

An action research study to investigate the strategies that can be used by health care professionals, during video consultations with palliative care patients, to enhance the therapeutic alliance.

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Submitted for Clinical Doctorate

September 2017

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Abstract

Title: An action research study to investigate the strategies that can be used by health care professionals, during video consultations with palliative care patients, to enhance the therapeutic alliance.

Background: The use of telemedicine was gaining momentum. Although the strength of the therapeutic alliance (TA) correlated with treatment outcomes, there was no research exploring the skills, attitudes and behaviours that enhanced the TA during Skype consultations in palliative care.

Aims: This study identified the skills, attitudes and behaviours that affected the TA between palliative care patients and health care professionals during Skype consultations and identified strategies that enhanced the TA.

Study Design: Two cycles of action research engaged the participants in self-reflective inquiry and encouraged the identification of strategies that enhanced the TA and the Skype experience.

Participants: Six health professionals and nine patients were recruited from a Hospice out patient service in one Health Authority in England.

Data Collection: Data from the audio-recorded consultation were managed quantitatively and the TA was measured using the Working Alliance Inventory (S). Qualitative data were collected from participant interviews and focus groups attended by the professionals.

Data Analysis: The analysis ran in parallel with the data collection, started after the first consultation and all sources of data were cross-referenced. Thematic analysis was used to sequentially code the qualitative data to help identify, examine and record patterns within the data set.

Findings: The findings suggested that it was possible to establish and a positive

therapeutic alliance between health professionals and palliative care patients when using Skype. There was a shift in perception for those health professionals who had reservations about their ability to establish a therapeutic alliance (TA) via a computer link. It was demonstrated that advanced communication skills were transferrable between face to face and video consultations. No additional communication skills training was needed to enable a strong TA when using Skype. Including some social talk, working with the patient's as opposed to the professional's agenda and actively offering solutions improved the Skype experience for the patients. The strategies that health professionals promoted to enhance the TA included using Skype with appropriately selected patients to complement the existing Service. Mandatory training in the effective use of Skype was recommended even for those health professionals who used Skype socially. Clarification to address the challenge of clinical governance was recommended.

In keeping with an action research design the change impacted on both the health professionals own practice and the Organisation's approach to telemedicine. The potential for using action research to engage nurses and doctors in critical self-reflective inquiry and to empower them to be change facilitators was demonstrated.

Conclusion: Although a small sample size, this study identified strategies that enhanced the TA during Skype consultations. The findings were significant because they added to the current body of knowledge about using Skype to facilitate consultations within the palliative care population. Additionally, the findings may be transferable to different populations and healthcare contexts.

Acknowledgements

The research could not have been completed without the active participation of patients and health professionals and I am grateful for the time and effort they gave to the project. The participants' enthusiasm for the research helped keep me motivated and it was a pleasure to work alongside them to answer the research questions.

I would like to thank my academic supervisors Carol Bugge and Annetta Smith without whom I would not have completed this thesis. Their encouragement and support have been invaluable and their patience admirable.

I have found this Doctorate challenging but am delighted to have completed the research. I am grateful and appreciate that the encouragement and support from my family, colleagues and the Organisation has been integral to me finishing the project.

Abbreviations

AR	Action Research
CN	Community Nurse
EoLC	End of Life Care
FG	Focus Group
FG1	Focus group 1
FG2	Focus group 2
PCT	Primary Care Trust
SPC	Specialist Palliative Care or (SPC Team)
TA	Therapeutic Alliance
VoIP	Voice over Internet Protocol (eg Skype)
WAI-S	Working Alliance Inventory Short Form

Chapter 1 Introduction

This thesis investigated the therapeutic alliance (TA) between patients with palliative care needs and health professionals during Skype consultations. Telemedicine, and in particular video consultation, has been offered as one solution to the challenges of delivering an equitable service to rural and remote communities (section 2.2). Given that the TA between a patient and health professional impacted on treatment outcomes (section 2.6) before embracing telemedicine, it was timely to investigate the TA between palliative care patients and professionals when using video consultations.

