

E-appointment scheduling at 'Oude Turfmarkt GPs/ Student Medical Service' in Amsterdam: an evaluation.

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Version:	2
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Period of internship:	02/03/2015 till 30/05/2015

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Abstract

Background

E-appointment scheduling (EAS) is a relative new concept in E-health. Although there is a high need of this service, EAS is not common practice yet at general practices. This study differs from other studies by its research on the relation between the type of medical problem and the rate in which EAS is used to schedule the appointment for a specific medical problem. The study also goes deeper into the characteristics of the patients using EAS and their perception about the EAS system: its user-friendliness and its satisfaction with the users. The aim of this study is to get more insight in (1) the characteristics of EAS users, (2) how these users perceive EAS and (3) for which medical problems EAS is being used.

Methods

A triple cross-sectional study was conducted at general practice Oude Turfmarkt/ Student Medical Service in Amsterdam. The characteristics of EAS users were measured with two approaches. First, the distribution of age and gender was collected by descriptively analyzing all 2526 e-appointments made between August 2014 – May 2015 with SPSS version 20. Second, a questionnaire survey has been conducted, based on relevant literature, and sent to the 1657 unique users of EAS with the online survey tool 'NetQ pro'. The questionnaire was also used to explore how patients perceived EAS: user-friendliness, satisfaction and perceived (dis)advantages were asked and descriptively analyzed with SPSS. Finally, the medical problems for which patients scheduled by EAS were collected from ICPC-2 chapters from the general practice information system 'OmniHis Scipio'. These were compared with the medical problems scheduled by telephone or at the desk. A single Chi-square test for independence was performed, followed by standardized residuals to see in which chapter the statistical significance was.

Results

Users of EAS in this practice proved to be well connected with new technologies, young, mostly female and high educated. Overall patients were satisfied about EAS as well as the user-friendliness of the system. The main reasons for its use were (1) the possibility to schedule outside office hours, (2) time savings, (3) better accessibility of the practice and (4) more freedom of choice. The chi-square test for independence appeared significant, $\chi^2(16, N = 30805) = 300.9, p < .001$. The standardized residuals showed that medical problems about female and male genitals had the highest Z-scores, meaning that these problems were statistical significantly more often scheduled by EAS compared to other ways of scheduling. Statistical significantly less frequent were appointments for respiratory issues and urological issues.

Conclusion

These findings suggest that EAS is a useful tool to schedule non-urgent appointments and problems with which patients are hesitant to visit a doctor. Due to time constraints only users of EAS were included in this study. This led to an partial view of the system. The results of this general practice may not be extrapolated to other populations: it has many more high-educated patients than average. More research in other practices is needed to give a more reliable overview of patients' characteristics at larger scale. Further research

can also focus on the question why patients schedule genital medical problems more often by EAS.

Background

Employees in health care are consistently looking for new and innovative methods to improve efficiency and quality in health care (Harrison & Lee, 2006). E-health is one of those methods. The use of E-health services has grown rapidly in the past years. These services have shown its benefits in improving access and quality of healthcare (Bashshur & Shannon, 2009). According to the Dutch *Raad voor de Volksgezondheid & zorg*, i.e. *the council for public health & care*, E-health can be defined as: 'the use of new information- and communication technologies, especially internet technology, to support or improve health and health care' (van Rijen *et al.*, 2002). E-health services can improve interaction between patient and health professionals (Keselman *et al.*, 2008). Moreover, it has been claimed that these services make health care more time efficient, give patients more empowerment and take away geographical barriers (Tan, 2005; Keselman *et al.*, 2008). However, there is lack of empirical evidence about the beneficial impact of e-health technologies (Black *et al.*, 2011). There is no substantiation with regard to cost-effectiveness, which policy makers frequently use as argument to implement E-health applications (Black *et al.*, 2011).

According to the E-health monitor, commissioned by the Dutch minister of Health, Welfare and Sport, 93 percent of the Dutch care users has access to the internet (Krijgsman *et al.*, 2014). Health care organizations respond to the increasing use of internet by implementing various E-health applications. A recent development is the introduction of the e-appointment scheduling (EAS) service in general practices. This system allows patients to schedule an appointment with their preferred general practitioner through any Web-connected device. The conventional way to schedule appointments in most practices is by telephone. Previous research has shown that two-thirds of incoming calls are from patients who are calling for an appointment (Moens, 2014). However, the Landelijke Huisartsen Vereniging (LHV) concluded that the telephonic accessibility at general practices is poor. As a result, patients will call the emergency line or will show up at the desk (Linschoten *et al.*, 2009). Providing EAS leads to less congestion on the telephone lines, so assistants have more time left for other tasks (Broekhuizen & van der Wouden, 2015).

Introducing EAS in general practices may have multiple benefits for the practice. One of those benefits is the financial reward given by health insurers. Health insurers try to lure general practices to implement EAS by providing €0,80 per insured patient per year (Achmea, 2015). Another benefit may be the reduce of no-shows. No-shows occur when patients do not show up at their appointment. Multiple studies have shown that e-appointments led to a reduction in the amount of no-shows due to the automatic reminders sent from the electronic system (Leong *et al.*, 2006; Parikh *et al.*, 2010; Boyette & Sirois, 2011; Horvath *et al.*, 2011; Paré *et al.*, 2014).

Patients can also benefit when their practice offers the possibility to schedule appointments online. Multiple studies examined the advantages of EAS from patients' perspective. EAS seemed to result in more freedom of choice (Gupta & Denton, 2008; Verschelde, 2008), time savings (Paré *et al.*, 2014) and improved accessibility of the general practice (Verschelde, 2008; Zhang *et al.*, 2013). Full-time employees benefit in particular, because telephonic appointments can only be made in office hours or a smaller timeframe (Gupta & Denton, 2008).

However, EAS also has its concerns. This applies both for the patients and employees of the general practice. A great concern of general practices is that EAS might lead to lack of triage. Triage means that doctor's assistants are trained to estimate the urgency of the health issue by telephone. They make sure that the patient will get the right medical treatment they need at the right time (Krijgsman *et al.*, 2014). Drijver *et al.* (2004) even claim that triage by doctor's assistants leads to a ten percent decline in consultations. Using EAS, patients could decide the time and doctor for themselves. Another concern is privacy. Medical data is extra sensitive; safety of the EAS system should be guaranteed. According to the E-health monitor, 38 percent of the general practitioners in the Netherlands says they could not guarantee appropriate safety for the EAS system (Krijgsman *et al.*, 2014). Circa the same percentage fear criticism over privacy issues (Krijgsman *et al.*, 2014). There seems to be haziness about laws and regulations with regard to privacy and safety (Krijgsman *et al.*, 2014). For example, in Norway it is forbidden to communicate about personal health issues via the internet unless a special encrypted service is used (Santana *et al.*, 2010). Some health practitioners are simply not well informed which makes it difficult to accept EAS.

In this study, the focus will be on general practice only. Making appointments via internet is a common practice at certain dentists, opticians and polyclinics. However, it is not very common at general practitioners. Thirteen percent of the patients and eighteen percent of the general practitioners confirm the possibility to make appointments via internet, but only five percent of the patients is actually using this service (Krijgsman *et al.*, 2014). In spite of the low usage, the need to use EAS is high, according to the Dutch federation of patients and consumer organizations (Van Haastert & Lekkerkerk, 2014). In this study, sixty percent of the patients had interest in using EAS. Another study showed that the majority of people who had never heard of the EAS system is willing to use this tool in the future (Zhang *et al.*, 2012). Patients who are using EAS are pleased with it: seventy percent of the users qualify the system as 'good' or 'excellent' (Zhang *et al.*, 2013; Pak *et al.*, 2014). Lack of awareness about the system plays a significant role in the non-acceptance of EAS (Zhang *et al.*, 2013).

