

Acceptance of Video Conferencing in Healthcare Planning in Hospitals

Completed Research

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Abstract

Health information technology has become one of the most important resources for the development and improved efficiency of healthcare services. Frail elderly patients is a growing group of people that that requires healthcare. Different care providers have to participate in healthcare planning for frail elderly patients to ensure that the patient is provided with suitable care in his or her home. The use of video conferencing offers great potential for improving the efficiency and effectiveness of healthcare planning sessions, as well as reducing travel expenses. This paper reports from a qualitative study aiming at identifying and analyzing attitudes of hospital professionals, when using video conferencing for healthcare planning. The result indicates that the attitude toward using video conference tools is exclusively positive. The intention to use is high, due to the ability of the technology to make professionals' work more efficient, and that the technology can improve patient care.

Keywords

Video conferencing, technology acceptance, healthcare planning, adoption of technology.

Introduction

The use of information technology (IT) and information systems (IS) is widely accepted within the healthcare sector. Electronic health record (EHR), ePrescription, patient management, clinical decision support (CDS), patient care systems (PCS) and telemedicine service are introduced concepts that are critical for reducing the costs and improving the quality of healthcare (Aggelidis, et al. 2009; Gagnon, et al. 2003; Ifinedo, et al. 2016; Rho, et al. 2014; Villalba-Mora, et al. 2015). Over the last years, health information technology (HIT) has become one of the most important resources for the development and improved efficiency of healthcare services (Sun & Qu, 2015). As the population of Sweden is growing older, like in many other western countries, meeting the needs of the increasing amount of frail elderly patients constitutes a prevalent challenge (Ekdahl, Andersson & Friedrichsen, 2010). This is a patient group that requires healthcare from several different care providers, including hospital-based acute care services, primary care services and community care services (Gurner & Thorslund, 2003). Many frail elderly patients with multiple diseases need continued medical treatment and social care at home after they have been discharged from hospital. According to Swedish law, before the patient is discharged from hospital, professionals representing different care providers have to participate in the planning of that kind of healthcare in order to ensure that the patient is provided with suitable care in his or her home. This situation

calls for communication and collaboration between professionals from different care providers in a session that is also attended by the patient and his or her relatives. Traditionally, healthcare planning takes place in the hospital, which means that professionals from different care providers have to travel to the hospital. However, the use of video conferencing offers great potential for improving the efficiency and effectiveness of healthcare planning sessions, as well as reducing travel expenses (Hofflander, et al. 2013).

Despite good intentions and the benefits of IT for healthcare, studies have shown that some professionals have not fully accepted this use, or that implemented IT is underutilized (Frønsdal, et al. 2010; Holden & Karsh, 2010). Many studies have been conducted using the Technology Acceptance Model (TAM), and TAM with its extensions, for studies of adoption of technology within healthcare (e. g. Aggelidis, et al. 2009; Gagnon, et al. 2003; Ifinedo, 2016; Rho, et al. 2014; Yarbrough & Smith, 2007). Studies have shown that nurses tend to have both unfavorable attitudes (Montague, et al. 2013; Timmons, 2003) and more favorable attitudes toward the use of IT (Kaya, 2011; Leblanc, et al. 2012). Kwahk and Ahn (2010) also consider it important to study how computer habits affect the attitude of the user. Although TAM is most often used within quantitative studies, it is interesting to go into depth within the concepts of TAM to find out how underlying factors matter within the context of using video conference tools in a healthcare setting. Moreover, very little research has been conducted that focuses on professionals' use of video conferencing for healthcare planning in hospitals, where registered nurses, in their role as hospital professionals, collaborate with professionals from different healthcare providers within planning sessions. Thus, the aim of this paper is to identify and analyze underlying aspects of attitudes of hospital professionals, in relation to the TAM factors, when using video conferencing for healthcare planning. This will also contribute to the research of digital transformation in healthcare, as to give insight about important aspects of introducing information technology in healthcare.

