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Factors influencing and hindering people's intention to engage in medical online medical consultations.

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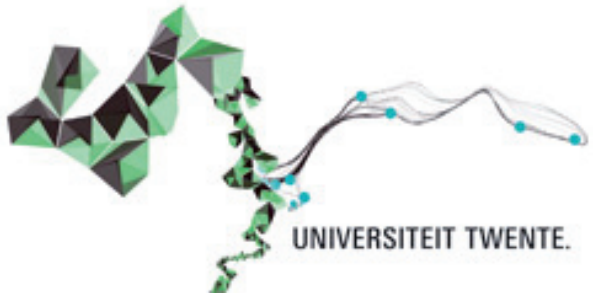


Summary

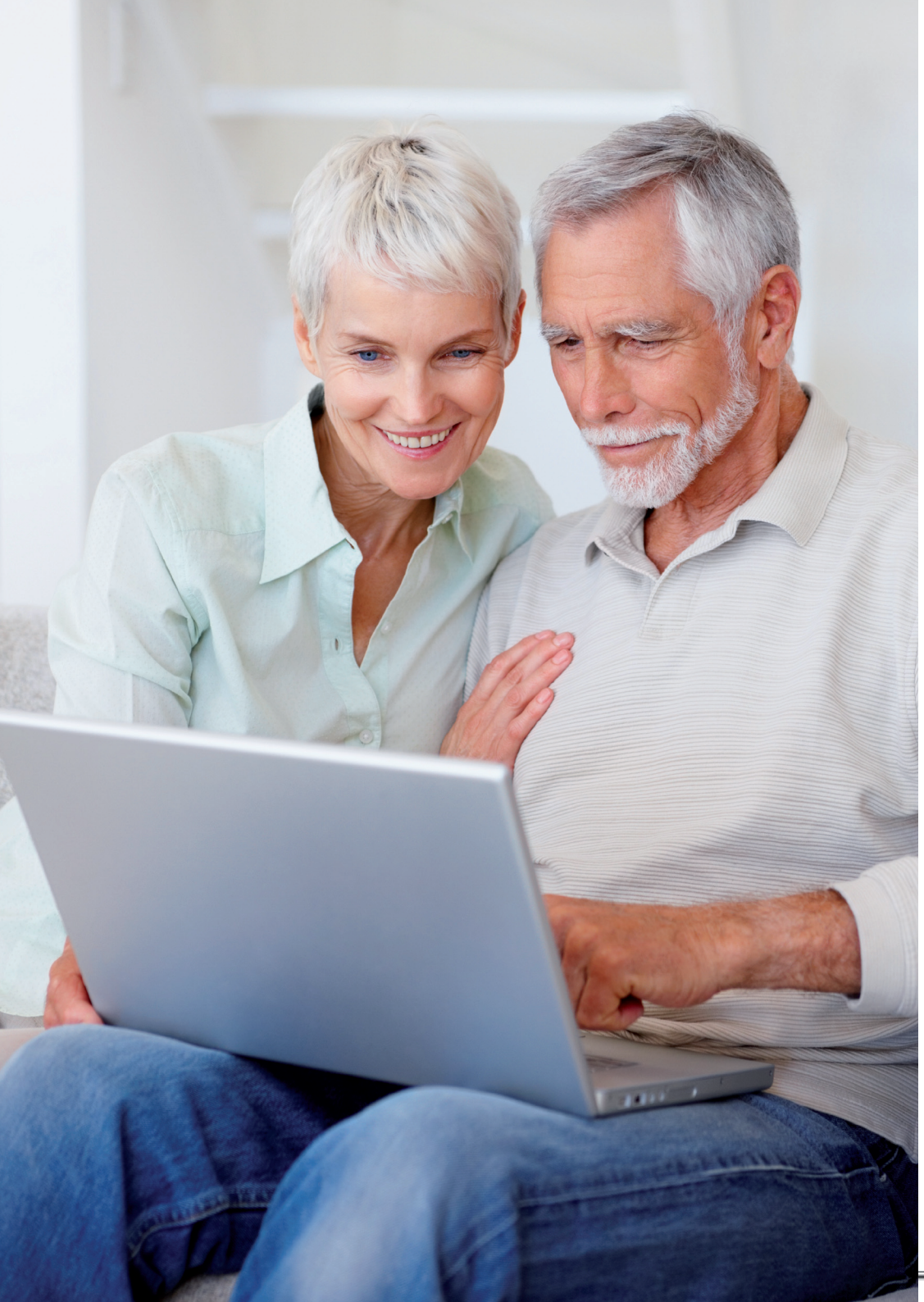
With this qualitative study we gather insight into the deeper needs and motives of potential patients when considering medical online consultations by email, chat and online structured questionnaires. Two main research questions are central in this study. The first question is concerning the influencing factors Dutch people consider when deciding whether or not to engage in online medical e-consultation, while the second question focuses on the barriers Dutch people perceive when considering online medical e-consultation. To answer these research questions, 5 focus group discussions with 28 participants were conducted.
According to the respondents, the majority came from the region Twente. While participants rated their internet experience on an average of 7,9, none of the participant had ever used any form of online medical consultation yet. The average age of the respondents was 39,6 years and according to the male/female balance, 20 women and 8 men participated. The focus group discussion method has proven itself as a social, fruitful way of qualitative research, which was able to obtain in-depth results.

Results showed that the intention to engage in medical online consultation was dependent on specific situations and types of conditions in which people would consider online consultation as appropriate. Thereby the doctor-patient relationship seemed to play a role. When participants indicated that they had a relationship or other connection with their personal physician they seemed less intended to engage in online consultation. Also the amount of usefulness where participants doubted the added value of online consultation, and the benefits of online consultation such as time-saving, influenced the usage intention. The factor trust also seemed to play a major role in determining the usage intention. Trust in the doctor's qualifications was doubted, the personal physician was preferred during e-consultation and participants suggested the importance of the doctor's knowledge of medical history of his patient. Other factors of trust suggested the website on which the e-consultation take place would be more trustworthy if a quality assurance would be attached. The nature of the healthcare provider behind online consultations was suggested to be important.
Participants claimed that an independent organization had to supply online e-consultations. The health insurance company was considered as not trustworthy at all. People were also influenced by specific barriers like risk, lack of face-to-face contact and perceived costs of online consultation. According to the perceived risks, people feared the unsafe character of the internet on which online consultation takes place. In particular, the risk of data abuse was feared a lot. Also the risk of miscommunication and misdiagnosis during an online consultation were considered as high risks. Another barrier, the lack of-face-to-face contact was feared since physical examination and mimicry were considered as important factors for diagnosing. Finally, although e-consultation is presented as cost-effective by the European Commission, the majority of the participants did not consider e-consultation as costs-effective.

Samenvatting

Door middel van kwalitatief onderzoek is geprobeerd om inzicht te krijgen in de behoeften en motieven van potentiële patiënten bij het overwegen van het medisch online consult in de vorm van email, chat en online vragenlijsten. Twee onderzoeksvragen stonden centraal tijdens deze studie. Bij de eerste onderzoeksvraag ligt de focus op de beïnvloedende factoren die Nederlanders overdenken wanneer zij de keuze maken om wel of niet te kiezen voor online medische consultatie. De tweede vraag richt zich op de barrières die mensen zien bij het overwegen van online e-consultatie. Voor beantwoording van deze onderzoeksvragen zijn vijf focusgroepen samengesteld, waarin 28 personen participeerden. De meerderheid van de respondenten was afkomstig uit de regio Twente. Ondanks dat proefpersonen hun internetervaring over het algemeen een gemiddelde gaven van 7,9, had geen van de respondenten ooit gebruik gemaakt van het online medisch consult. De gemiddelde leeftijd van de respondenten was 39,6 jaar en de man/vrouw verdeling in dit onderzoek was 8 mannen en 20 vrouwen. De focusgroep methode heeft bewezen een sociale, vruchtbare manier van kwalitatief onderzoek te zijn en bracht mooie en diepgaande resultaten voort.

De resultaten lieten zien dat de gebruiksintentie voor medische online consultatie afhankelijk was van een aantal specifieke factoren, zoals specifieke situaties en type klachten waarbij mensen het e-consult overwogen en wanneer het e-consult absoluut niet geschikt werd geacht. Ook de dokter-patiënt relatie speelt een rol bij overweging van het medische e-consult. Als participanten aangaven een relatie of band te hebben met hun huisarts, bleken zij minder intentie te hebben om een online e-consult te doen. Proefpersonen twijfelden over de toegevoegde waarde van online e-consultatie, maar zagen het tijdsbesparende karakter van online e-consultatie wel als een voordeel. Vertrouwen speelde ook een grote rol bij het bepalen van de gebruiksintentie van e-consultatie bij Nederlanders. Zo werd er getwijfeld aan de kwalificaties van de (internet) huisarts waarmee men een e-consult zou hebben en gaf men de voorkeur aan online consultatie met de eigen huisarts in tegenstelling tot een onbekende huisarts. Ook werd het belangrijk gevonden dat de 'internethuisarts' op de hoogte zou zijn van de medische ziektegeschiedenis van de patiënt. Een andere beïnvloedende en aan vertrouwen-gerelateerde factor betrof het vertrouwen in de website. Een kwaliteitskenmerk zou een website waarop e-consultatie wordt aangeboden betrouwbaarder maken. Een andere, aan vertrouwen gerelateerde factor, betreft vertrouwen in de aanbiedende zorgverlener achter het online consult. Een online consult zou het beste aangeboden kunnen worden door een onafhankelijke organisatie. De zorgverzekeraar werd over het algemeen dan ook beschouwd als 'onbetrouwbaar' om hun vermeende secundaire belangen. Men werd tevens beïnvloed door specifieke barrières die met het e-consult samenhangen zoals risico's, het missen van face-to-face contact en de vermeende kosten van online consultatie. Wat betreft de vermeende risico's, blijken mensen vooral bang voor het onveilige karakter van het internet, waarop het e-consult plaatsvindt. Vooral het datamisbruik van persoonlijke gegevens werd gevreesd, net zoals het risico van miscommunicatie en misdiagnose tijdens online e-consultatie die ook werden gezien als grote risico's. Een andere barrière was de afwezigheid van face-to-face contact tijdens een e-consult. Mimiek en lichamelijk onderzoek bij patiënten worden gezien als belangrijke indicatoren voor het stellen van een diagnose door de huisarts, maar worden onmogelijk door het ontbreken van face-to-face contact. Tenslotte werd e-consult niet gezien als kosteneffectief ten opzichte van het gewone face-to-face consult, terwijl e-consultatie door de Europese Commissie juist als kosteneffectief wordt gepresenteerd.



Foreword

During the master course 'Research topics in corporate and organizational communication' we discussed the topic 'organizational trust' and I came in contact with 'e-consultation' for the first time. It caught my intention because e-consultation is a very new concept which is not completely implemented in the Netherlands at the moment. The master course was also the first time I came in contact with docent dr. Ardion Beldad, who led the course sessions. In June 2011, my research proposal was approved and I was able to start with my master thesis about e-consultation with first supervisor dr. Ardion Beldad and second supervisor dr. Peter ten Klooster. I had the luxury position that both of them were fully involved in my research and present at every meeting we scheduled. At any time I was able to ask them questions which were returned by very useful answers. Their guidance made me able to make the right choices. To give one example, the choice to get involved into qualitative research, which I had never done before, was a good one which I would never regret. It was a great experience of doing research while interacting with the respondents and gathering beautiful data which provided insight into the factors and barriers influencing peoples intention to engage in medical online consultation.

It was not only me who was doing my master thesis, also my whole family and all my friend were involved in my master thesis, involuntarily. For example, my mother, Heleen Johannink, has fully deployed herself by asking her whole network to participate in my research. Without her help it would be very hard for me to gather 28 very different respondents for my focus group research. The rest of the family got involved by participating in the pre-test focus group discussion to test the focus group guide and my father and sister spent lot of time on my research by participating in one of the five focus group discussions. One particular friend Marly Seppenwoold, has proven herself to be very helpful to me. Being very nervous for my first focus groups session, she offered to help me with the first one and she was also present at the last one. Robbin Hulsegge was most critical about my research and therefore very helpful. He had taken on the role of second coder, and although we had to 'fight' about some quotes and codes, we finally reached consistency about the majority.

So with special thanks to Ardion Beldad, Peter ten Klooster, Heleen Johannink, Robbin Hulsegge, Marly Seppenwoold, Joop Johannink and Roos Johannink, I was able to do this research on which I look back with pleasure.

Have fun reading.

Anne Johannink

Content

1. Introduction

1.1. Background

In recent years, the demand for healthcare is increasing, while the growth of employment in healthcare is decreasing. The number of elderly persons will continue to rise and the number of people of working age will decrease over the next 50 years. The number of retiring workers will eventually overstep the new workers entering the labour market each year. That might cause an increased pressure on the labour market for healthcare providers, since it will not be possible for the available healthcare staff to serve the growing demand for healthcare services (Orchard et al., 2008). Karlsson, Mayhew, Plumb & Rickayzen (2006) also recognized the increased percentage of elderly people, which will lead us to an aging society that places the public sector under enormous pressure. According to The Netherlands in the past 30 years, the use of some health services clearly increased. For example, the number of people who consulted the doctor, the dentist, the physiotherapist have increased as did the medication usage. The number of people who consulted the doctor at least once a year has increased from almost 70 percent in 1981 to 74 percent in 2009 (Statistics Netherlands, 2011). Healthcare costs are soaring while financial resources remain limited. A shortage of doctors, nurses and formal caretakers will be expected in the coming years. But still, public health needs to be cost efficient and effective (Jung & Lora 2010).

Nowadays, the effect of the internet on our daily lives is well-marked. With the rise of new media the relationship between the consumer and the organization changes when it comes to organizational service, because many organisations have a helpdesk on their webpage. The general public has become computer-literate and is exerting a tremendous influence on healthcare delivery (Ball & Lillis, 2001). It is not surprising that healthcare organizations also feel the pressure to employ the Internet to offer their online services. Recupero (2005) recognised the popularity of the Internet among patients and the increased demands on doctors. Nowadays, patients are better educated about their health than were previous generations, and many prefer to be treated by Internet-physicians (Fox & Fallows, 2003). Apart from the increased demand for healthcare, the internet places physicians in a difficult position and forced them into the decision whether to have consultations with patients online, while the liability possibly increases (Recupero, 2005). This indicated that physicians foresee problems in using online media for having medical consultations. A study by Spielberg (1998) showed that some physicians worry that they might become inundated with e-mails once they begin to use the medium (Recupero, 2005), and Nijland et al. (2008) found that, according to physicians' opinions, online consultation will cause increased workload and poorer care (Nijland et al., 2008). However, Lems (2006) concluded that half of the doctors in the Netherlands have a positive attitude towards the idea of online consultations. According to people's usage intention for online consultation, van Rijen, de Lint & Ottes (2002) found that 70 percent of the Dutch liked the idea of consulting the doctor via the internet.

