor and patient's caregiver		Telemedicine for diagnosis or consultation		Remotely cares for a ward or ICU		Telemedicine in which the doctor continuously monitors the patient's condition	
	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value
Married	958 (76.6)	< 0.001	887 (70.9)	< 0.001	834 (66.7)	< 0.001	946 (75.6)	< 0.001	859 (68.7)	< 0.001	935 (74.7)	< 0.001
Widowed/divorced	71 (78.0)	0.03	61 (67.0)	0.10	59 (64.8)	0.05	70 (76.9)	0.01	61 (67.0)	0.11	64 (70.3)	0.18
Job												
Office worker	803 (72.3)		736 (66.3)		689 (62.1)		789 (71.1)		700 (63.1)		785 (70.7)	
Manual worker	154 (72.6)	0.93	134 (63.2)	0.38	141 (66.5)	0.22	153 (72.2)	0.75	148 (69.8)	0.06	141 (66.5)	0.22
Own business	147 (76.2)	0.27	131 (67.9)	0.67	111 (57.5)	0.23	147 (76.2)	0.15	130 (67.4)	0.25	136 (70.5)	0.94
Housewife/Student /Unemployed	429 (73.7)	0.55	385 (66.2)	0.95	360 (61.9)	0.93	408 (70.1)	0.67	381 (65.5)	0.33	414 (71.1)	0.86
Having a chronic illness												
No	707 (69.6)		632 (62.2)		606 (59.7)		706 (69.5)		631 (62.1)		691 (68.0)	
Yes	826 (76.4)	< 0.001	754 (69.8)	< 0.001	695 (64.3)	0.03	791 (73.2)	0.06	728 (67.4)	0.01	785 (72.6)	0.02
Subjective change of the health status												
No change	1,067 (72.2)		973 (65.8)		903 (61.1)		1,058 (71.6)		945 (63.9)		1,049 (71.0)	
Getting better	142 (71.4)	0.81	121 (60.8)	0.16	130 (65.3)	0.25	134 (67.3)	0.22	132 (66.3)	0.51	130 (65.3)	0.10
Worsening	324 (77.1)	0.04	292 (69.5)	0.16	268 (63.8)	0.31	305 (72.6)	0.68	282 (67.1)	0.23	297 (70.7)	0.92

Table 3. Approval rate according to the type of telemedicine (continued)

Variable	Tele-consultations within doctors		Telemedicine between doctor and patient		Telemedicine between doctor and patient's caregiver		Telemedicine for diagnosis or consultation		Remotely cares for a ward or ICU		Telemedicine in which the doctor continuously monitors the patient's condition	
	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value	N (%)	P-value
Delaying treatment for chronic conditions												
No	1,170 (78.5)		1,059 (71.0)		992 (66.5)		1,136 (76.2)		1,008 (67.6)		1,124 (75.4)	
Yes	54 (80.6)	0.68	47 (70.2)	0.88	40 (59.7)	0.25	52 (77.6)	0.79	46 (68.7)	0.86	45 (67.2)	0.13
Delaying elective and non-chronic condition												
No	748 (76.9)		682 (70.1)		630 (64.8)		718 (73.8)		654 (67.2)		714 (73.4)	
Yes	78 (72.2)	0.28	72 (66.7)	0.46	65 (60.2)	0.35	73 (67.6)	0.17	74 (68.5)	0.78	71 (65.7)	0.09
Experience with telemedicine												
No	1,409 (72.7)		1,268 (65.4)		1,192 (61.5)		1,371 (70.7)		1,254 (64.7)		1,363 (70.3)	
Yes	124 (78.0)	0.15	118 (74.2)	0.03	109 (68.6)	0.08	126 (79.3)	0.02	105 (66.0)	0.74	113 (71.1)	0.84