I have been employed as a specialist palliative care nurse for more than 20 years working in hospice, acute care and in the community setting. From my professional experience I believe that using advanced communication skills to nurture a positive therapeutic alliance is fundamental to delivering an effective palliative care service to the patients and their families. In recent years a key development in communication technology was the introduction of video consultations as a means of communication between patients and health care professionals.

My interest in investigating the use of video consultations with palliative care patients was triggered in response to the Scottish Government and NHS telemedicine initiatives. One such initiative was to offer patients in remote and rural communities the option of Skype consultations to replace face-to-face consultations with their health care provider. As an experienced specialist palliative care nurse I was aware of the association between the therapeutic alliance and treatment outcomes and was interested in the impact, if any, on the therapeutic alliance between patients and healthcare professionals when using Skype. Some of my colleagues also expressed interest about the potential impact of a virtual consultation on the therapeutic alliance. A search of the literature at the time confirmed

that there was no research that had investigated the therapeutic alliance during Skype consultations with palliative care patients. This prompted my decision to explore the use of Skype consultations and in particular the affect the therapeutic alliance, as if this technology was to become more commonly used in my clinical practice it was important to have some confidence in the evidence for its use. The research questions asked: what skills, attitudes and behaviours used by palliative care patients and professionals during VoIP consultations affected the therapeutic alliance; and using an action research approach, what strategies between patients and health care professionals enhanced the therapeutic alliance VoIP consultations?

When selecting the most appropriate methodological approach to answer the research questions I selected action research (AR). There were different models of AR and I chose to adopt the model proposed by Kemmis (2000; 2008; 2009; 2010; 2014). My own practice had been influenced by the findings from this body of AR research. Additionally I had experienced how this AR approach had changed practice and promoted personal and professional critical self reflection in both myself and my colleagues. I envisaged that the research questions would be answered and there would also be evidence of both professional growth and changes to the local service provision.

1.1. Palliative care

Palliative care is an approach that aimed to improve the quality of life for patients with a progressive, life threatening illness and their families (National Palliative and End of Life Care Partnership 2015). A palliative care service offered a support system to help patients live as actively as possible until death and helped the family cope during the patient's illness and in their own bereavement. Palliative care integrated the physical, psychological, social and spiritual aspects of care and in recent years the emphasis had

shifted from the management of physical symptoms to the psychosocial aspects of care (Larkin 2010; Richardson 2002).

In 1987 the UK was the first country in the world to make Palliative Medicine a subspecialty. In 1995 the Calman-Hine Report provided a new focus on end-of-life care by recommending the provision of multi-professional specialist palliative care teams (SPC) (Expert Advisory Group on Cancer 1995). The End of Life Care Strategy (Department of Health 2008) facilitated access to palliative care services on the basis of need taking into account patient preferences, regardless of their individual circumstances. More recently there has been an emphasis on initiatives to meet the palliative care needs of non-cancer and frail elderly patients to facilitate timely access to SPC (Department of Health 2012). The UK was ranked the best in with world in an assessment of global end of life care performance (The Economist Intelligence Unit 2015).

1.2 Palliative care service delivery

Palliative care is delivered in a variety of care settings by health care professionals working alongside multi-professional SPC (NHS England 2016; Scottish Government 2011). Evidence suggested that referral to SPC had a positive impact on the quality of life of both patients and carers (National Advisory Group for Palliative & End of Life Care 2015; Gomes et al 2013; Bruera and Yennurajalingam 2012; Johnson et al 2008; Australian Government 2006). Also, community-based SPC services were effective at not only reducing acute care use at the end of life but also hospital deaths (Seow et al 2014). As a result of the positive impact of palliative care on treatment outcomes (section 2.6.1) internationally there were initiatives to begin to remedy the issue of late or non-referral to SPC (National Advisory Group for Palliative & End of Life Care 2015; Scottish Government 2011; Department of Health 2009a; Department of Health and Ageing 2008; Australian

Government 2006). Telemedicine was one such initiative that could be used to further enhance palliative care service delivery.