1.2. Relevance

In this research the focus is on factors influencing and hindering people's intention to engage in 'online' medical consultation and therefore email sessions, chat sessions and structured questionnaires will be involved, while phone consultations are excluded.

E-health is a new upcoming trend which can be considered as a chance for better healthcare in the future. One of the many existing e-health applications at the moment is medical online consultation, also known as e-consultation, which can be seen as an electric medical online consultation with a doctor. Generally, e-Health promises great improvements in efficiency, treatments and patient welfare (European Commission, 2012). Despite these promising words, the attitudes towards medical online consultations are strongly divided among both Dutch physicians and patients in general. In the Netherlands, it seemed that e-health and e-consultation in particular, are not widely accepted yet. In order to give direction to medical online consultation in the Netherlands, the usage intention and acceptance of the Dutch need to be determined by examining people's opinions and motives about e-consultation. Factors such as cultural acceptance of new methods of treatment and the patients' safety and welfare might influence people's opinion about medical online e-consultation. Also technical barriers, lack of appropriate legal frameworks certainty and insufficient financial support (European Commission, 2012) might raise reluctance on the side of the patients when considering an online consultation with a doctor. On the other hand, improvements like online consultation, who are said to be able to address increasing demand for healthcare better and cover the costs of new and advanced treatments, might have a positive influence on people's attitude towards e-consultation. E-health also enables more "patient-friendly" healthcare and providers are able to address the different needs of individual patients better. These factors can also possibly influence people's intention to engage on online medical consultations.

2. Theoretical framework

Only little is known in literature about people's willingness to participate in medical e-consultation. Therefore it was chosen to start at the very beginning of the exploration of medical e-consultation: are people willing to engage in medical e-consultation and what are the factors and considerations influencing people's intention to engage in electronic medical consultation?

In this chapter, the concepts e-health and e-consultation will be introduced in section 2.1, followed by the situational factors and conditions people consider when engaging in medical e-consultation in section 2.2. Section 2.3. discusses the doctor-patient relationship, and in section 2.4. the benefits of e-consultation will be explained. In section 2.5. the important role of trust as influencing factor on people's intention to engage in e-consultation will be discussed. Section 2.6. describes the barriers for engaging in e-consultation and finally, in section 2.7., the research questions for this study are described.

2.1. E-health and e-consultation

What exactly is e-health, what is included and how is e-consultation related to e-health? To make this clear, some definitions and relations will be discussed in the section below.

As Nijland (2011) claimed, 'e-Health' or 'electronic health' refers to all kinds of information
and communication technology used for supporting healthcare and promoting a sense of well-being. She also mentions the very broad scope of this definition. Nijland (2011) found the most frequently quoted definition of e-health by Eysenbach (2001). "E-health is an emerging field in the intersection of medical informatics, public health and business, referring to health services and information delivered or enhanced through the Internet and related technologies. In a broader sense, the term characterizes not only a technical development, but also a state-of-mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve healthcare locally, regionally, and worldwide by using information and communication technology."
As we speak, an unambiguous definition of the concept e-health is hard to find.
The key-concepts health and technology return repeatedly (Laboyrie, 2007). According to Rijen (2002) the concept e-health is an information and communication technology which is new, especially internet, for supporting and improving healthcare. The concept e-health is basically the new name for concepts such as telemedicine and telehealth, that were replaced by the name e-health after 1999.
Telemedicine and e-health both have the same processes in health care, including communication, supported by ICT technology and the Internet (Laboyrie, 2007).

E-consultation is only one of the many medical applications the internet has to offer. Laboyrie (2007) sees e-consultation as a consultation in which the patient, wherever he is, can ask an expert for help. It is independent of time and place. On this idea, the concept of e-consultation between doctor and patient is built (Laboyrie, 2007). In the article of van Gemert-Pijnen et al. (2005), the concept of e-consultation is described as a care advice which is provided to a patient via an electronic connection and can come from a knowledge medium, or from a doctor or physician. The extensive description of e-consultation considers medical electronic consultation as a process of care, from self-help to approaching the caregiver by e-consultation via an electronic connection through various channels like video, mobile devices and e-mail, which can occur synchronously or asynchronously. According to the focus of this study, both synchronous and asynchronous online communications are included. Synchronic, such as a chat session, as well as asynchronic communication, such as email, is involved. With asynchronic communication, the patient is able to ask questions and gets answered within a certain time frame, while synchronic communication there is a conversation and the patient will be answered directly. In what way and within what time frame the patient gets answered may also effect and influence their intention to engage in online e-consultation.

2.2. Engaging in e-health: situational factors and conditions

Jung and Loria (2010) investigated older Swedish people's acceptance of e-health services in order to identify determinants of and barriers to their intention to use e-health. This was investigated using the Technology Acceptance Model (TAM), which can be useful in many settings. For example, the TAM can be used to identify factors influencing the success of particular information systems, IT diffusion and determinants of adoption (Adams, Nelson & Todd, 1992). The latter, determinants of adoption, would cover a part of this research exploring factors influencing the intention to engage in online e-consultation.

Opinions about e-consultation may be different among patients and doctors (Lems, 2006). However, research by Jung and Loria (2010) showed that participants liked the idea of health care being provided by the internet and in general, they had a very positive attitude towards the use of e-health services. Also the ask-the-doctor-online service, which is comparable to online medical e-consultation, was perceived as a good idea, although, participants expressed more reluctance about the ask-the-doctor online service than about the online health guides and e-prescriptions. Although the ask-the-doctor online service offers the same type of information as the health guide, and even more personalized, there generally was more resistance to see this service as useful. Mainly because even though a response is often received within a day or two, the service can only guarantee to respond within a week, which people considered as waiting far too long. (Jung & Lora, 2010).
Gray et al. (2005) investigated the reasons for using the internet for health information and found that some adolescents used the internet to check the information they received from personal sources for consistency. If a personal information source could not supply the necessary information, then the internet was recognised as a useful second option.

Participants were very wary of health advise given by individuals online, whereas known lay contacts were considered more credible (Gray et al., 2005).

According to specific types of conditions people would or would not have online consultations for, Gray et al. (2005) found that many of the health related queries from adolescents were for everyday health matters, from warts to diet and specific conditions such as acne. A number of students discussed the internet as an alternative to consulting, leading to their decreased reliance on health professionals (Gray et al., 2005). Lems (2006) found that Dutch adults who welcomed e-consultation indicated that it would be useful for complaints that do not necessarily need to be seen. Another reason for welcoming e-consultation was the ease of use and convenience of e-consultation (Lems, 2006). Sillence, Briggs, Harris and Fishwick (2007) also listed 10 topics participants searched for on the internet. The most popular topics included women's health, alternative, fitness, diet and Cancer. Other popular search topics were Arthritis, depression, children's health, Diabetes and allergies.

2.3. Doctor – patient relationship

Particularly, the advent of e-consultation can change the relationship radically. As suggested by Rowe and Calnan (2006, p. 4), 'the days of 'doctor knows best' when patients blindly trusted in and deferred to medical expertise are fast becoming a distant memory in industrialized societies where the consumer is dubbed 'king' and where the 'expert patient' expects to play an active part in decision-making regarding their treatment'. The days of the patient having blind trust in a doctor are gone (Rowe & Calnan, 2006). It seems that trust relations in health care are changing.

Pilgrim, Tomasini and Vassilev (2011) compared the patient-doctor relationship to the parent-child relationship. The doctor knows what is good for his patient and the parent knows what is good for the child. Pilgrim, Tomasini and Vassilev (2011) listed some virtues who can be attributed to a traditional doctor-patient relationship:

fidelity to trust in the doctors integrity as an expert whose intellectual knowledge and practical wisdom is trustworthy;
benevolence of doctor's intentions and behavior towards their patients;
effacement of self-interest of doctors helping their patients through the recovery process;
compassion and caring of doctors towards their patients;
Intellectual honesty of doctors towards their patients;
Medical humility on behalf of doctors in wisely judging that the cure is no worse (long-term) than the disease (Pilgrim, Tomassini & Vassilev, 2011, p 69).

According to Pilgrim, Tomasini & Vassilev (2011) trust between professionals and patients is able to exist because of the exclusive power and knowledge professionals have and others have not and rely on. However, the level of dependency means people have a few options but to trust both their intellectual virtues such as judgment required in diagnostic skills and virtues of character, such as their capacity to tell the truth while at the same time being compassionate. Dibben and Lean (2003) emphasized the continuing importance of personal relationships and face-to-face contact when it comes to building a trust relationship. Although Dibben and Lean (2003) also recognized the difficulty of establishing a close relationship of trust, based on personal knowledge and understanding, they , however, found it possible to develop a transient relationship between doctor and patient, which they refer to as 'swift trust'.

2.4. E-consultation and its benefits

The internet can be considered as a technology that enables its users to search online, unconstrained by place and time (Hardey, 1999). This can be regarded as a benefit, but is also in stark contrast to traditional health care where it is on the user to decide whether to attend an unfamiliar environment at a time usually determined by a professional. The actual advantages (un)secured systems for online (a)synchronous patient-caregiver communication can provide, will be discussed below.

2.4.1. The usefulness of e-consultation

In 2001 a study commissioned by the Dutch Council for Health Care among internet users was conducted. This study focused on gaining insight into the needs of consumers who use the Internet related to potential e-health services and showed that one third of the respondents would make fewer doctor visits if the physician could be consulted through the Internet. Seven out of ten Internet users would like to ask their doctor or specialist questions through the internet (van Rijen, de Lint & Ottes, 2002). Research by Lems (2006) showed that almost half of the respondents had an interest in e-consultation, while almost all of the doctors thought that people would be attracted to e-consultation. Besides the usefulness of e-consultation for complaints that do not necessarily have to be seen, its ease of use and convenience, also efficiency and time savings where mentioned as reasons for accepting e-consultation (Lems, 2006). People who saw no benefit in e-consultation, mentioned the impersonality and anonymity of medical electronic consultation as a reason.

Research by van Rijen (2002) showed that almost all doctors feel the need for e-consultation applications. For example, they feel the need for having access to protocols and guidelines via the Internet and for doing training sessions online. They highlight the need for an electronic patient record system and decision support systems and feel the need for participating in electronic prescribing systems, reflect information from the Internet and to manage tools which gives indications about the patient flow (van Rijen, 2002). This seems like a positive attitude on the doctors' side. Research by Lems (2006) pointed out that half of the doctors have a positive attitude towards the idea of e-consultation.

However, in practice the use of these e-health applications is still limited. Research by Jung and Lora (2010) showed that most of the participants gave affirmative answers to their intention to use online health guide and e-prescriptions. In contrast to these services, the intention to use the ask-the-doctor online service, which is similar to e-consultation, varied the most. The interviewees doubted its usefulness and whether they would use it because it does not really offer any advantage over the health guide, than personal response from you doctor (Jung & Loria, 2010). One earlier study by Wilson and Lankton (2004), also investigated individuals' acceptance of e-health services also found that perceptions of usefulness are the strongest determinant of acceptance, while the usability of the service investigated was less important.

2.4.2. Potential benefits

While the idea of medical e-consultation seems appealing, its use remains relatively low which seems rather paradoxical since e-consultation has many potential benefits for both doctors and patients (Nijland, 2011). Most of these advantages are based on the convenience for the patient. First of all, e-consultation gives increased access to care. Patients can ask questions from any place and at any time and anonymous as they wish. Thereby, e-consultation is possible for sensitive questions and the service facilitates a second opinion. It also increases self-management support for individuals with significant medical problems, because e-consultation use can empower patients' self-control skills and strengthen their autonomy, especially when the service is used as part of a disease-management program for monitoring chronic diseases. A great advantage of e-consultation are the reduced costs while maintaining the same or achieving better quality of care. This means that e-consultation can respond to an increasing demand for care in the aging society, provided that e-consultation will be widely used (Nijland, 2011). According to van Rijen, de Lint and Ottes (2002), patients can get care while they are at home and there are no waiting lists anymore. Moreover, e-health in general can be seen as cost-effective for the patient. But these are just a few examples of the inexhaustible list in the article provided by van Rijen, de Lint and Ottes (2002). A study conducted by Jung and Loria (2010), who investigated the acceptance of Swedish e-health services, suggest that e-health promises to improve access to health care, support information exchange, increase revenue, reduce costs and improve the quality of patient care. Characteristics which were acknowledged most and make them useful for the individuals were time savings, convenience and cost savings. Convenience was the most important, since seeing a doctor or going to the pharmacist is Sweden is associated with having to stand in line for or wait for an appointment for a long time. Online services help to make processes more efficient and avoid bottlenecks (Jung & Loria, 2010). Gray et al. (2005) investigated health information seeking behaviour in adolescence and also found that the internet provides a means of minimising adolescents' perceived barriers to accessing health services - providing a timely and convenient service, reducing embarrassment, and providing anonymity (Gray et al., 2005).

Internet also enables providers to deliver more citizen-centered care faster and more efficiently (Commission of the European Communities, in Jung & Loria, 2010, p. 56). In addition, the Dutch GGZ (Mental Healthcare) has called it an advantage that the Internet is anonymous and accessible, and will help people who do not want or have the courage to seek help (Huson & Nordeman, 2008). Thereby GGZ professionals also mention that Internet interventions can help reduce under-treatment problems of stigmatizing and common complaints (Huson & Nordeman, 2008).

2.5 Trust in e-consultation

Trust can possibly influence people's intention to engage in e-consultation. Lean and Dibben (2003) for example, emphasised the continuing importance of personal relationships and face-work in building and sustaining trust. Can trust stand in the way of the upcoming and future image of e-consultation only because the loss of the face-to-face contact? What role does trust play in determining people's intention to engage in medical online e-consultation?

