FACTORS INFLUENCING PATIENT ADOPTION OF E-HEALTH SERVICES

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Abstract

In this study, an extended version of the Technology Acceptance Model (TAM) was used to understand the factors that might influence patient behaviour. In addition to the "typical" TAM variables (positive attitude or technological readiness), this study examines the role of social and individual benefits and COVID-19 anxiety on willingness to try, intention to use, actual use and satisfaction in a country in the Central and Eastern European region. This extension and the chosen region add novelty to the research. The results of linear and logit regression analysis based on an online questionnaire show that individual benefits and positive attitudes have a strong effect on willingness to try and use, but perceived social benefits do not have a significant effect. These results highlight the importance of awareness campaigns that highlight the personal benefits of e-health and address the general mistrust of the technology.

INTRODUCTION

The application of information and communication technologies (ICT) in healthcare services and the desire of patients to take more control of their health have transformed the healthcare system in the 21st century. The emergence of e-health could, on the one hand, improve the quality of patient care, reduce costs and increase revenues, and, on the other hand, satisfy patients' need to be well informed about their health status [29]. E-health significantly improves the healthcare process because health information can be assessed and exchanged through digital health systems [32], and this information (e.g. previous diagnoses and prescriptions) is available anytime, anywhere via the Internet.

In recent years, during the pandemic, e-health is practically feasible and appropriate to support patients and health care providers [45], it provides support for psychological problems caused by COVID-19 isolation and eases the problem of evaluating health care services and solving patients' information needs [41]. Cyberspace as a phenomenon reduces the relevance of distance, which could be an important issue for the health system not only during a pandemic but also in general.

E-health encompasses content, connectivity, commerce, community and clinical care [34, 56]. It can collect, organise, interpret and use clinical data and manage outcomes and quality of care measures, and e-health applications can facilitate access for users with limited computer experience and for older patients [29].

The involvement of different stakeholders with different backgrounds, experiences and values makes e-health a complex social system, and understanding the perspective of users and patients is essential [48]. This study aims to understand the factors that may influence the adoption of e-health services by patients. The technology acceptance models were used as a basis for the research, but new factors were added, such as the perceived social, personal and individual benefits of e-health services or COVID-19 anxiety. The novelty of the research is the previously described extension of technology acceptance models from the patient's point

of view and the fact that this research focuses not only on willingness to try and actual use, but also on long-term intention to use and satisfaction. Another added value of the study is the analysis of the antecedents of e-health adaptation in a country in the Central and Eastern European region, where e-health was not a popular and commonly used service before the pandemic.

LITERATURE REVIEW

Several theoretical models have been developed to predict and assess acceptance and behaviour in association with the use of technology, among them, one of the best known is the Technology Acceptance Model (TAM), which was developed by Davis in 1986. Based on behavioural intention, perceived usefulness, and perceived ease of use, with these three theoretical constructs, TAM is powerful for predicting and explaining user behaviour [13]. TAM is one of the most influential models that have been applied to test the acceptance of technology innovation across a variety of contexts [25, 6].

The TAM proposes that perceived usefulness (PU) and perceived ease of use (PEOU) of individuals' perceptions of technology are the key contributors to behavioural intention (BI) to use the technology [51].

Measures of behavioural intention may not accurately provide predictions of actual behaviour because behaviour intention cannot be translated into action every time, intentions could change before behaviour performance [44]. Existing between users' intention to specific behaviour and their actual behaviour, the intention–behaviour gap is defined as the degree of inconsistency [4].

Perceived usefulness is defined as ,,*the degree to which a person believes that using a particular system would enhance his or her job performance* " [13]. Perceived usefulness is expected to be influenced by perceived ease of use, because ,,*the easier a technology is to use, the more useful it can be* " [48].

Perceived ease of use is defined as ,,*the degree to which a person believes that using a particular system would be free of effort* " [13]. Research on high intensity use of information technology shows that the system is easy to use if the technology can be used without additional effort by the individual concerned, and then the level of acceptance of the technology will be high [42]. Perceived ease of use is a process of expectancy; perceived usefulness is an outcome of expectancy [46].