1.3 Measuring the impact of palliative care

The challenge of measuring outcomes in healthcare is compounded by the fact that in recent years an increasing number of patients were choosing technology to engage with healthcare providers (Kidd et al 2010; Scottish Government 2008a). This change in the mode of service delivery raised additional challenges. Firstly, challenges about how we measured the impact of healthcare and secondly identifying what skills the professionals needed to facilitate interactions using telemedicine.

Although there have been initiatives to improve outcome measurement in palliative care, a uniform approach to measuring outcomes remained elusive (Bausewein et al 2016; Harding and Higginson 2010). Traditional disease specific outcomes focused primarily on prevention and survival. Whilst these outcome measures may have been helpful for use in relatively healthy individuals they were of less use for patients with multiple co-morbidities and ineffective for palliative care patients (Bausewein et al 2011). An alternative to the traditional approach to measuring health outcomes was goal-orientated outcomes which were better facilitated if the professional had a positive therapeutic alliance with the patient (section 6.2) (Greenhalgh and Heath 2010; Mack et al 2009; Teno et al 2004; Wenrich et al 2003). Focusing on goal-orientated outcomes enabled the patients to articulate which aspects of their physical and mental well-being were important to them and their relative priority (Reuben and Tinetti 2012). This approach was particularly useful in palliative care as the clinicians could discuss and agree with the patients on the achievable goals. This collaboration between patient and professional could enable the patients to have some sense of control over treatment options and preferred place of care and death.

1.4 The therapeutic alliance in palliative care

Evidence suggested that in palliative care the therapeutic alliance was highly valued by both patients and professionals and was integral to the delivery of palliative care services (section 2.6.1) (Scott 2010; Canning et al 2007; Richardson 2002). Originating in psychotherapy, the term therapeutic alliance (TA) had been adopted across many healthcare specialties and had emerged as an important factor in exploring the adult psychosocial process (Strada and Sourkes 2009; Le May and Wilson 2008; Norcross 2002). Effective management of psychosocial aspects of care was dependent to a large extent upon the therapeutic alliance between the patient and the professional (Cipolletta 2015; Back et al 2005; Smith 2002) and in health care a positive TA correlated with positive treatment outcomes.

Using telemedicine effectively allowed palliative care professionals to meet the increasing demand for their services (section 1.1-2). However, because the TA was an important measure of the impact of palliative care (section 2.6.1) an investigation into the effect of telemedicine on the TA was needed.

1.5 Organisation of thesis

Chapter 1 started with an explanation of my professional background and my role as a specialist palliative care nurse. My motivation for investigating the use of Skype for consultations between SPC professionals and patients and the potential impact on the therapeutic alliance when using Skype in SPC was then explained. The philosophy of palliative care was then described followed by a brief history of palliative care service delivery in the UK and the emergence of telemedicine as one mode of service delivery. The challenges of measuring the impact of palliative care were then explained. The importance of the therapeutic alliance for both patients and professionals in palliative care

was acknowledged and the association between the therapeutic alliance and treatment outcomes was recognised. The chapter concluded with a brief overview of how the thesis was organised.

Chapter 2 starts with a description of my literature search strategy. The increasing use of technology in the workplace, and specifically the international use of telemedicine are then explained. A definition of the therapeutic alliance (TA) is then given and an explanation of how the TA is measured is explained. The relative importance of the client and professional variability in the measurement of the TA is then explored. The challenges of establishing a strong TA when using telemedicine, including video-conferencing, and the relationship between the strength of TA and treatment outcomes are then critically discussed. The impact of telemedicine on the TA in palliative care is critically reported from the limited evidence available. As justification for this current study's area of inquiry, the chapter concludes by identifying gaps in current knowledge about how professionals can adapt their skills, attitudes and behaviours to enhance the TA whilst using video consultations in palliative care.