2.5.1. Trust in healthcare

As concluded in many studies, trust and risk are interconnected (Dibben and Lean, 2003). If there is no risk there is also no question of trust. As long as it is known that medical errors and cost containment are associated with distrust of health care systems (Rowe & Calnan, 2006), there is risk involved. As well for the doctor as for the patient. Alaszewski (2003, p. 235) cited Boon and Holmes who define trust as 'confident expectations about another's motives with respect to oneself in situations entailing risk'. In the article of Rowe and Calnan (2006) is assumed that trust relationships are characterized by one party, the trustor, having positive expectations regarding both the competence of the other party, the trustee, and that they will work in their best interests (Beck, 1992 in Rowe & Calnan 2006). They assumed, in the context of healthcare, there have been changes to both interpersonal trust relations and to institutional trust relations. Rowe and Calnan (2006, p. 4) explained these two types of trust. 'Traditionally, patients have placed high levels of trust in health care professionals. Such interpersonal trust relations have been typified by a type of blind, embodied trust that developed as a result of a patient's knowledge of and relationship with their personal physician. Institutional trust in health care practitioners in general, health care organizations and systems have also tended to be high. This may well have been the effect of patients' high level of interpersonal trust in their doctor, and also have been due to clinician's professional status, and the relatively recent provision of health care as a state guaranteed welfare right'. This indicates that a patient-doctor relationship has to be based on trust. The patient or consumer of health care has to trust that the agent, doctor, nurse or other professional has the right knowledge and will apply it in his or her interest (Alaszewski, 2003). Rowe

and Calnan (2006) argued that trust has traditionally been considered a cornerstone of effective doctor–patient relationships. They relate the need for interpersonal trust to the vulnerability associated with being ill, the information arising from the specialists nature of medical knowledge and the element of risk regarding the competence and intentions of the practitioner on whom the patient is dependent (Rowe & Calnan, 2006). However, whether we trust or distrust our doctor, we have no choice even if there is the highest risk people can possibly have: losing their lives.

2.5.2. The changing role of trust in healthcare

Times are changing, and so is the healthcare system. The times that every patient has a permanent doctor for several years might be over soon. According to Safran et al. (1998) patients no longer rely on their 'family doctor' as an entry point to care. Trust encourages use of services, facilitates disclosure of important medical information and has indirect influence on health outcomes through patient satisfaction, adherence and continuity of provider. What exactly is trust in practice? According to Rowe and Calnan (2006), trust is forward looking and reflecting a commitment to an ongoing relationship, whereas satisfaction tends to be based on past experience and refers to assessment of performance. To which factors do patients base their trust in the online medical consultation? And what are their considerations when engaging in medical e-consultation instead of the face-to-face consult at the doctor's office? Sillence, Briggs, Harris and Fishwick (2007) listed the top five of most important trust markers for health websites in 2005: 1) the site was easy to use, 2) the advice came from a knowledgeable source, 3) the advice appeared to be prepared by an expert, 4) the advice appeared to be impartial and independent, 5) the reasoning behind the advice was explained to me. This might indicate that trust actually does play a role, even on the internet.

Quality assurance

Nowadays, patients are able to seek information everywhere. With the emergence of e-health and e-consultation, the number of information sources will increase and possibly change people's trust in health care. Nowadays, the patient is involved in the decision-making process and trust is conditional and negotiated and depends on the communications, provision of information and the use of evidence to support decisions (Rowe & Calnan, 2006). And, although medical researchers have expressed great concerns about the quality of health information on the internet, many participants in his study showed sophisticated critical appraisal skills (Gray et al., 2005). They recognised that internet information might not be trustworthy, and therefore some have developed strategies to test reliability or advocated the use of quality marks from well-known institutions (Gray et al., 2005).

The doctor behind

In general, doctors are still perceived as trusted advisors (Gray et al., 2005). However, the realization of new forms of trust requires greater communicative competence on the part of clinicians (Rowe & Calnan, 2006, p. 5), specifically when using e-consultation. How actually can trust relations be developed and sustained? Dibben and Lean (2003) found the factors that encourage patient trust in clinicians: the clinician's technical competence, respect for patient views, information sharing, and their confidence in patient's ability to manage their illness. Patients participation per se does not necessarily result in higher trust, it is rather associated with value congruence regarding participation. Patient involvement only produced higher trust where patients wanted to participate (Krupat , Bell, Kravitz et al, 2001; in Rowe & Calnan, 2006).

Lems (2006) gathered insight into Dutch people's attitudes towards e-health and found the possibility to contact the own doctor no matter what, to be very important. The Dutch do not necessarily have more confidence in their own doctor, however, three-quarter prefer to speak to the own doctor about medical problems, because it is easier for them than speaking to an unknown doctor. Nearly three quarter of the Dutch would therefore prefer to have the same doctor during a certain longer period, like at least 10 years (Lems, 2006). Referring to e-consultation, respondents also indicated that it seems difficult for them to describe their own complaints without medical history questions (Lems, 2006). If a patients' dossier would be accessible, this problem would be solved. Rijen (2002) found that when the medical data of patients would be well secured, more than 40% of the doctors and medical specialists would give the patient access to their data via the internet, while almost half of them would not. This is comparable to the Electronic Patient Dossier (EPD), where there has been much discussion about in Holland. Using the EPD, healthcare providers are able to exchange information about their patients and their medication use. The law that would arrange the EPD, was rejected by the Senate in April 2011. Then, the House of Representatives expressed the wish to still make use of the already constructed ICT infrastructure. In December 2011 the healthcare sector indicated their wish to invest. The government also contributes financially (www.Rijksoverheid.nl, 2011).

Health provider

The study of Jung and Loria (2010) showed that privacy and security issues were brought up constantly. None of the individuals had actual privacy and security concerns, because the Swedes trust the government, the country councils and the public health care providers, that offer the services, completely. Since trust in the provider was brought up constantly, it can be indicated as crucial for the willingness to make use of the ask-the-doctor online service (Jung & Loria, 2010). Peterson, Aslani and Williams (2003) found that internet users' perceptions of the credibility of health information varied: some viewed the pharmaceutical industry as authoritative, others preferred independent sources such as educational institutions and government departments. Sillence, Briggs, Harris and Fishwick (2006) found that the majority of participants were unhappy when a site was owned by a pharmaceutical organization.

2.6 Barriers and risks

E-health would already be widely accepted if there were only advantages to stick. The fact remains however that patients' trust in e-consultation is needed to get the whole concept of e-consultation 'off the ground' in the Netherlands. Both physicians and patients must rely on their trust to disclose personal medical information via the web. And as cited previously, from both the doctor and patient side, there is a desire to consult electronically.

2.6.1. Privacy concerns and Technical systems

In the article of Jung and Lora (2010) it is suggested that while healthcare is the largest service industry, it still lags behind when it comes to leveraging information and communication technology (Jung & Loria, 2010). Wilson and Lankton (2004) concluded that expensive information technology projects can fail when services do not correspond to the needs of their users. Jung and Loria (2010) concluded that while perceptions of usefulness are the strongest determinant of acceptance, the ease of use of the service seemed also a very important factor.The needs and wishes of the patient need to be examined to determine the factors influencing the intention to engage and determine the role of trust in considering medical e-consultation, since e-consultation cannot exist without technical tools such as a computer system that transmits data, a computer network that transports information on the Internet and a receiving computer system. With the involvement of these technical systems, high risks are involved. For example, data can be accidentally removed and there is always the possibility that data will be illegally accessed. This means that a person for whom the data were not intended, will get them. In other words, the dependence on technical systems involves risks. Klein et al. (1999) found that barriers to effective service use among adolescents do include fear of confidentiality breaches. Therefore, appropriate dispositions must be taken. Beldad, de Jong and Steehouder (2010, p. 866) suggested in their review that 'researchers argued that although security is ranked higher than privacy, online organizations should seriously consider including strong privacy statements and security features to earn customers' trust. They attribute the pattern of the ranking (security higher than privacy) to the possibility that security features are better understood and easier to identify than privacy statements, which could mean different things to different people. Nevertheless, they also claim that these features may not be sufficient to earn customers' trust since other characteristics may also be of influence (e.g., the company's reputation, website cosmetics, and other website features)'.

2.6.2. Miscommunication, misdiagnosis and lack of face-to-face contact

Besides all the risks involved in technical systems, the changing communication opportunities in the internet must also be taken into account. According to van Rijen, de Lint and Ottes (2002), the doctor need to learn 'cyber-medical' skills. They conclude that it would be useful to develop and implement a medical standard for e-mail communication. Van Rijen, de Lint and Ottes (2002) also describe the changing doctor-patient relationship by e-consultation, because most of the time patient and doctor are not able to have face-to-face contact, which was one of the biggest concerns of e-consultation in the study of Jung and Loria (2010), where they feared the risk of misunderstanding in two perspectives: misunderstanding the information that is obtained from the online health guide even through the ask the doctor service, and having the doctor misunderstand what the illness may be as a result of not being able to describe it (Jung & Lora, 2010). Personal contact usually would allow further explanations, follow-up questions and dialog between doctor and patient if something is not clear. Thereby, the lack of physical presence makes it difficult to have an opinion about the person who is providing the information and the possibility to show where it hurts. And also the fact that the communication cannot be established with the person's own doctor were mentioned as drawbacks (Jung & Loria, 2010, p. 61). There is also much anxiety from health professionals and policy makers about the potential for the internet to misinform patients (Gray et al., 2005). In the few studies that have explored users perceptions of the credibility of sources that transmit information through the internet, the concepts of expertise and trustworthiness have been closely linked (Gray et al., 2005, p. 1469).

2.7. Research questions

Because little is known about people's intention to engage in online medical e-consultation and their perceived barriers, this study will have an exploratory nature. The following research questions are central for this study:

1. What are the factors influencing the intention to engage in medical e-consultation of Dutch people?
2. What barriers/problems do Dutch people perceive when considering online e-consultation?

3. Method

For the research goal it is very important that people speak out their minds and thoughts and that they would not be influenced by structured, quantitative methods. These kinds of methods will cause a 'bias' which means that the participant will be forced to think in a certain direction. It is not intended to force the participant into a specific mindset, it is just intended to learn about the participants' mindset without forcing them into any direction. This means that a qualitative method is needed. Besides, there is no model that can be tested. E-health and specifically that small part of it, referred to as e-consultation, needs to be explored in many ways. This research just starts at the very beginning: exploring factors influencing and hindering people's intention to engage in medical e-consultation.

In this chapter the chosen method (3.1), the recruitment of respondents (3.2.), the research procedure (3.3.), the demographic characteristics of the respondents (3.4.) and analysis of the data (3.5.) will be discussed.

3.1. The focus group method: the advantages

Generally, 3 methods for qualitative research can be distinguished: interviews, observations and focus group interviews. For this research was soon chosen for the focus group research, which can be considered as an organised discussion (Kitzinger 1994) and is known as a social research. Powell and Single (1996) see a focus group as a group of individuals, selected by the researcher, who discuss and comment a certain topic from personal experience. Morgan (1997) agreed by claiming that focus groups rely on interaction within the group based on topics that are supplied by the researcher. So, according to this research, based on the 'open' and 'social' character of the focus group method seemed to be perfect for determining people's intention to engage in medical e-consultation. A brief discussion below will explain the choice for the focus group method.

Compared to the interviews, which aim to obtain beliefs, feelings an individual attitudes, focus groups disclose a multiplicity of views and emotional processes within a group context. The individual interview has the advantage that is easier for the researcher to control than a focus group, in which participants are supposed to take the initiative. And the focus group, compared to observations, enables the researcher to gain more specific information in a shorter period of time (Gibbs, 1997). Gibbs (1997) considers the main purpose of the focus group method that the researcher is able to get close to respondents' attitudes, feelings, beliefs, experiences and reactions in an informal way. This would possibly be more difficult using other methods such as observation, one-to-one interviewing, or questionnaire surveys. Because participants can discuss their point of view with each other, which is similar to the way people will discuss new concepts with each others in real life. Of course, a focus group is an organized way of discussing things, but people are free to release their opinions and react on others as they do at work or with friends. Kitzinger (1994) argues that interaction is the crucial feature of focus groups because the interaction between participants highlights their view of the world, the language they use about an issue and their values and beliefs about a situation. Interaction also enables participants to ask questions of each other, as well as to re-evaluate and reconsider their own understandings of their specific experiences'. According to this quote, the focus group method seems to be the exact method that is needed for research about medical online consultation. And thereby, according to Gibbs (1997) focus groups disclose information in a way which allows the researcher to find out why an issue is striking, as well as what is so striking about it (Morgan 1988). As a result, the gap between what people say and what they do can be better understood (Lankshear 1993). Focus groups are able to collect multiple understandings and meanings revealed by participants, and multiple explanations of their behaviour and attitudes, which will be more readily articulated during a session.

According to this research, to provide structured focus group meetings, a focus group Guide was designed (appendix 7.1.). In the focus group guide, instructions for the researcher and an interview scheme based on 4 themes was included: experience, situations, factors and media. First of all, participants were asked if they had any experience with online medical e-consultation or with other types of e-consultation. The second theme dealt with different types of situations participants would consider when engaging in e-consultation. The third theme searched for other factors influencing the intention to engage in e-consultation and the last construct indicated participants media preference. Each construct was represented by a few questions (appendix 7.1.) and during all meetings participants came up with their own mindsets around e-consultation. To ensure that the interview questionnaire would result in useful information about factors influencing peoples intention to engage in online consultations, one informal pre-test was implemented before the actual research started, to test the completeness of the interview questions. A group of 5 persons with an average age of 34 participated on the pre-test. This pre-test was discussed with the supervisors and slight changes were introduced. Overall, the Focus Group Guide seemed suitable for supporting the main study.

3.2. Recruitment

The time-consuming character of the focus group method does not make it easy to find participants. Nor the inability to compensate the time with a financial compensation was helpful. Therefore, respondents must be recruited via the researchers' network. The final respondents were acquaintances, relatives, fellow students, friends, and their acquaintances. Potential participants who were expressed their willingness to participate were contacted by email. They received a letter with all information about the research (appendix 7.2.) and thereafter people could decide whether they would or would not participate. After the recruitment period, 30 people indicated their

intention to participate. Unfortunately, 2 persons were not able to come because of private circumstances. The participant were asked to pass through the data on which they preferred to participate so that they could be scheduled. Finally 28 respondents participated and were divided in 5 different focus groups. Each focus group included a minimum of 5 and a maximum of 6 participants.