Table 4. Factors affecting approval and intention to use telemedicine

Variable	Adjusted OR ¹	
	Approval of telemedicine	Intention to use telemedicine
Sex		
Men	1.00	1.00
Women	0.73 (0.61 - 0.88)	0.93 (0.76 - 1.13)
Age		
20-29	1.00	1.00
30-39	1.46 (1.07 - 1.99)	1.29 (0.93 - 1.77)
40-49	1.44 (1.03 - 2.00)	1.42 (1.00 - 2.01)
50-59	2.28 (1.60 - 3.24)	1.63 (1.13 - 2.36)
≥60	2.59 (1.74 - 3.86)	2.68 (1.73 - 4.14)
Region		
Seoul metropolitan area	1.00	1.00
Daegu–Gyeongbuk province	1.12 (0.78 - 1.59)	1.01 (0.69 - 1.47)
Others	1.29 (1.02 - 1.63)	1.05 (0.82 - 1.35)
Household income		
≤\$2,000	1.00	1.00
\$2,000-3,999	1.21 (0.86 - 1.71)	1.07 (0.74 - 1.54)
\$4,000-5,999	1.26 (0.88 - 1.82)	1.00 (0.68 - 1.46)
≥\$6,000	1.44 (1.01 - 2.08)	1.08 (0.73 - 1.59)
Educational status		
High school graduate and under	1.00	1.00
College / university graduation	1.35 (1.04 - 1.75)	1.24 (0.94 - 1.64)
Master's degree or above	1.73 (1.20 - 2.50)	1.26 (0.85 - 1.86)
Private insurance		
Yes	1.00	1.00
No	0.80 (0.62 - 1.02)	0.65 (0.51 - 0.84)
Marital status		
Single	1.00	1.00
Married	1.04 (0.81 - 1.35)	1.08 (0.82 - 1.42)
Widowed/divorced	1.03 (0.63 - 1.69)	0.86 (0.51 - 1.47)
Job		
Office worker	1.00	1.00
Manual worker	1.20 (0.87 - 1.67)	1.24 (0.86 - 1.78)
Own business	1.33 (0.95 - 1.87)	1.11 (0.77 - 1.61)
Housewife/Student/Unemployed	1.30 (1.03 - 1.64)	0.97 (0.76 - 1.25)

Table 4. Factors affecting approval and intention to use telemedicine (continued)

Variable	Adjusted OR ¹	
	Approval of telemedicine	Intention to use telemedicine
Having a chronic illness		
No	1.00	1.00
Yes	1.20 (1.00 - 1.44)	1.26 (1.04 - 1.54)
Subjective change of the health status ²		
No change	1.00	1.00
Getting better	1.21 (0.88 - 1.66)	1.17 (0.83 - 1.65)
Worsening	1.06 (0.84 - 1.33)	0.95 (0.75 - 1.22)
Delaying treatment for chronic conditions ³		
No	1.00	1.00
Yes	1.14 (0.74 - 1.74)	2.04 (1.17 - 3.54)
Delaying elective and non-chronic conditions ⁴		
No	1.00	1.00
Yes	1.65 (1.16 - 2.35)	1.94 (1.27 - 2.96)
Experience with telemedicine ⁵		
No	1.00	1.00
Yes	1.16 (1.01 - 1.32)	4.28 (1.69 - 10.82)

¹Adjustment for sex, age, region, household income, educational status, private insurance, marital status, job status and having a chronic illness

²Adjustment for sex, age, region, household income, educational status, private insurance, marital status, job status, having a chronic illness and experience with telemedicine

³Adjustment for sex, age, region, household income, educational status, private insurance, marital status, job status and change of the health status

⁴Adjustment for sex, age, region, household income, educational status, private insurance, marital status, job status, having a chronic illness, change of the health status and experience with telemedicine

⁵Adjustment for sex, age, region, household income, educational status, private insurance, marital status, job status, having a chronic illness, change of the health status and experience with telemedicine