Theoretical Framework

Healthcare Professionals' Acceptance of Information Technology

Healthcare is becoming increasingly complex, hence, providing patients with appropriate care is also becoming more difficult. Health Information Technology (HIT) consists of various forms of IT technologies intended to support and facilitate the work of healthcare professionals and to provide patients with good quality healthcare. Thus, HIT has the potential to make work processes more efficient for healthcare professionals and increase patient safety. It is possible to use information systems to define when patients should be admitted to a hospital, to receive x-ray results directly on a monitor, to receive opinions from specialist physicians from other hospitals and to access information about healthcare previously provided to patients in other hospitals. Communication and collaboration between different healthcare providers are facilitated by information technology. HIT facilitates and makes many other supporting processes more efficient, and can simplify work routines (Davis et al, 2009).

The implementation and acceptance of HIT constitute a rather slow process within the healthcare sector, and IT has not always managed to be widely used. A reason for this relatively late implementation of IT is the perception that many IT-systems are complex to use and will slow down, rather than facilitating, the performance of professionals' work (Kellermann & Jones, 2013). Professionals' acceptance of and attitude toward HIT have a great impact on the results of the implementation. A low level of acceptance of and poor attitudes toward HIT imply a delayed or unsuccessful implementation (Ketikidis et al, 2012). Moreover, task-relevant capabilities are based on individual abilities, and pertain to the tasks accomplished by using the technology. In this perspective the level of the professionals' knowledge or skills may be an indicative aspect (Serrano & Karahanna, 2016).

It is important to understand the attitudes of professionals toward HIT in order for it to be successfully implemented. In many cases, the assumption is that HIT will disturb their work and make it more difficult, while decreasing the time that can be spent with patients. The way the organization performs their implementation of HIT is thus an important aspect of its success, and is often denoted as the main aspect (Ifinedo, 2017; Yarbrough & Smith, 2007). The professionals would like to take courses concerning how to use HIT in their daily work. Many professionals are lacking general IT competence, which implies that those professionals will be unmotivated and afraid of using HIT (Yarbrough & Smith, 2007).

When organizations are implementing IT to facilitate professionals' work, those professionals have to be involved from the very beginning. If the professionals receive information right from the beginning of the implementation, chances that the professionals will feel motivated to use the new IT-system will increase (Malhotra & Temponi, 2010). Opinions of colleagues regarding implemented technology are also an important factor in relation to the attitude toward HIT (Yarbrough & Smith, 2007). It is therefore important to ask professionals about their personal views regarding HIT. By gaining knowledge about professionals' views and their experiences regarding HIT, and whether they find HIT user-friendly, it is possible to determine if the organization has performed an effective implementation (Yarbrough & Smith, 2007).

Video conferencing as work tools

Video conferencing tools are used within many areas for facilitating work, as they enable meetings to take place without the attendants having to be physically present. Video conferencing is the type of technology that most closely resembles personal meetings, and in recent years it has increased in usage (Park et al, 2014). However, the use of video conferencing tools is affected by attitudes of their users. In order to conduct a video conference, compared to a simple telephone call, some more preparations of technical artefacts are necessary. Since video conferencing tools are more complex to use, there is a higher risk of more negative experiences if the tools are not working correctly (Park et al, 2014). However, if a group of professionals is using video conferencing for a common meeting, they could inspire each other, as more positive users could assist less positive users. Hence, the norm and the structure of a group could have a high impact on the attitudes of professionals. However, there is a need for support for professionals both before and after the video conferencing tools are implemented (Hofflander et al, 2015). Professionals need information on how to use the tools, in order to be able to create favorable conditions for their work with healthcare planning. Thus, in what way the organization implements the video conferencing tools has a huge impact on the healthcare professionals' attitude toward the tools.

HIT can contribute to healthcare planning in terms of increased care quality, and can also save time for healthcare professionals and benefit the environment (Hertz, 2013; Hofflander et al, 2013). However, when video conferencing is introduced for healthcare planning purposes, professionals might perceive the patient as being more or less ignored, and gain the impression that only professionals could be favored by the video conferencing tools. The professionals fear that patients should miss out on human contact, and highlight this as an important aspect of healthcare (Hofflander et al, 2013).