Innovation Diffusion theory

The adoption of EAS seems to be low despite the high needs (Krijgsman *et al.*, 2014; Van Haastert & Lekkerkerk, 2014). To give us more insight in the factors that were determining for users' acceptance of EAS, the Innovation Diffusion Theory (IDT) by Rogers can be used as a small theoretical framework. In this model there are two main determinants predicting the acceptance of an innovation, namely: the user-perceived characteristics of the innovation and the characteristics of the adopters (Rogers, 2003). The user-perceived characteristics of the innovation are for example the benefits of EAS versus the traditional way of scheduling and the user-friendliness of the system (Rogers, 2003).

The second main determinant that predicts the acceptance of EAS is the characteristics of patients (Rogers, 2003). Studies have shown that the possible determining characteristics for the acceptance of EAS are: educational level, work-status, having a chronic disease or not, prior experience with E-health and age. In particular the highly educated and the people who suffer from chronic conditions are taking advantage of this service (Gijsbers *et al.*, 2012). Workload could also be a predictor for using the EAS system; male fulltime-workers are using this service more often (Zhang *et al.*, 2015). Health-related internet users, who are experienced in looking for health information on the internet, are more likely to schedule an appointment with a health profession online compared to the

population in general (Santana *et al.*, 2010). Another study showed that younger age groups are more likely to see the advantages of EAS, whereas older age groups prefer using the telephone (Moens, 2014).

There have been several studies on the need to use EAS, the characteristics of patients using EAS and the advantages and barriers of EAS. Those variables are not yet combined in one single study. Those studies were also mainly conducted outside Europe. This study differs by its research on the relation between the type of medical problem and the rate in which EAS is used to schedule the appointment for a specific medical problem. The study also goes deeper into the characteristics of the patients using EAS and their perception about the EAS system; its user-friendliness and its satisfaction with the users. This will be examined at the Dutch general practice 'Oude Turfmarkt/ Student Medical Service'. More information about this practice and the EAS system in the practice can be found in appendix 1.

Due to time constraints this study will focus on patients who are already using the EAS service. If there was more time available, it would have been better to conduct the study on all patients of the practice.

The aim of this study is to get more insight in the characteristics of patients who are using EAS, how patients from a general practice perceive EAS and for which type of medical problem patients use EAS. This helps us to explore the motives of patients to use it and for which medical problems they use it. Eventually, these motives can generate improvements of the system. In this study, the main question is: 'what are the characteristics of EAS users, how do they perceive EAS and for which medical problem do they use EAS? The following sub-questions will be examined:

- What are the socio-demographical characteristics of EAS users?
- How do factual users perceive EAS (patients' satisfaction, (dis) advantages, user-friendliness)
- Is there a statistical significant difference between the type of medical problems of patients using EAS compared to other types of scheduling?

Methods

This study is carried out independently by the researcher commissioned by the general practice *Oude Turfmarkt GPs/ Student Medical Service*. This general practice is located in Amsterdam, the Netherlands. Currently, there are nine doctors, one junior doctor and ten doctor's assistants in employment. The practice had 12.477 registered patients at the time of March 2013, including 7281 females (58%) and 5196 males (42%).

In this triple cross-sectional study, three sub-questions were asked. Each sub-question has its own method-section below. A section about the privacy of the patients is also added in the method-section.

Socio-demographical characteristics of EAS users

Study design

To examine the socio-demographical characteristics of EAS users, two different approaches were undertaken. First, all e-appointments from August 2014 till March 2015 were analyzed with IBM SPSS Statistics 20 (IBM SPSS 20.0, 2011). The e-appointments were collected via e-mail. General information about the EAS users were extracted from these e-mails. Second, additional information about patients' characteristics was extracted from a web-based questionnaire survey. This web-based questionnaire survey was conducted six months after the implementation of e-appointment scheduling. The online survey tool 'NetQ Pro' was used (NetQ, 2011). More information about the questionnaire can be found in the chapter 'patients' perceived opinions about EAS'.

Study object

The study object consisted of all patients who scheduled once or more an appointment via EAS in the period of August 2014 till March 2015. These patients scheduled together a total of 2526 e-appointments. There were no exclusions.

Data collection

First, all 2526 e-appointments were collected via e-mail. When patients scheduled an appointment online, the practice received an e-mail with specifications of the appointment. The 2526 e-mails were saved in a certain directory of the general practice' mailbox. These e-mails were sent by the director of the general practice to the researcher at the beginning of the research period.

One e-mail contained the following information:

- Type of appointment (cervical cancer checkup, STD consult or regular GP consultation)
- Personal details (full name, date of birth, gender, e-mail address and phone number)
- Reason to visit
- Name of the doctor
- Day, date and time of the scheduled appointment
- Day, date and time when the patient scheduled the e-appointment.

Only the personal details 'date of birth' and 'gender' were interesting for this study. E-mail addresses were also useful for sending the invitation of the questionnaire survey. These three variables were extracted from one e-mail at the time. This was done by manually copying the three variables to an Excel 2010 sheet. Eventually, this created a list of all 2526 e-mail addresses in the first column, gender in the second column, and the date of births in the third column. Some date of births and genders were missing (N=43). These incomplete e-mails were not included for age- and gender analysis. However, all e-mails contained an e-mail address so these patients were able to participate in the survey questionnaire.

After these variables were collected, the questionnaire survey was conducted (see: patients' perceived opinions about EAS). With the help of the questionnaire survey, four personal characteristics were asked to the EAS users: educational level, work-status (unemployed, full-time, part-time or student), having a chronic disease or not and prior experience with E-health. As seen in the Background, these four factors were predictors for the usage of EAS (Santana *et al.*, 2010; Gijssbers *et al.*, 2012; Moens, 2014; Zhang *et al.*, 2015).

Data analysis

The excel sheet with the columns 'gender' and 'date of birth' were copied to a SPSS version 20 dataset (IBM SPSS 20.0, 2011). The date of births were converted to ages at the beginning of the analyses, on April 15th 2015. This was done with the option Date and Time Wizard – Calculate with dates and times – Calculate the number of time units between two dates. Within this step, SPSS subtracted the date of births from the date of April 15th 2015. It would have been better if the actual ages at the time when a patient scheduled an appointment were calculated, but this seemed to be too complicated to calculate. Eventually, the mean age, standard deviation and the minimum- and maximum age were calculated using the option 'explore'. Hereafter, the ages were divided in to six age groups: under 18 years; 18-29 years; 30-41 years; 42-53 years; 54-65 years and 65 years and above. The option 'frequencies' helped us to get a clearer view of the age distribution of EAS users, which is more helpful than the mean age. The gender variable was divided in two groups: females and males. In SPSS, females were coded as '1' and males as '2'. This was done with the option 'find and replace'. The option 'frequencies' was used for descriptive analysis.

The other variables (educational level, workstatus, chronic disease and prior experience with E-health) were extracted from the questionnaire survey. More details about how this data was converted to a SPSS dataset can be found under the section *patients' perceived opinions about EAS*. Descriptive statistical analyses on the variables were done with the option 'frequencies'.

How factual users perceive EAS

Study design

A online questionnaire survey was conducted to explore how patients perceive EAS: patients' satisfaction, (dis)advantages and user-friendliness from patients' perspective were explored. The online survey tool 'NetQ Pro' was used (NetQ, 2011).

Study object

The study object consisted of all factual users of EAS. As mentioned before, a total of 2526 appointments were made with EAS. Not all e-mail addresses were from unique patients, because some patients used EAS more than once. Hence, the invitation for the questionnaire survey was sent to the unique e-mail addresses (N= 1657).

Data collection

The questionnaire survey was based on literature, concepts from Rogers' innovation diffusion theory (IDT) and insights from the researcher and her daily supervisor, academic supervisor and the director of the general practice. The questionnaire was checked and commented on twice before the final version of the questionnaire was developed. The final version consisted of at least 31 questions and a maximum of 37 questions, depending on the answers given by the respondent. Many questions where yes or no could be answered, the possibility 'I do not know' was added. In this way, respondents were not forced to choose between yes or no if they do not have a clear opinion about that subject.