Supplement Table 1. The appropriate amount of copay for telemedicine

Variable		Appropriate amount of telemedicine, US dollar (95% CI)	P-value
Total		29.54 (27.06 - 32.02)	
Sex	Men	31.37 (27.50 - 35.25)	0.14
	Women	27.67 (24.59 - 30.76)	
Age	20-29	35.95 (28.37 - 43.53)	0.03
	30-39	30.64 (24.66 - 36.61)	
	40-49	26.33 (22.05 - 30.61)	
	50-59	24.54 (20.46 - 28.62)	
	≥ 60	32.68 (26.33 - 39.03)	
Region	Seoul metropolitan area	36.03 (28.95 - 43.10)	0.04
	Daegu–Gyeongbuk province	25.71 (19.63 - 31.78)	
	Others	28.31 (25.51 - 31.10)	
Household income	≤\$2,000	27.79 (18.61 - 36.97)	0.10
	\$2,000-3,999	31.85 (27.01 - 36.70)	
	\$4,000-5,999	24.94 (21.89 - 28.00)	
	≥\$6,000	32.19 (27.05 - 37.32)	
Educational status	High school graduate and under	32.91 (26.37 - 39.46)	0.10
	College / university graduation	27.86 (25.14 - 30.58)	
	Master's degree or above	34.98 (25.69 - 44.28)	
Private insurance	Yes	29.02 (26.51 - 31.52)	0.38
	No	31.92 (24.19 - 39.64)	
Marital status	Single	32.70 (27.79 - 37.61)	0.11
	Married	27.35 (24.73 - 29.98)	
	Widowed/divorced	33.43 (15.55 - 51.30)	
Job	Office worker	29.94 (26.54 - 33.34)	0.27
	Manual worker	35.80 (26.56 - 45.04)	
	Own business	28.97 (21.59 - 36.35)	
	Housewife/Student/Unemployed	26.69 (22.14 - 31.24)	
Having a chronic illness	No	26.27 (23.32 - 29.23)	0.01
	Yes	32.61 (28.69 - 36.54)	
Subjective change of the health status	No change	26.14 (23.79 - 28.49)	< 0.001
	Getting better	49.49 (34.31 - 64.67)	
	Worsening	32.06 (26.38 - 37.74)	
Delaying treatment for chronic conditions	No	27.91 (24.47 - 31.34)	< 0.001
	Yes	75.03 (51.97 - 98.09)	
Delaying elective and non-chronic condition	No	27.78 (25.43 - 30.12)	< 0.001
	Yes	51.01 (35.30 - 66.71)	
Experience with telemedicine	No	24.93 (22.41 - 27.44)	< 0.001
	Yes	82.93 (52.27 - 113.58)	

