The Effect of Offline versus Online Environments on Self-Disclosure, Self-Awareness, Privacy Concerns and Self-Efficacy During Medical Consultations, and the Role of Environmental Factors.

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Master's thesis

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January 21, 2022

Abstract

Understanding the factors that influence patients' willingness to provide critical health information is essential to provide adequate care. Therefore, the present study examines firstly whether the processes of self-awareness, privacy concerns and self-efficacy can explain the difference between offline and online self-disclosure, and secondly which environmental factors can clarify the experience of offline and online consultations. Through an experiment with a between-subjects design (n = 161), participants were provided with a scenario explaining what either an offline- or online medical consultation entailed. Based on these scenarios, the processes and self-disclosure were measured by providing statements, and the environmental factors were explored by means of two open-ended questions. In accordance with the present study's assumptions, privacy concerns were found to be greater online than offline, while for self-disclosure it was the contrary. Moreover, self-efficacy appears to influence self-disclosure. However, although there was a main effect, it was not mediated by the processes, as was expected. Concerning the environmental factors, it seemed that space, objects, sounds and other people were mentioned as contributing to the experience of an offline or online medical consultation. In conclusion, the environment seems to play a role in the perception of privacy concerns and self-disclosure and how undergoing a medical consultation is experienced. In addition, people's willingness to provide information seems to depend more on a person's motivation than on privacy concerns or how self-aware the person is. However, a follow-up study is needed to see whether different outcomes can be expected when ecological validity is increased or whether other mediators or moderators explain the relation between offline versus online environments and self-disclosure differently. Moreover, to see whether environmental factors influence self-disclosure and the processes, the factors need to be systematically manipulated in an experiment.

Keywords: self-disclosure, self-awareness, privacy concerns, self-efficacy, offline versus online environments, medical consultations, environmental factors.

The Effect of Offline versus Online Environments on Self-Disclosure, Self-Awareness, Privacy Concerns and Self-Efficacy During Medical Consultations, and the Role of Environmental Factors.

Due to the Covid-19 pandemic, patients and healthcare providers were forced to communicate online instead of face-to-face (Due & Licoppe, 2020; Nabity-Grover et al., 2020); hence, the use of video-mediated communication (VMC) increased, as it was often the only way to communicate (e.g., Ilomäki et al., 2021; Jiménez-Rodríguez et al., 2020). With VMC, communication takes place via a digital video application, such as Skype or Zoom, through the combination of video and audio (Due & Licoppe, 2020). VMC could have great potential in the coming years to be used more often for medical consultations, as our society is likely to continue to digitize, and Covid-19 might not be the last pandemic, meaning communication will likely take place even more remotely in future years.

During these medical consultations, people often need to share personal, mostly private, information, also called self-disclosure (Maloney et al., 2020). To ensure healthcare providers can still provide adequate and correct care when using VMC for medical consultations, it is vital to identify which underlying mechanisms of self-disclosure relate to people's willingness to disclose critical medical information. Moreover, VMC combines offline and online cues, and literature states that self-disclosure behaviour differs between offline and online channels (e.g., Attrill & Jalil, 2011; Misoch, 2015; Callaghan et al., 2013; Nguyen et al., 2012). As such, it is essential to consider both environments to identify which factors online (compared to offline) influence the experience of offline and online medical consultations and thus self-disclosure. Therefore, the first contribution of the present study is to test the processes underlying self-disclosure, that is, self-awareness, privacy concerns and self-efficacy, that can help explain the differential impact of offline versus online environments on self-disclosure. The second

contribution is to explore which environmental factors can help to clarify the difference between online and offline medical consultations.

The processes; self-awareness, privacy concerns and self-efficacy are terms often associated with self-disclosure in the literature (e.g., Bandura, 2006; Giles, 2004; Ignatius & Kokkonen, 2007; Joinson, 2001; Joinson et al., 2010; Maloney et al., 2020). For example, self-awareness can lead to increased self-disclosure via increased private self-awareness, but also to decreased self-disclosure via increased public self-awareness (Froming et al., 1982; Goukens et al., 2009; Hooi & Cho, 2014). Furthermore, privacy concerns also greatly influence self-disclosure. Due to the emergence of new media, people's privacy concerns increase as they often cannot control the gathering and saving of their information (Chang et al., 2015). This would likely result in less self-disclosure as the control someone has over their information determines if someone self-discloses or not (Chang et al., 2015; Kam & Chismar, 2006). In addition, perceived self-efficacy can lead to more self-disclosure because self-efficacy increases the motivation/intention to perform certain behaviours, such as self-disclosure, due to a high sense of self-confidence (Bandura, 2006; Giles, 2004).

The present study assumes that the differential impact of offline versus online environments on self-disclosure can be explained by, among other things, the processes underlying self-disclosure. This assumption is based on the fact that self-awareness, privacy concerns and self-efficacy are often described in the literature as explanatory factors for why people do or do not self-disclose, and more importantly, they also occur in an online and offline environment. As a result, there may be a distinction between offline and online self-disclosure since these particular environments may trigger certain processes in different ways as well. For example, offline, people may have other or fewer privacy concerns than online, which, in turn, affects self-disclosure differently. However, 'environment' is an almost all-encompassing concept,

so which elements within online and offline environments ensure that the processes and self-disclosure may be experienced, interpreted or achieved differently during medical consultations?

The current study believes that this question can be answered by focusing on the different characteristics that offline and online environments entail. Because, the perception of offline or online environmental factors/features, also defined as environmental or external elements, has a role in understanding any given concept (Masur, 2018). For example, closing a door or being alone can create a sense of privacy and may lower privacy concerns (Masur, 2018). Importantly, the fact that offline environmental factors have been shown to influence offline self-disclosure directly suggests that environmental factors may also influence the underlying mechanisms of self-disclosure. For example, according to several studies, architectural atmosphere, decorations, light intensity, and room size influence self-disclosure (Chaikin et al., 1976; Miwa & Hanyu, 2006; Okken et al., 2012). Hence, environmental factors can potentially help clarify the difference between online and offline consultations.

To conclude, as to the best of the study's knowledge, none of the existing studies measured all the process factors at once, and equally important, none of these studies was set in a medical context, therefore, the present study focuses on the processes of self-awareness, privacy concerns and self-efficacy in relation to self-disclosure during medical consultations. Furthermore, the processes and self-disclosure also differ for other reasons; however, this study focuses on environmental factors as literature is lacking on the effect of online environmental features and combined offline and online environments via VMC. By gaining these insights, the literature can be updated regarding which processes play a role concerning self-disclosure, best practices for video consultations can be given, and lastly, it can be determined which environmental factors might play a role during medical consultations which can be studied in depth in the future, in turn providing the practice with concrete guidelines on what the

environment of medical consultations must look like. Hence, the following research question emerged; *RQ: To what extent do offline versus online environments influence self-awareness, privacy concerns, self-efficacy, and self-disclosure during medical consultations, and what environmental factors are considered during offline and online medical consultations?*

Theoretical Framework

Online and Offline Self-Disclosure

Sharing personal information, which, usually, people would not just share with anyone, can be defined as self-disclosure (Maloney et al., 2020). In the context of medical consultations, self-disclosure can be seen as sharing, for example, your weight, lifestyle, diagnosis or disease-related symptoms. Self-disclosure can vary in 'frequency' (i.e., how often someone shares information), 'breadth' (i.e., the variety of topics someone shares), and 'depth' (i.e., how detailed or personal the disclosed information is) (Nguyen et al., 2012). Self-disclosure is an important variable to measure for medical consultations, as the level of self-disclosure determines the outcome of the care provided (Ignatius & Kokkonen, 2007).

Self-disclosure can occur both offline and online. Offline self-disclosure means that all involved people are physically present in the same environment when sharing information—for example, having a medical consultation in the doctor's practice. Whereas with online self-disclosure, all parties are not physically present in the same environment—for instance, communicating with a healthcare provider via VMC. Due to the rapid digitisation of our society, the possibility to self-disclose online has increased tremendously (Attrill & Jalil, 2011; Best et al., 2014; Livingstone & Brake, 2010). For example, in the past, people could only communicate 'online' by phone; now there are many more ways; email, chatrooms, VMC, social networking sites, and chat rooms.

Self-disclosure is a popular topic in scientific research, particularly concerning how people's self-disclosure behaviour differs online from offline. Online, people are more likely to divulge personal information than offline, especially concerning health-related issues, according to the great majority of research (e.g., Attrill & Jalil, 2011; Joinson 2003; Misoch, 2015; Suler, 2004). For example, people who are ashamed about their health problems tend to share more about their experiences with these problems online than offline (Rains, 2013). Moreover, psychiatric patients tend to be more open and truthful about their problems and behaviour online; likewise, patients visiting an STD clinic self-disclose more about their sexual behaviour and symptoms online than offline (Ignatius & Kokkonen, 2007; Joinson, 2001).

Despite the great conviction that there is greater self-disclosure online than offline, not all researchers agree with this notion. For instance, a literature review by Nguyen et al. (2012) revealed some contradictory results regarding greater self-disclosure online. Their literature review, including 15 studies, showed that self-disclosure was not specifically greater online than offline. Five studies showed that more personal information is shared online, whereas the other five studies showed the opposite; people share more information offline, and lastly, five studies showed that people's self-disclosure behaviour did not differ between channels.

Looking at the studies included in the literature review of Nguyen et al. (2021), this inconsistency in self-disclosure outcomes could be explained by different reasons. For instance, there are differences in the design of the studies; six studies used an experimental design where nine studies used a survey to measure self-disclosure. Furthermore, the studies also differed in how self-disclosure is measured; for instance, some studies measured the frequency of self-disclosure, the depth, level, actual or perceived self-disclosure or people's willingness to self-disclose. Because self-disclosure is not consistently measured the same in all studies, different outcomes could be expected. Moreover, the context in which self-disclosure is measured also

differed; self-disclosure concerning relationships, friendships, personal characteristics, et cetera. Lastly, different sample characteristics and countries of the study taking place could also have influenced the results, as someone's culture influences their self-disclosure behaviour (Ignatius & Kokkonen, 2007). These differences, in combination with the fact that self-disclosure is highly context-dependent (Barth et al., 2006; Emanuel et al., 2014), could result in different outcomes regarding self-disclosure.

Processes Underlying Self-Disclosure

Self-Awareness

Self-awareness is an often mentioned factor in the self-disclosure literature, as people must be self-focused to explain themselves (Morin, 2006). In addition, self-awareness also has an essential relation with managing one's health, as being self-aware results in better treatment outcomes (Muratore et al., 2019). Self-awareness may be described as the "capacity of becoming the object of one's own attention. In this state one actively identifies, processes, and stores information about the self", "one becomes self-aware when one reflects on the experience of perceiving and processing stimuli" (Morin, 2011).

Within self-awareness there are two subcategories, namely private and public, that determine the behaviour one exhibits, for instance, increasing or decreasing self-disclosure (Froming et al., 1982; Goukens et al., 2009; Ignatius & Kokkonen, 2007; Joinson, 2001). When people have private self-awareness, they tend to behave based on their own beliefs, as they are more conscious of their thoughts and feelings; hence self-disclosure increases (Froming et al., 1982; Goukens et al., 2009; Hooi and Cho, 2014; Joinson, 2001; Misoch, 2015; Wesch, 2009). With public self-awareness, people are focused on what impression they make on others and tend to behave based on social norms or assumptions of others, resulting in less self-disclosure (Froming et al., 1982; Goukens et al., 2009).