Hofflander et al (2013) stress that the implementation of video conferencing tools should be well-structured and that a clear work routine should be in place, in order to motivate the professionals to use the video conferencing tools. Healthcare professionals who are involved in healthcare planning via video conferencing tools perceive the meetings as shorter, and believe these meetings is saving time in their daily work. Hospitals are eager to use video conferencing tools to a great extent, as these tools speed up discharge of patients from the hospital. If professionals from a municipality are unable to travel to the hospital on a certain day and time, this can be resolved by conducting the meeting as a video conference. This means the patient could be discharged faster, and hence will not unnecessarily block a bed in the hospital (Hofflander et al, 2015).

Technology Acceptance Model

Technology Acceptance Model (TAM) is an established theoretical model which has been used within various areas of acceptance of IT systems (Pai & Huang, 2011). TAM is seen as a paradigm within IS research and is one of the most cited theories about acceptance of IT (Marangunić & Granić, 2014; Ketikidis et al, 2012; Bagozzi, 2007). Since the 1990s, TAM has been used to explain why HIT has been either successfully accepted or not accepted by healthcare professionals (Holden & Karsh, 2010; Ketikidis et al, 2012). However, TAM has its limitations as it does not consider external impact factors involved in the acceptance of HIT (Yarbrough & Smith, 2007). Pai and Huang (2011), as well as Park et al (2014), have been forced to add external impact factors to TAM, in order to deliver better explanations of attitudes toward HIT. In particular, external impact factors should be added in relation to qualitative studies of acceptance of HIT (Venkatesh & Davis, 2000; Vogelsang, Steinhüser & Hoppe, 2013). Ketikidis et al (2012) believe that TAM2 is the model that is best suited for research about acceptance of HIT.

Two factors have originally been used in TAM; Perceived Usefulness (PU) and Perceived Ease-Of-Use (PEOU) (Marangunić & Granić, 2014). PU measures an individual's perception of how the work load can be heavier with the support of IT, whereas PEOU measures how an individual perceives the ease of use of IT. The direct indicator of the usage of IT is Behavioral Intention to Use (BIU) (Davis, 1989; Park et al 2014). However, both PU and PEOU have an impact on Attitude Toward Using (A); an individual's intention to use a specific IT system, which has an impact on BIU and the actual use of IT (Park et al 2014). TAM has then been further developed into TAM2, which also takes the following external factors into account (Marangunić & Granić, 2014):

- Subjective Norm (SN) – The thoughts of other individuals have an impact on the individual's acceptance of IT. An individual understands what other individuals think and will not have a contradictory opinion, in order to not be excluded from a group. Voluntariness and experience influence the relation between SN and BIU. Voluntariness is influential if an individual wants to use and perceive the advantages of IT, while not being concerned about what colleagues are thinking. Experience is influential if an individual knows how to use the implemented technology and how this technology could contribute to the work, while not being concerned about what colleagues are thinking.
- Image (I) – The individual wants to continue to be popular among colleagues, hence, image has an influence on SN. If an individual has a central role in a working group, he/she is more worried about causing that role to change if he/she goes against the group's opinion about IT. Experience has an influence between I and PU, as he/she knows how the implemented IT is going to contribute to their work, and thus, is not worried about causing the role to change.
- Job Relevance (JR) – JR explains to which extent it is possible to apply the technology in question to the work, according to the individual. If an individual understands that the IT implemented can be used in the work routine, this will, according to PU, influence the individual's thoughts in a positive way.
- Output Quality (OQ) – OQ explains to which extent an individual perceives that IT will make the work process more efficient. If an individual considers the work process as more efficient due to the implemented IT, this will influence the PU in a positive way.
- Result Demonstrability (RD) – An individual's perception of the reliability of the results of the use of the implemented IT. If the individual does not consider the results generated from IT as reliable, he/she is not going to like to use the implemented IT.