Supplement Table 2. Factors to be considered important in telemedicine

Variable	Selection rate as priority, percent (95%CI)					P-value
	Possibility of connecting to face-to-face treatment if necessary	Availability whenever patient needs	Management tailored to each patient's situation and characteristics	Accessibility for use independent of disease type	Availability without economic burden	
Total	23.6 (21.8 - 25.4)	19.6 (17.9 - 21.3)	24.9 (23.0 - 26.7)	9.0 (7.7 - 10.2)	22.4 (20.6 - 24.2)	
Sex						
Men	20.9 (18.4 - 23.3)	22.5 (20.0 - 25.0)	23.2 (20.6 - 25.7)	9.0 (7.3 - 10.7)	24.0 (21.4 - 26.6)	
Women	26.4 (23.7 - 29.1)	16.7 (14.4 - 18.9)	26.7 (24.0 - 29.3)	9.0 (7.2 - 10.7)	20.8 (18.3 - 23.3)	< 0.001
Age						
20-29	25.7 (21.3 - 30.2)	18.0 (14.1 - 21.9)	25.2 (20.8 - 29.6)	10.1 (7.0 - 13.1)	19.9 (15.8 - 23.9)	
30-39	26.8 (22.5 - 31.1)	22.4 (18.3 - 26.4)	21.9 (17.9 - 25.9)	9.0 (6.2 - 11.8)	19.2 (15.4 - 23.0)	0.40
40-49	22.1 (18.4 - 25.8)	19.4 (15.9 - 22.9)	24.7 (20.9 - 28.6)	9.3 (6.7 - 11.9)	24.3 (20.5 - 28.2)	0.16
50-59	22.5 (18.8 - 26.3)	16.7 (13.3 - 20.1)	27.1 (23.1 - 31.1)	8.1 (5.7 - 10.6)	25.3 (21.4 - 29.2)	0.10
≥60	21.2 (16.8 - 25.5)	22.3 (17.9 - 26.7)	25.2 (20.6 - 29.8)	8.4 (5.5 - 11.3)	22.3 (17.9 - 26.7)	0.45
Region						
Seoul metropolitan area	24.4 (20.2 - 28.7)	18.7 (14.9 - 22.5)	25.9 (21.6 - 30.2)	9.5 (6.6 - 12.4)	21.4 (17.4 - 25.5)	
Daegu–Gyeongbuk province	19.9 (14.3 - 25.5)	16.3 (11.1 - 21.5)	25.5 (19.4 - 31.7)	10.2 (5.9 - 14.5)	27.0 (20.8 - 33.3)	0.07
Others	23.9 (21.7 - 26.0)	20.3 (18.2 - 22.3)	24.5 (22.4 - 26.7)	8.7 (7.2 - 10.1)	22.1 (20.0 - 24.2)	0.99
Household income						
≤\$2,000	19.3 (13.6 - 24.9)	13.5 (8.7 - 18.4)	24.0 (17.9 - 30.1)	11.5 (6.9 - 16.0)	31.8 (25.1 - 38.4)	
\$2,000-3,999	24.3 (21.1 - 27.5)	18.7 (15.8 - 21.6)	23.2 (20.1 - 26.4)	9.1 (6.9 - 11.2)	24.0 (20.8 - 27.2)	0.005
\$4,000-5,999	23.1 (19.8 - 26.5)	18.4 (15.3 - 21.4)	27.5 (24.0 - 31.1)	8.5 (6.3 - 10.7)	22.0 (18.7 - 25.3)	0.004
≥\$6,000	24.8 (21.4 - 28.3)	23.5 (20.1 - 26.9)	24.5 (21.0 - 28.0)	8.5 (6.2 - 10.7)	18.2 (15.1 - 21.3)	< 0.001

Supplement Table 2. Factors to be considered important in telemedicine (continued)

Variable	Selection rate as priority, percent (95% CI)					P-value
	Possibility of connecting to face-to-face treatment if necessary	Availability whenever patient needs	Management tailored to each patient's situation and characteristics	Accessibility for use independent of disease type	Availability without economic burden	
Educational status						
High school graduate and under	20.6 (16.4 - 24.8)	17.0 (13.1 - 20.9)	25.6 (21.1 - 30.2)	9.7 (6.7 - 12.8)	26.2 (21.6 - 30.8)	0.02
College / university graduation or associate degree	23.7 (21.5 - 25.9)	20.3 (18.3 - 22.3)	25.2 (23.0 - 27.4)	8.9 (7.5 - 10.4)	21.5 (19.4 - 23.6)	
Master's degree or above	27.5 (21.8 - 33.2)	19.2 (14.2 - 24.2)	22.1 (16.8 - 27.4)	7.9 (4.5 - 11.4)	22.5 (17.2 - 27.8)	
Private insurance						
Yes	24.0 (22.0 - 26.0)	20.5 (18.6 - 22.4)	24.9 (22.8 - 26.9)	8.8 (7.5 - 10.2)	21.5 (19.5 - 23.4)	0.02
No	21.9 (17.7 - 26.1)	15.6 (11.9 - 19.2)	25.1 (20.7 - 29.4)	9.5 (6.5 - 12.5)	26.6 (22.2 - 31.1)	
Marital status						
Single	24.6 (21.6 - 27.7)	18.0 (15.3 - 20.8)	23.3 (20.3 - 26.3)	10.6 (8.4 - 12.8)	22.9 (19.9 - 25.9)	0.54
Married	23.2 (20.8 - 25.5)	20.5 (18.3 - 22.8)	25.8 (23.4 - 28.2)	8.0 (6.5 - 9.5)	22.0 (19.7 - 24.3)	
Widowed/divorced	20.9 (12.4 - 29.4)	19.8 (11.4 - 28.1)	25.3 (16.2 - 34.4)	8.8 (2.9 - 14.7)	24.2 (15.2 - 33.1)	
Job						
Office worker	26.2 (23.6 - 28.8)	22.0 (19.5 - 24.4)	23.0 (20.5 - 25.5)	8.2 (6.6 - 9.8)	20.3 (17.9 - 22.6)	< 0.001
Manual worker	18.9 (13.6 - 24.2)	15.6 (10.6 - 20.5)	25.0 (19.1 - 30.9)	14.6 (9.8 - 19.4)	25.9 (20.0 - 31.9)	
Own business	18.7 (13.1 - 24.2)	17.1 (11.7 - 22.5)	25.9 (19.7 - 32.1)	10.4 (6.0 - 14.7)	27.5 (21.1 - 33.8)	
Housewife/Student/Unemployed	22.0 (18.6 - 25.4)	17.4 (14.3 - 20.4)	28.2 (24.5 - 31.8)	7.9 (5.7 - 10.1)	23.5 (20.1 - 27.0)	
Having a chronic illness						
No	25.1 (22.4 - 27.8)	19.9 (17.4 - 22.3)	22.9 (20.3 - 25.5)	8.8 (7.0 - 10.5)	22.9 (20.3 - 25.5)	0.46
Yes	22.2 (19.7 - 24.7)	19.3 (17.0 - 21.7)	26.7 (24.1 - 29.4)	9.2 (7.4 - 10.9)	21.9 (19.5 - 24.4)	