Self-awareness is context-dependent as self-awareness can be triggered differently by certain stimuli a person has been exposed to. For instance, mirrors, cameras, microphones, being among a group of people or even just one person (Froming et al., 1982; Goukens et al., 2009; Hooi and Cho, 2014; Misoch, 2015; Morin, 2011), determine whether a person feels self-aware. The current study expects self-awareness will be greater online since the characteristics of an online environment during a medical consultation via VMC, contain more of the stimuli that increase self-awareness than when a consultation takes place offline. For example, VMC uses a camera for video and a microphone for audio (Due & Licoppe, 2020). The video connection, where a person can see themselves, could resemble a mirror. Finally, the patient and physician are both present in either environment (offline or online), and thus the patient is never alone. As such, self-awareness may increase, as being among other people could amplify the stimuli (camera/mirror/microphone) already present in the online condition. Therefore, it is hypothesised that:

H1: *Perceived self-awareness will be greater in an online environment than in an offline environment.*

Privacy Concerns

Next to self-awareness, privacy concerns is an often mentioned factor regarding self-disclosure, as people determine whether to self-disclose or not by weighing the costs/risks of privacy loss and benefits of self-disclosure in a given context, such as medical consultations (Chang et al., 2015; Frye & Dornisch, 2010; Joinson et al., 2007; Joinson et al., 2010; Kokolakis, 2017; Maloney et al., 2020). The term privacy concerns refer to "individuals' beliefs about the risks and potential negative consequences associated with sharing information" (Baruh et al., 2017). However, there is still some inconsistency in the literature regarding how strong privacy concerns influence self-disclosure. For example, some studies argue that the concerns people

have regarding their privacy have a minor impact on self-disclosure, as people still share information despite claiming that they value privacy and would not just share personal information (Maloney et al., 2020). On the other hand, other studies claim that privacy issues do have a strong influence on a person's self-disclosure behaviour (see Kokolakis, 2017). This inconsistency could be explained by the fact that people place more value on current rewards than prospective threats such as the ones posed by privacy concerns (Joinson et al., 2007; Kokolakis, 2017). For instance, a current reward could be receiving adequate care due to sharing one's symptoms.

Moreover, people's privacy concerns could also be influenced by the environment. Meaning, people's perceived privacy concerns could be different online than offline. For instance, in an offline environment, people are primarily in control of their information flow; offline, people can choose with whom they want to share personal information, how much and how intimate the shared information is (Wesch, 2009). Furthermore, the reassurance that no one is listening is also easier to guarantee during, for instance, an offline medical consultation. In terms of an online environment, people usually cannot control the collection and storage of data they share (Chang et al., 2015). For instance, sometimes, a person has to share health-related information online to access a health domain. This data can remain on the internet for a long time, and usually, people do not know who has access to their data or with whom this data is shared (Chang et al., 2015; Kam & Chismar, 2006; Joinson et al., 2007; Kokolakis, 2017). Moreover, online, the chance of being hacked is greater than offline. With the lack of influence over self-disclosure online, the absence of control over one's information, and the inability to see if someone is watching or listening in via VMC, concerns about people's privacy will be greater online. Therefore, it is hypothesised that:

H2: *Privacy concerns will be greater in an online environment than in an offline environment.*

Self-Efficacy

Lastly, self-efficacy also has a relation with self-disclosure and is a term often used in health behaviour theories as self-efficacy strongly influences someone's behaviour towards, for example, living a healthier lifestyle (Giles, 2004). "Self-efficacy refers to the conviction that one can successfully execute the behaviour required to produce the outcomes" (Bandura, 1977, p.79, cited in Bandura, 2006). The relation between self-efficacy and behaviour can be explained by the theory of planned behaviour (TPB). According to this theory, people need an intention to undertake a specific task or behaviour (Giles, 2004). For example, the intention to self-disclose (behaviour) may be to receive care based on the problems a person indicates. However, to create this intention to exhibit a particular behaviour, the confidence that one can perform this behaviour is an essential determinant for the intention, and thus the performed behaviour. This is called self-efficacy (Giles, 2004). In the context of the present study, self-efficacy can be seen as the belief that a person can adequately disclose health-related information during a medical consultation.

Due to the different characteristics of an offline and online environment, self-efficacy might also be experienced differently, hence influencing the confidence or ability to self-disclose. For instance, according to Manstead et al. (2011), non-verbal cues (e.g., facial expressions) make communication more personal and therefore increase self-disclosure. Via VMC (online), these verbal cues are maybe less easy to see due to, for example, the camera not being on the same height as the doctor's face or due to technical issues (Gordon et al., 2020). Offline, facial expressions are perhaps better to perceive due to better eye contact and lack of interruption. As a result, people might experience higher confidence levels to share one's symptoms adequately. In addition, it may be easier to explain various health-related issues offline as a patient may

experience physical barriers online. For example, a birthmark on the back can only be displayed by an often built-in and thus fixed camera, which can make showing and explaining a symptom challenging, maybe resulting in lower levels of self-efficacy (Gordon et al., 2020), whereas offline, this is easier to show. Because the convenience of sharing information offline is likely to be higher, people might have more confidence that their story is being conveyed well and that they are being helped in the right way (Kim & Dindia, 2011). Therefore, it is hypothesised that:

H3: *Perceived self-efficacy will be greater in an offline environment than in an online environment.*

Mediating Effect

As mentioned above, the three processes; self-awareness, privacy concerns and self-efficacy, are related to self-disclosure and can be perceived differently depending on the environment (offline vs. online). Hence, the processes might mediate the relation between offline versus online environments, and self-disclosure. As a result, the following research question emerged:

Sub-RQ1: To what extent do self-awareness, privacy concerns and self-efficacy mediate the effect of offline versus online environments on patients' self-disclosure during medical consultations?

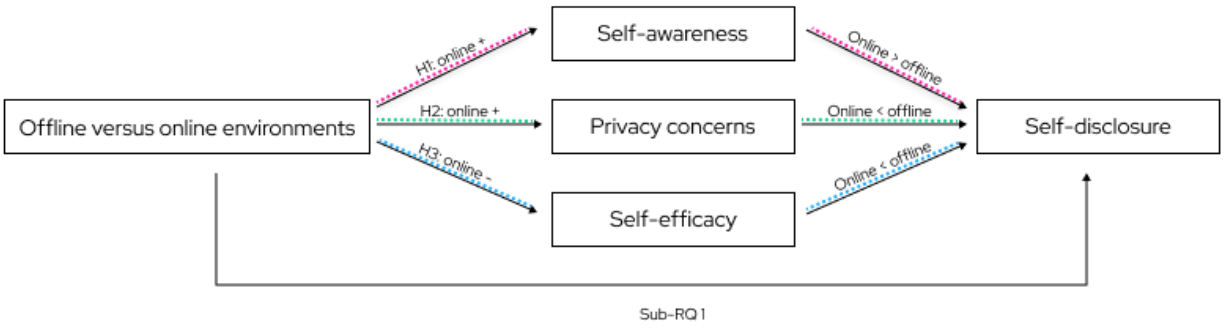

Figure 1. Conceptual Model of the Current Study Including the Three Hypotheses and Sub-RQ1.

Environmental Factors

As previously mentioned, the distinction between offline and online self-disclosure is a well-researched topic; nonetheless, studies continue to yield mixed results when it comes to whether self-disclosure is greater offline compared to online. These inconsistent outcomes may be due to the fact that self-disclosure can be influenced by many more factors in addition to the "channel" (online vs. offline) on which these two environments differ, namely the characteristics within these environments, also called environmental factors. Environmental factors refer to the "perceptions of physical cues of the environment (e.g., objects, barriers, artefacts, available behavioural options)" (Masur, 2018). For example, when someone is physically in a room during an offline medical consultation, environmental factors such as medical attributes or the atmosphere in the treatment room can be noticeable and maybe influence the experience of the consultation. While during an online medical consultation via VMC, other factors may stand out, such as experiencing both the patient's physical environment and the physician's environment via the video connection or the uncertainty of whether the patient and doctor are alone during the consultation.

The assumption that the characteristics within an environment influence the experience of a medical consultation, which in turn may determine the willingness to self-disclose, can be clarified by the fact that they play an essential role in explaining behaviour, according to different authors. For instance, according to the principle of contextual integrity, people adapt how and what information they share based on the context at a given time; "informational norms, appropriateness, roles, and principles of transmission" (Barth et al., 2006). Moreover, the audience is also part of a context that influences self-disclosure (Emanuel et al., 2014; Frye & Dornisch, 2010). The study of Emanual et al. (2014) also provided evidence for the importance of

context, as their study showed that although someone's personality traits influence self-disclosure (as stated in many studies), the context has an even greater impact.

Moreover, the importance of the environment regarding behaviour can also be clarified by the study of Masur (2018) and the theory of planned behaviour. For instance, Masur explicitly states that someone's behaviour is, among other things, determined by the characteristics of an offline or online environment in which individuals are located (Masur, 2018). "…However, it is not necessarily the specific nature of these characteristics that immediately determines the level of perceived privacy. Rather, it is its potentiality in safeguarding one's privacy that influences the level of self-disclosure at a given time" (Masur, 2018, p. 168). Furthermore, environmental factors are also crucial in determining the ability to perform a particular behaviour. For instance, determinants such as resources, skills and environmental factors (Zheng et al., 2020) partly determine whether the behaviour can be performed, according to the theory of planned behaviour (Zheng et al., 2020). Meaning, if an online environment has some barriers to performing a particular behaviour, actually executing this behaviour can be hindered (Glanz et al., 2008).

Another reason for the assumption of the effect of environmental factors could be that environmental factors have already been shown to impact self-disclosure directly. However, all these studies took place in natural settings where the respondents/patients were present in the physical environment (offline) with their healthcare provider. Thus, the online environment (through video) was not accounted for. For instance, a study by Chaikin et al. (1976) showed that when people were in a physical environment with a friendly/soft (homely) architectural atmosphere, people tended to disclose more information to their counsellor than when in a cold/hard architectural atmosphere. This also accounted for home-like decorations and the low light intensity, resulting in patients feeling comfortable and at ease. Miwa and Hanyu (2006) also provided evidence for this notion, as their study showed that home-like decorations and the low

intensity of light also resulted in patients feeling more comfortable and at ease. Besides the architectural atmosphere and lighting, the size of a room might also impact the level of self-disclosure according to Okken et al. (2012): a small room could make a person feel trapped, resulting in less personal information being disclosed.

In conclusion, from theory, we know that environmental factors play an essential role in behaviour; however, it is not yet known which environmental factors exactly and if they differ per environment. As a result, the following research question emerged: *Sub-RQ2*: *What environmental factors are considered during offline and online medical consultations?*

Method

Design

The current study aimed to answer *to what extent offline versus online environments influence self-awareness, privacy concerns, self-efficacy, and self-disclosure during medical consultations, and what environmental factors are considered during offline and online medical consultations?* To answer this research question, an experimental study was conducted with a between-subjects design. Participants were assigned at random to either the context of an online or offline medical consultation. The independent variable was the type of environment (i.e., online versus offline). Self-awareness, privacy concerns, and self-efficacy were measured as mediators. The dependent variable was self-disclosure.