TECHNOLOGY ACCEPTANCE MODELS IN E-HEALTH

In the health care sector, new technologies are widely adopted [5], among which modern ICT has been understood to improve the quality of health care services. TAM is the common model used to understand technology adoption by clinical staff and patients, and it has been extended and applied to the development and implementation of health information systems [43]. TAM is concluded to be one of the most useful models for studying patients' perceptions and behaviours towards e-health [2], it's used to identify the factors influencing the adoption of information technologies in the e-health system [20]. However, in terms of the number of studies for each user group, doctors and nurses are the two main research targets (32% and 25%), and patients represent only 13% of studies [43].

In the context of e-health, some scholars have expressed concern that TAM may not capture the unique contextual features of e-health, as TAM is not a model developed specifically in or for the healthcare context [22]. The original TAM only considers two variables in determining behavioural intention [12], the basic constructs of TAM may not fully account for the context of e-health use [38], so it's necessary to extend and incorporate TAM with other constructs to improve its explanation and prediction of adoption behaviour [22]. To understand how e-health characteristics influence user satisfaction, a consistent set of beliefs and attitudes should be measured and appropriate mediating factors related to the behavioural beliefs and attitudes specified in TAM should be examined [53]. Lai et al [33] developed a new framework based on the modified TAM2 to investigate the acceptability of the Tailored Interventions for the management of Depressive Symptoms (TIDES) programme. Liu et al [37] focus on the acceptability of a web-based personal health record system and integrate the construct of the physician-patient relationship (PPR) into the TAM. Despite the extensions, perceived usefulness and perceived ease of use of TAM were the two most influential factors in e-health adoption [19].

Adoption of e-health in Bangladesh shows that perceived ease of use is critical to e-health adoption [24]. A study of the acceptance of diabetes monitoring technology also found that perceived ease of use was a significant factor in technology acceptance [6]. Adoption of health applications in developing countries concluded that perceived usefulness significantly influenced an individual's acceptance and use of the technology [18].

Reviewing the theoretical background on e-health and TAM, scholars propose new constructs according to the specific context, thus different extended TAM models have been applied to explore the acceptance of e-health.

THE E-HEALTH IN COVID-19

In the global coronavirus outbreak in 2019 (COVID-19), clinical care providers are simultaneously using e-health to replace face-to-face contact to reduce the risk of infection, and many clinical care providers in affected countries have closed their doors and tried to replace some of the face-to-face contact with e-health for patients [52]. COVID-19 enabled widespread acceptance of e-health by health professionals and patients, creating a win-win situation for both. To combat the COVID-19 pandemic, many countries relaxed their e-health regulations and e-health services were launched to provide solutions for screening, triage and remote monitoring [16, 23, 41].

Elahi et al [17] extended traditional technology acceptance models with the construct of COVID-19 anxiety. The results show that COVID-19 anxiety has a positive effect on patients' attitudes towards e-health services and on their intention to use the services, thus demonstrating the positive effect of COVID-19 anxiety.

METHOD

We conducted our online questionnaire survey with convenience sampling in autumn 2021 to investigate the factors influencing the use of e-health services in a Central-East European country. Our questionnaire was used to map the status and awareness of e-health in the country, respondents' ICT skills and opinions on the topic, and included demographic variables and fear of the COVID-19 pandemic among the factors studied. The main characteristics of our sample are summarised in Table 1.

Table 1. Demographic characteristics of the sample (N = 302)

	Number of respondents (persons)	**Distribution of respondents (%)**
Gender of respondents	**Gender of respondents**	**Gender of respondents**
Male	70	23.2
Female	232	76.8
Age group	**Age group**	**Age group**
< 25 years	106	22.2
26-41 years	87	35.1
42-56 years	67	28.8
> 57 years	41	13.9
Income/financial situation	**Income/financial situation**	**Income/financial situation**
Below average	21	7
Average	231	76.5
Above average	50	16.5
Have children?	**Have children?**	**Have children?**
Yes	152	50.3
No	150	49.7
Place of residence	**Place of residence**	**Place of residence**
Village	47	15.6
Town	63	20.8
City	84	27.8
Capital	104	34.5

	Number of respondents (persons)	Distribution of respondents (%)
Other	4	1.3
Education	**Education**	**Education**
High school or less	131	43.4
University/college	162	53.6
PhD	9	3

Most respondents were female (76.8%), had at least a tertiary education (56.6%) and only 7% had a below-average standard of living. The average age was 38.4 years, with a standard deviation of 15.1 years. In addition, 70.8% of respondents had heard of e-health (Figure 1), but only 53% had used the service.

