10.20378/irb-58357

Digitization in the General Practitioners Practice – A Patient Survey

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Abstract:

The aim of the research is to determine how far digitization has advanced in the practices of general practitioners (GPs) in Germany and how important digital offers are to patients. To analyze this behavior, a quantitative survey on the use and acceptance of digital services by general practitioners was carried out. For this purpose, students from the Stralsund University of Applied Sciences and employees of the nursing home were asked to take part in a survey on the "use and acceptance of the digital services offered by general practitioners".

With regard to the current use of digital services by general practitioners, there were hardly any differences between the age groups. The survey showed that personal contact with the doctor is still important for most of the respondents. A particularly relevant result, however, is that half of the respondents stated that they could imagine choosing their GP in the future based on the digital services offered. While the younger generations are more likely to use the Internet to find out about digital offers from the doctor, the older generation expect information from the doctor and the practice staff.

The survey showed that only a few general practitioners currently provide digital services. It could be shown that so far only the online appointment arrangement is relatively common. Additional applications are only gradually finding their way into care.

JEL Classification: I10, I11, I12, I19, O3

Keywords: digitalization, general practitioners, patients, utilization, acceptance.

1 Introduction

In recent years, the digitalization of the German healthcare system has made enormous progress. In addition to laws such as the E-Health Act and the Digital Supply Act (DVG), the Covid-19 pandemic also played its part. The Covid-19 pandemic, which is affecting not only Germany but the whole world in 2020/2021, has "forced" the healthcare system and those involved to act quickly. The aim was to find the contactless methods to be able to continue to provide medical care to the population in any case. A functioning health system is important, as the Covid 19 crisis has shown. It was also recognized how essential data exchange is in research. As a result, more and more digital services are being offered by GPs. This includes arranging appointments online and the opportunity to exchange information with your doctor in a video consultation. However, these technologies are not only new territory for patients, but also for the doctors. (Bergh, 2020)

The electronic patient file was introduced in 2021 and the e-prescription should follow in January 2022. However, the introduction of the e-prescription has been postponed until further notice. Networking, which means the electronic communication and exchange of health data between healthcare facilities is progressing rather sluggishly and, above all, not nationwide. General practitioners often resort to well-known procedures instead of relying on new techniques. Reasons for this are often the time to select an introduce new techniques, financial resources as well as the still insufficient benefit that is seen in some new technologies (Kahl, 2021).

For many patients talking to the family doctor face to face about the illness and symptoms or calling the practice to make an appointment, is still the standard. The acceptance, distribution, and use of digital offers in Germany is far from the level of other European countries. (European Commission, 2018) "In an international comparison, however, Germany has to catch up," (Krach, 2020, State Secretary for Science and Research of the Berlin Senate Chancellery).

The aim of this article is to shed light on the current status of the digitalization of family doctor practices in Germany. With the help of an online questionnaire, it is intended to find out which digital services family doctors already offer, which of these services patients use and how relevant digital services provided by family doctors will be in the future from the patient's point of view.

In the following chapter the methodical procedure will be described. Then results are presented based on several illustrations. In the last chapter the results will be discussed, and conclusions will be drawn.

2 Method

In this research article, among others the following questions shall be answered:

- Does the GP offer digital services (e. g. video consultations, online appointment reservations)?
- Has the interviewee already searched or asked for digital offers?
- Has the interviewee already used digital offers?
- Could the interviewee imagine using these technologies in the future?

For this purpose, the students and employees of the Stralsund University of Applied Sciences as well as the employees of a large nursing facility in Stralsund were asked to fill out a questionnaire. The survey was designed in such a way that the answers refer to the respective general practitioner of the respondent. The content of the survey was the digital offers of their doctor, which were briefly presented in the introductory text of the survey. The students were invited to participate via e-mail and a corresponding link (survey period from January 6th, 2021, to February 17th, 2021). A text tailored to students should motivate them to take part in the survey. The employees of the nursing home received a printed form due to previously discussed doubts about the required technical requirements (survey period from January 19th, 2021, to February 19th, 2021). The implementation was discussed in advance with the facility management and the questionnaire was viewed beforehand. A high level of participation was requested at several staff meetings.