In chapter 3 the study aims and research questions are stated. The research questions ask: what skills, attitudes and behaviours used by palliative care patients and professionals during VoIP consultations affect the therapeutic alliance; and using an action research approach, what strategies between patients and health care professionals enhance the therapeutic alliance VoIP consultations? The relationship between research and practice is explored followed by a critical discussion about the hierarchy of evidence and the strengths and weaknesses of study design. The rationale for using action research in this current study is given. A comprehensive critical discussion about action research (AR) including interpretive rigour, challenges, limitations, examples of the application of

AR and the justification of using AR in this current study follows. A summary of the key points conclude the chapter.

Chapter 4 starts with a detailed description of the selection of participants and the recruitment process. Clarification of the consent process and confidentiality are explained and the specific equipment for supporting video consultations in this study is stated. Data collection methods are described, justified and critically explored in the context of the research questions. A detailed description of the analytical process which includes an explanation about appropriate use of a model of thematic analysis in an action research study is given. The challenges for the clinician-researcher are then explored. The chapter concludes with an exploration of ethical considerations in relation to the potential vulnerability of palliative care patients being involved in research.

Chapter 5 presents the findings from the analysis of the full data set. A detailed report of the findings from the first AR cycle is followed by the findings from the second AR cycle explored in the context of the findings from the first cycle. Relevant examples and quotes from the data are included to demonstrate transparency and justification for the findings. The chapter concludes with a summary of the key findings from both AR cycles and identifies strategies that could enhance the TA during video consultations with palliative care patients.

Chapter 6 starts with a statement of the principle findings from this study. The next section critically discusses the findings from this current study in relation to findings from other studies. Professional skills, attitudes and behaviours that enhance the TA and the appropriate use of video consultations are discussed. The meaning of this current study and implications for clinicians and policy makers are then explored. The strengths and weaknesses of this current study are then discussed including my own challenges as a

clinician-researcher. This chapter concludes with recommendations for further research into using video consultations with palliative care patients.

Chapter 2: Literature review

This chapter starts with a description of the search strategy. An account of the use of technology in the workplace and telemedicine are then given. The significance of the therapeutic alliance (TA) in palliative care is explained with an exploration of the skills, attitudes and behaviours that impacted on the TA. The chapter concludes with identification of gaps in current knowledge about establishing a strong TA whilst using video consultations in palliative care.

2.1 Search strategy

Given that the concept of the therapeutic alliance originated in the 1950's, a literature review with no date limitations was conducted using AMED, Medline, and PsychINFO databases. The keywords used were therapeutic alliance, working alliance, patient-doctor relations, therapeutic outcomes and patient outcomes. The articles retained were related to the original work defining the therapeutic alliance as a concept and seminal research about the development of tools that measured the therapeutic alliance. Another literature review (1995-2013) was conducted using AMED, Ovid, Medline, Pubmed and PsychINFO databases. The first documented use of telemedicine in hospice care found in the search was reported in the late 1990's (Doolittle et al 1998) therefore 1995 was selected as the lower date range for this literature search. The keywords used were: palliative care, hospice care, terminal care, therapeutic relationships, nurse patient relations, physician-patient relations, working alliance, telemedicine, telecare, video consultations, Voice over Internet Protocol (VoIP) and Skype. The majority of articles were discarded as they were disease/intervention specific, related to paediatrics or were unrelated to the issue being discussed. A total of 64 articles were retrieved; the articles included both qualitative and quantitative research. The Journal of Telemedicine and Telecare was also hand-searched

for research relevant to the therapeutic alliance during video consultations in palliative care. Because new evidence continued to be published the literature was reviewed throughout the writing of this thesis.