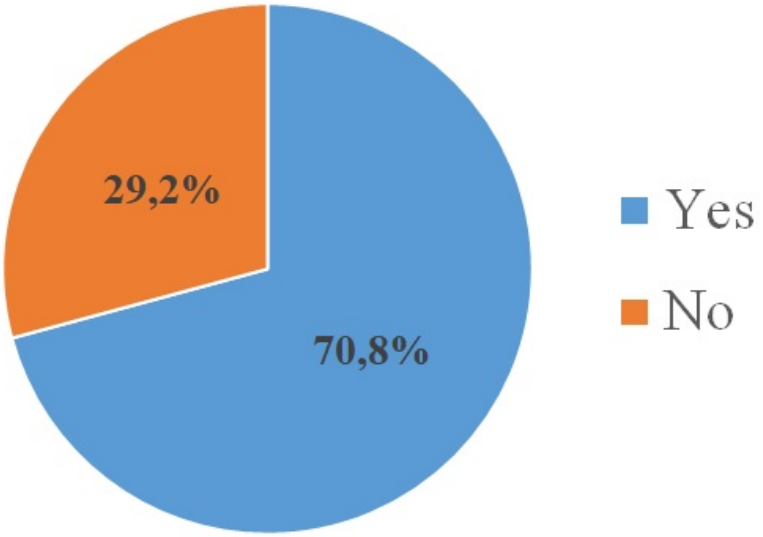

Figure 1. Awareness of e-health by respondents (N = 302)

The most popular services used were the Electronic Health Service Space (so-called EESZT; 71.7%), e-mail consultation (37.7%) and photo-enabled online consultation (32.7%). Table 2. shows satisfaction with the most recent service used (1 - "not at all satisfied"; 7 - "completely satisfied").

Table 2. Satisfaction with the most recent e-health service used (N=160) (1 - not at all satisfied; 7 - completely satisfied)

Type of service	Obs.	Mean	St. dev.	Min	Max
Supported by photo	24	5.58	1.66	1	7
Video teleconsultation	9	5.56	1.59	3	7
E-mail consultation	24	5.83	1.37	3	7
EESZT	83	5.81	1.48	1	7
Digital device	7	5.57	1.51	3	7

The description of the model constructs is summarised in Table 3. Based on the responses obtained, the constructs to be tested were generated using the average score method, and empirical analyses were performed using linear and logistic regression.

Table 3. Concepts used in the research and their operationalization

Concept (construct)	**Source**	**Number of indicators**
Technological readiness	[35]	4 indicators
Fear (mistrust)	Own construction	7 indicators
COVID-19 anxiety	Own construction	1 indicator
Individual benefits	Own construction	7 indicators
Intention to use	[9]	1 indicator
Usage of e-health	-	Dummy variable
Willingness to try	Own construction	1 indicator
Social benefits	Own construction	3 indicators
Positive attitude	[49]	7 indicators
Satisfaction	Own construction	1 indicator

Technological readiness is a general dimension indicating attitudes towards technology and smart devices, while *fear*measures the degree of technophobia. *Positive attitude* refers to the extent to which an individual is open to technological innovation and e-health in general [50].

We constructed the *willingness to try* variable to express the extent to which the individual considers it feasible to try the service if telediagnostics is available, while intention to use indicates the extent to which the individual considers it feasible to switch completely to telediagnostics.

Individual benefits and *social benefits* were used to measure how much individual- and social benefit the respondent expects to receive from e-health services. *Satisfaction* is the subjective evaluation of the services by those who have already used e-health services, and *COVID-19 anxiety* expresses the extent to which e-health reduces an individual's fear of infection or spread of disease. The variables also include the dummy variable *usage of e-health,*which measures the awareness of e-health (based on the question "Have you ever used e-health services?") with an output of 0/1 (no/yes)).

The following hypotheses are formulated based on the constructs presented in Table 3:

H1: COVID-19 anxiety has a positive effect on willingness to try e-health.

H2: COVID-19 anxiety has a positive effect on the intention to use telediagnostics.