Participants

By means of a *correlation: biserial model*, the power analysis showed that to achieve a medium effect size (r = .30), a minimum of 82 participants had to be recruited when alpha set at .05 and power at .80 (Faul et al., 2007). Hence, the current study aimed to recruit 100 to 140 participants. After data collection, a power of 0.91 was achieved (α = .05, n = 161, r = .23) (Faul et al., 2007).

The inclusion criteria for the current study were that participants had to be at least 18 years old to fill out the survey for General Data Protection reasons. There was no maximum age limit as adults of all ages could imagine/experience the situation where they have an online (e.g., via Skype) or offline (e.g., at the doctor's office) medical consultation. Furthermore, participants had to have had one or more appointments with a doctor in the past, otherwise they were forwarded to the end of the survey. The reason for this was that if participants had never seen a doctor before in their lives, it would probably be too difficult for people to answer the questions. 'Convenience' and 'snowball' sampling methods were used to recruit participants. Using these sampling methods, the researcher utilises their network and then asks that network to further disseminate the survey to their network (Treadwell, 2016).

A total of 212 Dutch-speaking participants started the survey, of which two participants were excluded from the sample due to not having visited a doctor ever in their lives, and 49 participants were excluded from the sample due to early dropout from the survey. After excluding data, the final sample size consisted of 161 participants (offline 84, online 77) (see Table 1 for other sample characteristics such as age and gender).

Table 1

Descriptives of Gender, Age, Education Level, Experience with a Video Call Tool and Visit to a Doctor

	Offline	Online	Total
Age (*M*) [1]	40.23 (15.45)	36.19 (15.82)	
Gender			
Women (*n)*	66 (41%)	64 (40%)	130
Men (*n)*	18 (11%)	13 (8%)	31

Education level			
Preparatory secondary vocational education (VMBO) (*n)*	3	0	3
Higher general secondary education (HAVO) (*n)*	6	4	10
Pre-university education (VWO) (*n)*	1	3	4
Secondary vocational education (MBO) (*n)*	19	10	29
Higher vocational education (HBO) (*n)*	36	31	67
University (WO) (*n)*	19	29	48
Experience with a video call tool (*m*)			
Yes (*n)*	70	72	142
No (*n)*	14	5	19
Usage of a video call tool (*M*) [2]	7.21	7.83	
Visit to a doctor			
Yes (*n)*	84	77	161
Number of visits to a doctor (*M*) [3]	2.61	2.38	
Imagination (*m*)	3.68	3.86	

Notes. [1] Ranging from 18 to 79

Notes. [2] Based on a 10-Point Likert scale, were 7 means “about once a week”, an 8 means “a few times a week

Notes. [3] Based on a 10-Point Likert scale, where 2 means “a few times a year”, and 3 means “about once every six months”.

Procedure

Through WhatsApp, LinkedIn and Facebook, a message was sent to the participants asking if they would fill out the survey. A web link that directed the participants to the survey in Qualtrics was included in the message. The survey was in Dutch because the experiment took place in the Netherlands.

In the survey introduction, participants received information about the duration of the survey, that data would be gathered anonymously, that participation was voluntary and that there were no significant risks or inconveniences from participating in the study —resulting in participants being appropriately informed before taking part in the study (see Appendix A). Following the explanation, participants were asked to agree or disagree with the consent form. By giving consent, participants agreed that they voluntarily partake in the survey study, that their given answers are collected for research, and that they could stop their participation in the study at all times.

After giving consent, participants were directed to the next page where the experiment started (see Appendix B for the complete survey). Participants first had to answer a question regarding their experience with visiting a doctor. If participants answered the question regarding their visit to a doctor with yes, participants were provided with a context description (either online or offline focussed). This context explanation can also be called a 'vignette'. By means of a vignette, a certain situation is described to the participants and they are asked to answer follow-up questions or statements based on this hypothetical situation. Hereby, the behaviour of participants can be examined or a reaction to a situation can be evoked (Karpinska et al., 2010; Rooks et al., 2000). The following context explanation was provided, where the bold part was different based on the context participants were assigned to; "*For the following questions, you must think back to a situation in which you had a conversation with a doctor. When answering the questions, consider a (recent) conversation with your doctor. Imagine that this meeting takes*

*place **physically on location in the doctor's practice** OR **online via a video conferencing tool, such as Skype or Teams.** If you cannot remember a conversation with the doctor, try to imagine a conversation with a doctor".* With one of these vignettes in mind, participants had to rate statements about their perceived level of self-awareness, privacy concerns, self-efficacy, and self-disclosure.

Following the statements, three open-ended questions were asked. The first open-ended question concerned what the medical consultation they imagined looked like while answering the statements, including if this was difficult or easy to imagine. Furthermore, two open-ended questions were asked regarding which elements in their environment (e.g., objects, people, sounds) made them feel good or bad about the consultation with the doctor. Additionally, questions were asked regarding participants' age, gender and education level. Lastly, two multiple-choice questions were asked regarding participants' experience with video conferencing tools and how often they used such tools.

At the end of the survey, participants were asked if they had any remarks about the survey they would like to clarify and were thanked for their participation.

Measures

Mediators

Self-Awareness. The scale of Govern and Marsch (2001) was taken to measure self-awareness. The scale consisted of nine items measuring self-awareness, public self-awareness and surroundings, using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Example items were: *"While sharing personal information with my doctor, I am acutely aware of everything in my environment"* (surroundings)," "*While sharing personal information with my doctor, I am aware of my inner feelings"* (private), *"While sharing personal information with my doctor, I am concerned about the way I present myself"* (public). The items of the self-awareness

scale (private-public and surroundings combined) had good reliability, α = .74. Following, an overall mean scale was created, where higher scores on self-awareness meant a greater amount of self-awareness. Moreover, for each component separately a mean scale was made, where higher scores on private self-awareness meant a greater amount of private self-awareness, lower scores of public self-awareness also meant a greater amount of private self-awareness, and high scores on surroundings mean that people were aware of their surroundings and thus environmental factors could play a role. Both the items regarding public self-awareness and surroundings had sufficient reliability, α = .63. However, the items regarding private self-awareness had low reliability, α = .59.

Privacy Concerns. The scale measuring privacy concerns was adapted from Bol et al. (2018). This scale consisted of five items measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). An example item of privacy concerns was: "*I am concerned that personal information could be misused by others when I have a consultation with my doctor".* The items of the privacy concerns scale had good reliability, α = .88. Hereafter, a mean scale was made, whereas higher scores on privacy concerns meant higher levels of privacy concerns.

Self-Efficacy. The scale measuring self-efficacy was adapted from Boerman et al. (2018). The scale consisted of three items measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). One question was added to fit the specific context of the current study. An example item was: *"I am able to discuss my health situation during a consultation with the doctor".* The items of the self-efficacy scale had good reliability, α = .81. Following, a mean scale was made where higher scores on self-efficacy meant higher levels of self-efficacy.

Dependent Variable

Self-disclosure was measured as a dependent variable through an adapted scale from Bol et al. (2018) the scale consisted of 13 items measured on a 5-point Likert scale (1 = very unlikely,

5 = very likely). Only 10 of the 13 items were adopted because the other three did not meet the current study's specific setting. All items started with the following question: "*How likely is it that you would like to share the following personal health information during a physical on-site consultation at the doctor's practice?",* and were followed by a specific statement, for example: *"Personal data about your food or diet* ". The items of the self-disclosure scale had good reliability, α = .94. Hereafter, a mean scale of self-disclosure was made, whereas higher scores on self-disclosure meant higher levels of self-disclosure.

Demographics

Questions were asked regarding participants gender (male/female/other), age (open-ended question), and level of education (Primary education/Preparatory secondary vocational education (VMBO)/Higher general secondary education (HAVO)/Pre-university education (VWO)/Secondary vocational education (MBO)/Higher vocational education (HBO)/University (WO)/Other, namely:/No education completed).

Background Variables

Questions were asked about whether participants ever visited a doctor (Yes/No). Lastly, it was asked how often participants visited a doctor. This question was measured based on a 9-point scale (1 = less than once a year, 9 = more than once a week). An example item was: "*How many times a year do you visit your doctor on average?".*

Control Variables

Questions were asked and later used as control variables to see if the outcomes of these two questions affected the other outcomes. In both the online- and offline condition, participants were asked how difficult or easy it was to imagine a visit to the doctor. 'Imagination', was adapted from Bol et al. (2018) and measured with one item on a 5-point Likert scale (1 = very difficult, 5 = very easy). An example item was: "*How easy or difficult was it for you to imagine a*

(recent) consultation with your doctor?". Furthermore, firstly, participants were asked if they had experience with a video-call tool (Yes/No). Secondly, it was asked how often they used a particular tool. This question was measured on a 11-point scale (1 = less than once a year, 11 = more than once a day). An example item was: "*On average, how often do you use video conferencing tools, such as Skype, Zoom, Microsoft Teams, etc.?".*

Data Analysis

To test H1-H3 and sub-RQ1, four independent sample *t*-tests were performed with offline versus online environment as an independent variable and self-awareness, privacy concerns, self-efficacy and self-disclosure as dependent variables. By means of the independent *t*-tests, mean scores between online and offline environments were compared and considered statistically significant when $p < .05$

Based on assumption testing (see Table 2 in Appendix C), the data was normally distributed for both conditions of self-awareness and for the online condition of self-efficacy, because the z-scores ranged from -1.96 to 1.96. However, the data was not normally distributed for both conditions of privacy concerns, for the offline condition of self-efficacy and self-disclosure, because the z-scores were not between -1.96 and 1.96. Due to problems with the normality of the data, bootstrapping was performed for the variables privacy concerns, self-efficacy and self-disclosure, as the variances may not be equal across groups (offline/online), resulting in a non-reliable *p*-value.

To test whether *self-awareness, privacy concerns, self-efficacy mediated the effect between offline versus online environments and self-disclosure (sub-RQ1),* a mediation analysis was performed. The analysis was carried out using Model 4 of the PROCESS macro (Hayes, 2017), which provided information about the direct paths between self-awareness, privacy concerns, self-efficacy (M) and self-disclosure (DV), indirect paths between environment (online

versus offline (IV) and self-disclosure (DV)), and the total effect of offline versus online environments on self-disclosure.

To test w*hat environmental factors are considered during offline and online medical consultations (sub-RQ2),* a content analysis was performed based on the two open-ended questions. The answers participants gave, based on the two open-ended questions regarding environmental factors, were coded (see Appendix D). This resulted in a list of categories of environmental factors. The list of environmental factors was used to compare the online and offline environment to see if there were differences in the prevalence of certain categories.