3.3. Procedure

The focus group meetings were planned on basis of the data which the participants preferred. Finally in the last week of September and the first week of October, 5 focus group meetings were planned. Each focus group meeting took about 2 hours. All focus group meetings took place at the same room at the University of Twente. Most of the participants did not know each other.
Before the focus group discussions officially started and all recorders and camera's were turned on, a presentation was showed to give a little impression of what is actually meant by online medical e-consultation, assuming that the participant did not know much about this subject yet. Only 3 types of possibilities for having an online e-consultation were discussed in the presentation: e-consultation by email, by questionnaire and by chat-session. These different types of media were all introduced individually. After the presentation participants were able to ask questions. When the aim of research was clear, the focus group session started.

3.4. Respondent demographics

To capture the demographic data of the participants, a short anonymous demographic questionnaire was distributed before the start of every focus group discussion. Before the main research was started, the participants were asked to fill in this demographic questionnaire. On this research, it would be useful to have participants with internet experience, for the reason that they are able to empathize themselves in how it would be like to have a consult online. The demographic results showed that participants gave themselves an average 7,9 for internet experience, which gives an indication of sufficient internet experience. Only one participant out of 28 participants rated his internet experience as inadequate. On the other hand, none of the participants had experience with online medical e-consultation. This is a good thing according to Jung and Loria (2010), who used individuals who already used a particular e-health service gives insights into the extent to which services are used, however, it leaves out people who were not yet involved with e-health. This might pose a bias in the sample and a major limitation. Therefore, this study qualitatively investigates general opinions and expectations of individuals without any experience with e-health services. It gives insight in people's needs en wants to develop future services that match this needs and wants.

To explore the factors influencing the intention to engage in e-consultation of the Dutch population, it is important to collect a diverse group of respondents. The average age was 36,8 years old; the youngest participant was 17 and the oldest participant was 69. The male/female distribution was not so balanced; only 8 men against 20 women. Fortunately, this research was not designed to explore differences between men and women on the intention to engage in e-consultation. Although not all participants live in Twente at the moment, it should be noted that all participants were born in the region Twente. The average participant was highly educated: 20 out of 28 participants were educated highly, which means having HBO or WO (bachelor/master) degrees. This information is also reported below and in appendix 7.5 the more detailed table can be found.

Demographic variables		Average
Age	15 t/m 30	50%
	31 t/m 45	10,70%
	46 t/m 60	28,60%
	61 t/m 75	10,70%
Gender	Male	28,60%
	Female	71,40%

Table 1. Demographic averages part 1.

Demographic variables	Average
Education	71% is highly educated
Region	Twente (89,3%)
Rated Internet Experience*	7,9 (100%)
Experience e-consultation	nee (100%)

Table 2. Demographic averages part 2.

3.5. Analysis

The recorded focus group sessions were transcribed in Microsoft Word and used as raw data for analysis. This resulted in five transcribed focus group sessions on paper. The next step was reading the transcribed document to see what was said. The Grounded Theory was used as a strategy to analyse the data in a structured way. The three stages in the process of this theory have been completed. The first stage was the 'open coding' whereby important quotes were highlighted on paper. These highlighted quotes were assigned and compared to the same codes and to specific other codes during the second 'axial coding' stage. After highlighting all transcripts first, too many codes were found. Finally, the third 'selective coding' stage started, whereby some codes have changed and modified again (Boeije, 2005). A new and final list of codes existed. To make sure that the quotes were

categorized correctly and to avoid misinterpretation of the first coder, a second coder was asked to encode one of the five transcripts. Although not all quotes were categorized in a similar way by the first and second coder, 80,4% of the quotes were categorized under the same code. Some quotes were placed under more than one code, but in all cases they were in any case categorized under one same code. The 19,6% disagreement is due to misinterpretation and can not be recovered by incorrect coding . The results of the first and second coder can be found in section 7.6.

Atlas.ti is a computer programme that supports qualitative analysis of large bodies of textual, audio, video and graphical data. The program offers a variety of tools for accomplishing the tasks associated with any systematic approach to "soft" data, for example, material which cannot be analysed by formal, statistical approaches in meaningful ways (Friese, 2011).
For this research, the Atlas.ti software was used to encode the quotes in a structured way and recode again if necessary. Atlas.ti also provides a structured overview of the used codes and quotes and gives the possibility to write comments and memo's as a reminder for the researcher. The second step was the systematic codification of quotes, which means the arising of particular patterns, categories and themes out of the data. During this step codes and sub codes were established in Atlas.ti.

4. Results

Participants' intention to engage in medical online e-consultation, as central issue, will be explained by several influencing factors such as 'situational factors', 'the doctor-patient relationship', 'benefits' and the 'healthcare provider'. Also the influencing 'barriers' on people's intention will be discussed.
This chapter is divided into 3 parts. Section 4.1. addresses participants experience and current use with e-consultation. Section 4.2. shows the results regarding participants intention to engage in medical online e-consultation. Finally, section 4.3. discusses the barriers people experience when considering e-consultation.

4.1. Experience and current use

None of the participants had experience with online medical e-consultation. Most of them had only heard of it. Participants also did not have much knowledge of e-consultation. In this respect, it can be argued that all participants were homogeneous considering their lack of experience with e-consultation.

4.2. Factors influencing the usage intention

People's intention of whether they would or would not engage in e-consultation will be explained in this section by participants 'willingness to engage'. The results will first be limited to participants' answer to the simple question: 'are you, at this moment, willing to engage in medical online e-consultation?' The answers to this question were quite divided. About one third of the respondents said they would be willing to try e-consultation in the future. The following quote reflect the answers on the question 'are you, at this moment, willing to engage in medical online e-consultation?'.

> *'I would, but only with my own doctor.' (female, age 50)*

Also one third of the respondents were very clear about their unwillingness to engage in e-consultation. The quotes below reflect the answers to the same question as mentioned above.

> *'Now on this moment? Noooo, I have enough questions to not engage.' (male, age 58)*

However, before the participants could discuss and decide whether they would or would not engage in medical e-consultation in the future, 7 factors were found to have significant impact on that decision. During the five focus group discussions these factors seemed to influence people's intention to engage in medical e-consultation: situational factors, doctor-patient relationship, benefits, trust, risk, lack of face-to-face contact and the perceived costs.

4.2.1. Situational factors

The participants discussed in which situations an e-consult would be appropriate and in which situations it certainly would not. With the factor 'situations', real situations like for example 'when you are at home, when you have no time' are meant but also the complaints participants are willing to discuss or not in online e-consultation are included. The discussion will start with the situations and will be followed by the specific complaints participants will or will not discuss in e-consultation.

Type of situation

The majority discussed different kinds of situations in which e-consultation would be inappropriate. Some of the participants stated that e-consultation was inappropriate in situations when physical examination is needed.

> *'In my opinion (...), when physical examination is needed, I do not think you can have an e-consultation.' (male, age 53)*

The situations in which participants thought e-consultation would be suitable and helpful was discussed by the majority of participants. While lots of situations were discussed, participants agreed most on 5 particular situations when it would be useful. First of all, some participants thought e-consultation could be useful for having a first reassuring answer.

> *'Yes, but you know, maybe you can be placed on a waiting list and if you wish to make an appointment in real that it would take weeks and then it would be useful to have a short but clear answer first, so you can wait the rest of the time.' (male, age 24)*

Also more than one third of the participants thought e-consultation would be useful for asking general questions. With 'general questions' not urgent general questions are meant.

> *'Yes, but in my opinion e-consultation is more about the general questions.' (Male, age 53)*

> *'So basically it seems useful if you need a quick answer.' (Female, age 52)*

A second opinion was suggested by a quarter of the participants and was considered as a suitable situation for having an e-consultation.

> *'or that you are able to do a second opinion in your own language, that you first will be treated and that you are later be able to tell 'listen, what happened to me now, this and this and this..' (Male, age 24)*

Also a few participants suggested it would be useful to obtain repeat prescriptions over the internet.

> *'I would for example also use it if you have something you already have had before. For example, I once had an inflamed eye and therefore you only need eye drops, (...) so during an e-consultation I would say 'well it is just that red again, just like I had the last time, search in your files what you have for me (...)' (female, age 23)*

> *'Yes, in these times of savings it might be useful in order to get repeat prescriptions. At least, now when it is still upcoming. Because that saves a lot of money.' (Female, age 55)*

Finally a quarter of the participants suggested that e-consultation would be very helpful when you are on vacation in a strange country. Some because they don't speak the language so well and e-consultation allows you to explain your questions in your own language.

> *' Yes it is just nice if you are able to explain your complaints in your own language.'*
> *(Male, age 53)*

Type of condition

After different kinds of situations were discussed, participants also discussed about what types of complaints they are willing to discuss in online e-consultation. Because people can have a lot of complaints, the types of complaints participants discussed were very varied. It appeared that participants found it difficult to consider types of complaints who were suitable to discuss in an e-consultation. A few participants agreed that in the case of 'chest pain' online e-consultation would be inappropriate. But a comment must be made here, because this type of complaint has been used as an example during the presentation before the discussions started. In general, the type of complaint seemed to be an important determinant determining people's intention to engage in e-consultation.

> *'but you just really want to know what your complaint is, especially if you might have something serious, if you are seriously ill, I would never say 'I have a bit of pain in the chest', such as in that e-consultation we just saw, but I would really like to know what I have.' (Female, 24)*

> *'but you definitely need to distinguish 'emergency help' or 'reasonable emergency help', because 'chest pain' as we just saw, then I really don't think of consulting an internet doctor. Then I go straight to the hospital, or to my doctor.' (man, age 53)*

Online medical e-consultation is also said to be unsuitable when a patient has to discuss vague symptoms or symptoms that are hard to describe. This statement is supported by a quarter of the participants.

> *'well, I have another example, I mean I have had a torn meniscus last year, well if I had to fill in my complaints during an e-consultation, well I had a big bulge, how am I able to describe where this bulge was located (...)?' (Female, 69)*

> *'And if you think 'I'm not feeling so well', you really should go to your doctor, because he is not able to base anything on that information.' (Male, age 24)*

Some participants discussed not to engage in online e-consultation with serious symptoms.

> *'But (...) the appointments do not disappear, do they? Ordinary personal consults, because for serious complaints I would definitely never do this, I would definitely make an appointment.' (Female, age 21)*

> *'But you can see it yourself, If you bleed like a pig you should go to the hospital.'*
> *(Male, age 24)*

Several participants also discussed the types of complains in which e-consultation would be appropriate. Summarized, it can be said that specific, non-threatening symptoms would be appropriate to be discussed through online e-consultation. This can be inferred from the types of complaints they listed: infection symptoms, stomach ache, head ache, contraception, flu and other general questions.

> *'I think I would try it some time with something small or so, for example, I have headaches very often, something like that (...).' (Female, age 23)*

> *'I think, for several diseases an online treatment can be very useful just as if you are not sure you have the flue or not. That kind of things I can imagine.' (Female, age 50)*

4.2.2. Doctor-patient relationship

Several participants suggested there would be a relation between the relation a patient has with its doctor and the intention to engage in e-consultation. Participants without any connection, band or relationship with their doctor are more positive about the intention to engage in online e-consultation than participant who actually have a connection, band or relationship with their doctor.

> *'But in my opinion, (...), you were even more positive about it then some others of us I think, and that shows: the more positive you are about the way things are at the moment, the higher the threshold is to engage in online e-consultation.' (Male, 22)*

Some participants also suggest that it feels good to just know one's own doctor without having a real relationship. He has your dossier with medical history, he knows your family and he has been educated well, which is a comforting idea they suggest.

> *'Well I think it is nice that the whole family has visited hem, so he knows not only me, but also my whole family.' (Female, age 24)*

> *No, but it is, even if you haven't had a relationship for a long time, there is something because you have seen this person before I think, (...) because when I visit my doctor, I am sure he doesn't really know who I am.' (Male, age 24)*

4.2.3. Usefulness and benefits

The factor usefulness will be described by the need for e-consultation, where participants discussed to what extent online e-consultation is actually needed. Thereby, the time saving character of online e-consultation will be discussed as well as its potential benefits.

Need for e-consultation

One third of the participants discussed the need for online medical e-consultation comparing to phone consultation, which some of the respondents already had experienced with. They doubted the usefulness of online consultation compared to phone consultation, which also can be defined as 'e-consultation'.

> *'but hey, if it is almost the same as a Phone call, I think what is the usefulness?' (Female, age 21)*

> *'a phone call to the doctor might even be faster.' (Female, age 55)*

Time saving

Participants tended to be more positive about the possibility to save time with e-consultation. The majority suggest that e-consultation is a time-saving development. It even goes so far that participants see the time-saving aspect as a specific benefit of e-consultation in general. Thereby they also involve the long waiting times patients normally have when having a face-to-face consult.

'For simple things it would be easy and it is time-saving. That comes in mind first, and I do not have to take time off.' (Female, age 50)

'(...) you don't have to wait in the waiting room. Yes, I think that is a benefit.' (Female, age 24)

Benefits

When the participants were asked about potential benefits which can be derived from e-consultation, they suggested many different types. Their answers were very diverse. But nevertheless, participants agreed on a few benefits of e-consultation. First of all, a few of them suggested it would be an advantage to decide yourself when you are planning to have an e-consultation.

'(...) the patient is able to ask a question at the moment that suits him or her well.' (Male, age 69)

Few participants suggested that an online e-consultation would be more accessible for patients.

'(...) Maybe, the threshold might be lower, and generally the patient might be even earlier.'(Male, age 27)

And some participants suggested that e-consultations might serve well as sort of 'shift' to distinguish the patients with serious complaints and the patients who never do not have serious complaints.

'I think there's a nice self-filtering principle behind. I think when people feel a little sick, they now visit the doctor, but if they would do an e-consult.. I mean, lots of people visit the doctor while they actually should not.' (Female, age 50)

For a few of the participants it was a benefit that they did not had to leave the house for a consult.

'when you are at home with kids for example, and you have difficulties going out, it would be easy.' (Female, age 21)

An even more supported benefit is the time-saving aspect of e-consultation. Almost one third of the respondents see the waiting times at their own doctor as a negative aspect of having a face-to-face consult. This aspect is discussed in the following sub section.

4.2.4. Trust

The factor trust also plays an important role influencing patients intention to engage in e-consultation. According to the participants, 3 types of trust can be distinguished: certifications, trust in the doctor behind and trust in the healthcare provider. These factors will be discussed in the next section.