2.2. The increasing use of technology in the workplace

Using devices such as laptops, tablets and smart phones were already raising workforce productivity in many public sector organisations. Online services and digital media were transforming services in the commercial sector (Office of Integrated Analysis and Forecasting 2009). Also, the British Government acknowledged that it was time for the public sector to meet the expectations of its 'customers' with access to services any time, any place (Creese 2012). However, concerns were raised about how the introduction of technology into the public sector would disadvantage older people (65yrs and over). It was reported that 10% of people aged 60-69yrs had access to the internet but didn't use it (Bolton 2011) whilst some older people had no access, limited skills and/or lack motivation to embrace the new technology. But Age UK (2011) challenged these misconceptions stating that the use of technology and the internet was comparable between older people and the younger generations. Recent statistics reported that internet use in the 65-74yr age group had increased from 52% in 2011 to 78% in 2017 closing the gap on younger generations. Older internet users surfed the web to find out information and nearly one in five older people used social networking sites like Facebook and Twitter (Office for National Statistics 2017). These statistics were pertinent to patient recruitment in this current study because the majority of patients accessing palliative care services were in the older age group (Marie Curie Cancer Care 2012).

2.3 Telemedicine

Telemedicine referred to the use of electronic devices including telephone, email, internet

or video. Telemedicine was used across a variety of healthcare settings (Mair and Wootton 2009; Clark et al 2008; Dellifraime and Dansky 2008) including palliative care (Brecher 2013; Johnston 2011; Kidd et al 2010) and was used extensively in psychiatry (Gainsbury and Blaszczyński 2011; Hailey et al 2009). Telemedicine also had other uses: education and training (National Advisory Group for Palliative & End of Life Care 2015; RCN 2012), providing advice and support to patients (Barak et al 2009), delivering psychological/non-psychological therapies (White et al 2012; Abbott et al 2008) and patient-professional consultations (Health and Social Care Information Centre 2015; Dixon and Stahl 2009; Ferguson 2006).

Internationally the use of telemedicine was gaining momentum (Barak et al 2009; Chang et al 2009; Liu 2007; Kern 2006) and was being increasingly used in healthcare to facilitate consultations between patients and health care professionals (Greenhalgh et al 2016; Kidd et al 2010; Dixon and Stahl 2009; Scottish Government 2008a). In GP consultations (n=175) comparing face-to-face to video-consultations, the professionals were highly satisfied with the video consultation. Additionally, the patient outcome measures of ease and personal aspects of the interaction rated highly and similar to face-to face consultations (Dixon and Stahl 2009). However, given that professionals skills, attitudes and behaviours can affect the TA (section 2.4) the most significant limitation in the Dixon and Stahl (2009) study was that patients met with two different professionals which could skew the findings. Additionally, in rural and remote Canada it was reported that video consultations were fast becoming the most common synchronous mode of communication between patient and professional. One advantage of video-conferencing over other non-visual synchronous modes was that aspects of non-verbal communication important for developing relationships were enabled. The non-verbal communication included: eye

contact, intonation, assuring body posture, gestures, emotional expression and professional appearance (Toh et al 2016). But regardless of the mode of communication, the patient-professional therapeutic alliance was strongly associated with treatment outcomes (section 2.6) (Brecher 2013; Martin et al 2000; Roter 2000).

2.4 The therapeutic alliance

The therapeutic alliance (TA) was the relationship between the patient and the professional. To facilitate a TA the professional needed to nurture the elements of: congruence (being genuine), empathy (endeavoring to understand how the patient views not only themselves, but also the world in which they live) and unconditional positive regard (acceptance) (Rogers 1951). Bordin (1979), the most recognised definition of the therapeutic alliance, was used in multiple studies and was applicable to any therapeutic approach (Ardito and Rabellino 2011). Bordin (1979) proposed that congruence, empathy and unconditional positive regard could be demonstrated through three dimensions of the patient-professional relationship. The dimensions were: agreement on goals, agreement on tasks and the development of bonds between the patient and the professional. The TA required cooperation between the patient and the professional across all three dimensions of the relationship. The critical values of each of the dimensions was dependent upon the phase of treatment, the stage of the patient-professional relationship and the skills, attitudes and behaviours of the professionals (Strada and Sourkes 2009; Andrusyna et al 2001; Martin et al 2000; Thorne 2000).