Results

Differences Between Offline and Online Environments

Regarding H1, participants in the offline condition (M = 2.87, SD = 0.05) reported on average similar scores on self-awareness as participants in the online condition (M = 2.98, SD = 0.07) (see Table 3 for the mean scores and SD of private- and public self-awareness and surroundings). Consequently, the difference between offline and online self-awareness was negative, not significant and large (d = 1.59) (M_{dif} = -0.10, t(159) =, -1.13, p = .260), hence, it can be concluded that perceived self-awareness is not greater in an online environment than in an offline environment (H1).

However, when looking at the data of H2, on average, it appears that participants indeed experienced different levels of privacy concern offline (M = 1.80, SD = 0.07) compared to online (M = 2.02, SD = 0.08). As such, the difference between offline and online privacy concerns was positive and significant as the confidence interval crossed zero (M_{dif} = -0.21, t(159)= -1.94, p = .059, BCa 95% CI [-0.45, -0.00]), and showed a large d = 2.74. Hence, it seems that perceived privacy concerns are in fact greater in an online environment than in an offline environment (H2).

Concerning H3, there were no notable differences to be found between perceived offline (*M* = 4.12, *SD* = 0.06) and online (*M* = 4.01, *SD* = 0.06) self-efficacy. Furthermore, because the confidence interval did not cross zero, it is possible to conclude that there is no significant and large (*d* = 1.58) difference in self-efficacy between offline and online environments (*Mdif* = 0.10, *t*(159) = 1.12, *p* = .287, BCa 95% CI [-0.08, 0.30]). Meaning, perceived self-efficacy is not greater in an offline environment than in an online environment (H3).

Finally, with regard to sub-RQ 1, there appears to be a difference between environments, as participants' willingness to self-disclose was greater in the offline condition (M = 4.53, SD = 0.05) than for participants in the online condition (*M* = 4.14, *SD* = 0.07). The confidence interval crossed zero, resulting in a significant difference between offline and online self-disclosure (*Mdif* = 0.39, *t*(159) = 4.22, *p* < .002, BCa 95% CI [0.21, 0.58]), and a large-sized effect *d* = 5.89. Although the data showed that self-disclosure differs between offline and online environments, the data does not support the hypothesis that perceived self-disclosure would be greater in an online environment than in an offline environment (sub-RQ1), as self-disclosure is greater offline than online.

Table 3

Descriptives of Self-Awareness, Privacy Concerns, Self-efficacy and Self-Disclosure

Items	Offline	Online
	M (SD)	*M (SD)*
Self-awareness	2.87 (0.05)	2.98 (0.07)
Private	3.03 (0.08)	3.17, 0.07
Public	2.61 (0.08)	2.76 (0.09)
Surroundings	2.98 (0.09)	3.00 (0.01)

Privacy concerns	1.80 (0.07)	2.02 (0.08)
Self-efficacy	4.12 (0.06)	4.01 (0.06)
Self-disclosure	4.53 (0.05)	4.14 (0.07)

Mediation Analyses; Effect of Environment on the Processes and Self-Disclosure

When looking at Figure 2, the mediation analyses showed that the direct effect of self-awareness on self-disclosure was negative and not significant (b = -0.04, SE = 0.08, p = .623). Furthermore, self-awareness cannot be considered a mediating factor for the effect of offline versus online environments on self-disclosure, as the total indirect effect was not significant, b = 0.00, 95% BCa CI [-0.01, 0.03].

The same results can be seen with regard to the mediating variable privacy concerns, as the data showed an insignificant and negative direct effect for privacy concerns on self-disclosure (b = -0.08, SE = 0.06, p = .193). Again, because the total indirect effect exhibited no significant outcomes, privacy concerns do not mediate the relationship between offline versus online environments on self-disclosure, b = -0.01, 95% BCa CI [-0.06, 0.01].

However, it seems that self-efficacy has a positive direct effect on self-disclosure (b = 0.28, SE = 0.07, p < .001. This implies that participants who reported greater self-efficacy tended to self-disclose more than participants who reported lower self-efficacy. However, once more, self-efficacy could not be considered a mediating factor for the effect of offline versus online environments on self-disclosure, as the total indirect effect was shown to be insignificant, b = -0.03, 95% BCa CI [-0.11, 0.01].

Lastly, the total effect of offline versus online environments on self-disclosure was negative and significant, b = -0.39, SE = 0.09, p < .001. Nonetheless, the total indirect effect of

offline versus online environments on self-disclosure was not significant = -0.04, 95% BCa CI [-0.13, 0.01]. (see Figure 2 for overview of effects).

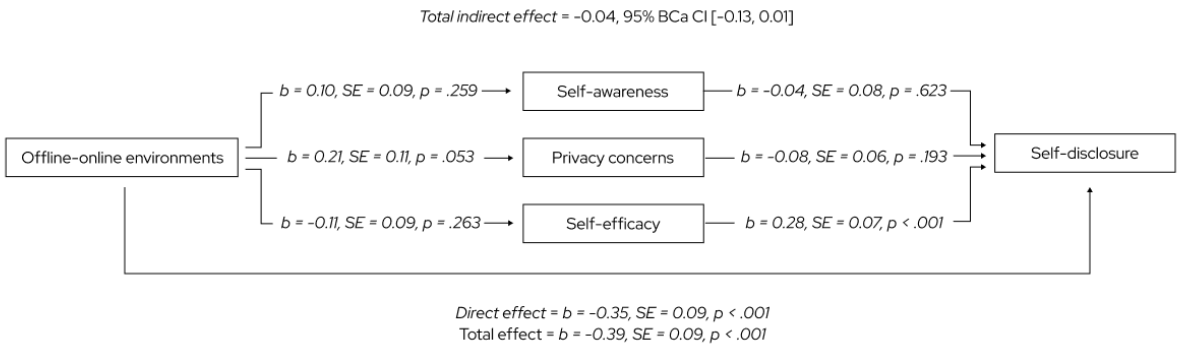

Figure 2. Model with Offline Versus Online Environments as a Predictor of Self-Disclosure, Mediated by Self-Awareness, Privacy Concerns and Self-Efficacy.

Environmental Factors

Based on the content analysis regarding environmental factors, a list of four main categories with subcategories was made. These four main categories were: space, objects, sounds and other people. In total, 77 utterances were made that were not necessarily about environmental factors, such as the doctor him/herself. There was not much variation between the offline and online environmental factors mentioned as, on average, the same categories were found in the online condition compared to the offline condition (see Table 4 for a clear overview). Nonetheless, the four main categories are discussed and compared across conditions.

In terms of statistics, the data described below displays the number of utterances (*n* = mentioned instead of number of participants (*n* = 161).

Space

All the factors that were mentioned that are related to the treatment room itself and which were more general have been placed under the category ‘space’. In total, participants stated 129 (41,1%) times that the space where the medical consultation took place strongly influenced the

participant's experience, of which 86 (44,8%) times in the offline condition and 43 (35,2%) times in the online condition. Based on the question regarding which factors *positively* influenced a medical consultation, in both the offline and online condition six subcategories stood out within the main category space, namely: calmness, privacy, neatness/cleanliness/freshness, homely-pleasant atmosphere, familiarity and light. Only the subcategory light was not mentioned in the online condition. Based on the question regarding which factors *negatively* influenced a medical consultation, only the lack of privacy and a homely-pleasant atmosphere were mentioned in both the offline and online conditions.

For example, both in the offline and online condition, a calm atmosphere in the consultation room was mentioned as a factor (offline: n = 19, 11,8%, online: n = 5, 5,7%). Moreover, participants mentioned that privacy influenced their experience of a medical consultation (offline: n = 16, 8,3%, online: n = 11, 9%). According to some participants, a feeling of privacy could be achieved through a closed door or window blinds. Furthermore, the participants also mentioned that they found it pleasant if the consultation room was light by means of windows or light intensity, for instance (offline: n = 11, 5,7%,). In addition, tidiness/cleanliness/freshness of the room was also indicated as a factor (offline: n = 12, 6,3%, online: n = 3, 2,5%). Moreover, participants indicated that the atmosphere positively influenced their experience (offline: n = 10, 5,2%, online: n = 15, 12,3%). Finally, participants mentioned that a familiar doctor's practice positively influenced a consultation (offline: n = 4, 2,1%). In the online condition, participants also mentioned that their own house provided a familiar surrounding (online: n = 5, 4,1%).

Objects

Within the category 'objects', all expressions made by the participants that have been designated as objects (i.e., material objects) are placed under this category. Two subcategories

were listed in the 'objects' category: professional items and personal items. On the one hand, participants mentioned that professional objects, such as doctor's equipment or medical books, made participants feel good about the consultation (offline: *n* = 6, 3,1%, online: *n* = 6, 4,9%). On the other hand, participants mentioned that the personal items of the doctor made them feel good about the consultation (offline: *n* = 4, 2,1%, online: *n* = 3, 2,5%). Examples of personal items could be photos of the doctor's family, children's drawings, or personal books or art. For instance, one participant mentioned: "*What always gives me a nice feeling at the doctor is when there is something personal in the room instead of just doctor equipment".*

Sounds

Within the category 'sound', all utterances made by the participants that were assigned as sounds (both the absence or presence of sounds), have been placed under this category. Participants mentioned that they found it pleasant if it was calm and quiet during a medical consultation (offline: *n* = 28, 14,6%, online: *n* = 20, 16,4%). This means that there were no external noises such as passing cars or other patients in other consulting rooms or the waiting room.

Other people

Within the category 'other people', all utterances mentioned by the participants that were assigned as other patients or people have been placed under this category. Participants mentioned that they wanted to be alone with the doctor when the medical consultation took place (offline: *n* = 11, 5,7%, online: *n* = 17, 13,9%). For instance, one participant mentioned: "*That I knew there were no other people around made me feel at ease".*

Table 4

Number of Mentioned Main- and Sub Environmental Factors

	Offline		**Online**		**Total**
	Pos n (%)	*Neg n* (%)	*Pos n* (%)	*Neg n* (%)	*n (%)*
Space	79 (49,1)	7 (22,6)	36 (40,9)	7 (20,6)	129 (41,1)
Calmness	19 (11,8)	-	5 (5,7)	-	24 (7,6)
Privacy	13 (8,1)	3 (9,7)	9 (10,2)	2 (5,9)	27 (8,6)
Light	11 (6,8)	-	-	-	11 (3,5)
Tidiness/Cleanness/Freshness	12 (7,5)	-	3 (3,4)	-	15 (4,8)
Atmosphere (Homely/pleasant)	10 (6,2)	-	10 (11,4)	5 (14,7)	25 (8,0)
Familiarity	4 (2,5)	-	5 (5,7)	-	9 (2,9)
Other	10 (6,2)	4 (12,9)	4 (4,5)	-	18 (5,7)
Objects	14 (8,7)	4 (12,9)	11 (12,5)	3 (8,8)	32 10,2
Homely (personal elements)	4 (2,5)	-	3 (3,4)	-	7 (2,2)
Professional (doctors equipment)	6 (3,7)	-	4 (4,5)	2 (5,9)	12 (3,8)
Other	4 (2,5)	4 (12,9)	4 (4,5)	1 (2,9)	13 (4,1)
Sounds	20 (12,4)	8 (25,8)	9 (10,2)	11 (32,4)	48 15,3
Calm & Quietness	20 (12,4)	8 (25,8)	9 (10,2)	11 (32,4)	48 (15,3)
Other people	7 (4,3)	4 (12,9)	8 (9,1)	9 (26,5)	28 (8,9)
Absence of others	7 (4,3)	4 (12,9)	8 (9,1)	9 (26,5)	28 (8,9)
The doctor	41 (25,5)	8 (25,8)	24 (27,3)	4 (11,8)	77 24,5
Friendly	7 (4,3)	-	-	-	7 (2,2)
Patience	8 (5,0)	3 (9,7)	1 (1,1)	1 (2,9)	13 (4,1)
Helpful	10 (6,2)	-	13 (14,89)	-	23 (7,3)
Familiarity	1 (0,6)	3 (9,7)	-	-	4 (1,3)
Other	15 (9,3)	2 (6,5)	10 (11,4)	3 (8,8)	30 (9,6)
Total utterances	161 (100)	31 (100)	88 (100)	34 (100)	314 (100)