The factors participants base their trust on, will be discussed in this sub section. When participants were asked about their trust in e-consultation, 3 influencing factors were expressed. First, certifications that attach quality assurance would make websites more trustworthy. Second, the doctor's qualifications, his knowledge of the patients medical history and whether participants would trust an unfamiliar doctor or not instead of their personal physician. The third factor is about 'the healthcare provider' and its trustworthiness. The role of the health insurer will also be discussed here

Certifications

Almost one third of the participants suggests e-consultation is much more trustworthy when quality assurance is attached to the website, in any form whatsoever. Participants discussed for example the 'huisartsen kwaliteitsregister', certifications and identification as different examples of quality labels. As a result it can be said that quality insurance gives certainty that the particular website can be trusted.

'Something like an identification for example.. But if I am visiting a doctor now, I am not going to check his diploma on the wall. But I will go because I expect there to be a public authority who does regular checks to verify that my doctor is a qualified doctor.' (male, age 24)

'well, there should be a sort of guarantee (...), where you can count on.' (Male, 69)

The doctor behind e-consultation

This second factor is represented by 3 other factors: the qualifications of the doctor, the preference for the own or the unknown doctor and the knowledge of medical history. The first factor, qualifications of the doctor, relates to the discussion whether the doctor has or has not a medical degree. The second factor is the preference for the own/unknown doctor, and the third factor refers to the importance of medical knowledge a doctor has of its patient. This sub section will start with the qualifications of the doctor.

→ *Qualifications of the doctor*

More than one third of the participants question how the qualifications of the doctor they are having an online e-consultation with, can be assured. Apparently, they must relay on something from which they can derive the doctor is qualified. The value of a quality mark is discussed again in this context.

'(...) the important thing for me is that he is qualified. Who monitors this? That is what I mean.'(Female, age 69)

'My first thought is 'how can it be ensured that a real doctor is sitting there'?' (Female, 69)

A few other participants go further and discuss the distrust they have in foreign doctors. When there is a need to consult a foreign doctor they prefer an e-consultation with a Dutch doctor who studied medicine in the Netherlands.

'what seems very useful to me, I don't know if it exists already, if you are abroad I would less trust the hospitals there and I would trust the Dutch doctor more..' (Female, 23)

'Moreover, it seems useful to me if you are on holiday in another country where you do not have much trust in the medical side of the story.' (Female, age 52)

→ *The personal physician versus the unfamiliar physician*

Participants were also asked to explain if they preferred to have an e-consultation with their personal physician (eigen huisarts) or with an unfamiliar physician (onbekende huisarts). The majority of the participants prefer to have an e-consultation with the personal physician. Some of them go even further: they see their personal physician as condition for engaging in e-consultation and would not engage with an unknown doctor.

'In my opinion it mainly applies to your own doctor or you own specialist.' (Male, age 53)

About a one third of the participants considered engaging in e-consultation with an unfamiliar physician for several reasons.

'(...) I don't care what of who sits in front of me, because I don't have any relationship with my own doctor, or he does not have any relationship with me, whatever you name it.' (Female, 52)

For some participants it would be enough to see the unfamiliar physician once before e-consultation will take place online. They suggest a kind of intake conversation to get to know the doctor.

'Eventually I would have an e-consult with another doctor if I was able to met him first and speak to him first.' (Female, age 23)

→ *Knowledge of medical history*

The majority of the participants suggest the importance of patient medical history. In other words, participants suggest that an e-consult doctor should have knowledge about the medical history if his patient in order to make a proper diagnosis. The role of the Electronic Patient Dossier was also discussed by a few participants.

'(...) If you look at certain website, where you only need to ask a question and that question will be answered, I think apart from the question you also have a history, an anamnesis. In my opinion it is not good to get a bare answer on a bare question.' (Female, 50)

'(...) the EPD is doctor bound, so your doctor has your dossier, but your e-consult doctor has not.' (Female, age 45)

Only a few participants suggested that knowledge of patients' medical history would not be necessary if it is not important for referring to their medical complaint at that moment.

'if I notice some strange spots on my elbow on certain moment, I take a look at the internet and then 'mwoaah this looks like psoriases'. That is the future, to see for yourself, also out of curiosity, but then a strange doctor is also capable to prescribe an ointment. At that moment it has nothing to do with my history.' (Female, age 50)

The health provider

Of course, e-consultation will be facilitated by a specific organization or a healthcare provider. Apparently, the nature of such healthcare provider plays an important role in determining participants trust and the intention to engage in an online e-consultation. On the one hand, the majority of the participants had their doubts about the health insurer as health provider for e-consults because it is a commercial organizations with certain interests.

'In my opinion, the health insurer is not impartial, because I feel he goes for his own money.' (Male, age 24)

'(...) if the health insurer is behind, I don't trust it anyway.' (Male, age 24)

On the other hand, some participants suggest that they also have doubts about some doctors apart from the health insurer. So, in general, an independent organization would be desirable.

'Well, they should make things very clear and the question is whether they do or whether they want to clear things up, because I don't make objection to a doctor who earns money. Because I think, I also like to get paid at the end of the month. I don't mind if it is commercial, as long as the advices are objective. A sort of guarantee should be added. Doctors are free to make money out of me, out of their job, however, the payment should come from me and not on the background from the health insurance company or from a pharmaceutical company or something.' (Female, age 45)

4.3. Barriers

Peoples intention to engage in medical online e-consultation is also influenced negatively by several deterrents and barriers like 'risk', the 'lack of face-to-face contact' and the 'perceived costs'. In the subsection 'risk' (4.3.1.) the website and internet safety are also included. Participants wonder, for example, whether the internet in general and the system on which e-consultation is embedded would be safe or not. Participants also discussed the lack of face-to-face contact (4.3.2.), which is a well known characteristic of the internet. The last discussed barrier includes the 'perceived costs' of online consultation.

4.3.1. Risk

The factor risk plays an important role in patients intention to engage in e-consultation. The results showed that in this research, risk has been distinguished by 3 factors, named 'risk of data abuse', 'risk of miscommunication' and the 'risk of misdiagnosis'.

Risk of data abuse
Almost half of the participants recognized the dangerous and unsafe character of the internet in general.

'and then I think (...), they almost monitor you. In my opinion that is one of the most dangerous things of the internet.' (Male, age 69)

'something once on the internet, will never get off anymore.' (Female, age 55)

Therefore, participants care much about the security of the website on which e-consultation takes place. Is the website on which they will have their e-consultation secure? The participants discuss their doubts about the unsafe character of websites. They also doubt the website's control system and wonder how a patient will know whether a website is secured or not.

'(...) I do not currently trust the system that it is as watertight as I really think as it should be (...).' (Male, age 58)

And the security of websites is definitely needed, because half of the participants feared the possibility of abuse of personal data by providing information during an online e-consultation. That brings dangers, because the e-consultation takes place on the unsafe internet.

'(...) if you, in a way of speaking, see all your information flowing to the health insurance company via a side channel, then you think I have filled in all the information dutifully and on the other side of the web there is someone like 'yes, that information is mine now'. (Male, age 69)

'from the moment you call your name, I think it is a different story, because you do not know what will happen with your personal data, someone could retrieve it.' (Female, age 50)

Risk of miscommunication
The majority of the participants underscored the importance of clear communication, especially with an online e-consultation. Participants suggested that the communication should be very clear, but fear the difficulty of this task, because there is no face-to-face contact.

'that remains of course with typing or speaking. That what you type will that be picked up as you have intended?' (Female, age 45)

The results also show that some participants preferred explaining their medical complaint in the Dutch language, because it would not make the communication more clear when communicating in another language than mother tongue.

'At this moment, you already have communication problems often, what will be left if you have to speak another language..' (Female, age 27)

Risk of misdiagnosis
With the risk of miscommunication (sub section 4.3.3.), the risk of misdiagnosis also sounds plausible. Also the factors 'knowledge of medical history' (sub section 4.2.2.)and 'the lack of face-to-face contact' (sub section 4.2.1.) play an important role by the risk of wrong diagnosis. Half of the patients fear the risk of misdiagnosis by e-consultation. Some medical complaints are said to have the same symptoms; sometimes it causes major consequences and sometimes just an harmless flu. With the lack of face to face communication, there is also lack of verbal and non-verbal communication, which can be very important for diagnosing. Some symptoms cannot be described, because they simply must be seen and without knowledge of patients medical history wrong medication can be prescribed.

'(…) how can a doctor give a good judgment as he has not seen his patient. Myself I am very much of the holistic way. As someone with a complaint comes and enters you look at how a person acts in totality at that moment. In terms of health and so. (…). There are more features given away at the moment the patient enters, so when a patient is in front and explains his complaints, you also will look at other things that the patient currently does not say but he just does.' (Female, age 45)

'for example, if you write 'I am very thirsty at the moment', it can also be a diabetic person or something.' (Female, 50)

4.3.2. Lack of face-to-face contact

The lack of the face-to-face contact is also a recognized character of online communication. In general the majority of the participants see this lack of face-to-face character as a negative point concerning online medical e-consultation. A statement in the scope of 'I just want to look my doctor in the eye' was heard by about one third of the participants. Hereby, also the importance of non-verbal communication during an medical consult was suggested. This aspect is completely absent in an online consult, while participants stress the importance of 'pain in the eyes' and mimicry.

'you are not able to see the eyes, because in peoples eyes you can see if someone feels right or not.' (Female, 52)

'When I went here, I had something like 'yeah I'd rather look someone in the eyes'. That if I tell something that I am able to frown and that I think 'oh that is an accent' of which I think the doctor would be happy to know that (…).' (Female, 55)

Some participants suggests to solve this problem of lack of face-to-face contact by adding a webcam to the online medical e-consultation so you can make eye contact with your doctor on the other side of the web. A few participants even suggest another advantage: with this webcam, they are able to check if there is a qualified doctor on the other side of the line.

'but during a chat session you are able to turn on a webcam, which will help you to ensure that you are chatting with a real doctor (…).' (Female, age 21)

4.3.3. Perceived costs

About half of the participants discussed the cost-effectiveness of e-consultation, but in fact, the majority did not seem to think that e-consultation would be more cost-effective for them than an ordinary face-to-face consultation. It would even be more expensive, they suggest.

'it is thought that it might be pretty cheap but then it might even be more expensive because a doctor is engaged in e-consultation all day.' (Male, age 23)

In general, the patients did not have a clear picture of the costs of e-consultation. Some wondered if the health insurer would cover the e-consultation costs or not and some questioned the cost-effectiveness in general. Only a very few participants considered e-consultation as a cost saving development and also a very few confirmed this statements by saying 'yes'.

'Yes of course, it is a saving. That is obvious.' (Female, age 55)

5. Discussion

In this study the focus is on exploring and distinguishing the different factors influencing people's intention to engage in medical online consultation. In this chapter the discussion of the results (5.1.), theoretical implications (5.2.), practical implications (5.3.), limitations and implications for future research (5.4.) and the conclusion (5.5.) are discussed.

5.1. Discussion of the results

During this research the central focus was on two research questions. To answer these two questions, 5 focus group sessions were designed. The first question determined the influencing factors Dutch people consider when engaging in online medical e-consultation, while the second question focused on what barriers Dutch people perceive when considering online medical e-consultation. Results indicated that, when participants were asked about their willingness to engage in online medical e-consultation, their answers were diverse. This is quite logical given the fact that many factors were found to have significant impact on that decision. In this section, both research questions will be answered, starting with research question 1.

1. *What are the factors influencing the intention to engage in medical e-consultation of Dutch people?*

The decision a patient has to make whether or not to engage in e-consultation is influenced by several factors. In specific situations in which physical examination is needed, an e-consultation would be absolutely inappropriate. On the other hand, for a first reassuring answer or when a patient has a small and non-urgent question, an online consultation seems to be quite suitable. Also in situations in which a second opinion is desirable and when the patient is able to obtain repeat prescriptions via internet, e-consultation is considered as appropriate. On vacation, in a country of which you are not able to speak the language, an online consultation with a Dutch physician will be considered as appropriate and useful. According to the 'types of conditions' people are willing to discuss during an online consultation, vague symptoms and symptoms who are hard to describe were considered as inappropriate to discuss in an online consultation. Also when a patient has serious symptoms, an e-consultation would not be recommended. While, in the case of non-threatening symptoms, e-consultation was suggested to be appropriate. Another interesting finding gives insight into the influencing role of the patient-doctor relationship on the intention to engage in medical online consultation. It was suggested that there possibly might be a connection between the relationship a patient has with his doctor and the patients' intention to engage in online consultation. Patients who indicated that they are not having a relationship, connection or band with their own doctor at all, seemed more positive about the intention to engage in e-consultation than patients who indicated to have an actual relationship, band or connection with their doctor. The ones without any band with their personal physician, suggested that it would comfort them to meet an unknown physician first before consulting him, without establishing a real relationship. This might give an indication about the decreased importance of having a relationship with a personal physician. In the future, just meeting the doctor on forehand would probably be enough to trust him later on.

The e-consult was not specifically seen as useful at first sight. The phone consultation, where people already have experience with, was considered as similar to or even more useful than online consultation. Referring to the benefits of e-consultation, time-saving was indicated as a great benefit, because the patient is able to avoid the long waiting times when having a face-to-face consultation and thereby it is up to the patients' own decision when he wishes to have a consultation online. That e-consultation possibly causes increased accessibility for patients than a face-to-face consult, was also seen as a benefit, just as the self-filtering principle, which might serve as a kind of swift to distinguish patients with serious complaints from other patients. And finally, the fact that patients did not have to leave the house for a consultation was considered as a benefit. These benefits probably make e-consultation more useful than was thought at first sight, but do probably not defeat the phone consultation. Since people are aware of the dangers of the internet nowadays, a quality assurance should be attached to the e-consultation website to obtain more trust in e-consultation. Also the expertise and the qualifications of the doctor behind the e-consultation have been questioned during the focus group discussions, because there is nothing to rely on, like a quality label. The distrust in foreign doctors has also been discussed. The own family doctor is far most popular for having an e-consultation with, although some people are willing to consider a strange doctor to have an online consultation with. As well as in the case of the personal physician, as with the unfamiliar physician, an e-consultation doctor should have the medical dossier of his patient. Therefore the Electronic Patient Dossier was suggested as an option.
To obtain even more trust in online e-consultations, the healthcare provider can play an important role. The nature of such healthcare organizations seemed to influence the degree of trust in online consultations and so the intention to engage. For example, people did not have much trust in the health insurer, because they suspected them of conflicts of interest. Therefore, people preferred an independent organization as provider of medical online consultation, which would possibly also increase their trust in online consultations.