Research methodology

Methodological approach

This study is based on a qualitative approach, as the aim is to identify and analyze the aspects underlying attitudes of hospital professionals when using video conferencing for healthcare planning (Yin, 2003). By using qualitative data from interviews, more aspects regarding improvement and best practice can be discovered, with inspiration from TAM, than by using corresponding quantitative data (Vogelsang, Steinhüser & Hoppe, 2013). The external factors in TAM2 have proven to be important for deeper explanations of attitudes of HIT (Marangunić & Granić, 2014). Since we have interpreted feelings, experiences, expectations and thoughts from individuals, collected in semi-structured interviews based on a strategic selection, a qualitative approach is the best choice (Myers, 2013; Widerberg, 2002). Bagozzi (2007) claims that various new theoretical models extend the external factors in relation to TAM, which might give the results an unfavorable angle. For example, UTAUT has 41 independent factors, which make this theory difficult to use, and TAM3 has a similar design. Vogelsang, Steinhüser and Hoppe (2013) claim that TAM3 shows significantly worse results compared to TAM and TAM2.

Data collection and analysis

The seven respondents, six women and one man, have been using video technology frequently during the last six months in a hospital, and have all been responsible for healthcare planning within this region of Sweden. The number of sessions may vary from a few per week to several ones per day. All respondents are registered nurses who work in different hospitals as healthcare planning nurses. They use the same type of video technology as all other participants at healthcare planning meetings in the region. The majority of the respondents have extensive professional experience, between 20 and 30 years, with healthcare. Their experience with healthcare planning ranged from one month to 20 years. The experience of using IT in their

work varied among the respondents, but all of them had conducted healthcare planning using video conferencing tools. The interviews were recorded and transcribed verbatim.

Thematic analysis was used to analyze qualitatively collected data from seven interviews that lasted 30 to 40 minutes, focusing not on the number of interviews but rather on the rich data collected (Braun & Clarke, 2006). The analysis was inductively performed, based on the empirical data, although within the frame of reference of TAM and other acceptance literature:

- Usability and Ease of Use
- Subjective Norm
- Organizational impact
- Technical knowledge and experience.

Results and analysis

Usability and Ease of Use

In the respondents' experience, performing healthcare planning in the form of a distance meeting means the meeting becomes shorter and more efficient, since the meeting is more focused on and structured around information about the patient. Less social conversation occurs in distance meetings. Municipal employees, staff from primary care and the patient's relatives do not need to travel long distances to take part in the distance meeting. Some respondents state that video conference healthcare planning is more beneficial for municipal professionals and primary care professionals than it is for hospital professionals. Municipal professionals consist of municipal assistance assessors, registered nurses or rehabilitation therapists, primary care professionals consist of district nurses and hospital professionals consist of healthcare planning nurses in hospitals, that is, the respondents. The hospital professionals need time to prepare the electronic equipment before the meeting, which takes at least 20 minutes. When the meeting is over, the hospital professionals have to document information about the completed meeting in an IT system, which also takes 20 minutes. In meetings conducted with all attendees in the same physical place, hospital professionals usually perform the documentation during the meeting and are able to leave the meeting once their information to the patient has been presented. A distance meeting takes about 70 minutes in total to fulfil for the hospital professionals, including the added extra work, while a physical meeting takes them about 60 minutes to fulfil. The extra work that is added to a distance meeting means the distance meeting is not time efficient for the hospital professionals alone. As respondent 1 expressed it: *"I would say, it is not efficient at all for us, the healthcare team in the hospital. We need time to set up the equipment and prepare before the meeting."*

Although the respondents feel that video technology is not as beneficial for hospital professionals as for municipality professionals and other parties, they believe that video conference tools are relevant for their work tasks and for healthcare planning. An advantage, however, is that all professionals use the same video conference tools. There are various professionals who do not need to come to the hospital, such as municipality assistance assessors, rehabilitation therapists, district nurses, assistant nurses and so on, when a video conference based meeting is held.

The respondents see video conference tools as a step forward within the development of healthcare, since the meetings are shorter and thus save time. They believe the process surrounding the distance meeting needs to be refined and developed. They feel they need a clear scheme, for example on how documentation could be carried out during the meeting, as in physical meetings.