In Excel 2010 it was possible to highlight the e-mail addresses that were occurring more than once. The researcher manually counted the unique e-mail addresses in the high-lighted area. This amount plus the amount of patients who used EAS once resulted in 1657 unique e-mail addresses. These unique users of EAS were invited by the researcher via an e-mail to participate in the online questionnaire survey. The invitations were sent via e-mail on April 23, 2015. This initial version only worked on a computer or laptop. On May 8, the questionnaire survey was made suitable for mobile devices and tablets. A reminder was also sent to all respondents on this day. The survey closed on May 17, 2015.

Data analysis

After this time, the data was converted from NetQ pro to an SPSS version 20 dataset (IBM SPSS 20.0, 2011). NetQ pro contained an option that converted the data automatically, so all variables were coded right in SPSS. The SPSS dataset from NetQ pro was used to do descriptive analysis on the variables. Only the distribution of the answers were interesting for this analysis, so in all cases the option 'frequencies' is used. One open question was asked in the questionnaire to see if patients had any recommendations to the system. All comments were read and placed in categories.

Differences between the type of medical problems of patients using EAS compared to other types of scheduling

Study design

In this cross-sectional approach, the medical problems for which patients scheduled appointments via EAS were compared with other ways of scheduling (by telephone or at the desk).

Study object

The study object consisted of all appointments from EAS in the general practice information system 'OmniHis Scipio' from October 2014 till March 2015 (OmniHis Studio, 2012). Only when the patient actually visited the general practice, an e- appointment was registered in the system. Appointments which were cancelled were therefore not included. Regular general practice consultations and the STD consults were taken for analysis. Cervical cancer checkups were left out. The six months period allowed the information system to use its standard reporting features for all registered appointments. The e-appointments were compared to all registered GP- and STD appointments scheduled by telephone or at the desk in the same six months.

Data collection

The data was gathered by collecting codes from OmniHis Scipio system which doctors use to specify a medical problem. This general practice used the Second edition of the International Classification of Primary Care (ICPC-2) codes (Wonca, 1998). This classification specifies the medical problem of a patient during a consult. There are seventeen chapters, each chapter representing a letter referring to location or organ. The chapters are specified in detail with numbers. In this study, the seventeen chapters are used for analysis. These chapters can be found in table 1.

Table 1: classification of the 17 ICPC-2 chapters with their definitions.

ICPC chapters	Definition
A	General and unspecified
B	Blood, blood-forming organs and Immune mechanism
D	Digestive
F	Eye
H	Ear
K	Cardiovascular
L	Musculoskeletal
N	Neurological
P	Psychological
R	Respiratory
S	Skin
T	Endocrine/ metabolic and nutritional
U	Urological
W	Pregnancy, childbearing, family planning

X	Female genital
Y	Male genital
Z	Social problems

An overview of all registered appointments in the practice including the ICPC-2 chapters was printed by the director of the general practice and handed over to the researcher. This was a standard overview of the information system OmniHis Scipio. This overview contained telephonic scheduled appointments, at the desk scheduled appointments and appointments scheduled online. To make a comparison between the e-appointments and the others (telephone, desk), all appointments had to be split. To make the separation, the e-appointments were counted per ICPC-2 chapter manually. There was no option to do this automatically.

E-appointments were registered in OmniHis Scipio system in a special category. Therefore they were easy to distinguish from other appointments. By clicking on a specific e-appointment, the ICPC-2 codes for the patient were displayed. The ICPC-2 codes were given by the doctor at time of each consult. The ICPC-2 codes from e-appointments in the information system OmniHis Scipio were manually tallied. This resulted in an overview of the frequencies of the 17 ICPC-2 chapters from EAS. The frequencies of e-appointments per ICPC-2 category were subtracted from the total frequencies per ICPC-2 category (telephonic, desk & EAS appointments). This resulted in frequencies of appointments made at the desk and via telephone. These two overviews were compared with a statistical test in SPSS version 20.

Data analysis

A single Chi-square test for independence was performed with 'crosstabs' to find out if certain ICPC-2 chapters occurred significantly more frequent via EAS compared to the telephone/ desk appointment. The outcome table provided the counted and expected frequencies for both e-appointments and other appointments per ICPC-2 code. It also provided the Chi-square value, which seemed to be significant. An alpha level of 0.05 was used for all statistical tests. Hence, there was a statistical significant difference between appointments from EAS and appointments by telephone or at the desk in (a) certain ICPC-2 chapter(s). Z-scores were used to explore in which ICPC chapter(s) statistical significant difference was. The option 'standardized residuals' under 'crosstabs' was therefore used. A Z-score/ standardized residual is significant when the value is beyond -1.96 or above 1.96 (Field, 2009). The further from zero, the more significant. This resulted in Z-scores per all 17 ICPC-2 codes.

Privacy of patients/ METC

This study was commissioned by general practice *Oude Turfmarkt GPs/ Student Medical Service* under the supervision and responsibility of director and general practitioner Peter Vonk. No METC declaration was needed because there was no intervention and the personal information was held intact. The researcher gave a vow of secrecy to the director. The full declaration from the director about the privacy of the patients can be found in Appendix 3.

Results

In the period August 2014 till May 2015, 2526 appointments from EAS were made by 1657 unique e-mail addresses. From these 2526 appointments, 556 were cancelled by patients. It is not known how many appointments were cancelled by the practice. 86% of the appointments from EAS were scheduled for a regular GP consult, 8% for the cervical cancer check-up and 6% for an STD consult.

The questionnaire was sent to 1657 email addresses. After 24 days the questionnaire was closed. This resulted in an overall response of 240 respondents, accounting for 14.5%. The average duration was 13,0 minutes (SD. 1.5).

Socio-demographical characteristics of EAS users

Six personal characteristics of EAS users were measured in this study: age, gender, educational level, work status, chronic disease and prior experience with E-health. Note that age and gender are from the large dataset (N= 2526) and the other variables are from the questionnaire survey (N= 240). The distribution of gender, educational level, profession (work-status) and chronic disease are displayed in figure 1.