H3: COVID-19 anxiety has a positive effect on satisfaction with current e-health services.

Anxiety about the spread of coronavirus affects both performance expectations and intention to use e-health [40,50]. Since the COVID-19 anxiety variable is more related to avoiding infection, i.e. it includes both motivation to use e-health and confidence in avoiding infection, we hypothesize a positive association between COVID-19 anxiety and the attitudes toward e-health/telediagnostics [51, 29, 3].

H4: Fear of the services offered by online health care negatively influences willingness to try telediagnostics.

H5: Fear of the services offered by online health negatively influences the intention to use telediagnostics.

H6: Fear of online health services negatively influences satisfaction with current e-health services.

Fear of the unknown is a perfectly logical reaction [7], and we expect that quasi-technophobia will negatively affect the expected performance of and intention to use e-health.

H7: Technological proficiency has a positive effect on the intention to use telediagnostics.

H8: Technological proficiency has a positive effect on willingness to try telediagnostics.

Technology proficiency indicates the amount of effort required by an individual to use a new ICT technology. Based on studies [30, 39, 50], technological proficiency, i.e. ICT skills, is associated with perceived ease of use of the online health system.

H9: Perceived individual benefits have a positive effect on the intention to use and willingness to try telediagnostics.

H10: Perceived social benefits have a positive effect on satisfaction the service.

Based on the studies [1, 47, 50] we assume that the relationship between individual expected benefits (performance expectancy) and willingness to try/intention to use is positive. Furthermore, we created an analogous construct that attempts to assess the role of social benefits, i.e., whether perceived social utility plays a role in the perception of the service.

H11: Positive attitudes have a positive effect on the intention to use e-health.

H12: Positive attitudes have a positive effect on the willingness to try e-health.

H13: Positive attitudes towards the services offered by online healthcare have a positive effect on satisfaction with current e-health services.

Numerous studies have shown the relationship between positive attitudes and the adoption/experience of new technologies [27, 36, 55]. We expect a similar effect between positive attitudes and intention to try and willingness to use telediagnostics, and we hypothesise that it will also have a positive effect on satisfaction.

RESULTS

Based on the previous chapter, we created the database. We used the average score method to create the constructs we wanted to test (based on the responses we received), and we included demographic variables. The dependent variables were as follows:

- *Willingness to try* (the higher the value, the more likely to try telediagnostics)
- *Intention to use* (the higher the value, the more likely you are to use telediagnostics regularly)
- *Usage of e-health:* Measured by the question *"Have you ever used an e-health service?"* (Yes-No - dummy)
- *Satisfaction* (the higher the value, the more likely the user was satisfied)

And the explanatory variables are:

- *Positive attitude* (the higher the value, the more open to e-health)
- *Technological readiness* (the higher the value, the more proficient in modern technologies)
- *Fear* (the higher the value, the more he/she is afraid of e-health)
- *Social benefits* (the higher the value, the more likely you are to consider e-health useful for society)
- *Individual benefits* (the higher the value, the more he/she considers e-health to be beneficial for him/herself)
- *COVID-19 anxiety* (the higher the value, the more likely he/she is to think that e-health reduces the chance of infection)
- Demographic variables: *Age* , *Gender, Child, Residence, Education, Income* 11Average gross income in the analysed country in the summer of 2021: ˜1.100 euros (KSH 2021.

The analysis of the results obtained was divided into three parts. In the first, we used an OLS model to investigate how the explanatory variables listed affect *willingness to try* and *intention to use.* In the second, a logit model was used to examine which factors played a key role for those who have already used an e-health service, while in the third, an OLS model was used to examine the effect of constructs and demographical

variables on *satisfaction* . The basic regression model was as follows (robust standard error was used for OLS regression models):

$$DependentVariable = \beta_0 + \beta_1 Attitude + \beta_2 TechnologicalReadiness +$$

$$+\beta_3 Fear + \ \beta_4 Ind.Benefits + \beta_5 SocialBenefits + \ \beta_6 CovidAnxiety + \beta_7 Gender +$$

$$+ \ \beta_8 Age + \beta_9 Child \ + \beta_{10}\text{Residence} + \beta_{11}\text{Education} \ + \beta_{12}\text{Income}$$