The hospital professionals found the video conference tools easy to use and navigate. However, they feel that disturbances in relation to both audio and video are two recurring problems. Respondent 3 tells: *"Sometimes problems have occurred, both with audio and video, affecting one or more participating sites. But it does not happen too often."*

Subjective norm

All respondents noted that their colleagues feel uncomfortable with video conference tools because it is something new for them. They feel some of their colleagues are uncomfortable with video conference tools,

and therefore think it is important they are able to practice more often. The hospital professionals seem to have different levels of knowledge when it comes to technology and feel that the hospital organization should take this into account. They find this as a stressful situation at work, where a limited group of professionals uses the video conferencing tools. Respondent 7 emphasized the importance of his colleagues' need to practice using the system before they use it in real situations: *"Some are skeptical and not really comfortable with the technology. It is therefore important to perform practical tests, so we can alternate, so they can feel comfortable."*

When the hospital professionals is going to attend a distanced healthcare planning session, they have to carry out some practical steps before the distance meeting, for example, sending an invitation in the form of an electronic link to all participating partners' email addresses. The participating parties must then accept the invitation by clicking on the link. The respondents told us that they often worry that the link might not work, which they find frightening. As respondent 6 expresses it: *"They think it's a little scary when you arrange a link for the municipality and primary care, which they should click on in order to connect to the meeting."*

The colleague's feelings of uncertainty concerning the video conference tools result in more work for the working group in the hospital, since they need to help each other more often than with physically meetings, both during and after the meeting. They are worried about not being able to manage the video conference system properly or what they should do if the system does not work. Respondent 2 contended: *"Like I said, there will be some concern for our working group, and we get more work."*

Organizational impact

In some hospitals, the implementation was conducted more than two years ago, whereas in other hospitals the video technology was fairly new to the professionals. Respondent 2 had actually been responsible for the implementation, that is, for arranging the technology, software and collaboration: *"I want it to be implemented and I have fixed the equipment here so that we can have video conference meetings, I have been asking for a video camera, so that we at least can have a place where we can perform a distance meeting ... Unfortunately, I have to do this by myself."*

According to the respondents, the organization has not conveyed information in a satisfactory way to everyone who might need to use video conferencing tools for healthcare planning. The respondents think the managers who are responsible for informing hospital professionals about video conference tools have not prioritized the implementation of video conference tools, since they do not see the benefits of distance meetings for healthcare planning. The hospital professionals have pushed themselves to learn how to use video conference tools. The respondents said that many managers had received the information, but did not inform the professionals. They think there should be clearer guidelines on how managers should forward such information to their employees, as it is their responsibility to do so.

Some respondents noted that many managers did not prioritize the purchase of technology and software and to set aside a room. The respondents argued that no consequences occur if video technology is not used, despite the existing guidelines that encourage the use of video conference tools. The respondents thought this was a shame, because the managers could do as they liked, whether that meant continuing the implementation of the technology or not. They also felt that the organization has not really understood that hospital professionals need time to learn how to use the video conference tools for distance healthcare planning meetings. Many of the hospital professionals had not acquired enough knowledge on video conference tools, which complicates the use. They felt they have a lot of work to perform in this field, but no time to gather the knowledge needed for using video conference tools.

The professionals' training varied. Many were self-taught, and they help each other to understand how the technology works. Others had received training with which they feel satisfied. But the hospital professionals agreed there is a need for more training, especially for hospital professionals working in healthcare planning. They also thought that everyone needed to get the amount of time they needed as individuals to learn how to use the video conference tools. They expressed complaints about the training itself consisting of a PowerPoint presentation and a brief explanation of the video conference tools that were to be used. When using the video conference tools in practice, several questions emerged. Some hospital professionals were able to solve the problems, while others felt unmotivated to continue using video conference tools and others needed to call IT support for help. Hospital professionals feel a need for more practical training,

where they can practice starting the system and sending invitations to potential participants, and learn how to perform tests to verify that the system works.