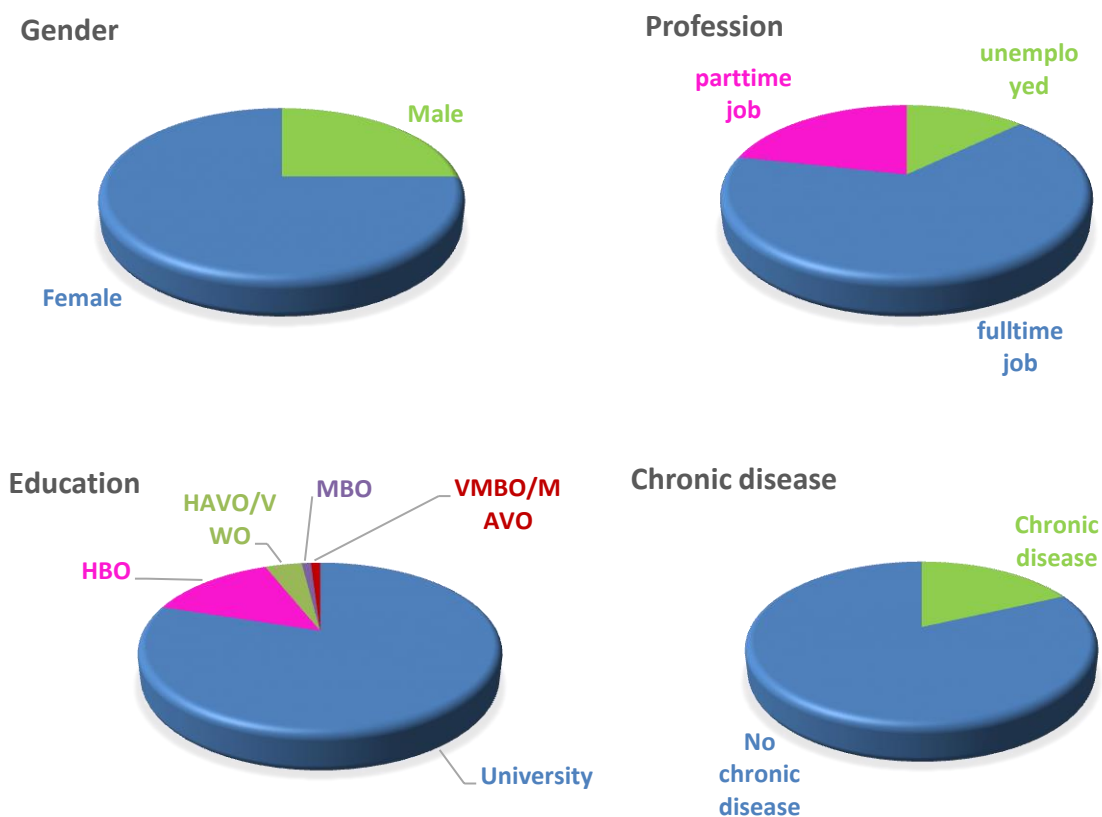


Figure 1: Four characteristics of users (or their agents) making appointments by e-appointment scheduling: gender, profession, education and chronic disease.

It is seen that 75% of the EAS users were female and 25% were male. More than 70% of the respondents were non-students. From these non-students, 66% worked fulltime; 22% worked parttime and 13% was currently unemployed. 80% of all respondents had an University degree or was studying at a University. This is followed by 14% with or working on a HBO degree, 4% HAVO/ VWO degree, 1% MBO degree and 1% VMBO/ MAVO or LBO. 18% had a self-reported chronic disease, of which asthma with eight respondents was most occurring (18%).

Age

The mean age of patients for who an appointment was made by EAS was 31.0; with a minimum of 0 and a maximum of 73 (SD. 11.8). The minimum of 0 can be caused by someone who scheduled an appointment for their baby or due to a false date of birth. Almost sixty percent of the EAS users were in the age group 18 till 29.

Past experience with E-health

Questions were asked about their past experience with some E-health technologies. 46% said they often made appointments via internet aside from the general practice. 34% of the respondents had asked one or more questions to the doctor via e-mail (called an E-consult). Their online search for health information was also examined. 94% said they sometimes searched for health information on Google, 45% searched on the website of the general practice and 44% searched on Thuisarts.nl.

How factual users perceive EAS

Satisfaction

In general, users were very pleased with EAS as an option in their general practice. EAS users qualified their appreciation of the possibility of EAS with a 9.0 on a scale of one to ten (SD. 1.4). Users were also satisfied about EAS, they qualified their satisfaction with a 7.7 on average (SD. 1.8). For 30% of the users, EAS is a reason to stay registered at the general practice. However, only three respondents would actually switch to another general practice if EAS was not offered. 39% would recommend *Oude Turfmarkt GPs/ Student Medical Service* to their peers because it has the possibility of EAS. 46% felt EAS is not a reason for them to recommend the practice and 15% did not know if they would recommend the practice because of EAS.

Patients were not satisfied with all aspects of EAS. Patients had different opinions about the time between scheduling an appointment and visiting the doctor. 50% felt that this time was just right, 20% was neutral and 30% thought this waiting time was too long. Patients were not pleased with the way the general practice cancelled e-appointments. The question: 'Sometimes e-appointments are canceled by the practice, for example when more than one problem was indicated in only one appointment. How do you feel about this?' has been asked. Only 13% believed that this is a good thing. 45% of the patients understood the procedure, but were not always pleased with it. 15% found it annoying, 4% found it patronizing and 10% had no opinion. 14 percent, 33 respondents, wrote a comment at 'other'. Most comments were saying that the practice has to provide a reason for cancellation at least. In general, patients preferred finding an alternative with the assistant

instead of a direct cancellation by the practice. Several people stated that the system made it very difficult to schedule a double appointment. They found that the system had to be altered first to reduce this problem.

Perceived user-friendliness

Three quarter of all patients were pleased about the user-friendliness of the system and only 7% was not. Patients found that the system was easy to use at the beginning. 88% thought it was easy to learn how they should use it. Only 5% had difficulties with it. The first time scheduling an e-appointment went well for 85% of the respondents. 4% had difficulties and 10% was neutral about this. More than half of the patients (54%) thought EAS was appealing to try; 36% was neutral.

Patients had to fill in their reason of visit using EAS. 58% thought they could describe their problem well in this system. 8% thought it was difficult to write their problem down. Patients' opinions about the amount of appointments they could make via EAS were divided. 36% thought this amount was too low, 22% had no clear opinion and 42,1% thought there were enough possibilities.

Perceived advantages & disadvantages

Multiple questions have been asked to explore if there are advantages of EAS in comparison to other appointments. 82% of the patients thinks EAS has visible benefits. One of those advantages seemed to be time savings. 66% thinks EAS saves time, 24% thinks it costs as much time as telephonic scheduling and 10% thinks EAS does not save time. However, key advantage for patients was that EAS made it possible to schedule appointments outside office hours. 96% saw this as an added value and 3% was neutral. Almost half of the patients (49%) agreed with the statement that the general practice became more accessible because of EAS. One third was neutral. The same percentage (49%) felt they had more freedom of choice using EAS and 26% was neutral. Contradictory, patients did not felt that EAS gave them more empowerment about their own health. 48% disagreed with this statement and only 11% agreed.

One statement was asked about the possible disadvantage of having no personal contact with the assistant. 17% said they preferred having personal contact when scheduling an appointment, 43% was neutral and 40% did not prefer personal contact.

Patients were asked how they felt about the triage of EAS. Almost half of the patients did not feel EAS is lacking triage. These 46% thought they knew which cure they needed at which time and that they did not need an assistant to estimate the urgency of their issue. 41% thought that they could estimate the urgency themselves. However, they still found it comforting when the assistant checks their reason of visit. The other 13% believed the assistant could estimate the urgency for their problem better than themselves.

Suggestions

An open question was asked to give the respondents the chance to comment on the service and to point out difficulties or possible improvements. The question was: 'what should be improved in E-appointment scheduling?' 79 respondents (33%) had written down something they would like to see improved. Respondents who answered the question with:

'I do not know' or 'none' were not included in these 79 respondents. The suggestions occurring more than once are displayed in table 2. The most frequent suggestion was to add more variation in days and times (N=13). 12 patients would like to see more options for e-appointments overall. Changes in the interface was an improvement mentioned eight times. Patients mentioned for example: bigger text, clearer design and a more appealing design. 7 patients would like to see an overview of free time slots for a specific doctor, instead of clicking day by day to see available time slots. 7 patients indicated that the service was not always working well. For example, one patient said: 'I received a confirmation of my cancellation. However, the cancellation did not come correctly through at the practice. I received an invoice afterwards'.

Table 2: suggestions for improvement of the system from e-appointment scheduling users, gathered from the online questionnaire survey.

Suggestion
More variation in dates and times
More appointments to schedule
Changes in interface
Easier to schedule double appointments
Overview of free time slots for a specific doctor
Technical improvements (the system is not always working well)
Ability to make e-appointments in the nearer future
Possibility to choose more than one doctor
Overview of free time slots in one week
Make the system user-friendlier
Schedule more types of appointments (placing an IUD, telephonic consult)
Alterations in the cancellations by the practice
Synchronizing the scheduled appointment with their own personal agenda
Available for Google Chrome users
Choosing a day first before choosing a doctor

Differences between the type of medical problems using EAS compared to other types of scheduling

Finally, 1357 e-appointments were scheduled in OmniHis Scipio in the period October 2014 – May 2015. The reduction of the amount of scheduled appointments compared to all appointments made by EAS (N= 2526) is caused by cancellations from the patient and the practice, the cervical cancer check-ups which were not included and the months August and September which were not included in this analysis.