EFFECT OF CONSTRUCTS ON WILLINGNESS TO TRY AND INTENTION TO USE

In this section, we looked at how the created constructs and demographic variables influenced respondents' willingness to try and intention to use the telediagnostics. Since several variables were not significant - hence the demographic variables *location, education, income,* and the variable of *social benefits* were not included in any of the final models. Furthermore, *gender* and *technological readiness* were not significant for *willingness to try,* while*fear* was not significant for *intention to use.* The final models were therefore:

$$WillingnessToTry = \beta_0 + \beta_1 Attitude + \beta_2 Fear + \ \beta_3 Ind.Benefits +$$

$$+ \ \beta_4 CovidAnxiety + \beta_5 \text{Age}$$

and

$$IntentionToUse = \beta_0 + \beta_1 Attitude + \beta_2 Ind.Benefits + \ \beta_3 CovidAnxiety +$$

$$+ \ \beta_4 TechnologicalReadiness + \beta_5 Age + \beta_6 \text{Gender}$$

The results are shown in Table 4.

Table 4 . Regression results. Dependent variables: Willingness to try and Intention to use

Independent variables	**Willingness to try**	**Intention to use**
Positive attitude	0.341*** (0.074)	0.370*** (0.087)
Fear	-0.28*** (0.07)	-
Technological readiness	-	-0.163** (0.077)
Individual benefits	0.371*** (0.077)	0.473*** (0.080)
COVID-19 Anxiety	0.160*** (0.043)	0.173*** (0.043)
Gender (dummy)	-	0.580*** (0.18)
Age	0.011*** (0.004)	0.015** (0.006)
Constant	1.366*** (0.465)	-1.126** (0.489)
N	302	302
R^2	0.6023	0.5342
Standard errors	Robust	Robust

Note: *p < 0.1; **p < 0.05; ***p < 0.01

The model clearly shows that avoiding a coronavirus infection is a strong motivator to increase the willingness

to try. In this context, age also became an important factor: although one might expect the older generation to be more wary of modern technology, the coronavirus has left a deep impression on the older generation. As COVID-19 could be with us for a long time, it is understandable that older people would be more inclined to try telediagnostics. This is probably the reason why technological readiness does not play a significant role in the willingness to try. Experience to date suggests that in the long term the use of telediagnostics will not be primarily a matter of technological readiness, but will probably be the only option available. For example, during the pandemic it was very rare to see a doctor in person, results of antigen and antibody and PCR tests could only be accessed through the EESZT, just as vaccination/immunity cards and digital EU Green Passes could only be downloaded through the EESZT.

The situation is similar for positive attitudes and individual benefits: a unit increase in both variables increases the willingness to try, ceteris paribus. The fear variable for technophobia also gave the expected result, i.e. a strong negative effect on the willingness to try, which is understandable: if someone is afraid of data theft, for example, they are less likely to try telediagnostics. Overall, then, we can say that those who are open to the service and expect significant personal benefits (and who tend to belong to the older generation) are more likely to try telediagnostics, and that the more sceptical and distrustful they are of e-health, the less likely they are to try it.

We found very similar results for the other model we used to test intention to use: those who are open to e-health and expect significant personal benefits are more likely to make the full switch. However, for continuous use, technophobia was removed from the equation, while gender (men are more open to switching) was included with a positive effect and technological proficiency with a negative effect. The latter is probably due to social reasons, which will be discussed in the discussion section.

FACTORS INFLUENCING THE ACTUAL USAGE OF E-HEALTH

A logit regression model (with robust standard error) was used to examine which of the explanatory variables - the constructs and demographic variables - encouraged individuals in actual usage of the currently available e-health services. encouraged individuals to actually use the e-health services currently available. However, some demographic variables were not significant, so the final model did not include *location, education, age* and *income. Social benefits, individual benefits, COVID-19 anxiety* and *positive attitude* also were not significant. The final model is shown below:

$$\text{Logit (Usage)} = \beta_0 + \beta_1 Technological Readiness + \beta_2 Fear + \ \beta_3 Gender + \ \beta_4 \text{Child}$$

where *Logit(Usage)* is the dependent variable ("*Have you ever used an e-health service?" - Yes/No*). The results are shown in Table 5.