The questionnaire consists of a total of 18 questions with predefined answer categories (except for job title). The first two questions refer to the participant's general practitioner. Questions three to 14 deal with the current and future use of digital offers. In the last section, personal information about the respondents is collected. These include age, gender, and occupation.

A total of 459 people took part in the survey, of which 400 questionnaires can be evaluated. Questionnaires that contained contradictory information or were not completed were not included in the analysis. Due to the high number of participants among the students, the majority of the participants are aged under 30.

3 Results

The following results are based on 400 complete questionnaires. 48.3% participants are male, 51.3% female, one person diverse and one other did not want to state their gender. Figure 1 shows that most of the respondents are between 20 and 30 years old.

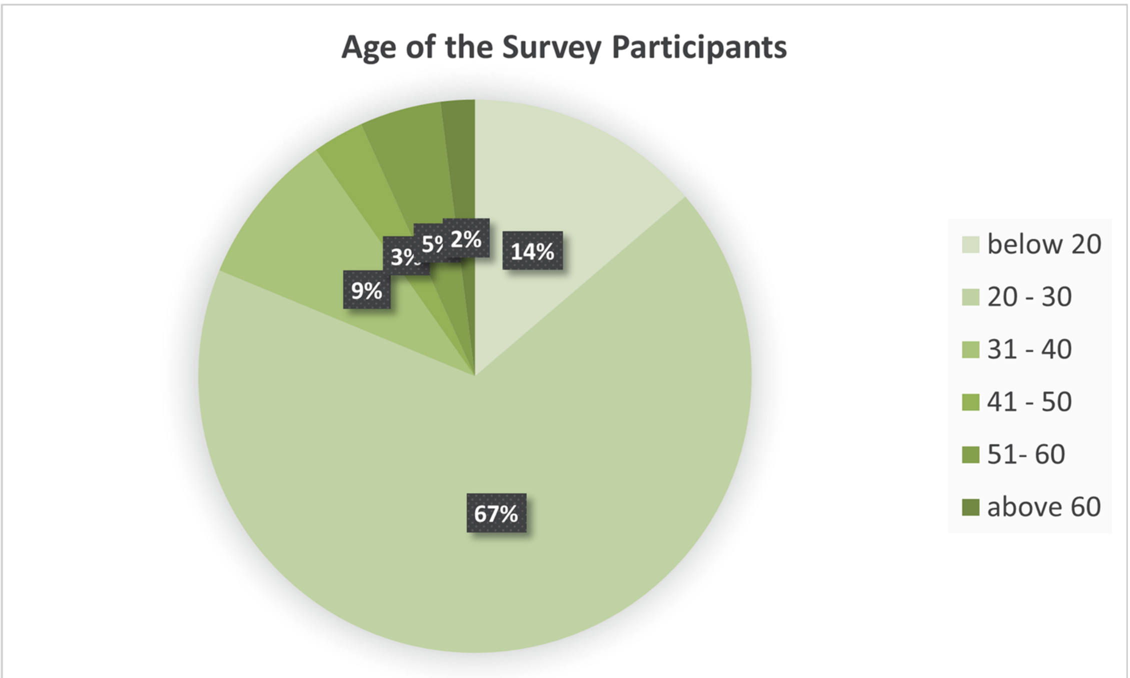

Figure 1: Age of the survey participants

82.2% participants are students or already have a university degree. While 6.5% work in healthcare and 11.3% did not provide information or cannot be assigned to either group. When asked about the gender of the individuals GP 43.3% answered that their general practitioner is a man and 56.5% visit a female general practitioner. It has also been asked how long someone has been in treatment with his or her GP. Figure 2 shows that 30% have been patient with the same GP for more than nine years, followed by 27% who are patient from one to less than three years and 13.5 % have been in treatment with their GP for less than a year.