A concern that all respondents raised was the need for rooms where video conference meetings can be conducted. In order to be able to start a video conference meeting, the respondents need to find a vacant room where they can sit in peace and silence. Sometimes they had to use rooms that were not really suitable for distance meetings, as they were disturbed by sounds coming from outside the room. Another thing the hospital professionals felt frustrated about was that the embedded speakers and microphone were usually not working. Instead they have to plug in external speakers and an external microphone to get the audio to work, but such equipment is not always available. As respondent 6 expresses it: *“That we do not have the space, that is the most frustrating thing. We do not know where we can sit down and carry out the meeting.”*

Technical knowledge and experience

The respondents agreed that the technology works well when everything is in place, but they also said that it takes time to prepare all technology before a meeting. The hospital professionals like the fact that video conference healthcare planning is shorter and more efficient, compared to physically conducted healthcare planning meetings in hospitals. Moreover, there are more attending parties in a video conference meeting, compared to a physical healthcare planning meeting. The hospital professionals consider both video conference meetings and physically meetings as necessary, but consider video conference meetings where technology is used as preferable when the patient has no cognitive limitations. According to the respondents, video conference meetings are more appreciated by the patient’s relatives, because they are more effective for them and mean they do not have to travel to the hospital to attend a meeting. Respondent 7 expressed it as: *“Both primary care, the municipality and family members are participating, it gets bigger, it involves more people and different professionals. We did not have the opportunity for this earlier, and that is positive.”*

Some of the hospital professionals were worried about that the technology might not work, as they did not know whether they could correct an error that may occur during a meeting. Those professionals did also feel more worried and stressed about the absence of professionals with sufficient technical knowledge who would be able to help them. However, some of them were less worried; professionals with more technical knowledge. Some of the hospital professionals were worried and wanted to learn how to use video conference tools in order to be well-prepared before the meeting could start. They wished for more time for learning, as they need to feel comfortable when using the video technology. This was explained by respondent 4: *“It affects me in a way that I cannot use it, but I would love to learn. I want to feel that I can go to a meeting and be well-prepared, so as to also be able to prepare the equipment.”*

Discussion

The qualitative approach in this study has contributed to identify and analyze the aspects underlying attitudes of hospital professionals when using video conferencing for healthcare planning. The study shows that the professionals were positive toward using the video conferencing tools and that the technology suits their needs. However, they wanted improvements regarding the work performed before and after the meeting, in order to make the meetings more time-efficient for the hospital professionals. According to Venkatesh and Davis (2000), Perceived Usefulness (PU) and Perceived Ease-Of-Use (PEOU) have a direct impact on Behavioral Intention to use (BIU). However, it has also been described that if an individual has a high intention to use a system, the PU and PEOU will be ignored in favor of the actual use, and this is obvious in this study. The intention to use video conference tools was also based on the conviction that the usage contributes to better healthcare for patients. This is also in accordance with Hofflander et al (2013). Moreover, according to Hofflander (2015), the use of video conference tools could save time for professionals. This is true, but only when it comes to professionals within municipalities and primary care, as well as for patients and their relatives, but not for hospitals professionals, as they need to perform preparations before the healthcare planning meeting and work with documentation afterwards. Professionals’ concern that patients’ might be ignored, as there is some technology-related work involved when conducting a video conference meeting, is confirmed by Hofflander et al (2013). However, this does not prevent the use of video conference tools in this study. Healthcare planning meetings where video conference tools were used has shown to be shorter than physically held healthcare planning meetings. As

Hofflander et al (2013) state, healthcare professionals do worry about the shorter time spent with the patient, but this concern was not that obvious in this study.

How hospital professionals perceive the video conference tools used for healthcare planning is an important factor for the professionals' positive attitude toward using the technology, and the belief that the technology can make their work more efficient, according to Ketikidis et al (2012) and Hofflander et al (2015). A positive attitude toward the technology is also a significant factor for improving patient care, which was confirmed in this study. The reason presented in this study is the notion that the video conference meeting was shorter and more concise than a regular meeting. The video conference meeting was also seen as a personal meeting, which Park et al (2014) also demonstrate. Ketikidis et al (2012) claim that negative attitudes toward the technology imply low use, however, the respondents in this study were positive and tried to use the technology as much as they could. Therefore, it could be said that Output Quality (OQ) and Result Demonstrability (RD) have an impact on the hospital professionals' positive attitudes toward the use of video conference tools for healthcare planning.