Appointments from EAS were mainly made for skin issues (19%), female genitals (13%) and psychological issues (12%). Less frequently were subjects about blood (1%), the eye (1%) and urological issues (1%). From the other appointments, subjects as skin (15%), respiratory (12%) and psychological (11%) were most frequently discussed during a consult. Less frequent subjects were blood (1%), social problems (2%) and the eye (2%). An overview of percentages of e-appointments and other appointments per ICPC-2 code can be found in Figure 2.

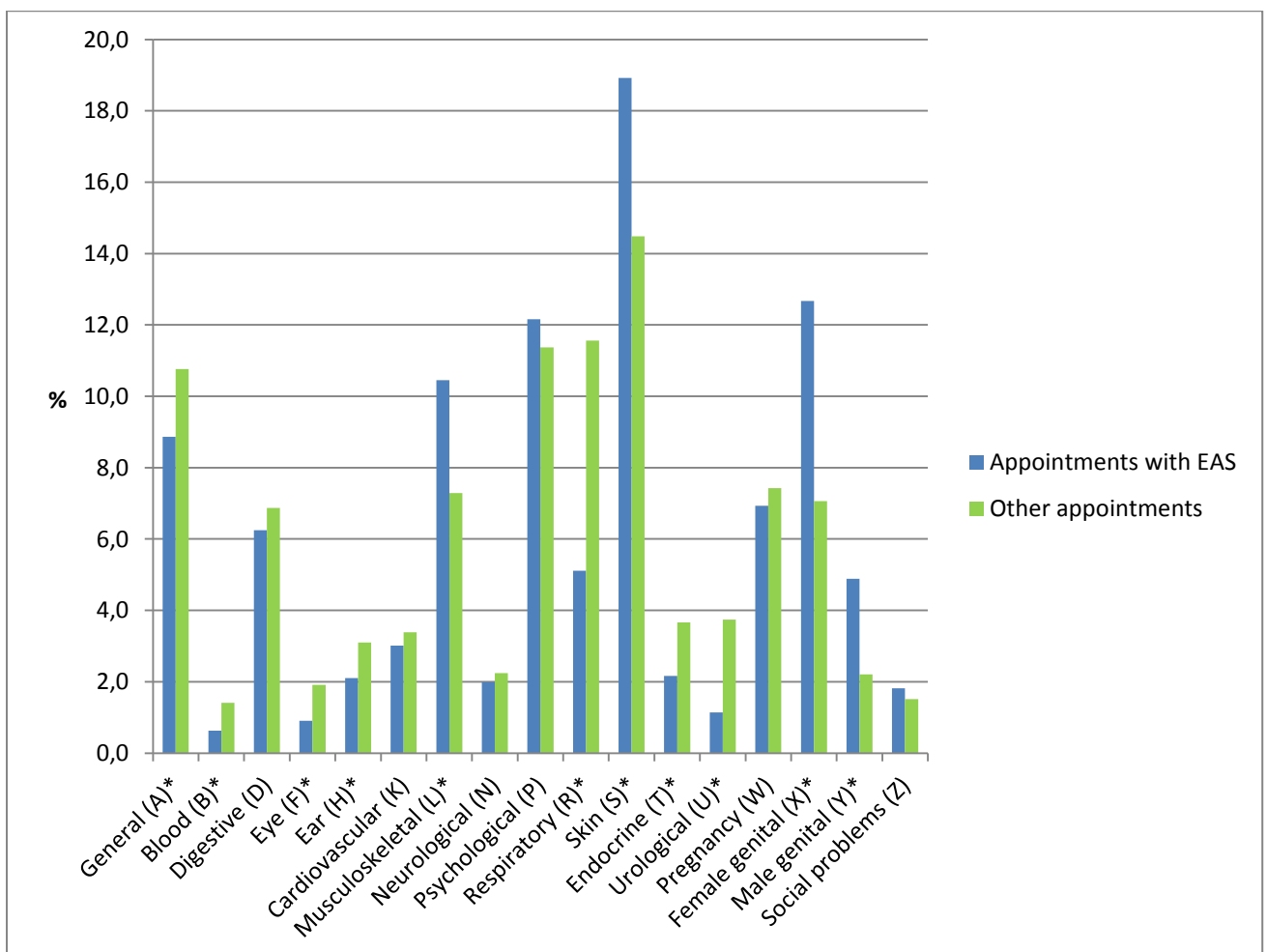


Figure 2: percentages of the 17 categories of medical problems from appointments scheduled by EAS and scheduled by other ways. The categories with a * indicate that these medical problems are statistical significantly more often or less often scheduled by EAS compared with other ways of scheduling.

To explore if there was a statistical significance between the medical problems of e-appointments and the of other appointments, a Chi-square test of independence was

performed. An alpha level of 0.05 was used for all statistical tests. The relation was significant, $\chi^2 (16, N = 30805) = 300.9, p < .001$. No cells had an expected count of less than five and the minimal expected value was 23.9; all conditions were met (Field, 2009). Z-scores, or standardized residuals, were used to explore in which ICPC chapter(s) statistical significant difference was. Eleven of seventeen ICPC-2 categories seemed to differ statistical significantly. Four chapters of medical problems were statistical significantly more scheduled by EAS compared to other appointments. These subjects were female genitals (X), male genitals (Y), skin (S) and musculoskeletal (L). The female genitals and the male genitals had the highest Z-scores, 8.2 and 6.9 respectively. Seven chapters of medical problems were significantly less scheduled by EAS compared to other ways of scheduling. These chapters were: respiratory (R), urological (U), Endocrine/ metabolic and nutritional (T), eye (F), blood, blood-forming organs and Immune mechanism (B), ear (H) and general and unspecified (A). Respiratory and urological had the lowest Z-scores, -7.6 and -5.4 respectively.

Discussion

Socio-demographical characteristics of EAS users

The practice had 12.477 patients in March 2013, of which 1657 patients used EAS. This means that 13% of the patients adopted this innovation. The innovation is placed in the early adopters segment (Rogers, 2003). Rogers (2003) stated that early adopters tend to be well informed about the innovation, well connected with new technologies and to be more economically successful. The users of EAS in this study were indeed well connected with new technologies: for many users it is in line with their past experiences with E-health. The results indicated that EAS users had prior experience with searching health information on internet, e-consults and scheduling appointments via internet aside from the general practice. This was in line with previous research (Santana *et al.*, 2010).

Another surprising characteristic is gender: 75% of the EAS users were female. This is a big difference compared to the 58% females of all patients in the practice. Also age seemed to play a role in the acceptance of EAS. Young patients were more likely to adopt the service. The educational level of the users of EAS was surprising: 94% had a degree in higher education (HBO or University). This result may not be extrapolated to other populations, because general practice Oude Turfmarkt have many more high-educated patients than an average general practice. However, a high rate of high-educates might be a characteristic of EAS. More research in other practices is needed in order to give a more reliable overview of patients' characteristics.

From the results it can be concluded that users of EAS in this practice are well connected with new technologies, young, mostly female and high educated. This is in line with the expectations (Gijsbers *et al.*, 2012; Santana *et al.*, 2012; Moens, 2014). In this study, work-status and having a chronic disease had no clear relation with the use of EAS. This is not in line with previous research (Gijsbers *et al.*, 2012; Zhang *et al.*, 2015). In this study, only descriptive analysis are executed on the data. Hence, only distributions of a certain characteristic can be shown. Zhang *et al.* (2015) executed correlation analysis between the usage of EAS and for example the work-status. The researchers interviewed users of EAS as well as non-users (Zhang *et al.*, 2015). This could have led to different outcomes of the study.

How factual users perceive EAS

Users were specifically satisfied with the availability of EAS in their general practice. They were pleased about the user-friendliness of the system: the system was easy to use and appealing to try from their perspective. It can be concluded that the system is easy to use. This probably played a positive role in the acceptance of EAS by the users.