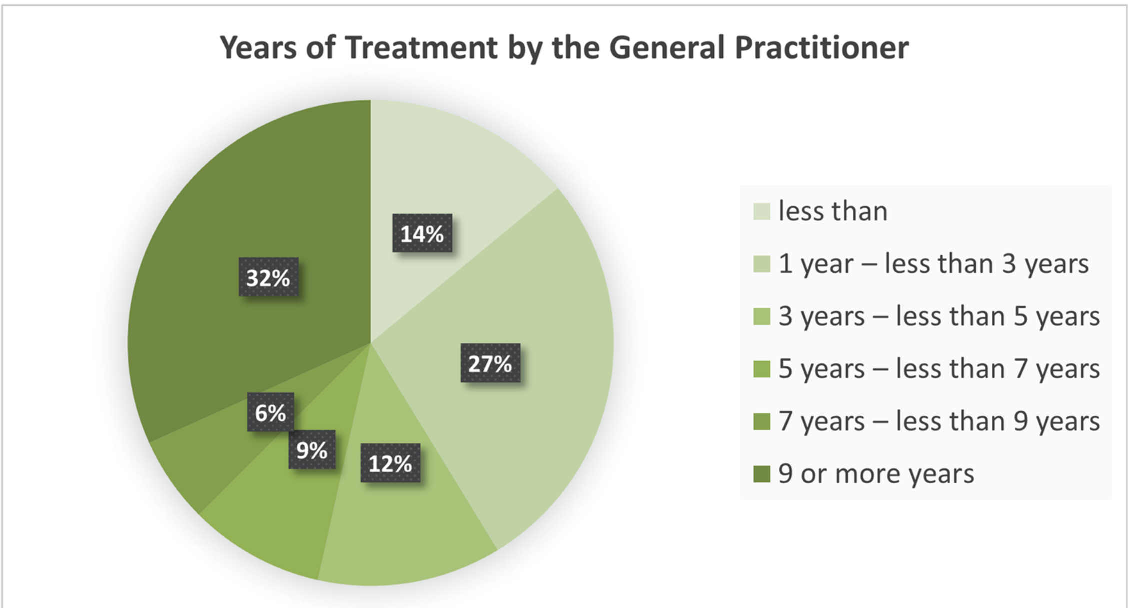

Figure 2: Years of Treatment by the General Practitioners

The answers to the questions on the use and acceptance of the digital offers are then analyzed. The table presenting all the results is on the CD.

The question about the current range of digital applications offered from ones GP was answered by 400 participants. The result of the answers showed that 4.0% offer a video consultation, 7.5% scheduling online appointments, 3.8% an e-prescription and 6.0% a digital certificate of incapacity for work (see Figure 3). Therefore, online appointment scheduling with general practitioners is the most frequently offered procedure to date. Nevertheless, 56.5% of those surveyed stated that their GP does not provide any of these digital applications and 32.8% of those surveyed do not know whether digital applications are available at all.

The respondents also had the possibility to specify other offers from the general practitioner. 2.5% gave answers such as “telephone consultation hours”, “write messages via patient app” or “call sick leave”.