Supplement Table 2. Factors to be considered important in telemedicine (continued)

Variable	Selection rate as priority, percent (95% CI)					<i>P</i> -value
	Possibility of connecting to face-to-face treatment if necessary	Availability whenever patient needs	Management tailored to each patient's situation and characteristics	Accessibility for use independent of disease type	Availability without economic burden	
Subjective change of the health status						
No change	23.3 (21.2 - 25.5)	19.4 (17.4 - 21.4)	25.2 (23.0 - 27.4)	8.4 (7.0 - 9.8)	23.1 (21.0 - 25.3)	0.61
Getting better	27.6 (21.4 - 33.9)	15.1 (10.1 - 20.1)	23.6 (17.7 - 29.6)	14.1 (9.2 - 18.9)	19.6 (14.0 - 25.2)	
Worsening	22.6 (18.6 - 26.6)	22.4 (18.4 - 26.4)	24.5 (20.4 - 28.7)	8.6 (5.9 - 11.3)	21.2 (17.3 - 25.1)	
Delaying treatment for chronic conditions						
No	22.2 (19.6 - 24.8)	19.0 (16.5 - 21.5)	27.7 (24.9 - 30.6)	8.4 (6.7 - 10.2)	21.9 (19.3 - 24.5)	0.74
Yes	22.2 (14.4 - 30.1)	22.2 (14.4 - 30.1)	17.6 (10.4 - 24.8)	15.7 (8.9 - 22.6)	22.2 (14.4 - 30.1)	
Delaying elective and non-chronic condition						
No	23.3 (21.4 - 25.2)	19.5 (17.7 - 21.2)	25.3 (23.3 - 27.2)	8.9 (7.6 - 10.1)	22.5 (20.7 - 24.4)	0.28
Yes	27.7 (20.7 - 34.6)	21.4 (15.0 - 27.8)	20.1 (13.9 - 26.4)	10.1 (5.4 - 14.7)	20.8 (14.5 - 27.1)	
Experience with telemedicine						
No	25.0 (22.8 - 27.2)	18.5 (16.5 - 20.5)	26.6 (24.4 - 28.9)	7.8 (6.4 - 9.1)	21.5 (19.4 - 23.5)	0.68
Yes	17.9 (8.7 - 27.1)	28.4 (17.6 - 39.2)	19.4 (9.9 - 28.9)	14.9 (6.4 - 23.5)	19.4 (9.9 - 28.9)	