Patients perceived scheduling outside office hours as the greatest advantages of EAS. In line with the expectations, time savings, better accessibility of the practice and more freedom of choice were also considered as advantages (Gupta & Denton, 2008; Verschelde, 2008; Zhang *et al.*, 2013; Paré *et al.*, 2014). Having no personal contact was not seen as disadvantage of EAS. Zhang *et al.* (2013) examined that some patients prefer oral communication because it gave them more opportunities to discuss about more complex issues. It is logical that these findings are not in line with the current study, because Zhang *et al.* (2013) collected these results from non-users of EAS. In this study, users of EAS made the conscious decision to schedule without having personal contact. Therefore, it is not seen as an disadvantage.

Recommendations

According to the results, factual users were satisfied with the existence and usage of EAS. Small changes can optimize EAS. The first change is the cancellation by the practice. Many patients were clearly not pleased with the current procedure. The practice has to provide a reason for cancellation at least. It would be even better if the practice provides an alternative for the patient.

Another recommendation is the re-design of the system. The following alterations can be done:

- Double appointments should be scheduled easier. The system should patients force to choose between a single appointment or a double appointment
- It should be possible to choose more than one doctor in the system
- Free time slots of specific doctors per week should be seen immediately, instead of clicking through dates
- The architecture of the system should be investigated. EAS should be reliable at any time on any browser
- Synchronizing EAS with patients' own personal agenda could be an option
- Sending reminders to patients before their appointment takes place (via SMS or e-mail)

Factual users also indicated that they would like to have more variation in dates and times. However, during this study the practice offered more and enough variation in dates and times.

The practice should not provide more appointments in the nearer future. This is contrarily of what patients want. EAS should be used for non-urgent issues only. This guarantees a proper cure for urgent issues (triage). Patients have to call the practice for urgent issues so the assistant can determine which cure patients need.

Differences between the type of medical problems using EAS compared to other types of scheduling

The results showed that problems with female and male genitals had the highest positive Z-scores. This means these problems were significantly more often scheduled by EAS than with other ways of scheduling. Genital problems are, like skin problems, in most cases non-urgent. The urgent medical problems were less often scheduled by EAS. Respiratory problems were significantly less scheduled by EAS compared to other ways of scheduling. It could be concluded that EAS is used for non-urgent issues. A declaration of this finding is that EAS has a lower threshold to schedule appointments. Due to the lower threshold of EAS, genital issues in particular are scheduled more via EAS. Buvat *et al.* (2009) stated that help-seeking behaviour for sexual issues is low among either men and women. Patients did not visit the doctor because they believed the problem was not urgent. They also believed the doctor could not cure it or they were embarrassed (Buvat *et al.*, 2009). Another study showed that men and women were willing to seek help via e-mail because this was more anonymous (Tomlinson, Fernandes & Wylie, 2011). These studies give the insight that EAS may feel more anonymous, which lowers the threshold to schedule appointments for non-urgent, slightly embarrassing medical problems. Therefore, EAS may take away barriers to schedule an appointment for issues with which patients are hesitant to visit a doctor. This could play a positive role in the early detection of genital issues. More research about this subject is needed to support these findings.

Strengths & limitations

A strength of this study is that it is unique in its method. Previous research had focused on experiences and opinions of patients about EAS, mostly in qualitative study designs. This study brought a total new approach: the type of medical problems of EAS were compared to the medical problems of other types of scheduling. The analysis generated remarkable results which were not found before.

The biggest flaws of this research are concerning the questionnaire survey. Due to time constraints only users of EAS were asked about the service. This led to an partial view of the system. A second flaw is that the questionnaire survey was sent seven months after the implementation of EAS. This may have caused recall bias. However, patients had the option to fill in 'I don't know' and 'neutral' at many questions if they did not remember it. Another flaw was the non-validity of the questionnaire survey. The questions were only based on literature and own insights, but not validated. Another limitation of this study was that the ICPC-2 codes were counted manually. This could have led to small mistakes in counting. E-appointments were also placed in the doctor's agenda manually by the assistants. This could have caused some wrong classification of e-appointments.

Further research

This study only focused on patients who were already using EAS. Future research should focus on patients who are not using EAS. This could give us more insights in the barriers that patients are experiencing. Future research can also focus on the consequences of EAS from the general practice' point of view or on the question why patients schedule genital problems more often by EAS. This general practice is not generalizable with other general practices due to its many high-educates. Therefore, comparable research at other practices can support the findings.

Note IDT

The innovation of diffusion theory was with hindsight not the most applicable theory for this study: it only focused on patients who were using EAS. However, the IDT theory was more applicable for patients who were yet not using it. Therefore, the technology acceptance model might have been a better theory (Davis, 1989). The idea at the beginning of this study was that both patients who were using EAS and patients who were not using EAS were questioned. Unfortunately, due to a lack of time choices had to be made.

Conclusion

It can be concluded that EAS can be a useful tool for certain patients to schedule appointments. Users of EAS in this practice were in general satisfied about the system. Noted that the overall adoption rate of EAS in this practice was only thirteen percent. Hence, no conclusions can be drawn about the successfulness of the innovation. Non-users had to be involved as well. Users of EAS had specific characteristics. Users were well connected with new technologies, young, mostly female and high educated. Main benefits for patients who use EAS were (1) the possibility to schedule outside office hours (2) time savings (3) better accessibility of the practice and (4) more freedom of choice. There were some flaws of EAS, but these can be altered easily. Other findings in this study suggest that EAS is a useful tool to schedule non-urgent appointments. It is also very useful for issues with which patients are hesitant to visit a doctor (e.g. genital issues). EAS seemed to have a lower threshold to schedule appointments for non-urgent issues. Further research should focus on patients who do not use EAS. It can also explore the consequences of EAS on the general practice itself and on the question why genital issues are often scheduled by EAS. Similar research in other settings can give a more reliable overview of the study results.

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Oude Turfmarkt GPs/ Student Medical Service is an overarching general practice in the center of Amsterdam. It is linked to the University of Amsterdam (UvA) and the Amsterdam University of applied sciences (HvA). Students from these universities living in Amsterdam are allowed to visit the general practice, as well as other patients living in particular zip-code areas. In addition to the regular GP-cure, the practice has a broad interest in research and prevention, mainly concerning students. Today patients can make appointments via internet. Main reason for implementing EAS is the extra service towards patients. Less congestion on the telephone line can be considered as a positive side issue. Another reason to provide this service is its benefits for health insurers.

From September 2014, the EAS system has been implemented at *Oude Turfmarkt GPs/ Student Medical Service*, which is online available in Dutch. They selected the firma 'Mobalize' to implement such system. *Mobalize* is specialized in e-appointment scheduling systems at various organizations, such as hairdressers and health clinics. The initial costs are €600 plus €30.25 monthly including value added tax. The general practice has undertaken various actions to advertise the e-appointment module, by spreading an electronic newsletter and flyers. Also, there was an article on the website <http://www.huisartsenamsterdam.nl/>. The website is constantly promoted. On this website the EAS system can be found easily. This system is not meant for emergencies, same-day visits, surgical interventions, placing an intrauterine device (IUD) or tropics vaccinations. These conditions are also mentioned on the website.

By clicking on the module, the patient can choose three types of appointments: the cervical cancer checkup, the sexually transmitted diseases (STD) consult or a regular GP consultation. By choosing the cervical cancer checkup or the STD consult, no choice in doctor can be made. When booking a regular GP consultation the patient is able to choose a particular doctor. Available time slots are visible by clicking on a specific day. Normally, a consult takes ten minutes but it is also possible to schedule two time slots. After the patient chose a date, a doctor (optional) and time, some general questions are asked (sex, date of birth, name, phone number and email address). Also, the reason of visit is asked. Doctor's assistants check the contact reasons every day if there are no remarkabilities like emergencies or abuse of the system. The assistants have to schedule the online made appointments manually into the doctors' agendas. After the appointment is made, the patient will receive an email with date and time and a link to cancel the appointment. By clicking on this link, the appointment will be cancelled directly. The patient will receive an e-mail for confirmation of the cancellation. The practice is also able to cancel appointments. Patients will receive an e-mail with the message that their appointment has been cancelled. However, this is an automatically generated e-mail so no reason for cancellation is given.