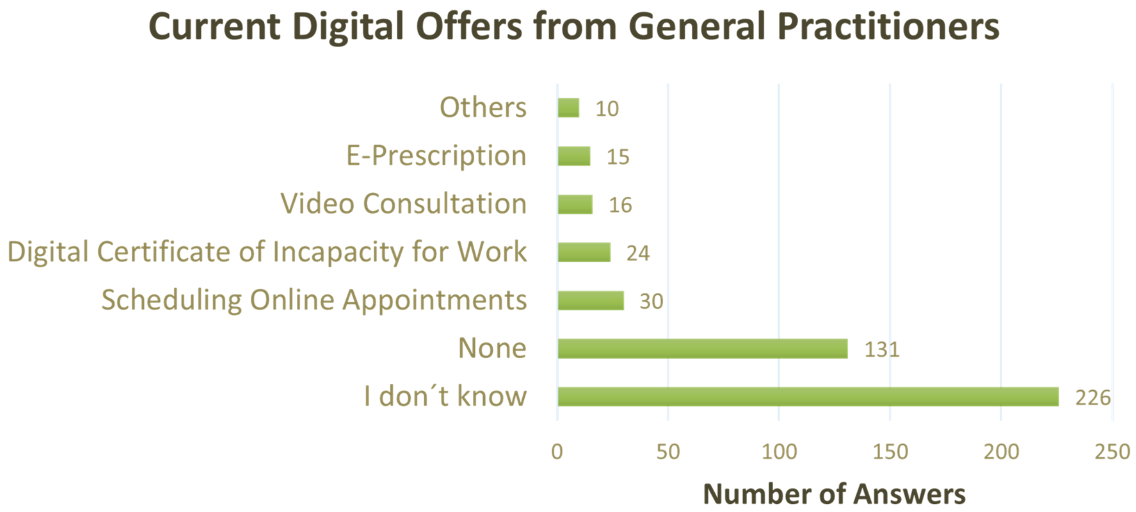

Figure 3: Current Digital Offers from General Practitioners

Figure 7 refers to the use of the GPs digital offers by the respondents; multiple answers were also possible here. The number of participants in this question was 399. There were 9 answers each (2.3%) for participating in a video consultation or for submitting an electronic certificate of incapacity for work (see Figure 7). There were 33 (8.3%) answers for online appointment scheduling and 14 (3.5%) for electronic prescriptions. The majority of those surveyed, i. e. 346 (86.7%), stated that they had not yet taken advantage of any offer (see Figure 4). Another 10 (2.5%) answers were given for the “Other” option. Again, options such as “laboratory evaluation by telephone”, “telephone consultation hours” or “telephone for the purpose of issuing a prescription” were given.

When asking these respondents about their experiences with digital offers they used 21.5% (17) rated their experience as very good, 35.4% (28) rated their experience as good, 30.4% (24) as mediocre and 12,6% (10) as poor and very poor.

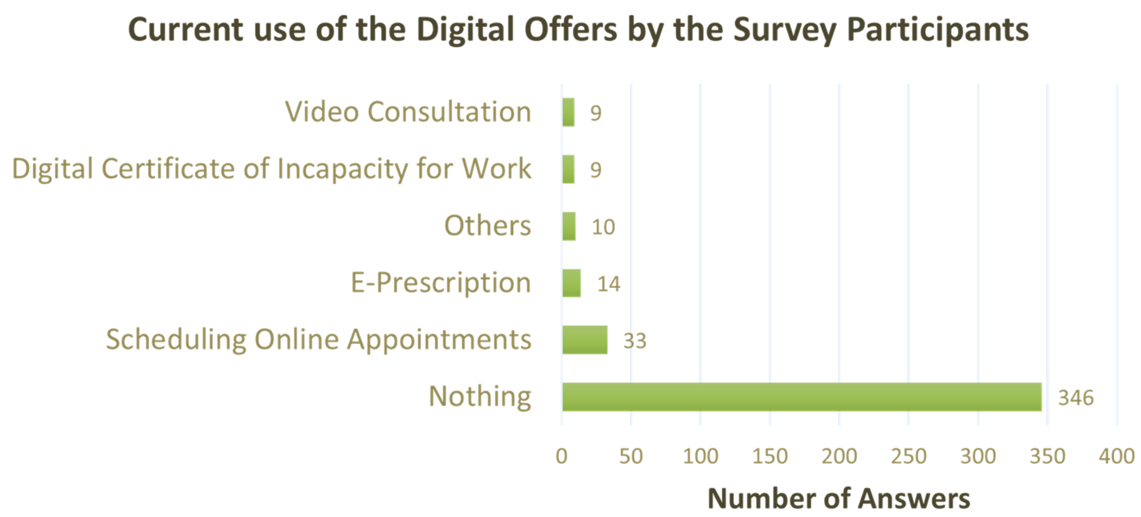

Figure 4: Current use of the Digital Offers by the Survey Participants

Another question intended to find out how the patients became aware of these digital offers (Figure 5). It should be noted here that this question could only be answered by respondents who had already used such an application. 24 respondents received the information from the GPs homepage, 12 came across this information through an internet search and 20 were made aware of it personally by their family doctor. 14 respondents each received tips from practice staff and friends and/or acquaintances and 13 became aware of digital offers through their families.