Discussion

In the coming years, the popularity of VMC for medical consultation is likely to increase due to the digitisation of our society and possibility of future pandemics or other external factors. Hence, it is essential to know which factors play a role regarding the willingness of patients to disclose crucial health information, such as explanatory mechanisms and environmental factors that are mentioned in relation to how offline versus online consultations are experienced. Therefore, the current study aimed to answer *to what extent offline versus online environments influence self-awareness, privacy concerns, self-efficacy, and self-disclosure during medical consultations, and what environmental factors are considered during offline and online medical consultations?* Participants' perceived level of self-awareness, privacy concerns, self-efficacy, and self-disclosure were assessed through an experiment based on an offline or online medical consultation. Lastly, participants were asked which environmental factors influenced their experience of a medical consultation.

Main Findings

Effect of Environment on the Processes and Self-Disclosure

As expected, the study showed differences in people's willingness to self-disclose between offline and online environments. This can be explained by the fact that self-disclosure is highly context-dependent, as a person's self-disclosure behaviour is determined by the context of a particular situation. For example, whether it is appropriate to share information (Barth et al., 2006; Emanuel et al., 2014; Frye & Dornisch, 2010). Moreover, it seems that there are differences in people's privacy concerns between offline versus online environments, which are in line with the current literature. People's privacy concerns tend to be greater online, potentially because online; people have no control over who collects or stores their information (Chang et al., 2015); there is a risk of being hacked, and people may not know if, and who is listening or observing.

However, contrary to expectations, the study revealed no differences between offline versus online environments regarding people's level of self-awareness and self-efficacy. The fact that offline versus online environments do not seem to affect self-awareness and self-efficacy may be due to a limitation of the study design, namely a lack of ecological validity as the study is a scenario-based experiment. For example, although most participants indicated that they found it easy to imagine a previous consultation with the doctor in both conditions, imagining what one has experienced in a previous situation or what one would experience in a given situation may be different from an actual situation (Callaghan et al., 2013). Hence, participants self-reported measurements regarding self-awareness, self-efficacy and maybe even privacy concerns may be based on assumptions rather than the actual level of these concepts during a medical consultation (Rosenman et al., 2011; Vazire & Mehl, 2008). Thus, the interpretation of the current study results should be made with caution, as the validity of the results may not correspond to reality due to a lack of ecological validity.

Mediating Effects

According to the study's results, self-efficacy appears to influence self-disclosure. The participants' intention to self-disclose (behaviour) was probably very high because sharing essential information makes it possible to provide adequate care. This motivation could help explain the high level of perceived self-efficacy and self-disclosure, as intention is a crucial aspect of self-efficacy (Giles, 2004). Furthermore, another explanation could be found in the fact that due to Covid-19, people were forced to communicate online. As a result, the boundaries of what can and cannot be disclosed online may have faded, increasing self-disclosure. Meaning, before Covid-19, people may not have expected to discuss specific information online, as this may have been seen as not "appropriate" to do so. However, because the way of communication has changed, namely from offline to online, this perhaps also changed the contextual integrity of

online environments; people may have experienced that it is now appropriate to self-disclose certain information.

Contrary to expectations, self-awareness and privacy concerns seemed not to affect self-disclosure, looking at the general lower scores of privacy concerns and self-awareness compared to the high degree of self-disclosure. The high degree of self-disclosure may be because self-disclosure is a broad encompassing concept and can be measured in several ways, yielding various results. For example, self-disclosure can be measured by how often someone discloses information, the depth of the information disclosed, and the breadth (Nguyen et al., 2012). In the current study, only the willingness to self-disclose was measured through a set of predetermined statements, for example: whether participants wanted to share personal information, such as their height, weight, lifestyle, or the participants' medical history, diagnoses, or symptoms. Therefore, it was not possible to measure how much and what information participants would share in addition to these statements. Besides, participants may not have perceived these predetermined statements as very intimate, inappropriate, or something to be embarrassed about when to share these matters with the doctor. If participants were ashamed, they would probably be less likely to reveal themselves (Rains, 2013). As such, lower levels of self-disclosure may occur when other questions are asked or when self-disclosure is measured differently. In addition, as mentioned above, measuring behaviour through the use of self-reported measures has some limitations; participants may indicate that they would disclose their medical history, for example, when they would not do so during an actual medical consultation (Fisher & Katz, 2000; LaPiere, 1934; Vazire & Mehl, 2008). Therefore, participants may have overestimated their willingness to self-disclose, because participants are likely to give socially acceptable responses (Fisher & Katz, 2000).

Looking specifically at the lacking effect between privacy concerns and self-disclosure, people may have found that the costs/risks that might accompany self-disclosure do not outweigh its benefits. While people may have privacy concerns when sharing private information, people value current rewards more than future threats such as privacy concerns; therefore, self-disclosure will increase (Joinson et al., 2007; Kokolakis, 2017). For example, when participants completed the survey, they may have recalled that it was helpful to reveal private information themselves during their previous medical consultation, as it helped the doctor resolve their symptoms. In addition, participants' privacy concerns may have decreased because the risks accompanying self-disclosure may not have been harmful to the participants. The results also reflect this, as participants indicated a low level of privacy concerns in both conditions.

Mediating Effect of the Processes

Again, contrary to expectations, it seems that self-awareness, self-efficacy and privacy concerns did not mediate the relationship between offline versus online environments on self-disclosure. This outcome could be explained because it appears that offline versus online environments do not affect the processes, and self-awareness and privacy concerns do not affect self-disclosure. However, it seems that offline and online environments do affect self-disclosure. The presence of a relationship between offline versus online environments and self-disclosure may be because many other mediators can influence self-disclosure; for example, anonymity is also a factor often mentioned in the literature. For instance, by being anonymous, one can avoid rejection or social disapproval from others (Attrill & Jalil, 2011), increasing self-disclosure. However, due to the context of the current study, this process could not be measured. Therefore, it could be beneficial in a follow-up study to see whether other factors provide different outcomes concerning self-disclosure.

Moreover, the absence of a mediating effect between offline versus online environments and self-disclosure may also be influenced and explained by certain moderators. For instance, the absence of an effect of offline versus online environments on privacy concerns could also be explained by looking at trust as a moderator. For example, due to a high level of trust between patient and doctor, concerns about patient privacy may have decreased, and thus self-disclosure may have increased (A. Joinson et al., 2010). Furthermore, maybe age and gender have also changed the relationship between the processes and self-disclosure. For example, there was an unequal distribution of gender, as in total 130 (81%) women, whereas only 31 (19%) men participated in the experiment. Since most of the participants were women, this could have influenced the self-disclosure outcomes. While several studies (see; Ignatius & Kokkonen, 2007) show that there are no gender differences with regard to self-disclosure, other studies show a greater willingness to share information in women than in men (e.g., Dindia & Allen, 1992; Morgan, 1976). Moreover, participants aged around 25 and 65 were highly represented in the sample, whereas participants aged around 40 and above 65 were underrepresented (see Figure 3 and 4 Appendix E and F), which may have resulted in different outcomes. For instance, when looking at perceived privacy concerns and self-disclosure, privacy concerns may be greater for older people and influence the relationship between privacy concerns and self-disclosure (Goldfarb & Tucker, 2011; Walrave et al., 2012; Zeissig et al., 2017). This might also apply to the processes of self-awareness and self-efficacy. In addition, the unequal distribution of gender and missing ages can be seen as a limitation, as different results may occur when the sample includes more men and all ages are represented.

Environmental Factors

The current study had an explorative design regarding *what environmental factors are considered during offline and online medical consultations,* because little was known in the

literature about specific environmental factors. The environmental factors mentioned in the current study are somewhat in line with existing literature, for instance, according to various studies, architectural atmosphere, decorations, light intensity, and room size affect offline self-disclosure (Chaikin et al., 1976; Miwa & Hanyu, 2006; Okken et al., 2012). Yet many new environmental factors have come to light such as perceived calmness, privacy, tidiness/cleanliness/freshness and familiarity of a space, both professional and homely objects and the absence of external sounds and other people. No significant difference could be found between the type of indicated offline and online environmental factors, as on average the same factors were mentioned. Nevertheless, there is some difference in the number of environmental factors mentioned between environments. For instance, in the offline condition, in total 192 utterances of environmental factors were mentioned, whereas, in the online condition, a total of 122 utterances were mentioned.

Although participants reported having a good memory of a previous visit to the doctor, they may have found it difficult to imagine which environmental factors would positively or negatively influence their experience of a medical consultation if it were to take place online, as many people do not have much, or no, experience with online medical consultations (Barsom et al., 2018; Koonin et al., 2020). This difficulty in imagining might also be seen in the context description of the two environmental open-ended questions, as it seemed that even in the online condition, participants mainly thought back to an offline conversation with the doctor. However, no systematic data can be derived from these contexts. These reasons may explain why no differences between online and offline environmental factors were found.

Future Research

As mentioned above, the current study had some limitations, such as lack of ecological validity in the study design due to an online scenario-based experiment, use of self-reported

measures to measure expected behaviour, unequal distribution of gender and under- and over-representation of some age categories. These limitations may have resulted in different outcomes than if these limitations were not present, hence a follow-up study is needed to see if different outcomes could be expected. In addition, due to the explorative nature of the effect of the environmental factors during a medical consultation, a follow-up study is needed that involves systematically manipulating the environmental factors in an experiment to see if these elements influence self-disclosure and the processes.

In terms of improving the limitations of gender and age, a follow-up study can assure there is an equal distribution of gender and all age categories are well represented. A probability sampling method, such as a stratified sampling method, can be used to assure representation of gender and age, as then the population is divided in subgroups sharing similar characteristics (Treadwell, 2016). Hence, resulting in more representative and generalisable results. Moreover, to increase ecological validity, and diminish the limitation of self-reported measures, the same design of the current study can be used, however, instead of an online experiment, the participants will conduct the experiment in a lab setting. For instance, two rooms can be created in the lab to simulate both a doctor's office (offline condition) and a living room (online condition), maybe including the environmental factors mentioned in the current research as well in order to test these systematically. In both conditions, participants are having the same medical consultation with an actual doctor or an actor; offline a face-to-face consultation, online a consultation via VMC. For both conditions, a scenario could again be used to ensure the processes, and self-disclosure, in particular, is measured in the same way for all participants. After the consultation, participants may be asked to rate their sense of self-awareness, privacy concerns, and self-efficacy.