The TA was not easy to measure and to accurately quantify a subjective feeling by a numerical rating was challenging. A study investigated the value of using a generic patient satisfaction survey to measure, amongst other things, the patient's perception of the TA. The study found that the generic survey captured the quality of the service in general as

opposed to the patient's perception of the TA (Greenhalgh and Heath 2010). It was mooted that short instruments developed by social psychologists and including free text would capture more accurate subjective data about what components of the TA were important to patients (Reis et al 2008).

A professional agreement that the TA existed was supported by an often cited meta-analysis of the predictive validity of the TA (Horvath and Symonds 1991). And there was some suggestion that patients with good attachment histories and well-developed social skills might form a stronger TA (Mallinckrodt et al 1995). However, the TA between the same patient and professional was dynamic, changed over time and different professionals form different therapeutic alliances with similar patients (Del Re et al 2012; Pinsof and Catherall 1986). In a comprehensive report Ackerman and Hilsenroth (2003) reviewed 25 studies that investigated the quantifiable relationship between therapist variables and TA. Specific therapist attributes and techniques that correlated with a strong TA were identified. Attributes included being flexible, experienced, honest, respectful, confident, interested, friendly, warm and open. Techniques included being reflective, supportive, providing accurate interpretations and being active and affirmative.

Additionally, Baldwin et al (2007) explored the relative importance of client and therapist variability in the TA. Clients (N=331) who had attended four therapy sessions measured the TA using the Working Alliance Inventory. Each of the 80 therapists involved had seen at least two of the recruited clients. And the study provided a comprehensive explanation of the statistical analysis that underpinned the findings. Patient and therapist variability in the TA did not equally predict treatment outcome whereas between-therapist TA variability did predict treatment outcome. However, the demographic data for the therapists were not known as they were recruited from the cohort from a larger study. So, the therapist's level

of experience was unknown and experience could have impacted on their ability to facilitate a strong TA (Baldwin et al 2007). These findings suggested that therapist characteristics and/or actions were responsible, in some degree, for the strength of the TA. Equally, variability in the TA may have been related to the therapist's ability to manage and repair ruptures in the TA.

The TA could rupture and the relationship between patient and professional could become counter-productive (Baillargeon et al 2012; Bennett et al 2006). When investigating resolution of a ruptured TA in an extensive literature search only five studies were subject to experimental investigation and used the same rupture resolution model (Baillargeon et al 2012). Although all five studies purported that repair of a ruptured TA was possible the number of different professionals involved and their level of training was not recorded for all five studies. This missing data was significant because the skills of the professional could have impacted on the TA (Lambert and Shimokawa 2011; Duncan and Miller 2008) and the strength of the TA correlated with treatment outcomes.

Using case studies to demonstrate a model for ongoing evaluation of psychotherapy sessions Duncan and Miller (2008) provided evidence that regular feedback to the therapist based on the clients' TA scores helped identify and provide an opportunity to address areas of the TA during therapy that could improve treatment outcomes. For example, during consultations therapists may have discussed their own goals, as opposed to the client's goals, making 'agreement on goals' unlikely. Feedback to the therapist of this anomaly could result in an increase in the 'agreement on the goals' score. However, one limitation in this research was that case studies rated low in the hierarchy of evidence (section 3.3). The benefit of giving feedback about the TA measurement to professionals was also supported by Lambert and Shimokawa (2011) who recommended feedback

systems to monitor patient progress and track treatment outcomes alongside extra training and supervision for the professionals if needed.

There were many diverse factors that could impact on the TA during face-to-face consultations. Using telemedicine with different or no face-to-face contact added another dimension to the challenge of facilitating a strong TA. Resistance to using the technology and/or a lack of skill in using the technology could also have inhibited the professionals' ability to facilitate a TA (Oliver and Demiris 2004; Cook and Doyle 2002; May et al 2001) and as such negatively affected treatment outcomes (Zilliacus et al 2010).