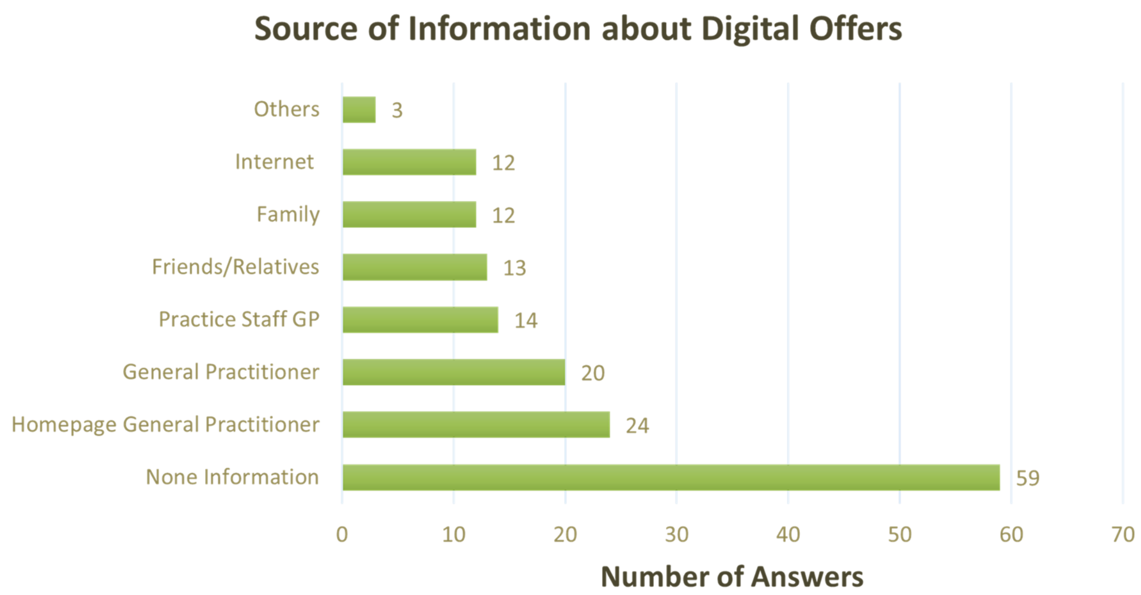

Figure 5: Source of Information about Digital Offers

It has also been asked whether the respondents chose their GP based on the availability of digital offers. Of the 143 people who answered this question, 4.2% answered yes and the remaining 95.8% answered no. For those for whom digital offers played a role in the selection of a GP, for 13.3% making an appointment online was important, for 8.3 % the video-consultation, for 6.7% the e-prescriptions and for 5% the electronic certificate of incapacity for work.

To find out more about the future relevance of digital offers, respondents were asked "Would you choose your family doctor based on digital offers in the future?" Half of the 394 participants in the survey answered this question with a clear yes or that they would tend to do so. The other half of the respondents would rather not choose their GP based on digital offers (Figure 6).