Practical Implications

Based on the outcomes of the current study some practical implications have been raised. The results of the current study show that people have more concerns regarding their privacy online than offline, however, it is important to ensure that these concerns remain as low as possible, as privacy concerns affect people's self-disclosure behaviour (e.g., Frye & Dornisch, 2010; Joinson et al., 2010; Kokolakis, 2017; Maloney et al., 2020). To reduce privacy concerns, physicians can further clarify that personal information shared during the online medical consultation will remain confidential, increasing self-disclosure (Ignatius & Kokkonen, 2007). In addition, it might help lower privacy concerns when patients are appropriately informed about the procedure of an online medical consultation before the consultation takes place. For example, it can be explained which data is collected and what is done with these data; how it is stored, for how long and how it is secured.

Based on the environmental factors participants indicated, it could be assumed that environmental factors play a role regarding the experience of a medical consultation. When these environmental factors are systematically tested in a follow-up study and results show these factors would actually influence the processes and self-disclosure, these environmental factors could be implemented in a treatment room. For example, participants often mentioned that a quiet, pleasant/homely atmosphere with no external sounds influenced the experience of a medical consultation positively.

The outcomes of the current study have gained new insights contributing to the literature towards self-disclosure during medical consultations, which, in turn, could contribute in further improvements of medical consultations and better care and patient experiences.

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Appendix

Appendix A: Consent form

Geachte heer, mevrouw,

Bij deze nodigen wij u uit deel te nemen aan een onderzoek dat wordt uitgevoerd onder verantwoordelijkheid van Tilburg School of Humanities and Digital Sciences (TSHD). Het onderzoek waarvoor wij uw medewerking vragen, is getiteld “In gesprek met de huisarts: Motivaties en ervaringen”. Aan dit onderzoek kunnen mensen van 18 jaar en ouder deelnemen die in het verleden eens of vaker een afspraak hebben gehad bij de huisarts.

Om deel te nemen aan dit onderzoek vult u online een vragenlijst in. Het invullen van deze vragenlijst duurt ongeveer 7 minuten. Er zijn geen goede of foute antwoorden. De gegevens die u invult zijn voor ons van grote waarde.

Dit onderzoek is goedgekeurd door de Onderzoek and Data Management Commissie van de TSHD. Omdat dit onderzoek wordt uitgevoerd onder de verantwoordelijkheid van de TSHD, heeft u de garantie dat:

1. Uw anonimiteit is gewaarborgd en dat uw antwoorden of persoonlijke gegevens onder geen enkele voorwaarde aan derden zullen worden verstrekt.
2. Deelname geheel vrijwillig is en u zonder opgaaf van redenen en zonder negatieve gevolgen kunt weigeren mee te doen aan het onderzoek of uw deelname voortijdig af kunt breken. Als u voortijdig stopt met het onderzoek zullen uw onderzoeksgegevens worden verwijderd.
3. Deelname aan het onderzoek geen noemenswaardige risico’s of ongemakken met zich meebrengt, er geen moedwillige misleiding plaatsvindt, en u niet met expliciet aanstootgevend materiaal wordt geconfronteerd.
4. Als u deelneemt aan dit onderzoek, worden uw gegevens anoniem geregistreerd en voor een periode van tien jaar bewaard.

Mochten er naar aanleiding van uw deelname aan dit onderzoek bij u vragen, opmerkingen of klachten zijn over het onderzoek en de daarbij gevolgde procedure, dan kunt u contact opnemen met de projectleider Dr. Nadine Bol (nadine.bol@uvt.nl). Voor eventuele opmerkingen of klachten over dit onderzoek kunt u ook contact opnemen met de “Onderzoek and Data Management Commissie” van TSHD via tshd.redc@tilburguniversity.edu.

Wij hopen u hiermee voldoende te hebben geïnformeerd.

Met vriendelijke groet,

Renske Plug

Dr. Nadine Bol
Prof. dr. Marjolijn Antheunis

INFORMED _CONSENT

Ik verklaar hierbij op voor mij duidelijke wijze te zijn ingelicht over de aard en methode van het onderzoek zoals hierboven uiteengezet.

Ik stem geheel vrijwillig in met deelname aan dit onderzoek. Ik behoud daarbij het recht deze instemming weer in te trekken zonder dat ik daarvoor een reden hoef op te geven. Ik besef dat ik op elk moment mag stoppen met het onderzoek. Als mijn onderzoeksresultaten gebruikt worden in wetenschappelijke publicaties, of op een andere manier openbaar worden gemaakt, dan zal dit volledig geanonimiseerd gebeuren. Mijn gegevens worden niet door derden ingezien zonder mijn uitdrukkelijke toestemming en worden voor een periode van tien jaar bewaard.

Als ik meer informatie over het onderzoek wil, nu of in de toekomst, dan kan ik me wenden tot Dr. Nadine Bol (nadine.bol@uvt.nl).

o Ik ga akkoord met deelname aan dit onderzoek.

o Ik zie af van deelname aan dit onderzoek.

Appendix B: Survey

OFFLINE CONDITION

Skip To: End of Survey If Informed consent statement = Ik zie af van deelname aan dit onderzoek

INTRO_1

Deze vragenlijst zal beginnen met een aantal vragen over uw ervaring met het bezoeken van een huisarts.

VISIT_1

Bent u weleens bij een huisarts geweest?

1. Ja

2. Nee

Skip To: end of survey if VISIT_1= Nee

VISIT_2

Hoe vaak per jaar bezoekt u de huisarts gemiddeld?

1. Minder dan één keer per jaar

2. Ongeveer één keer per jaar

3. Een aantal keer per jaar

4. Ongeveer één keer per half jaar

5. Een aantal keer per half jaar

6. Ongeveer één keer per maand

7. Een aantal keer per maand

8. Ongeveer één keer per week

9. Vaker dan één keer per week

INTRO_2

Participants will be randomly assigned to CONTEXT1 or CONTEXT2

{CONTEXT1}

Voor de volgende vragen is het belangrijk dat u terugdenkt aan een situatie waarin u een gesprek heeft met een huisarts. Stelt u zich hierbij voor dat dit gesprek **fysiek op locatie in de praktijk bij de arts** plaatsvindt. Bij het beantwoorden van de vragen kunt u een (recent) gesprek met uw eigen huisarts in gedachten nemen. Als u zich geen gesprek met de huisarts kunt herinneren, probeert u zich dan een gesprek met een huisarts voor te stellen.

SELFAWARE

In hoeverre bent u het oneens of eens met de volgende stellingen?

SELFAWARE1 Tijdens het delen van persoonlijke gegevens met mijn huisarts ben ik me scherp bewust van alles in mijn omgeving.

SELFAWARE2 Tijdens het delen van persoonlijke gegevens met mijn huisarts ben ik me bewust van mijn innerlijke gevoelens.

SELFAWARE3 Tijdens het delen van persoonlijke gegevens met mijn huisarts maak ik me zorgen over de manier waarop ik mezelf presenteer

SELFAWARE4 Tijdens het delen van persoonlijke gegevens met mijn huisarts ben ik zelfbewust over hoe ik eruitzie.

SELFAWARE5 Tijdens het delen van persoonlijke gegevens met mijn huisarts ben ik me bewust van wat er om me heen gebeurt.

SELFAWARE6 Tijdens het delen van persoonlijke gegevens met mijn huisarts ben ik aan het nadenken over mijn leven.

SELFAWARE7 Tijdens het delen van persoonlijke gegevens met mijn huisarts maak ik me zorgen over wat andere mensen van mij denken.

SELFAWARE8 Tijdens het delen van persoonlijke gegevens met mijn huisarts ben ik me bewust van mijn diepste gedachten.

SELFAWARE9 Tijdens het delen van persoonlijke gegevens met mijn huisarts ben ik me bewust van alle objecten om me heen.

1. Helemaal niet mee eens
2. Niet mee eens
3. Niet mee eens of oneens
4. Mee eens
5. Helemaal mee eens

PRIVCON

In hoeverre bent u het oneens of eens met de volgende stellingen?

PRIVCON1 Ik ben bezorgd dat persoonlijke gegevens misbruikt kunnen worden door anderen wanneer ik een consult heb met mijn huisarts.

PRIVCON2 Wanneer ik een consult heb met mijn huisarts heb ik het gevoel dat anderen kunnen bijhouden wat ik zeg.

PRIVCON3 Ik ben bang dat mijn persoonlijke gegevens die ik deel tijdens het consult met mijn huisarts niet veilig worden opgeslagen.

PRIVCON4 Ik ben bezorgd dat mijn persoonlijke gegevens die ik deel tijdens een consult met mijn huisarts verder worden verspreid naar andere partijen.

PRIVCON5 Ik ben bezorgd dat mijn persoonlijke gegevens die ik deel tijdens een consult met mijn huisarts gezien of gehoord worden door mensen die ik niet ken.

1. Helemaal niet mee eens
2. Niet mee eens
3. Niet mee eens of oneer
4. Mee eens
5. Helemaal mee eens

SELEF

In hoeverre bent u het oneens of eens met de volgende stellingen?

SELEF1 Ik ben in staat om tijdens een consult met de huisarts mijn gezondheidssituatie te bespreken.

SELEF2 Ik heb er vertrouwen in dat ik tijdens een consult met de huisarts mijn gezondheidssituatie goed kan overbrengen.

SELEF3 Ik kan ervoor zorgen dat ik tijdens een consult met de huisarts kan bespreken wat ik graag zou willen bespreken.

SELEF4 Ik ben in staat om tijdens een consult met de arts mijn (lichamelijke) gezondheidssituatie te laten zien.

1. Helemaal niet mee eens

2. Niet mee eens

3. Niet mee eens of oneer

4. Mee eens

5. Helemaal mee eens

DISCL

Hoe waarschijnlijk is het dat u de volgende persoonlijke gezondheidsgegevens zou willen delen tijdens een consult fysiek op locatie in de praktijk bij de huisarts?

DISCL1 Persoonlijke gegevens over uw lichaam, zoals uw lengte en gewicht.

DISCL2 Persoonlijke gegevens over uw lichamelijke conditie en fitheid, zoals uw beweging.

DISCL3 Persoonlijke gegevens over uw voeding of dieet.

DISCL4 Persoonlijke gegevens over uw levensstijl, zoals uw drink- en rookgedrag.

DISCL5 Persoonlijke gegevens over uw vitale functies, zoals uw bloeddruk en hartslag.

DISCL6 Uw medische voorgeschiedenis.

DISCL7 Uw diagnose.

DISCL8 Resultaten van medische onderzoeken.

DISCL9 Uw lichamelijke klachten.

DISCL10 Uw zorgen en angsten rondom uw gezondheidssituatie.

1. Zeer onwaarschijnlijk

2. Onwaarschijnlijk

3. Niet onwaarschijnlijk of waarschijnlijk

4. Waarschijnlijk

5. Zeer waarschijnlijk

INTRO_3

Er worden u nu een aantal vragen gesteld met betrekking tot de eerdere vragen over uw ervaringen en mening over een consult met de huisarts.