2. *What barriers/problems do Dutch people perceive when considering online e-consultation?*

Three perceived barriers influencing people's intention to engage in medical e-consultation were indicated. The first factor includes the involved risks, the second factor includes the perceived lack of face-to-face contact and the third barrier gives indicated the perceived costs of e-consultation for the patient.

Three types of risks associated with the usage of online consultation have been identified: risk of data abuse, risk of miscommunication and the risk of misdiagnosis. As expected, the dangerous and unsafe character of the internet was recognized by all participants. They feared unsecured websites and the safety of the websites on which e-consultation would take place was doubted. People feared the risk of personal data abuse via unsafe websites and discussed how they were able to know whether a website was secured or not. Again, this points to the direction of a quality label. Another feared risk was miscommunication, because there is no face-to-face contact at all. Therefore, engaging in an e-consultation in another language was not an option at all. The fear of miscommunication in the own language was already enough. Associated with the risk of miscommunication, lack of face-to-face contact and lack of knowledge of medical history there is also the risk of misdiagnosis, which was feared a lot. The importance of non-verbal communication was indicated again. Since non-verbal communication is completely absent in online e-consultation, the lack of face-to-face contact is seen as a negative point because it complicates the diagnosis. 'Pain in the eyes' and mimicry were suggested to be important influenceable factors for diagnosis.
Most people did not seemed to think that e-consultation would be cost-effective comparing to face-to-face consultations. In their eyes, e-consultation would even be more expensive.

5.2. Theoretical implications

In general, people liked the idea of e-health. But when it comes to online consultation or ask-the-doctor online services, people expressed more reluctance (Jung and Loria, 2010). In this study, people gave diverse answers, from quite negative to positive, when they were asked about their intention to engage in medical online consultation. These diverse answers can be attributed to several influencing factors.

For example, in specific situations in which physical examination is needed, an e-consultation would be absolutely inappropriate. This was comparable to some findings according to Lems (2006), who found that online consultation would be useful for complaints that do not necessarily need to be seen. Participants also indicated situations in which online consultation would be helpful and useful. For example when a first reassuring answer is needed or when you have a small and non-urgent question and when a second opinion is needed or when you are able to obtain repeat prescriptions via e-consultation. The option to use the internet for a second opinion was also found by Gray et al. (2005). If patients were not able to supply the necessary information via a personal information source, the internet was recognized as a second option (Gray et al., 2005). Another situation in which e-consultation was suggested to be very helpful is when you are on vacation in a country of which you are not able to speak the language. According to the 'types of conditions', vague symptoms and symptoms who are hard to describe were considered as inappropriate to discuss in an online e-consultation. Also when a patient has serious symptoms, an e-consultation would not be recommended. On the other hand, in the case of non-threatening symptoms and e-consultation would be appropriate. This was confirmed by Gray et al. (2005) who found that many of the health related queries from adolescents were related to everyday health matters.

Patient-doctor relationship

There possibly might be a connection between the relationship a patient has with his doctor and his intention to engage in e-consultation. Patients who indicate that they are not having a relationship, connection or band with their own doctor, seemed to be more positive about the intention to engage in medical e-consultation than patients who indicate to have a relationship, band or connection with their doctor. It also is said that it comforts people to meet a strange doctor first before consulting him, without establishing a real relationship. Since the doctor-patient relationship is changing and the times of having blind trust in a doctor are over (Rowe & Calnan, 2006), e-consultation can possibly become more popular year after year.

Usefulness and benefits

A phone consult, where people already have experience with, was considered as easier than online e-consultation by email, chat session or questionnaire. Jung and Loria (2010) also found that there was more resistance to see the ask-the-doctor service as useful, comparing to online health guides and e-prescriptions. Referring to e-consultation, time saving was indicated as a benefit, partly because the patient is able to avoid the long waiting times when having a face-to-face consult. Lems (2006) found similar results. For example the ease of use, convenience, efficiency and time savings were mentioned as reasons for accepting e-consultation (Lems, 2006). Jung and Loria (2010) also found time-saving and convenience as perceived benefits. It would also be an advantage that it is up to the patients' own decision when he wishes to have an e-consultation online. That e-consultation would be more accessible for patients than a face-to-face consult was also seen as a benefit. The accessibility was also indicated as a benefit in other studies (Nijland, 2011; Jung and Loria, 2010). The self-filtering principle was somehow indicated as a benefit, because it might serve as a kind of swift to distinguish patient with serious complaints from other patients. And finally, the fact that they did not have to leave the house for a consult was also indicated as a benefit.

Trust

E-consultation would be more trustworthy when quality assurance is attached to the website on which e-consultation takes place. It gives more certainty that a particular website can be trusted. A similar result was found by Gray et al. (2005) where participants advocated the use of quality marks from well-known institutions to test the reliability of online information. Also the expertise and the qualifications of the doctor behind the e-consultation have been questioned during the focus group discussions, because there is nothing to rely on, like a quality label. The distrust in foreign doctors has also been discussed. The own family doctor is far most popular for having an e-consultation with, although some would consider a strange doctor. The popularity of the personal family doctor was also found by Lems (2006), who found that while the

Dutch do not necessarily have more confidence in their own doctor, three-quarter prefer to speak to the own doctor about medical problems, because it is easier for them than speaking to an unknown doctor (Lems, 2006). When it comes to medical knowledge, it is suggested that an e-consultation doctor should have the medical dossier of his patient. Similar results were found by Lems (2006) where patients indicated that it seemed difficult for them to describe their own illness without medical history questions of the doctor. However, this problem can possibly be solved in the future, since Rijen (2002) found that more than 40% of the doctors and medical specialists would give the patient access to their data via the internet, if the medical data would be well secured and also the Electronic Patient Dossier will help to disclose medical information in the future.
As well as in the research of Jung and Lora (2010) as in this research, the 'trust in the healthcare provider' was brought up constantly and can therefore be indicated as crucial for the willingness to engage in online consultations. Since e-consultation is facilitated by a specific kind of healthcare provider, the nature of such organization plays an important role. People did not have much trust in the health insurer because they feared conflicts of interest. Therefore, an independent organization as provider of e-consultation was preferred. However, what was perceived as credible varied among people: some viewed the pharmaceutical industry as authoritative, others preferred independent sources such as educational institutions and government departments (Peterson, Aslani and Williams, 2003).

Risk
The dangerous and unsafe character of the internet in general was recognized. Unsecured websites were feared and their safe character was doubted. People wondered how patients could know whether a website is secured or not. Thereby, the abuse of personal data was feared most, which was also found by Klein et al. (1999): barriers to effective service use among adolescents do include fear of confidentiality breaches. Also Beldad, de Jong and Steehouder (2010) advised organizations to seriously consider adding strong privacy statements and security features to websites to earn customers' trust.
After, the risk personal data abuse, the risk of miscommunication was also feared since there is no face-to-face contact. Engaging in an e-consultation in another language was not an option at all. The fear of miscommunication in the own language was already enough. Associated with the risk of miscommunication, lack of face-to-face contact and lack of knowledge of medical history there is also the risk of misdiagnosis, which was feared a lot. Jung and Loria (2010) also found participants' fear of misunderstanding the information that is obtained from the ask-the-doctor service, also known as online consultation, and having the doctor misunderstand what the illness may be as a result of not being able to describe it.

Lack of face-to-face contact
The importance of non-verbal communication was indicated. Since non-verbal communication is completely absent in online e-consultation, the lack of face-to-face contact is seen as a negative point. The importance of 'pain in the eyes' and mimicry has also been stressed. This was also concluded by Jung and Loria (2010), who stated that personal contact usually would allow further explanations, follow-up questions and a conversation between doctor and patient if something is unclear. Thereby, the lack of physical presence makes it difficult to have an opinion about the person who is providing the information and the possibility to show where it hurts (Jung and Loria, 2010).

Perceived costs
While online medical consultation was considered as cost-reducing (Nijland, 2010; van Rijen, de Lint and Ottes, 2002; Euoprean Commission, 2012), according to this study, most people did not think that e-consultation would be more cost-effective for them than a face-to-face consultation. They suggest it would even be more expensive. It could be that people do not have a clear picture of the costs e-consultation would entail.

5.3. Practical implications

First of all, the results show that the usage intention to engage in online consultation is determined by different influencing factors. When online consultation would be provided by an independent healthcare provider, with a security certification on the website and the patient is able to ask general questions to the personal physician who knows the patients' medical history, people are more likely to engage in online consultations than in a situation in which the online consultation would be provided by the health insurance company, without any security certification on the website and the patient is able to ask general questions to an unfamiliar physician who does not know anything about the patients' medical history. In the last situation, the patient cannot be sure about the physicians' expertise and the website safety. His privacy concerns such as 'abuse of personal data' will stop him from participating in online consultations.

As Wilson and Lankton (2004) concluded, expensive information technology projects can fail when services do not correspond to the needs of their users. Since medical online consultation can be considered as an 'information technology project', it is important to have knowledge of the users' needs to develop a system which corresponds directly to their needs. With the insights provided by this study, the risk of failure can be reduced. Now that we have knowledge of the factors influencing peoples intention to engage in medical online consultation, the opportunity is given to respond to these needs when designing new systems and redesigning the already existing systems to make it more corresponding to the needs of the user. Therefore, according to the technological part of e-consultation, it can be recommended to add a certification which ensures the quality and safety of both the website, the physicians' expertise and the healthcare provider behind the online consultation. Thereby, the possibility to have an e-consultation with the personal physician appeals much more than with an unfamiliar physician who is not aware of patients' medical history. Which possibly indicates that if more personal physicians offer e-consultations to their patients, e-consultation will 'gain more ground' in the Netherlands. Another strategy for 'gaining ground' for e-consultation in the Netherlands is to make sure that an online consultation is much more time saving compared to a face-to-face consult,

since the time-saving character of e-consultation was recognized as a great benefit. And, since an online consultation is considered as not cost-effective, another great benefits can be created by making the online consultations more cost-effective than face-to-face consultations.

5.4. Limitations and implications for future research

The research that was conducted has some limitations that result in recommendations for future research in the field of online medical consultation.

5.4.1. Demographics

Apart from one participant, all participants rated their internet experience as sufficient with a 6 or higher. However, not a single participant had ever experienced engaging in an online medical consultation. Some had already heard of it and some did not even know the existence. Therefore, a large part of this study is possibly based on expectations and forecasts. To generalize the influencing factors and the perceived barriers of peoples intention to engage in medical online consultation for the Dutch population, participants should actually have experience with applications of online consultations. And in order to get a clear picture of the usability and influencing factors of actual users of online medical consultations, participants of many different regions should participate. In this study, almost all participants were born and raised in the region Twente. Therefore, it is not said that the results in this research can be generalized for the Dutch population, which actually was the intention of this study at the very beginning. The difficulty of getting a representative sample of respondents for a specific population was also recognized by Gibbs (1997). Finally, in order to increase the generalizability, the number of 28 participants can actually be enlarged. While, in this research, it was not intended to investigate differences between, for example, gender and age, nevertheless, these factors might possibly make a difference in improving online medical consultation in the future.

5.4.2. Method

Apart from the limitations according to the generalizability for the Dutch population and the inexperienced participants, the focus group discussion, with its interpretative character, leaves some other limitations for the researcher. For example, the researcher has less control over the data produced than in quantitative studies or one-to-one interviewing (Morgan, 1988). The researcher has to ensure that the participants will start a conversation with each other, get finally involved in discussions and share their doubts and opinions, while the researcher has only little control over both the group interaction and keeping participants focused on the topic. And, since focus group research is open ended, it cannot be entirely predetermined (Gibbs, 1997). Thereby, it is not sure that participants in a focus group are expressing their own individual view because they are supposed to speak in a specific context, within a specific culture, and therefore it sometimes may be difficult for the researcher to identify an individual message clearly (Gibbs, 1997). Focus groups are not the perfect method to get every person to talk, because it may possibly discourage people who are not so confident who have communication problems or particular needs. And since a focus group is not anonymous, it can harm people's trust to speak freely (Gibbs, 1997). Therefore it can also be recommended to use other types of (qualitative) research without the discussed limitations of the focus group method.

5.4.3. Directions for future research

Because e-health promises great improvements in efficiency, new potential treatments and improved patient welfare, the European Commission (2012) supports sustainable and interoperable health services and focuses on developing European-wide implementation of e-health to support continuity of care. Therefore it is important to investigate e-health and e-consultation in many ways to be able to meet the patients' needs as well as possible.

While in this research an open qualitative way of research was chosen, the results in this study also point to the direction of existing models like Davis' Technology Acceptance Model (TAM) from 1989 and the Theory of Planned Behaviour (TPB) of Ajzen (1985). For example, according to the Technology Acceptance Model, results showed that people were very aware of the dangers of the internet and were also worried about the safety of a system that enables e-consultation. Since an e-consultation takes place on the internet, people should trust the internet as well as the website and the system behind e-consultation. Because e-consultation can still be considered as a new emerging phenomenon, there is still much explanatory research work in the field of technologies that enable e-consultation and peoples degree of acceptance. The results also pointed into the direction of the Theory of Planned Behaviour, which determines people's intention to certain behaviour on the basis of 3 determinants: attitude, subjective norm and perceived behavioural control. Attitude refers to the personal consideration of the pros and cons a person assigns to specific behavior. The subjective norm refers to social pressure and conformation to prevailing views of the social environment. The perceived behavioral control stands for the idea that a person has of his own ability to perform certain behaviors. According to the subjective norm, it is remarkable that the social influence from other people like friends, family and other acquaintances was not mentioned, except for 3 participants. In general it is often said that people care about other people's experiences and opinions. In this research, participants barely discussed the social influence of other people on the intention to engage in e-consultation or gathering trust in e-consultation, which is very questionable and needs further investigation. Concerning the perceived behavioural control, a lot of barriers stood in the way of actually engaging in e-consultation. Risk plays a huge role and also the lack of –face-to-face contact and the perceived costs were considered as barriers. The attitudes about e-consultation were quite diverse, from very negative to reasonably positive. In order to determine the attitude, some

influencing factors appeared to play a role. To get a clear picture of the attitude towards the intention to engage in medical online consultations of the Dutch population, further research is desirable.