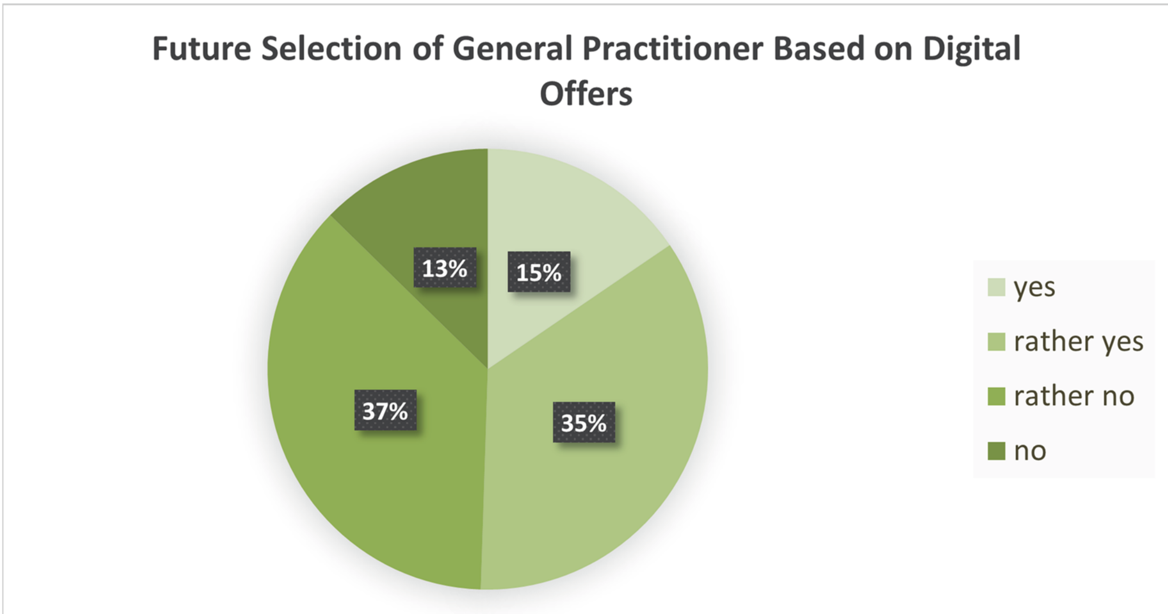

Figure 6: Future Selection of General Practitioner Based on Digital Offers

It has also been asked if the outbreak of the Covid-19 pandemic, has an impact on the use of these offers. Of the 400 participants, 3.8% answered "yes" and 11.5% "rather yes". The majority, 70.8%, said that the situation during Covid-19 has not affected their behavior. Another 14.0% gave "rather not" as their answer.

The last four questions are related to the future use of digital offers. Respondents were asked: "If you have never used a digital service before, would you do so in the future?". All 400 people answered this question and 59.0% of them voted a clear yes, 28.8% are not yet completely conclusive and said, "rather yes", 10.3% are still unsure, but think "rather no" and 2.0% do not want to use it in the future.

The next question of interest asked which of the digital offers will most likely be used in the future (Figure 7). More than 80% would use the online appointment scheduling, the digital certificate of incapacity for work and the e-prescription and almost half of the participants could imagine to have a video consultation with their doctor.