OPEN_VRAAG1

U werd gevraagd een (recent) consult met de huisarts in gedachten te nemen. Kunt u beschrijven hoe dit consult er in uw gedachten uitzag?

IMAGINATION

Hoe makkelijk of moeilijk was het voor u om een (recent) consult met uw huisarts in gedachten te nemen?

1. Zeer moeilijk
2. Moeilijk
3. Niet moeilijk of makkelijk
4. Makkelijk
5. Zeer makkelijk

OPEN_VRAAG2

Als u aan het consult met de huisarts denkt, welke zaken in uw omgeving (denk bijvoorbeeld aan objecten, personen, omgevingsgeluiden etc.) gaven u een goed gevoel over het consult met de huisarts?

OPEN_VRAAG3

Als u aan het consult met de huisarts denkt, welke zaken in uw omgeving (denk aan bijvoorbeeld objecten, personen omgevingsgeluiden etc.) gaven u een slecht gevoel over het consult met de huisarts?

INTRO_4

Nu volgt nog een aantal laatste vragen over uw achtergrond.

AGE

Wat is uw leeftijd?

_____

GENDER

Wat is uw geslacht?

1. Man

2. Vrouw

3. Anders, namelijk_____

EDUCATION

Wat is uw hoogst behaalde opleidingsniveau?

1. Basisonderwijs

2. Voorbereidend middelbaar beroepsonderwijs (VMBO)

3. Hoger algemeen voortgezet onderwijs (HAVO)

4. Voorbereidend wetenschappelijk onderwijs (VWO)

5. Middelbaar beroepsonderwijs (MBO)

6. Hoger beroepsonderwijs (HBO)

7. Wetenschappelijk onderwijs (WO)

8. Anders, namelijk: _____

9. Geen onderwijs afgerond

OPMERKING

Heeft u nog vragen of opmerkingen over deze vragenlijst of iets wat u zou willen toelichten?

_____

_____

_____

_____

_____

DEBRIEFING

Hartelijk dank voor uw medewerking aan het onderzoek. Uw deelname is van grote waarde voor ons. Uw gegevens zullen vertrouwelijk worden behandeld en anoniem worden opgeslagen en

verwerkt. Mocht u nog vragen hebben over het onderzoek, dan kunt u contact opnemen met Dr. Nadine Bol, telefonisch bereikbaar via (0)13 466 3145 of per e-mail op nadine.bol@uvt.nl.

OFFLINE CONDITION

Same questions mentioned above are asked in the offline condition.

{**CONTEXT2**}

Voor de volgende vragen is het belangrijk dat u terugdenkt aan een situatie waarin u een gesprek heeft met een huisarts. Stelt u zich voor dat dit gesprek **online via een video-conferencing tool, zoals Skype of Teams**, plaatsvindt. Bij het beantwoorden van de vragen kunt u een (recent) gesprek met uw eigen huisarts in gedachten nemen. Als u zich geen gesprek met de huisarts kunt herinneren, probeert u zich dan een gesprek met een huisarts voor te stellen.

VCEXP1

Heeft u ervaring met het hebben van een gesprek via een video-call tool (bijvoorbeeld Skype, Zoom of Microsoft Teams)?

1. Ja

2. Nee

Display Logic: Only display VCEXP2 if VCEXP1 = Ja

VCEXP2

Hoe vaak maakt u gemiddeld genomen gebruik van video-conferencing tools, zoals Skype, Zoom, Microsoft Teams, etc.?

1. Ongeveer één keer per jaar

2. Een aantal keer per jaar

3. Ongeveer één keer per half jaar

4. Een aantal keer per half jaar

5. Ongeveer één keer per maandag

6. Een aantal keer per maandag

7. Ongeveer één keer per week

8. Een aantal keer per week

9. Ongeveer één keer per dag

10. Vaker dan één keer per dag

Appendix C

Table 2

Z-Scores of Skewness and Kurtosis for Self-Awareness, Privacy Concerns, Self-efficacy and Self-disclosure

	Offline		Online		Normality
	z-score skewness	z-score kurtosis	z-score skewness	z-score kurtosis	
Self-awareness	-0.95	1.16	-0.47	0.49	*Met*
Privacy concerns	2.77	0.90	2.11	0.52	*Not met*
Self-efficacy	-3.16	3.49	-1.27	1.09	*Not met and met*
Self-disclosure	-3.47	0.13	-3.50	4.68	*Not met*

Appendix D

Table 3

Codebook of Environmental Factors

Code (positive and negative combined)	**Text**
Space	
Calmness (offline)	Rustige ruimte Rustige ruimte Rustige ruimte Rustgevende plek Rustige omgeving Rustige omgeving Rustige omgeving Rustige kamer Rustige/prikkelarme omgeving Rustige omgeving in de kamer Rustig Rustige omgeving in de kamer Spreekkamer is rustgevend Rustige Rust Spreek kamer is een “ rustige” ruimte De kamer zag er rustig uit Rustige spreekkamer rustig
Calmness (online)	Rustig (offline) Rustige omgeving Rustig (thuis) Rustig kantoor (offline) Rustige omgeving (offline)
Privacy (offline)	Privacy van afgesloten ruimte Privacy (privacy gordijn) Afgesloten ruimte Gesloten kantoor Afgesloten Dichte deur Deur was dicht Veel privacy Afgesloten ruimte De deur van de spreekkamer is gesloten. Afgeplakte ramen Afgeplakte ramen

	Afgedekte ramen
	Geen privacy Wellicht tijdens het bezoek aan de zuster, op verwijzing van de huisarts, gaf het een enigszins slecht gevoel dat het geen prive kamers zijn, maar aparte hokjes afgeschermd mrt een privacygordijn. Hierdoor kun je andere patienten alsnog deels zien en horen. Het maakt mij niet zoveel uit dat andere mij kunnrn zien, maar ik zie/hoor liever niet andere mensen en hun behandeling. De wachtkamer (gevoel van mensen die kijken of ze kunnen zien wat er mis met je is)
Privacy (online)	Privacy Deur was dicht (offline context) Deur was gesloten Afgesloten praktijkruimte (offline) Gesloten ruimte (offline) Afgesloten ruimte (offline) It was in private, with the door closed (offline) Gesloten deur Rustgevende omgeving waarin privacy geborgd wordt (gesloten luxaflex) (offline)
	De ramen, ik zou de gordijnen wel dicht doen.
Light	Open deur Kwam genoeg licht naar binnen/kon het park zien Grote ramen om naar buiten te kunnen kijken Naar buiten kunnen kijken Lichte ruimte Lichte ruimte Open ruimte Prettig licht Warm licht Veel licht De kamer is licht Lichte kamer
Tidiness/Cleanness/Freshness (offline)	Opgeruimde praktijk Fris Schoon Schone ruimte Schone ruimte Netjes Fris Opgeruimd De omgeving is schoon. Netjes

	Schoon voor t oog schoon
Tidiness/Cleanness/Freshness (online)	Schoon (offline) opgeruimd spreekkamer (offline) Netjes (offline)
Atmosphere (Homely/pleasant) (offline)	Prettige wachtruimte Sfeer in de praktijk Spreekkamer die mij op mijn gemak stelde Prettige consultruimte Prettige ruimte om vertrouwelijk te kunnen praten. De kamer is prettig. De kamer ziet er mooi uit en heeft een hoog plafond waardoor het prettig voelt Huiselijke inrichting Huiselijke sfeer Niet wit en kill/persoonlijke sfeer (woonkamer)
Atmosphere (Homely/pleasant) (online)	Prettige wachtkamer Fijne sfeer De sfeer De behandelkamer is niet te klinisch (offline) Aangenamen temperatuur Energie die er hangt Fijne omgeving (online -thuis) Huiselijke sfeer spreekkamer Huiselijke sfeer Huiselijke sfeer (offline) Vertrouwde omgeving van mijn huis Vertrouwde omgeving Bekende omgeving veiligheid eigen omgeving (online) Kille sfeer in wachtruimte Koud/ witte muren Aankleding spreekkamer kan prettiger. Grauwe omgeving, weinig kleur, weinig vreugde
Familiarity	Donkere kamer (offline) Bekende omgeving Vertrouwde/bekende plek Vertrouwde plek

	Veilige omgeving
Other (offline)	Kleuren van de praktijk Inrichting spreekkamer De inrichting Modern Wachtkamer Behandelkamer Het kantoor Hoe de binnenkomst is De ruimte De praktijk
	Geen frisse lucht Sfeer wachtkamer kleine kamer De ruimte vond ik niet heel mooi. Het is niet een gezellige kamer waar je gaat praten over je problemen. helemaal als het mentaal is, voor fysieke problemen begrijp ik het wel.
Other (online)	Genoeg ruimte (offline context) Kamer zelf Zelfde kleuren op de muur als thuis spreekkamer
Objects	
Homely (personal elements) (offline)	persoonlijke objecten van de arts Decoratieve dingen of posters wat niet te maken heef met medische wereld Persoonlijke objecten huiselijk bureau
Homely (personal elements) (online)	Fotos van kinderen van arts Fotos van zijn kinderen, en kast met zijn boeken en kunstwerken, maakt een persoon meer menselijk. Tekeningen van kinderen aan de muur
Professional (doctors equipment) (offline)	Vak producten (medische boeken en posters Aanwezigheid van computer zodat mijn gegevens en klachten direct in mijn digitale bestand worden opgeslagen. Aanwezigheid van printer zodat de dokter ter plekke scripts voor medicijnen kan uitprinten, zonder de kamer te hoeven verlaten, of zonder dat ik dit later bij de receptie moet ophalen Doktersgereedschap Ik zie veel medische boeken Professioneel apparatuur

Professional (doctors equipment) (online)	medische attributn scheppen vertrouwen De objecten op het bureau en de boeken in de kast gaven een professionele uitstraling (offline) Bloeddrukmeter etc, geneeskunde boeken Zakelijke sfeer
	De medische apparatuur geeft mij niet vaak een goed gevoel. Het maakt de afspraak nog spannender. Aan de andere kant laat het wel de professionaliteit van de arts en de praktijk zien. Het is daarom fijn om te kijken naar de boekenkast van mijn huisarts
	Meetapparatuur, notities, offline)
Other (offline)	hygiënische producten (handgel/handschoenen) Fijne stoel prettige stoel Geen bureau tussen mij en de arts – direct contact
	Tafel waar ik op moest liggen Geen plek voor kleren Ik denk zo een bankje waar je altijd op moet liggen, vooral dat nare papiertje De computer prominent aanwezig
Other (online)	Behandeltafel niet in beeld Dat je niet afgeleidt wordt door bijvoorbeeld een laptop met werkmails (online context) Een dekentje met bureau, eigen koffie, dekentje om mijn benen.
	Vaatwerk naast een pc, gevaar van toetsenbord mors
Sounds	
Calm & Quietness (offline)	Stilte Stilte Stille omgeving Weinig omgevingsgeluiden Geen lawaai Gebrek aan omgevingsgeluiden Goed geïsoleerde ruimte en geen achtergrondlawaai. Geen omgevingsgeluiden geen geluiden van een andere kamer Rust Rust Rust Rustig rustig Het was rustig in de spreekkamer