Patients are being prepared for an evaluation. In November 2014, the following text is placed at the online appointment module: 'Because this is a relative new concept in E-health, we wish to evaluate this service in the near future. You may receive an email with a short questionnaire. We would like to thank you in advance for answering the questions'.

Geachte heer/mevrouw,

U ontvangt deze e-mail omdat u minstens een keer gebruik heeft gemaakt van de online afspraak module (de web-agenda) op de website van onze huisartspraktijk. Wij zijn benieuwd wat u van deze voorziening vindt en nodigen u daarom graag uit voor deelname aan ons onderzoek. Met behulp van dit onderzoek kunt u aangeven wat voor u belangrijk is, zodat wij onze dienstverlening daarop kunnen aanpassen.

Deelnemen aan dit online onderzoek kan eenvoudig via onderstaande link:

<https://bureaustudentenartsen.survey.netq.nl/nq.cfm?q=ba79198d-1e1c-4062-a88d-2e9ba1424f63>

Het invullen van de vragenlijst duurt ongeveer 10-15 minuten. De vragenlijst is beschikbaar tot 5 mei en u hebt de mogelijkheid om tussentijds te stoppen en op een later tijdstip weer verder te gaan waar u was gebleven.

Het onderzoek wordt uitgevoerd door een student gezondheidswetenschappen. Uiteraard is deelname anoniem en gaan we vertrouwelijk en zorgvuldig met uw gegevens om. De vragenlijst loopt via een beveiligde verbinding.

Mocht u vragen of opmerkingen hebben naar aanleiding van dit onderzoek dan kunt u deze mailen aan A.M.Konijn@uva.nl.

Hartelijk dank voor uw medewerking!

Met vriendelijke groet,

Astrid Konijn
Huisartsen Oude Turfmarkt/ Studentenartsen

Vragenlijst web-agenda gebruikers

Algemeen

1. Op welke wijze bent u op de hoogte gesteld van de web-agenda? *(meerdere antwoorden mogelijk)*

- Via een vriend/ collega/ familielid
- Via een andere patiënt/ gesprek in de wachtkamer
- Via flyers/ posters
- Via de nieuwsbrief
- Via de website van de praktijk
- Via de dokter
- Via de doktersassistente
- Anders, namelijk

2. Heeft de huisartspraktijk volgens u voldoende moeite gedaan om de web-agenda te promoten?

- Ja
- Nee
- Weet ik niet

3. Van welke afspraakmogelijkheden via de web-agenda heeft u wel eens gebruik gemaakt?
(meerdere antwoorden mogelijk)

- Huisartsconsult
- SOA spreekuur zonder klachten
- Baarmoederhalskankeronderzoek

4. In hoeverre bent u tevreden over de web-agenda op een schaal van 1-10?
1 2 3 4 5 6 7 8 9 10

5. In welke mate stelt u het op prijs dat deze voorziening wordt aangeboden in de huisartspraktijk op een schaal van 1 tot 10?
1 2 3 4 5 6 7 8 9 10

6. Is de web-agenda een reden om bij de praktijk ingeschreven te blijven?

- Ja
- Nee
- Weet ik niet

7. Zou u als deze mogelijkheid niet bestond overstappen naar een andere huisartspraktijk?

- Ja
- Nee
- Weet ik niet

8. Is de web-agenda een reden om de huisartspraktijk aan te bevelen aan andere mensen?

- Ja
- Nee
- Weet ik niet

9. Heeft u anderen wel eens horen praten over de voordelen van een web-agenda in hun huisartspraktijk?

- Ja
- Nee
- Weet ik niet

10. Stelling 1:

Stel, de praktijk biedt afspraakmogelijkheden alleen nog maar via het internet aan. Dit geeft de praktijk de mogelijkheid om de assistente voor andere zaken in te zetten of om goedkoper te werken. Hierdoor kunt u alleen bellen voor spoedzaken maar niet voor andere afspraken.

Wat zou u hiervan vinden?

Helemaal geen goed idee	Geen goed idee	Neutraal	Goed idee	Helemaal een goed idee
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11. Zou Stelling 1 voor u de drempel verhogen om naar de huisarts te gaan?

- Ja
- Nee
- Weet ik niet

12. Stelling 2:

Stel, als u een afspraak zou maken voor een bepaald probleem krijgt u in eerste instantie per mail een link naar een zelfhulp - of informatie site in plaats van een afspraak te kunnen maken.

Wat zou u hiervan vinden?

- Afhankelijk van mijn probleem kan het een goed idee zijn
- Dit is bij geen enkel probleem een goed idee
- Ik sta hier neutraal tegenover

13. Geef aan in welke mate u het eens bent met de volgende stellingen over de *gebruikersvriendelijkheid* van de web-agenda

	Helemaal oneens	Oneens	Neutraal	Mee eens	Helemaal mee eens
Ik vond het makkelijk om te leren hoe ik de web-agenda moest gebruiken					
Ik vind de web-agenda gebruikersvriendelijk					
Ik vind dat er voldoende afspraak mogelijkheden zijn in de web-agenda					
In de web-agenda kan ik mijn klacht helder formuleren					
Ik vond dat ik snel genoeg terecht kon als ik een afspraak had gemaakt in de web-agenda					
Het ging makkelijk om de web-agenda voor de eerste keer uit te proberen					
De web-agenda nodigde uit tot proberen					

14. Geef aan in welke mate u het eens bent met de volgende stellingen over de *mogelijke voordelen* van de web-agenda

	Helemaal oneens	Oneens	Neutraal	Mee eens	Helemaal mee eens
Ik ben van mening dat de web-agenda zichtbare voordelen heeft					
De drempel om een afspraak te maken via internet is voor mij lager dan wanneer ik moet bellen					
De web-agenda geeft mij meer controle over mijn gezondheid					
De web-agenda bespaart mij tijd					
Ik heb het gevoel dat ik meer keuzevrijheid heb in de web-agenda					
'Door een afspraak te maken via het internet hoeft u niemand te spreken'. Dit maakt het voor mij makkelijker om voor bepaalde problemen de stap te zetten om een afspraak te maken					
Afspraken maken buiten kantooruren om (na 17:00) vind ik een toegevoegde waarde					
Door de web-agenda is de huisarts voor mij toegankelijker geworden					

15. Geef aan in welke mate u het eens bent met de volgende *algemene* stellingen over de web-agenda

	Helemaal oneens	Oneens	Neutraal	Mee eens	Helemaal mee eens

Ik heb daadwerkelijk behoefte aan de web-agenda					
Ik heb liever persoonlijk contact met de assistente om een afspraak te maken.					
Voor andere afspraken (anders dan doktersafspraken) maak ik doorgaans ook gebruik van een digitale agenda					

16. Hoe vaak heeft u een afspraak gemaakt via de web-agenda?

- 1 keer
- 2 keer
- 3 keer of vaker

16a. Waarom heeft u geen tweede afspraak gemaakt via de web-agenda?

- Ik heb sindsdien geen reden voor een afspraak gehad
- Ik heb mijn vervolgspraak direct bij de huisartspraktijk gemaakt
- Ik was niet tevreden over de web-agenda
- Ik had een klacht die niet via de web-agenda kon worden gemaakt (spoed, thuisbezoek, chirurgische ingreep etc.)
- De web-agenda werkte niet
- Weet ik niet
- Anders, namelijk ...

16b. Kunt u uitleggen waarom u niet tevreden was/ bent over de web-agenda?

...