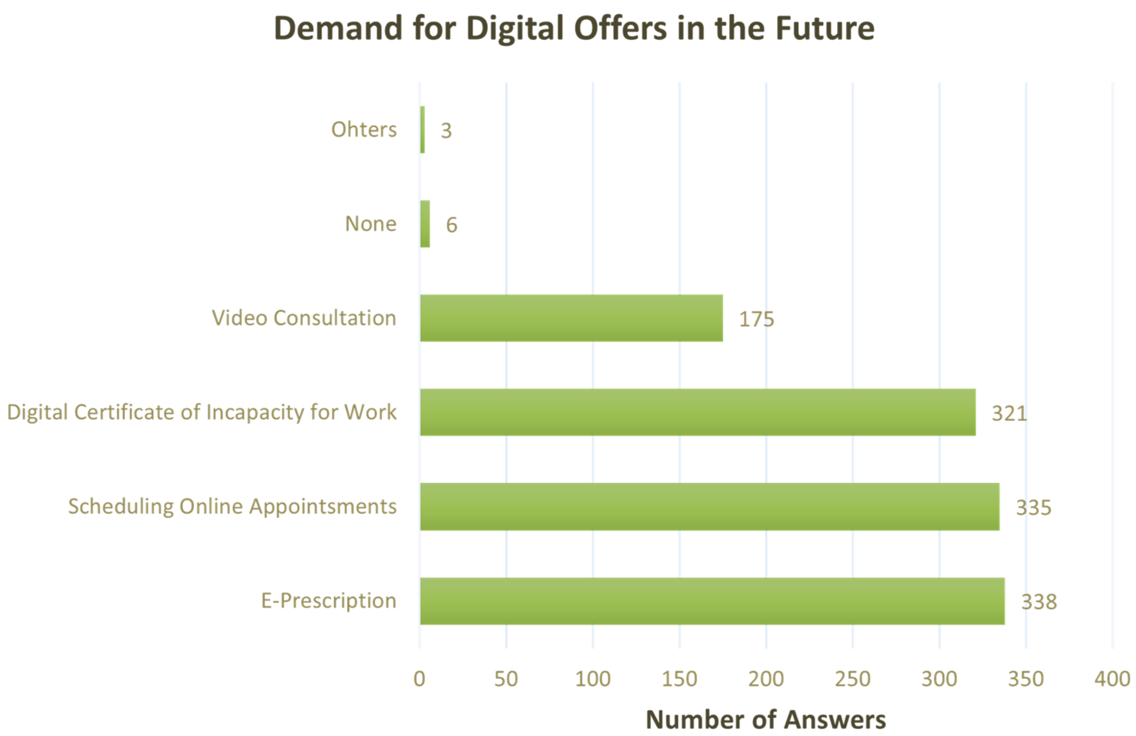

Figure 7: Demand for Digital Offers in the Future

Future use is examined more closely with the question of whether the subjects would consult their general practitioner more often if digital services were available. Of the 400 respondents, 12.8% said “yes” and 24.3% “rather yes”, meaning they would consult their family doctor more often with digital offers. 37.0% participants answered “rather no” and 26.0% “no” and would therefore not change their behavior in the future.

The last question asked which contact the respondents would prefer in the future. The majority, 66.8% of the 400 respondents, opted for the variant of direct or personal contact, while 10.0% would prefer to contact their GP digitally, e. g. using the video consultation, and 23.3% were unsure and might consider both variants.

4 Discussion and Conclusion

Now the results are discussed based on the four research questions.

- Does the GP offer digital services (e. g. video consultations, online appointment reservations)?
- Has the interviewee already searched or asked for digital offers?
- Has the interviewee already used digital offers?
- Could the interviewee imagine using these technologies in the future?

In view of the COVID 19 pandemic, which had been prevalent for a year at the time of the survey, it was surprising that, according to the answers given by those surveyed, only a few of the general practitioners offer digital applications. For example, video consultations or online appointments were offered by less than 10% of general practitioners. One reason for this could be that young students, who make up the majority of the sample, rarely go to the general practitioner. It is possible that many have not seen their family doctor in recent years and have therefore not informed themselves about possible digital offers. It is therefore possible that general practitioners are digitized to a greater extent, but the patients are not yet aware of this.

Some of the offers examined are still in the introductory phase in Germany and must be established in everyday practice. This could also be an explanation for the low supply and lack of advertising. Even if the respondents are hardly aware of any digital offers and have only used them to a limited extent, half of those surveyed would include digital offers from a family doctor as a selection criterion for choosing a family doctor in the future. This shows that general practitioners should not neglect these offers. In addition, the family doctor should make his/her patients aware of his/her digital offers via the homepage, practice staff or in person.

The respondents probably see a great benefit for themselves in the advancing digitalization in medical practices, recognizable by the clear tendency that almost 90 percent of the respondents want to use digital offers in the future. Online appointment scheduling, electronic prescriptions and electronic certificates of incapacity for work will be particularly popular. More than 80 percent of those surveyed would use these offers in the future. It was stated, however, that this selection would be used more frequently with better planning and a reduction in the error-proneness of the technology on the part of the practices. However, the video consultation seems to continue to stand behind the personal visit to the doctor in the future, because only just under 40 percent could imagine using it. This tendency is also reinforced in the question about the preferred type of contact. More than 60 percent of those surveyed still prefer direct contact with their general practitioner. Doctors therefore do not have to worry about finding empty waiting rooms in the future.

Finally, the survey showed that there is potential. Nevertheless, it will still take some time before the digital offerings are accepted and used equally by all age groups. In addition, GPs should rethink what they offer and consider digital solutions for their practice. Younger patients in particular are increasingly being addressed and life could also made easier for the elderly. All stakeholders should be open to new ideas and support each other. In the years to come, when the digital offerings are prescribed as standard procedures, it is expected that use and acceptance will increase. In the past 20 years, the digital revolution in the German healthcare system has held back and people still work with analogue processes in many areas, which is mainly due to the lack of acceptance by service providers and their patients (Federal Ministry of Health, 2020). Physicians must be willing to embrace innovative technologies and establish them in their practices. The surveys show that so far only online appointment scheduling is relatively widespread. Additional applications only gradually find their way into the supply. In the GPs considerations to engage in digitization it seems that at the moment the potential benefit of new technologies is not sufficient to outweigh the effort to choose the right service-provider, the costs and the burden of adjusting routine processes.

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