	Rust Regenachtig weer Zacht achtergrond geluid Geen afleiding Geen gekke geluiden. Treinen die steeds langsrijden Hoorde het verkeer langskomen Gehorige ruimte Omgevingsgeluiden Echo in BBC de hal Gepraar op de gang Hoogstens is het storend als de telefoon tijdens het consult gaat. Nabijheid van wachtkamer, gevoel dat mensen konden meesluisteren
Calm & Quietness (online)	Dat je niet afgeleidt wordt door bijvoorbeeld een tv die aanstaat. Stilte geen afleiding (online context) Stil (offline) Alle rust en stilte (offline/online) Hoorde geen andere geluiden, niet van buiten en niet intern. (online) Dat ik wist dat niemand ons kon horen (offline context) Geen andere mensen hoorbaar (offline) Muziek Geluid van auto's op de achtergrond Gehorigheid vanuit andere kamers Geluiden van andere ruimtes Helikopter Geluiden van andere patienten (offline context) Luid spreken. Buren die herrie maken (online) Niet met de huisarts maar wel dus dat je in de wachtruimte de gesprekken kunt horen van de dokterassistente die achter een glazen raam zit dat geluid doorlaat. En de gesprekken aan de balie die je kunt horen. (offline)" Ruis op de verbinding, herrie (online context) Tikken van de PC Geen muziek in wachtruimte Mijn katten kunnen storend zijn/afleidend zijn, evenals mijn werktelefoon.
Other people	
Absence of others (offline)	Aanwezigheid van 1 dokter 1 op 1 zonder dat er een collega aanklopt Er was niemand in de ruimte

	Alleen ik en de huisarts. 1 op1 Dat niemand mee kan luisteren Doordat we ik een kamer zaten met zn 2en had ik geen last van andere personen of geluiden. Mijn Moeder
	Kuchende persoon in de wachtkamer Wellicht tijdens het bezoek aan de zuster, op verwijzing van de huisarts, gaf het een enigszins slecht gevoel dat het geen prive kamers zijn, maar aparte hokjes afgeschermd mrt een privacygordijn. Hierdoor kun je andere patienten alsnog deels zien en horen. Het maakt mij niet zoveel uit dat andere mij kunnrn zien, maar ik zie/hoor liever niet andere mensen en hun behandeling. (angst dat iemand binnenkomt tijdens een onderzoek) Mensen parkeren vlak voorbij het raam.
Absence of others (online)	Dat er geen andere personen in de buurt waren (offline context) Dokter was enige in de kamer (offline cotext) Niemand in de omgeving (thuis) Alleen met de arts 1 op 1 gesprek met de huisarts zonder andere aanwezig (online/offline) Alleen met de arts Geen andere mensen zichtbaar (offline) Geen mensen in de buurt (offline
	Als er een stagiair bij zit Persoon die naast mij zat Onprettig als andere mensen in de buurt zijn (bv mijn partner) En dat er zomaar iemand binnen kan lopen Het idee dat ik mensen tegen kan komen in de praktijk die ik ken (offline context) Andere mensen Mensen in mijn omgeving die mij zouden kunnen horen Mogelijkheid dat andere mij horen. Zowel thuis, alswel bij de (digitale) huisarts Geen misschien alleen als je dingen bespreekt die bijvoorbeeld de mensen in je huishouden ook niet perse hoeven te weten zou het fijn zijn om alleen te zijn. (online)
The doctor	
Friendly (offline)	Vriendelijk Lief Aardig Professionele houding (vriendelijke maar zakelijk) vriendelijk Aardige huisarts

	Mijn arts is een prettig persoon
Patience (offline)	Straalt rust uit Arts zelf vrij rustig Alleen focus op de arts: rustig Arts kwam rustig over Arts was rustig rustige arts rustige huisarts Kalme houding van de arts
	Wanneer de dokter je niet aankijkt tijdens het gesprek en alleen maar aan het typen is De huisarts die maar half luistert. De duidelijk drukke arts
Helpful (offline)	Gehoord gevoel Betrokkenheid Behulpzaam Ze nam de tijd Belangstelling van de arts Neemt de tijd Het luisterend vermogen van de arts Huisarts is zeer toegankelijk Tijd voor mij als patiënt De huisarts zelf. Zij leek heel geïnteresseerd en vroeg ook door. Ze kwam met oplossingen en liet mijzelf ook dingen helpen inzien.
Familiarity (offline)	Bekende arts
	Ik had net een nieuwe huisarts. Dat vond ik een beetje ongemakkelijk dus op dat moment de huisarts zelf Niet zozeer een slecht gevoel, maar het is minder prettig als je een consult hebt bij een vervangend huisarts ipv je eigen huisarts. ik kende de huisarts nog niet
Other (offline)	Arts zelf Fijne arts Prettige uitstraling Prettige assistente Arts zelf Assistent zelf Arts zelf Arts zelf Arts zelf arts zelf HA zelf Personen in de praktijk

	Zelfde leeftijd Zelfde leeftijd Arts was optijd
	Dat de huisarts een man was was niet prettig Contact met de assistente van de huisarts.
Patience (online)	Tijd die die nam
	Er was haast, alles moest snel
Helpful (online)	Huisarts had aandacht Interesse, aankijken, notities maken Invoelend goed luisterend Luisteren, verdiepende vragen. Feedback over bevindingen De huisarts zelf: is hij empathisch, luistert hij, etc Werd geluisterd en ik werd serieus genomen Belangstelling Aandacht voor mij/in mijn ogen kijken (offline) Huisarts die mij al jaren kent en oprecht geïnteresseerd is. De tijd die de huisarts nam voor mijn gesprek en de rust in de toon waarmee ze mijn vragen beantwoordde (online) De huisarts gaf mij een goed gevoel dat er naar mij geluisterd werd (offline) De huisarts zelf, rustig en weet wat die zegt.
Other (online)	Huisarts zelf Huisarts zelf, Alleen de arts Vriendelijke assistente bij binnenkomst Huisarts zelf Huisarts en assistente Rustige persoonlijkheid Gastvrij onthaald (offline) Dokter had een masker op voelde veilig Dokter gaf mij een goed gevoel
	Liever een vrouwlijke arts, want zelf vrouw, dan mannelijke arts Assistent te informeel. Geen slecht gevoel gehad bij de huisarts zelf, dokterasitenten daar in tegen heb ik soms het gevoel dat ik niet gehoord wordt en ze liever niet hebben dat je langs komt (offline)

Appendix E

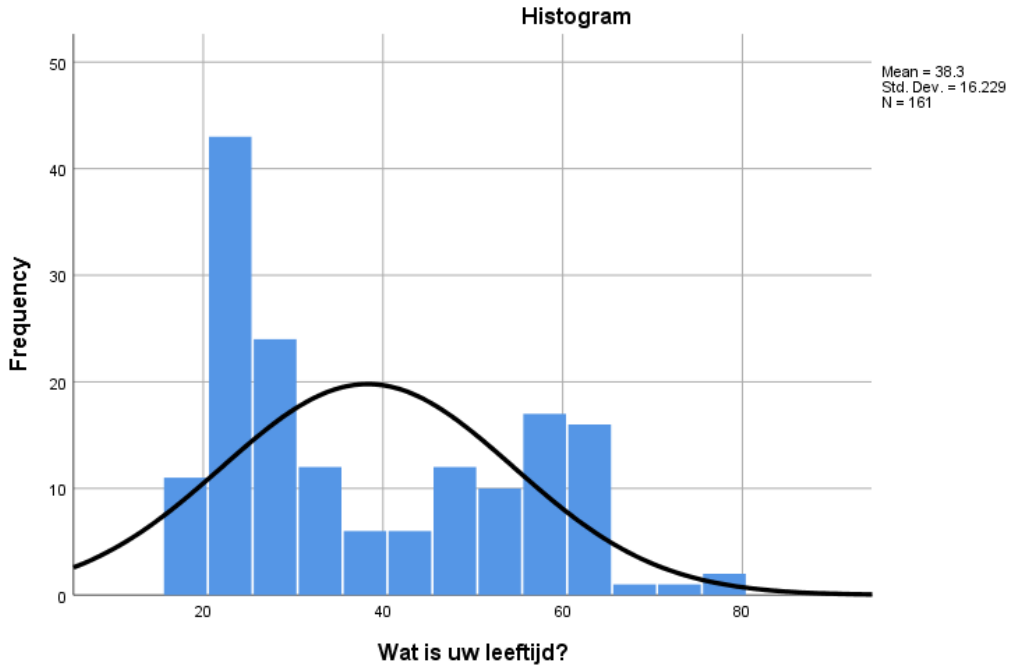

Figure 3

Distribution of Age

Appendix F

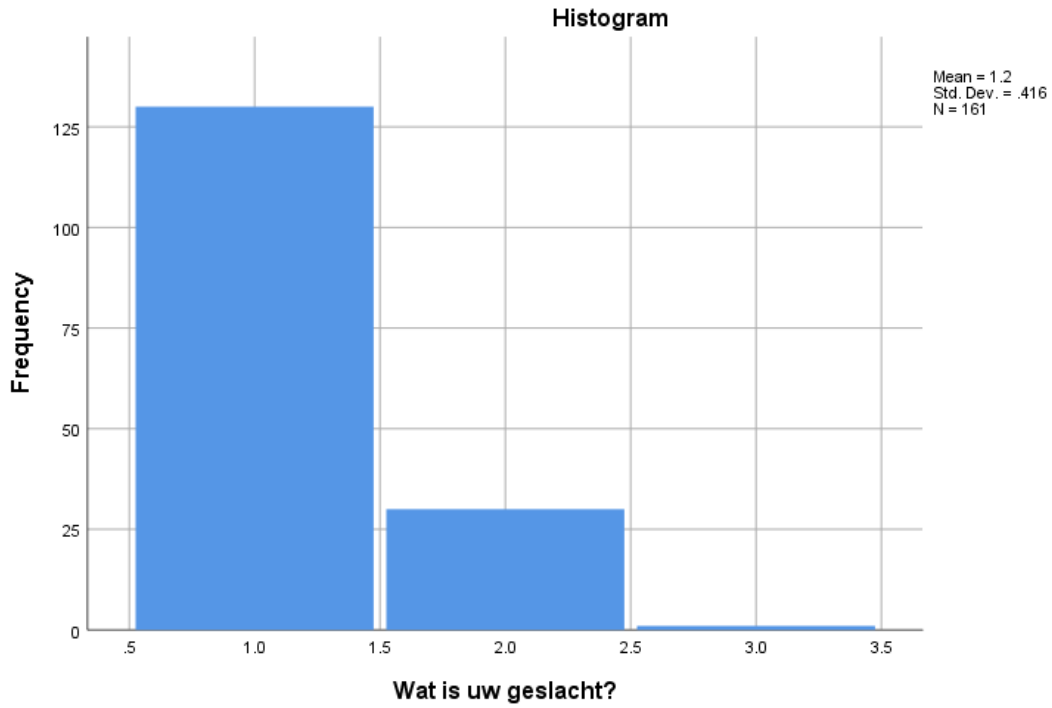

Figure 4

Distribution of Gender