5.5. Conclusion

The aim of this study was to get insight into the factors influencing and hindering people's intention to engage in medical online consultation. This study shows specific situations and types of conditions in which e-consultation would be suitable or not. Also the perceived benefits, usefulness, the role of trust and the perceived barriers like risk, lack of face-to-face contact and perceived costs influence peoples intention to engage in medical online consultation. Together, these factors seemed important to determine peoples willingness to engage in online consultations.

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7. Appendix

In this section, the important appendixes can be found. It concerns both documents that are used for the research such as questionnaires, but also documents of analysis.

7.1. Recruitment letter

Enschede, 5 juli 2011

Geachte heer/mevrouw,

De komende maanden houd ik me bezig met een focusgroep onderzoek waarin het medische e-consult centraal staat. E-consult wordt in dit onderzoek gedefinieerd als een elektronisch medisch consult met de huisarts waarin de patiënt zijn of haar klachten middels een mail- of chatsessie aan de arts voorlegt en kan worden gezien als toekomstige 'vervanger' van het face-to-face consult bij onze huisarts zoals wij dat kennen op dit moment. Uiteraard gaat deze ontwikkeling wederom gepaard met de nodige voordelen en risico's, waardoor onderzoek naar dit fenomeen van groot belang is.

Daarmee komen we op het onderzoeksdoel: mensen actief laten meedenken over het medisch e-consult door te vragen naar behoeften en wensen. En daar zijn respondenten voor nodig. Met uw hulp kan eindelijk iets gezegd worden over beweegredenen, behoeften en wensen van de potentiële patiënt als het gaat om de toekomst, namelijk wereldwijd veelvuldig gebruik van het medisch e-consult. Met behulp van uw bijdrage als proefpersoon kan het e-consult zo worden bijgeschaafd dat het wat betreft gebruikersgemak niet meer te wensen overlaat zodat het goed kan worden geïmplementeerd in Nederland.

Tijdens het onderzoek wordt gebruik gemaakt van de focusgroep methode, waarbij 6 mensen ongeveer 60 à 90 minuten met elkaar praten over het begrip e-consult naar aanleiding van vragen. Het draait daarbij puur om uw mening en er kunnen dus geen goede of foute antwoorden worden gegeven. Tijdens deze sessies zullen zowel video- als geluidsopnamen worden gemaakt, welke niet worden verspreid en na analyse worden vernietigd. Uw gegevens worden dus uitsluitend voor dit onderzoek gebruikt en worden niet verstrekt aan derden.

Helaas kan ik u geen financiële vergoeding bieden voor uw bijdrage aan dit onderzoek en de tijd en moeite die het u heeft gekost. Wel wil ik mijn waardering laten blijken door u een kleine attentie mee te geven en te zorgen voor een gezellig sfeer met koffie, thee en wat lekkers. Bovendien wil ik benadrukken dat uw bijdrage aan de wetenschap van groot belang is en dat aan de hand van dit onderzoek vervolgonderzoek naar het concept e-consult kan worden gedaan.

De focusgroep onderzoeken zullen plaatsvinden op de Universiteit Twente in gebouw de Cubicus (Drienerlolaan 5, de Zul). De volgende weken zijn beschikbaar:

- De week van 26 september 2011 rond 19.00 uur
- De week van 3 oktober 2011 rond 19.00 uur

Om proefpersoon te kunnen zijn hoeft u geen ervaring te hebben met het medische e-consult. Als u wel ervaring hebt met het medische e-consult kunt u overigens ook proefpersoon zijn bij dit onderzoek.
Bent u de persoon die een bijdrage kan en wil leveren aan dit onderzoek? Neem dan contact op door te bellen naar 06-38723811 of te mailen naar a.m.johannink-1@student.utwente.nl en laat mij weten welke data u het beste uitkomt. U zou mij er ontzettend mee helpen! Ook voor vragen over het onderzoek kunt u contact met mij opnemen. Alvast mijn dank!

Beste groet,

Anne Johannink
Student Communicatiewetenschap, Universiteit Twente

7.2. Demographic questionnaire

The questionnaire below was developed to gather insight into the demographics of the participants.

26-09-2011 t/m 07-10-2011, Enschede

Medisch e-consult onderzoek

Beste proefpersoon,

Bedankt voor uw deelname aan het komende focusgroep onderzoek. Mede door uw deelname kunnen er straks conclusies worden getrokken over de opinie van de potentiële patiënt over het e-consult. Voordat we met het hoofdonderzoek beginnen wil ik u vragen om onderstaande vragenlijst waarin naar demografische gegevens wordt gevraagd, in te vullen.

Al uw gegevens, zowel in deze vragenlijst als in het focusgroep onderzoek, worden volledig anoniem verwerkt en gerapporteerd.

Persoonlijke gegevens

1. Wat is uw geslacht?
❑ Man
❑ Vrouw

2. Wat is uw leeftijd?
... ... jaar

3. Wat is uw status?
❑ Alleenstaand
❑ Alleenstaand met kinderen
❑ Samenwonend
❑ Samenwonend met kinderen
❑ Getrouwd
❑ Getrouwd met kinderen
❑ Anders namelijk, _____

4. Hoe vaak heeft u in het afgelopen jaar een consult met uw huisarts gehad?
❑ Meer dan 20 keer per jaar
❑ Ongeveer 10 tot 20 keer per jaar
❑ Ongeveer 5 tot 10 keer per jaar
❑ Ongeveer 1 tot 5 keer per jaar
❑ Nooit
❑ Anders, namelijk _____

5. Wat is de hoogst genoten opleiding?
❑ basisschool/lagere school
❑ LBO/VBO/VMBO (kader- en beroepsgerichte leerweg)
❑ MAVO/eerste 3 jaar HAVO of VWO/VMBO (theoretische en gemengde leerweg)
❑ MBO
❑ HAVO en VWO bovenbouw/WO propedeuse
❑ HBO/WO bachelor of kandidaats
❑ WO doctoraal of master
❑ Anders, namelijk _____

6. Wat is, van de onderstaande alternatieven, op u van toepassing?
❑ Ik werk fulltime
❑ Ik werk parttime
❑ Ik heb een eigen onderneming
❑ Ik werk momenteel niet
❑ Anders, namelijk _____

7. In welke plaats bent u woonachtig? _____

8. Met welk cijfer zou u uw internetervaring willen beoordelen?
❑ Een 0 (een internetervaring)
❑ Een 1
❑ Een 2
❑ Een 3
❑ Een 4
❑ Een 5
❑ Een 6
❑ Een 7
❑ Een 8
❑ Een 9
❑ Een 10 (heel veel internetervaring)

9. Heeft u weleens gebruik gemaakt van het online medisch e-consult? JA / NEE
(u kunt het antwoord omcirkelen wat voor u van toepassing is)

Einde van de vragenlijst

Bedankt voor het invullen van de vragenlijst. U krijgt straks een introductie op het onderwerp 'medisch e-consult' middels een korte PowerPoint presentatie. Vervolgens zal het hoofdonderzoek van start gaan. Succes!

Anne Johannink

7.3. Focus group guide

The focus Group guide below, served as a tool for the researcher to make sure that the questions that need to be discussed, would be answered.

Vragenlijst e-consult onderzoek

De kernvragen voor dit onderzoek waren:

- *In hoeverre heeft men ervaring met het e-consult? (Ervaring)*
- *Welk online medium prefereert men tijdens een e-consult? (Medium)*
- *Welke factoren overweegt men wanneer men het e-consult overweegt? (Factoren)*
- *Welke factoren bepalen het vertrouwen in het e-consult? (Factoren)*
- *Zou men alleen een e-consult met eigen arts overwegen of is men ook bereid gebruik te maken van commerciële bureaus en dus artsen die men niet kent? (Factoren)*
- *Heeft de relatie met de eigen huisarts invloed op de mening over het e-consult? (Factoren)*
- *Voor welke klachten zou men het e-consult raadplegen? (Situaties)*
- *Wanneer zou men het handig vinden om het e-consult te kunnen raadplegen? (Situaties)*

Introductie

- Welkom
- Voorstellen van de gespreksleider (Anne Johannink) en assistent (Marly Seppenwoold)
- Waarom dit onderzoek
- Uitnodigen om alle ideeën, meningen en persoonlijke ervaringen te delen. Wat vindt u belangrijk, wat zijn uw ideeën, bedenkingen en vooral suggesties? Alles wat u zegt wat wordt met respect behandeld en uitsluitend gebruikt voor dit onderzoek.
- Gedurende het hoofdonderzoek stel ik u als groep vragen waar u op mag reageren. Uiteindelijk reageert u op elkaar en dat is de bedoeling. Tijdens de gesprekken mag u gerust de lekkere koekjes en dergelijke pakken, het is de bedoeling dat u zich prettig voelt. Moet u naar het toilet of is er iets anders waardoor u pauze moet nemen, deel het mee en u kunt gewoon tijdens de sessie opstaan.
- Ik stel u vragen en af en toe is er een korte onderbreking
- Rol van de gespreksleider uitleggen: Het is goed als u zoveel mogelijk onderling discussieert. De discussieleider is er alleen om het tempo erin te houden en af en toe te sturen. Er zijn geen goede of foute antwoorden. Het gaat erom wat u vindt en waarom u dat vindt.
- Er wordt (anoniem) verslag gemaakt van de bijeenkomst. Melden dat er een bandopname wordt gemaakt. Deze gegevens worden anoniem en vertrouwelijk geanalyseerd en gerapporteerd.
- Op basis van de groepsgesprekken (in totaal doen we 5 gesprekken) maken we een verslag en concluderen we alles over de mening van de potentiële patiënt over het medisch e-consult.
- Als u belangstelling heeft kunt u een eindverslag krijgen. Dit noteren we na afloop.
- We beginnen met het invullen van een vragenlijst waarin wij vragen naar wat persoonlijke gegevens zoals leeftijd en geslacht en het tekenen van het goedkeuringsformulier. Daarmee geeft u aan dat u vrijwillig meewerkt aan dit onderzoek. Daarna geef ik aan dat we beginnen.
- Heeft u nog vragen voor we beginnen?

Introductie vragen:
Vertel ons je voornaam en vertel heel kort iets over jezelf.

Introductie begrip e-consult met PowerPoint presentatie. U hoeft grote hoeveelheden tekst niet door te lezen op de slides. Ik zal u vertellen wat u ziet.

Eerste contact met e-consult (kennismaking onderwerp en ervaring)

- Wat komt er in u op/Wat vindt u ervan?
- Wat wist u al over het online consult?
- Heeft u ervaring met een online medisch e-consult met een dokter of specialist?
- Wel ervaring met een ander e-consult (bijv. overheid, politie o.i.d.)? Zo ja, hoe was die ervaring?

Tweede contact (affectie en medium)
Sommige hebben ervaring met een e-consult en anderen niet. Dat betekent niet dat u er geen mening over kunt hebben. In verband met de naderende vergrijzing zullen dokterconsulten steeds meer toenemen. Het medisch e-consult waarbij u een online consult hebt met uw dokter, zou mogelijkheden kunnen bieden.

- Wat komt er in u op wanneer u zich voorstelt dat u in de toekomst online een consult met uw dokter heeft?
- Op welke manier zou u dat het liefste hebben: in een online gesprekje, via mail contact, met of zonder webcam, met geluid zodat u uw arts kunt zien praten?
- Waarom op die manier/Wat voor gevoel krijgt u daarbij?

Derde onderwerp (beslissende factoren die men overweegt)

- Zou u een e-consult overwegen? Waarom wel/niet?
- Waar denkt u over na bij het beantwoorden van de vorige vraag?
- Stel er zou geen andere optie zijn dan een e-consult met een huisarts, wat gaat er dan door u heen?
- Wat overweegt u bij het overwegen van een e-consult?
- Zou u alleen een e-consult met eigen arts overwegen of bent u ook bereid gebruik te maken van commerciële bureaus en dus artsen die u niet kent?
- In hoeverre heeft u vertrouwen in het e-consult?
- Wat maakt dat u het e-consult wel of niet vertrouwt?
- Speelt de relatie die u wel of niet met uw eigen arts heeft een rol bij het overwegen en vertrouwen van een e-consult? Hoe komt dat?

Vierde onderwerp (situaties)

- In welke situatie(s) zou u zich kunnen voorstellen dat een e-consult mogelijkheden biedt?
- Waarom biedt e-consultatie mogelijkheden in deze situaties?
- Voor welk type klachten zou u het e-consult willen raadplegen?
- Voor welk type klachten absoluut niet?
- Waarom?

7.4. Demographics respondents

Tabel 1. Respondent information FGD sessions 1 t/m 3.

Session 1. 27-09-2011	**Gender**	**Age**	**Education***	**Residence**	**Rated internet experience****	**E-consultation experience**
ppn 1.	man	53	6	Hengelo	7	nee
ppn 2.	vrouw	21	6	Hengelo	10	nee
ppn 3.	vrouw	21	6	Hengelo	10	nee
ppn 4.	vrouw	23	7	Amersfoort	8	nee
ppn 5.	man	24	6	Hengelo	8	nee
ppn 6.	vrouw	23	6	Hengelo	9	nee
Average		**27,5**			**8,67**	**nee**
Session 2. 28-09-2011	**Gender**	**Age**	**Education***	**Residence**	**Rated internet experience****	**E-consultation experience**
ppn 1.	vrouw	56	4	Boekelo	7	nee
ppn 2.	vrouw	52	6	Hengelo	7	nee
ppn 3.	vrouw	45	6	Borne	6	nee
ppn 4.	vrouw	50	2	Hengelo	8	nee
ppn 5.	man	22	6	Hengelo	9	nee
ppn 6.	man	23	6	Hengelo	9	nee
Average					**7,67**	**nee**
Session 3. 03-10-2011	**Gender**	**Age**	**Education***	**Residence**	**Rated internet experience****	**E-consultation experience**
ppn 1.	vrouw	50	5	Borchem	8	nee
ppn 2.	vrouw	50	5	Hengelo	8	nee
ppn 3.	vrouw	69	3	Hengelo	5	nee
ppn 4.	vrouw	69	3	Hengelo	7	nee
ppn 5.	man	69	6	Hengelo	8	nee
Average		**61,4**			**7,2**	**nee**

Tabel 2. Respondent information FGD sessions 4 t/m 5.