According to the presence of Subjective Norm (SN), it could be stated that it was non-existent in this study. In contrast, Marangunić and Granić (2014) describe SN as a factor that affects individuals' attitudes toward technology, that is, the attitudes of colleagues toward technology affect the user's attitude. It is not apparent in the result that professionals' attitudes affect each other. All respondents in this study firmly believed they would really use the video conference tools, because they considered that technology to add positive aspects to the meetings. Venkatesh and Davis (2000) also claim that voluntariness has an impact between SN and PU.

Regarding the attitude toward use, the organization has a key role in influencing the attitudes of positive individuals. Dissatisfaction existed regarding the implementation of the video conference tools, and as a result, some of the respondents in the study have independently taken responsibility to make sure the use of video conference tools has started. According to Yarbrough and Smith (2007), dissatisfaction of the implementation is in fact what affects healthcare professionals' unwillingness to use video conference tools. Hofflander et al (2015) also confirm that the way of implementation used by an organization for video conference tools has a high impact on the attitudes of healthcare professionals. In this study, the approach of the organization has resulted in the managers not prioritizing video conference tools as they do not see its potential. It is of vital importance that healthcare professionals receive support before the implementation of video conference tools in order to facilitate its further usage (Hofflander et al, 2015; Malhotra & Temponi, 2010). This study shows that healthcare professionals often have begun to use video technology by themselves, which means they devote a lot of time to launching video conference planning meetings. As Venkatesh and Davis (2000) contend, voluntariness has an impact on Behavioral Intention to use (BIU).

Healthcare professionals feel the training they have received on video conference tools within the organization is poor, and that they suffer from this when using the technology within their work practice. They had to spend time trying to learn the technology by themselves, and they have also received help from one another in order to be able to learn. This situation can be confirmed by Yarbrough and Smith (2007), as they found that professionals at healthcare wards often work closely together, and that they often help each other when trouble occurs. Yarbrough and Smith (2007) demonstrate that organizations usually misinterpret the need of thorough training for their professionals, and that individuals have different needs based on their different levels of technical knowledge. Park et al (2014) claim that if users acquire a negative experience during their first use, it may cause the healthcare professionals to avoid using the video technology again. Despite the lack of training offered to hospital professionals by the organization, the hospital professionals' intention to use video conference tools for healthcare planning meetings is positive. Venkatesh and Davis (2000) claim that BIU has a direct influence on the actual use. In this study it is obvious that the hospital professionals really want to use video conference tools and thus they have maintained the actual use. As the professionals in this study are quite experienced in their task performance in the healthcare, the video conferencing tools may just be seen as a positive tool in performing the work (Serrano & Karahanna, 2016).

Conclusion

This study was designed to investigate the attitudes of hospital professionals toward video conference tools for healthcare planning meetings. The result indicates that the attitude toward using video conference tools is exclusively positive. The usability and user-friendliness affect the actual use of the video conference tools. According to the result, usability or user-friendliness did not affect the actual use of video technology. It was shown that hospital professionals wanted to use the technology, and that they tried to use it as much as they could. Hospital professionals experience additional work before and after video conference meetings. The additional work consists of preparations such as installation of technical equipment before the meeting and necessary documentation after the meeting. Another factor that has an impact on hospital professionals is that there are not always rooms and equipment available for conducting video conference meetings in a satisfactory manner. The training offered to hospital professionals was inadequate. Managers tend to not prioritize video conference meetings as they do not see the benefits of video conference tools. However, the behavioral intention to use is high, to a great extent due to the ability of the technology to make professionals' work more efficient, and that the technology can improve patient care, since video conference meetings can also be short and concise.

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