Table 5. Regression results (dependent variable: Have you ever used an e-health service?)

Variables	**Odds ratio**
Technological readiness	1.472*** (0.151)
Fear	0.750*** (0.081)
Gender (dummy)	2.306*** (0.667)
Child (dummy)	2.367*** (0.637)
Constant	0.112*** (0.085)
N	302
Standard errors	Robust

Note: *p < 0.1; **p < 0.05; ***p < 0.01

The odds ratio compares the chances of two events occurring. Odds ratios greater than 1 indicate that the probability of the event occurring increases as the predictor increases. Odds ratios less than 1 indicate that

the probability of the event occurring decreases as the predictor increases. Based on the results obtained, we can say

1. Familiarity with technology increases the likelihood that a person has already tried an e-health service.
2. Men were more likely to have tried an e-health service than women.
3. Parents were more likely to try an e-health service than those without children.
4. Lack of confidence in technology and e-health reduces the likelihood of an individual trying an e-health service.

It should be noted that although the questionnaires were completed during the pandemic, this does not mean that people who tried e-health services only encountered e-health during the pandemic. While the questions on telediagnostics (willingness to try and intention to try) were future-oriented and largely reflected the pandemic, the questions on trying currently available services were more related to the pre-pandemic period.

This is also indicated by the fact that neither *COVID-19 anxiety*nor *positive attitude* was not a significant factor for those who tried e-health services, while *technological readiness* was. The EESZT system has been available since 2017, and the photo- or video-based teleconsultation facilities and digital medical devices included in the questionnaire have been available for longer, and can be used to track test results and trigger prescriptions, among other things. However, using telemedicine is not trivial: before the pandemic, the complexity of using telemedicine services may have been more a matter of technical competence than a positive attitude.

This is entirely consistent with the fact that men who were more technologically savvy were significantly more likely to have tried an e-health service. It is also logical that parents were more likely to use e-health services than those without children: overall, it is much easier to download a prescription from the cloud via EESZT or to consult a doctor by email than to do so in person while looking after the children.

THE EFFECT OF CUNTRUCTIONS ON SATISFACTION

In the following, we investigate how the constructs and demographic variables influenced the satisfaction *(satisfaction)* of respondents who had already used e-health services. As before, several variables were not significant, so no demographic variables were included in the final model, nor were *social benefits* ,*individual benefits* and *technological readiness* :

$$Satisfaction = \beta_0 + \beta_1 Attitudes + \beta_2 Fear + \ \beta_3 \text{CovidAnxiety}$$

The results are summarized in Table 6.

Table 6 . Regression results (dependent variable: Satisfaction)

Independent variables	**Satisfaction**
Positive attitude	0.348*** (0.077)
Fear	-0.223** (0.086)
COVID-19 Anxiety	0.115** (0.051)
Constant	4.252*** (0.525)
N	160
R^2	0.3511
Standard errors	Robust

Note: **p < 0.05; ***p < 0.01

The model suggests that satisfaction was positively influenced by having a positive attitude towards the process (logical) and by believing that it would make them less likely to contract the coronavirus (probably an aftereffect, but also logical). On the other hand, uncertainty about the services had a strong influence on

the evaluation of the service, which is also logical, since those who do not trust the system are unlikely to be convinced by the complex and difficult to use EESZT.

DISCUSSION

The results suggest that COVID-19 anxiety has a positive effect on willingness to try telediagnostics, intention to use it and satisfaction with currently available e-health services, confirming hypotheses H1, H2 and H3. However, it should be noted that the negative effect of mistrust in e-health and technology is also demonstrated (hypotheses H4 and H6), and the coefficient is higher in both cases, i.e. fear of coronavirus alone is not sufficient to overcome techno-phobia.

Hypothesis H5 must be rejected, as distrust of technology and e-health does not affect intention to use. This is presumably because the intention to use implies a complete switch to telediagnostics, whereas the intention to try is essentially a one-off, requiring a completely different level of commitment. In the former case, face-to-face contact with doctors would be virtually absent, which could make the process impersonal, and the patient-doctor bond and trust would be lost. Several studies [8, 20, 31] have highlighted the importance of the latter: appropriate doctor-patient communication, friendliness, emotional support or even explaining test results in a simple, understandable way have greatly improved patient satisfaction.