17. Heeft u wel eens een "test-afspraak" gemaakt om te zien wat de web-agenda voor u kan betekenen?

- Ja
- Nee
- Weet ik niet

18. Vult u in de web-agenda altijd een reden voor het huisartsbezoek in?

- Ja, altijd
- Nee, niet altijd
- Weet ik niet

18a. Kunt u aangeven waarom u niet altijd een reden voor bezoek invult? (meerdere antwoorden mogelijk)

- Ik vergeet een reden in te vullen
- Ik heb de 'reden voor bezoek' niet gezien in de web-agenda
- Het kost mij te veel tijd
- De reden valt niet altijd goed onder woorden te brengen
- Ik vind het niet prettig om deze reden via internet door te geven
- Anders, namelijk..

19. Heeft u wel eens een afspraak afgezegd via de web-agenda?

- Ja
- Nee
- Weet ik niet

19a. Kunt u aangeven waarom u de afspraak heeft afgezegd? (Meerdere antwoorden mogelijk)

- Afspraak was niet meer nodig/ klacht was verdwenen
- Datum en/ of tijdstip kwam niet goed uit
- Ik voelde mij niet fit genoeg om naar de praktijk te komen
- Ik wilde sneller terecht bij de huisarts
- Weet ik niet
- Anders, namelijk...

20. Zou u behoefte hebben aan een e-mail of SMS ter herinnering van uw afspraak, en wat heeft uw voorkeur?

- Nee, geen behoefte
- Ja, voorkeur voor e-mail
- Ja, voorkeur voor SMS
- Ja, maar geen voorkeur

21. Soms worden afspraken gecancelld door de praktijk; bijvoorbeeld als er meerdere problemen worden aangegeven voor 1 consult. Artsen willen namelijk één probleem per afspraak van 10 minuten. Wat vindt u ervan dat deze afspraken gecancelld worden?

- Dat vind ik een goede zaak
- Ik begrijp het, maar ben er niet altijd blij mee
- Ik vind het betuttelend
- Ik vind het irritant
- Ik weet het niet
- Anders, namelijk ..

22. Afspraken via de web-agenda zijn niet bedoeld voor spoedzaken. Het gevaar van de web-agenda is dat mensen een afspraak voor iets ernstigs maken, en hierdoor de klacht niet tijdig behandeld wordt. Een afspraak maken via de assistente biedt de mogelijkheid de urgentie te bespreken.

Selecteer de uitspraak die het meest voor u op toepassing is:

- Ik weet zelf welke zorg ik nodig heb en op welke termijn, ik heb de assistente hier niet bij nodig
- Ik kan zelf goed afwegen of mijn klacht ernstig is, maar vind het toch prettig als de assistente mijn reden voor bezoek beoordeelt
- Ik vind dat de assistente beter kan beoordelen welke zorg ik voor een bepaalde klacht nodig heb en op welke termijn

23. Wat is uw geslacht?

- Man
- Vrouw

24. Wat is uw leeftijd?

..

25. Wat doet u in het dagelijks leven? (Als u studeert, vul dan enkel Student in)

- Ik ben student
- Ik werk momenteel niet / ik ben werkzoekend
- Ik werk 4 of meer dagen per week (fulltime)
- Ik werk minder dan 4 dagen per week (parttime)

25a. Wat voor opleiding volgt u momenteel?

- Lager- of basisonderwijs
- VMBO/ MAVO/ LBO

- MBO
- HAVO/ VWO
- HBO
- WO

25b. Wat is uw hoogst genoten opleiding?

- Geen/ Lager- of basisonderwijs
- VMBO/ MAVO/ LBO
- MBO
- HAVO/ VWO
- HBO
- WO

26. Heeft u wel eens gebruik gemaakt van het E-consult bij de huisartspraktijk?

- Ja
- Nee

27. Zoekt u wel eens informatie over uw gezondheid op/ via de volgende kanalen:

- de site van de huisartspraktijk ja/nee
- google ja / nee
- thuisarts.nl ja/ nee

28. Heeft u een chronische aandoening?

- Ja, namelijk ..
- Nee
- Weet ik niet

29. Wat zou u graag verbeterd willen zien aan de web-agenda?

.... (open vraag)

30. Heeft u verder nog opmerkingen of suggesties voor de web-agenda?

.... (open vraag)

31. Aan welke ICT-voorzieningen (al dan niet via het internet), die de huisartspraktijk aan zou kunnen bieden, hebt u behoefte?

.... (open vraag)

Hartelijk dank voor het invullen van de vragenlijst!

Beste Astrid,

Hierbij verklaar en bevestig ik dat jij in het kader van het wetenschappelijke onderzoek bij de Huisartsen Oude Turfmarkt / Studentenartsen de dossierinzage in onze patiënten registratie onder mijn verantwoordelijkheid als huisarts en als directeur verricht hebt. Dit is gebeurd met het oog op de kwaliteitsevaluatie van de zorg in de praktijk en wetenschappelijk onderzoek.

Hiervoor heb je een geheimhoudingsverklaring afgegeven.

Voor evaluatieonderzoek in de huisartspraktijk, waarbij er geen enkele interventie is verricht en waarbij de persoonsregistratie intact is gelaten is mijns inziens geen METC verklaring nodig.

Ten overvloede nog het volgende: de patiëntendossiers vormen samen een zogenaamde persoonsregistratie, het is wettelijk vereist dat er een op de registratie toegesneden privacyreglement is. Voor de persoonsregistratie van onze praktijk geldt een privacyreglement. Dit reglement is geregistreerd bij de Registratiekamer. In dit privacyreglement is nadrukkelijk als een van de doelen van de registratie, naast het verlenen van huisartsenzorg, het verrichten van wetenschappelijk onderzoek opgenomen.

Vriendelijke groeten,

Peter Vonk, huisarts

Directeur Huisartsen Oude Turfmarkt / Studentenartsen Universiteit van Amsterdam

In november ging ik mij oriënteren op een bachelor stage voor mijn studie gezondheidswetenschappen. Vanwege de innoverende aard van het onderwerp sprak deze stage mij direct aan. Ik had het idee dat ik daadwerkelijk belangrijke informatie kon bijdragen met dit onderzoek. Op 2 maart ben ik dan ook met veel plezier gestart aan deze onderzoeksstage. Achteraf gezien was de eerste maand het saaiste deel van het proces. Het zoeken van literatuur kwam bijna mijn neus uit. Daarnaast was het even wennen om te schakelen van Nederlands naar wetenschappelijk Engels schrijven. Dit was voor mij verplicht omdat ik een Nederlandstalige minor had gedaan. Toen ik echt mijn data kon gaan verzamelen werd het leuker. Eindelijk zag ik resultaat van mijn harde werken. Want hard gewerkt heb ik zeker. Ik was fulltime op de Oude Turfmarkt te vinden. Helaas heb ik minder tijd gehad voor het schrijven van mijn scriptie dan ik van te voren had gedacht. Veel 'domme taakjes' waren noodzakelijk voor mijn onderzoek. Ruim een maand ben ik kwijt geweest aan ICPC codes turven en data copy-pasten. Ik heb wellicht ook te veel tijd gestoken in het helpen van anderen. Sommige betrokkenen zagen mijn onderzoek als een gelegenheid om andere dingen te weten te kunnen komen. Zeker interessant, maar niet relevant voor mijn eigen onderzoek. Toch heb ik hen hiermee geholpen omdat ik graag iedereen tevreden wil stellen. Het 'nee leren zeggen' kan ik als belangrijke les meenemen voor mijn volgende stage. Maar het voornaamste wat ik hier heb geleerd is om het hele onderzoeksproces zelfstandig uit te voeren. Als ik tegen problemen aanliep probeerde ik ze dan ook eerst altijd zelf op te lossen. Gelukkig was iedereen in de huisartspraktijk behulpzaam en kon ik altijd vragen stellen als ik er zelf niet uit kwam. Ik wil daarom ook graag iedereen bedanken die mij op wat voor manier dan ook geholpen heeft met mijn onderzoek. Al met al vond ik onderzoek doen leuker dan ik van te voren had gedacht. Ik heb het idee dat mijn onderzoek interessante resultaten heeft opgeleverd en ben er daarom ook best wel trots op!