Session 4. 04-10-2011	Gender	Age	Education*	Residence	Rated internet experience**	E-consultation experience
ppn 1.	man	27	7	Zwolle	8	nee
ppn 2.	vrouw	24	6	Enschede	8	nee
ppn 3.	vrouw	45	6	Hengelo	7	nee
ppn 4.	vrouw	17	5	Hengelo	9	nee
ppn 5.	vrouw	45	6	Enschede	8	nee
ppn 6.	vrouw	27	6	Hengelo	8	nee
Average		**30,83**			**8**	**nee**
Session 5. 07-10-2011	**Gender**	**Age**	**Education***	**Residence**	**Rated internet experience****	**E-consultation experience**
ppn 1.	man	24	6	Hengelo	9	nee
ppn 2.	vrouw	24	6	Hengelo	8	nee
ppn 3.	vrouw	23	7	Hilversum	8	nee
ppn 4.	man	58	6	Hengelo	7	nee
ppn 5.	vrouw	55	4	Hengelo	7	nee
Average		**36,8**			**7,8**	**nee**

Total average	**8 men / 20 women**	**39,57**	**71% highly educated**	**Twente**	**7,87**	**nee**

*Explanation to the level of education
1 = primary school
2 = LBO/VBO/VMBO
3 = MAVO/first 3 years HAVO of VWO/VMBO
4 = MBO
5 = HAVO en VWO/WO propedeuse
6 = HBO/WO bachelor or undergraduate
7 = WO doctorale or Master

**Explanation rated internet experience
1 = very low internet experience
10 = very high internet experience

7.5. Coding Scheme

In this coding scheme, all single codes can be found.

7.5.1. Usage intention

Main code: situational factors

Code	Addition	Example statements
Situations	Suitable	*'als je thuis zit en je hebt bijvoorbeeld kinderen ofzo en je kan moeilijk weg, dan is het wel makkelijk.'*
	Unsuitable	*'ja maar als je al denkt van ik vind het te ingewikkeld worden dan zou ik niet e-consult, dan zou ik gewoon bellen voor een afspraak. Dan zou ik al niet eens beginnen aan een e-consult.'*
Conditions	Suitable	*'(...) ik kan me wel voorstellen dat je met een vraag komt van ik ben al drie weken verkouden, wat kan dat inhouden?'*
	Unsuitable	*'maar je moet sowieso al het onderscheid maken tussen spoedeisende hulp of redelijk spoedeisende hulp want zoals net 'pijn in de borst' ja dan ga ik echt geen internetdokter raadplegen. Dan loop ik naar het ziekenhuis. Of ik ga naar de huisarts.'*

Main code: doctor-patient relationship

Code	Example statements
Doctor-patient relationship	*'ja maar gewoon het idee dat die persoon dat je die ooit een keer eerder hebt gezien dat maakt het hem denk ik dat je je eigen huisarts wel op zo'n e-consult, want in principe heb ik hem ook al jaren niet gezien maar het is gewoon een idee dat je bij een persoon hebt ofzo en dat is wel weer een relatie dus dan zou relatie wel invloed hebben.'*

Main code: usefulness and benefits

Code	Example statements
Need for e-consultation	*'ja ik denk dat er zijn zeg maar echt weinig barrières om toch bij de huisarts een afspraak te maken.'*
Time-saving	*'dat wachten is inderdaad wel vervelend. Dan zou internet wel heel handig zijn, zou het wel fijn zijn als dat zo snel zou kunnen.'*
Benefits	*'maar ik denk dat het vooral voor de patiënt prettiger is. Want als ik de arts bel en je kunt dan bijvoorbeeld tussen 9 en 12 bellen om maar wat te noemen, en ze is de hele tijd in gesprek met mensen die bellen, dan weet ik bij god niet wanneer moet ik dan bellen, hoe lang moet ik blijven hangen, wanneer is ze bereikbaar.. Dus op het moment dat jij dus een chatsessie hebt, waarbij staat, er zijn nog 10 wachtenden voor u, dan weet je ook wanneer je aan de beurt bent.'*

Main code: trust

Code	Sub code	Addition	Example statements
Certification	*Quality Assurance*		*'maar als je vanuit de industrie kijkt, daar zijn verschillende certificeringen verschillende keurmerken, kwaliteitskeurmerken, milieukeurmerken, ik denk op het moment dat jij een e-consult doet dat dat er wel aan vast moet zitten. Omdat je daar dan vertrouwen op kan baseren.'*
Doctor	*Qualifications doctor*		*'Hoe kom ik achter de deskundigheid van iemand, wat is ja hoe zeg je dat, een soort van kwaliteitsgarantie? Hoe is dat geregeld? Daar zou ik vragen over hebben. Voordat ik mijn ziel en zaligheid blootleg'*
Doctor	*Personal physician /unfamiliar physican*		*'ja dat ik het alleen zou willen met mijn eigen huisarts of in ieder geval met een arts die mij kent en voor de rest zou ik er geen verdusie in hebben nee.'*
	Knowledge of medical history		*'hij weet ook wat in de familie dan voorkomt want meestal zit de hele familie dan bij, vaak, bij dezelfde huisarts. Dus als bijvoorbeeld de moeder ergens van ziek is geweest en daarna krijgt de dochter hetzelfde dan weet diegene wel van goh het zit in de familie en ik denk dat als je een andere huisarts hebt of iemand die je gewoon ineenkeer krijgt die weet dat allemaal niet. Tenzij er zo'n medisch, hoe noem je dat? Zo'n dossier is.'*
Health care organisation	*Conflict of interest*	Health insurer	*'Ik vind de zorgverzekeraar niet onpartijdig. Die gaat voor zijn eigen geld, heb ik het idee.'*
		Other	*'er zijn genoeg artsen die ook naar mijn idee veel vaker naar het geld kijken in plaats van naar de patiënt'*

Main code: risk

Code	Sub code	Example statements
Data abuse	*Privacy concern*	*'en hoe vaak zijn je eigen gegevens, als je ziet wat voor vragenlijst je moet invullen, waar blijft dat, wordt het ergens opgeslagen, waar gaat het naartoe? Want tegenwoordig wordt alles gekraakt.'*
	General internet safety	*'ik weet waar je op moet letten omdat je zelf online heel veel dingen doet en daarmee werkt, weet je wel waar je op moet letten, maar je weet ook dat heel veel dus niet veilig is.'*
	System safety	*'het is meer van stel je nou voor je moet inloggen, bijvoorbeeld met je Digid ofzo en er zit een overheidsinstantie achter die daadwerkelijk controleert, dan vertrouw ik wel dat er een arts zit. Of als het met je eigen huisarts is, dan vertrouw ik het nog wel als het zijn persoonlijke site is en dan heeft hij ook mijn medisch dossier en dergelijke en dan kun je er wel een check inbouwen. Maar gewoon een site, ja dat weet ik niet.'*
Risk of mis-communication		*'maar zoiets lijkt me ook heel moeilijk voor mensen om te omschrijven. Ze weten al amper wat ze hebben, hoe ze het moeten benoemen en wat komt er dan bij zo'n arts over?'*
Risk of wrong diagnosis		*'ja maar dat is volgens mij dus het gevaar kijk jij kunt denken van ik heb hier een klein sneetje en ach valt wel mee, even een adviesje, maar voor hetzelfde geld is het hartstikke ontstoken en heb jij een beginnen de bloedvergiftiging maar dat zie jij niet en die arts ziet dat niet, maar dan heb je een groot probleem.'*

Main code: lack of face-to-face contact

Code	Sub code	Example statements
Face-to-face contact	*Lack of face-to-face contact*	*'nou weet je wat ik altijd heb, ik wil mensen graag in de ogen kunnen kijken. Dat zal ik missen. Je kijkt vaak naar de ogen, ook als je met iets komt dan bij een arts ofzo dan zie je vaak aan de ogen wel van noh dat voelt niet goed of dat voelt wel goed.'*
	Solving tools	*'en een webcam dan bijvoorbeeld bij zo'n chatsessie dat je dan echt iemand aankijkt (...)'*

Main code: perceived costs

Code	Addition	Example statements
Cost-effectiveness	*Yes*	*'ja in deze tijd van bezuiniging zou het misschien heel handig zijn om op die manier herhalingsrecepten aan te vragen. (...) Want dat scheelt heeeel veel geld.'*
	No	*'er wordt gedacht dat het misschien best wel goedkoop is maar dan kan het misschien nog wel eens duurder gaan worden doordat een arts de hele dag met e-consult bezig is.'*

7.5.3. Other discussed factors

Main code: other discussed factors

Code	Example statements
Experience	*'nee ik heb het nog nooit gedaan, maar ik het wel een keer gezien, en volgens mij kan dat ook via email enzo. Ik weet niet of er een dokter achterzit ofzo of iemand die misschien medisch onderbouwd is'*
Social influence	*'ja maar ik denk wel dat ik nog zou afwachten totdat ik een beetje ervaring van anderen heb gehoord, en dan pas zou ik zelf de stap nemen..'*
Future vision	*'ik denk dat in de toekomst, het online e-consult een hele belangrijke bijfunctie heeft in de medische wereld. Dat je ten alle tijde gewoon een face-to-face contact moet kunnen hebben.'*
Ideas	*'(...) Je gaat bijvoorbeeld naar de website naar dokter.nl en dan kun je daar op een ding klikken e-consult, dan krijg je een nieuw schermpje en dan krijg je zeg maar zoveel wachtenden voor u en met een en dan schuif je elke keer een plaatsje op of dat je van tevoren aangeeft van het is heel belangrijk of het is minder belangrijk of dit zijn de basiskenmerken..'*
Integrity patient	*'ja en dan is er nog de vraag van, ja en dat is natuurlijk je eigenverantwoording, vul je alles goed in, of eerlijk in.'*

7.6. Comparing the first and second coder

QUOTES	CODER 1 (RESEARCHER)	CODER 2 (EXTERNAL CODER)
'ik denk dan eerst echt meteen van 'hoe garandeer ik dat daar echt een arts zit'.	**qualifications doctor**	**qualifications doctor, lack face-to-face contact**
'het is meer van stel je nou voor je moet inloggen, bijvoorbeeld met je Digid ofzo en er zit een overheidsinstantie achter die daadwerkelijk controleert, dan vertrouw ik wel dat er een arts zit. Of als het met je eigen huisarts is, dan vertrouw ik het nog wel als het zijn persoonlijke site is en dan heeft hij ook mijn medisch dossier en dergelijke en dan kun je er wel een check inbouwen. Maar gewoon een site, ja dat weet ik niet'.	**knowledge disease history, personal physician/ unfamiliar physician, safety system**	**safety system, own/unknown doctor, quality assurance**
'ja iets van een identificatie zeg maar van, ja, als ik nu naar de huisarts ga dan ga ik ook niet kijken of er een diploma aan de muur hangt, maar ik ga wel, ik verwacht wel dat er een overheidsinstantie is die reguliere checks doet dat dat een gerechtmatigde arts is.'	**qualifications doctor, quality assurance**	**qualifications doctor, quality assurance**
'ik zou wel willen weten wat zijn commerciële belangen zijn bij zoiets. Door wie wordt hij gestuurd, door wie wordt hij betaald en waarom. Dat zijn natuurlijk ook wel dingen dat je denkt van ja dat kan je bij je huisarts iets makkelijker face-to-face doen, of tenminste daar heb je wel beeld bij van ja dat is een man die heeft zijn praktijk en die moet zijn praktijk voeren, dat is allemaal wat meer gesetteld.'	**conflict of interest, lack of face-to-face contact**	**conflicts of interest**
'nou ik kan me ook voorstellen dat je in de toekomst gewoon betaald per minuut voor die chatsessie.'	**cost effectiveness**	**future vision, cost effectiveness**

QUOTES	CODER 1 (RESEARCHER)	CODER 2 (EXTERNAL CODER)
'Maar zo iemand kan ook in dienst zijn van een groter concern die bepaalde belangen heeft, commerciële belangen.'	**conflicts of interest**	**conflicts of interest**
'Dus hoe wordt dat transparant en wie zorgt dat daar geen commerciële belangenverstrengeling plaatsvindt.'	**conflicts of interest**	**conflicts of interest**
'en hoe vaak zijn je eigen gegevens, als je ziet wat voor vragenlijst je moet invullen, waar blijft dat, wordt het ergens opgeslagen, waar gaat het naartoe? Want tegenwoordig wordt alles gekraakt.'	**risk of data abuse**	**risk of data abuse, safety system**
'maar ook de andere kant hé, dan denk ik van stel ik ga vandaag bij Jantje shoppen en overmorgen ga ik bij Pietje shoppen en overmorgen ga ik bij Klaas een beetje .. en ik krijg van allemaal medicijnen voorgeschreven en ik haal mijn handeltje lekker binnen en ik ga er dingen mee doen die helemaal niet.'	**safety system**	**safety system, quality assurance, safety internet**
'ik zit veel meer te denken in de richting van, ja dat is tenminste het eerste wat in mij opkomt hoor, maar hoe kan een arts een goed oordeel geven als ie diegene niet gezien heeft. Want ik ben zelf heel erg van het holistische dat ik denk van nou als iemand met een klacht komt en die komt binnen dan kijk je naar een persoon hoe die in zijn totaliteit op dat moment is. Qua gezondheid enzo. Dat ik denk van wat voor huidskleur, heeft ie een beetje een vale kleur of hé het zijn veel meer hoe zeg je dat dat kenmerken die je op dat moment gewoon geeft. Dus op het moment dat iemand voor jou zit, en die komt met een bepaalde klacht dan ga jij ook op andere dingen letten die hij op dat moment niet zegt maar die hij gewoon ziet.'	**risk of misdiagnosis, lack of face-to-face contact**	**lack of face-to-face contact, website tools, risk of misdiagnosis**

QUOTES	CODER 1 (RESEARCHER)	CODER 2 (EXTERNAL CODER)
'want in hoeverre is een patiënt in staat om goed te beschrijven wat ie heeft.'	**integrity patient**	**risk of misdiagnosis, risk of miscommunication**
'ik denk dat er ook nog wel een mooi zelffilterend principe achterzit van ik denk als mensen zich een beetje ziekjes voelen, die komen nu bij de huisarts, maar ja als die naar zo'n e-consult gaan, ik bedoel heel veel mensen gaan naar de huisarts terwijl ze er eigenlijk niks te zoeken hebben.'	**dependent on situational factors, benefits**	**dependent on type of complaint**