This is probably why mistrust of e-health and technology was not significant and why technological readiness had a negative impact on intention to use. This question does not focus on the technological shortcomings of the services, but on whether the individual would forego the traditional but intimate doctor-patient relationship, which has a major impact on satisfaction. In fact, for those who were more technology-savvy and had more experience with Hungarian e-health services - the logistic regression model clearly showed that they were more likely to have tried services such as EESZT - technological proficiency was associated with a negative sign, i.e. they were even less willing to give up the personal doctor-patient relationship. Hypotheses H7 and H8 must therefore be rejected, as technological literacy has no positive effect on either intention to use or willingness to try.

As expected and in line with the literature, positive attitudes had a significant positive effect on intention to use and willingness to try telediagnostics, as well as satisfaction with the services tried, so that hypotheses H11, H12 and H13 can be accepted. The positive effect of individual benefits on intention to try and willingness to use (H9) also confirmed expectations, while the expected social benefits were not significant in any of the models (H10 is therefore rejected). This is not surprising, as perceived social benefits have not been reported as a relevant factor in the literature, in contrast to e.g. social pressure [11, 26, 54] - it will be useful to include the phenomenon of perceived social pressure in future research on e-health.

It is clear that the uncertainty and fear caused by the pandemic has had a positive impact on perceptions of e-health and may increase the willingness to try new technologies. However, it is unlikely to be enough on its own to achieve widespread acceptance of e-health. Mistrust of the technology seems to be a more relevant factor in the results, and positive attitudes and perceived individual benefits seem to have a greater positive impact. Therefore, it would be useful to launch awareness campaigns that point out the personal benefits of e-health in an easily understandable and clear way, and dispel the general mistrust of the technology.

It should also be noted that the sample is not representative of the society of the Central European country analysed, so there are obvious limitations. The survey used random sampling, which meant that our sample consisted mainly of young people with an average/above-average standard of living. This is probably the reason why several demographic variables (education, income, place of residence) did not reach significance, and it would be desirable to repeat the data collection in the future with a representative sample by gender, age and region. Alternatively, it would be more useful to look at the effects of perceived social pressure rather than social benefits, and it may be interesting to see how e-health and perceptions of available services have changed in almost a year since our sample was taken and the pandemic restrictions were lifted.

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APPENDIX

Short code	**Description**
Positive attitude	Positive attitude
PA_1	I support the digitisation of medical services.
PA_2	I am the first in my circle of friends to try out new technologies.
PA_3	I often keep up with the development of technologies that interest me.
PA_4	I think I will like telemedicine.
PA_5	I think e-health is good overall.
PA_6	If I need to see a doctor, e-health could be an ideal solution for me.
PA_7	I believe I can trust the accuracy of the information I receive in the telemedicine sy
Social benefits	Social benefits
SB_1	E-health could make it easier for people with disabilities to access medical care.
SB_2	E-health could make it easier for people in remote small towns to get medical care.
SB_3	E-health could help elderly people get better access to medical care.
Individual benefits	Individual benefits
IB_1	E-health services – such as electronic medical records that are available online – ca
IB_2	E-health improves the quality of healthcare.
IB_3	I will have easier access to healthcare professionals thanks to telemedicine.

Short code	Description
IB_4	I will enjoy using telemedicine services.
IB_5	E-health will help me to shorten the waiting time at the hospital/clinic.
IB_6	E-health will help me to get to medical care more quickly.
IB_7	E-health will make it easier for me to plan when I go to the hospital/clinic.
Technological skills	Technological skills
TS_1	I am not challenged by the use of digital technologies.
TS_2	I learn to use new technologies easily.
TS_3	It is not challenging for me to use a mobile phone, computer or tablet.
TS_4	The telemedicine system will be easy for me to use.
Fear of e-health and new technologies	Fear of e-health and new technologies
F_1	I fear that my data stored in the e-health platforms will be leaked.
F_2	I am wary of telemedicine services.
F_3	I fear that my data stored in the e-health system will be misused.
F_4	I fear getting the wrong diagnosis through the e-health system.
F_5	I think there is a risk to enter my data into the e-health system.
F_6	I think my data will not be treated confidentially in the e-health system
F_7	I think it takes too much time to learn how to use telemedicine services.