2.5 The therapeutic alliance when using telemedicine

There was some early evidence that effective working alliances could be enabled during online counselling. Parks and Roberts (1998) compared 155 off-line relationships with relationships formed online and found that there was no difference in the depth or breadth of the therapist-client relationship. In addition to these findings McKenna and Bargh (2000) when investigating relationship development in the context of counseling, concluded that clients feeling isolated or anxious, as opposed to clients showing no signs of isolation or anxiety, were more likely to develop strong therapeutic relationships online.

More recently, in 2010 Miller explained that studies investigating communication skills and telemedicine could be listed under four categories: interaction analysis studies, qualitative investigations, post-medical encounter surveys and pre-experience examinations of attitudes. Miller (2010) advised caution in the generalisation of the findings as the majority of studies reviewed focused on overall system performance and satisfaction with telemedicine rather than communication per se. However, there was some suggestion that professional's communication skills may have changed when using telemedicine to consult with patients. Liu et al (2007) compared the communication skills used by five doctors

during face-to-face and video consultations and found that empathy, praise and facilitation utterances were used less during the video consultations. Empathy, praise and facilitation utterances are skills and behaviours which we know enhanced the TA (Miller 2010; Strada and Sourkes 2009). However, there were two factors that limited the findings from the Liu et al (2007) study. Firstly, no participant had previous experience of video consultations and secondly, the patients (n=20) were asked to act as if they had just moved to the area and this was their first meeting with the doctor to discuss the same health issue.

In further inquiry into communication skills, telemedicine and the TA, Russell (2015) advocated that in psychotherapy the client-professional relationship relied on implicit non-verbal components that affected the finely-nuanced interchange that enhanced the TA. As such, online therapies should be used with caution. In a discussion about the ethical aspects of offering online psychotherapy to clients Satalkar et al (2015) concurred adding that online therapies dehumanised the therapeutic environment. However, using case studies supported by evidence from a comprehensive review and meta-analysis Epstein (2011) concluded that there was mounting evidence that online therapies had an equal, if not better TA and/or client experience when compared to face to face interactions.

Lingley-Pottie and McGrath (2006) agreed with Epstein (2011) and found that a positive TA could exist when using telemedicine. The WAI-S (section 4.5.4) was used to measure the TA during interactions between clients enrolled in a Family Help Programme, n=64, and their coaches. The coaches were non-professional telephone therapists and the Programme was designed as an early intervention for mild to moderate mental health problems. On completion of the Programme the clients were asked to score the strength of the TA. The mean scores for the TA were generally high (section 4.5.4) and when the mean telemedicine treatment outcome score was compared with normative data for face-

to-face treatment outcomes, the telemedicine scores were at least comparable to scores from face-to-face treatment. The same researcher then went on to investigate the meaning and experience of the TA when using telemedicine for clients on the same Family Help Programme.

When exploring the meaning and experience of the TA with clients who participated in a Family Help Programme it was reported that the clients perception of the TA was affected by more than the mode of communication; also that the skills, attitudes and behaviours of the professionals impacted on the strength of the TA (Lingley-Pottie and McGrath 2007). The clients were administered a telephone questionnaire on completion of the Programme. The sample was women diagnosed with post-partum depression $n=5$ and primary caregivers to children suffering from psychosocial illnesses $n=126$. The questionnaire comprised of open-ended questions and included questions congruent with Bordin's definition of the TA (section 2.4). More than 50% of the sample commented on the strength of the relationship with their coach explaining that personal attributes and skills of the coach contributed to the strength of the TA. The attributes mentioned included trustworthiness, warmth and empathy. The disinhibition afforded by online therapies was also mentioned as leading to increased self-disclosure and honesty. Although there was some concern that during online therapies there was no exchange of visual cues and this could affect the strength of the TA (Russell 2015), conversely during non-visual online therapy, for example telephone or email, there was no chance of misinterpretation of body language and facial expressions which may actually have strengthened the TA. Limitations of the Lingley-Pottie and McGrath (2007) study which challenged the generalisability of the findings included: only two male participants, no member-checking (section 4.6) to verify an accurate interpretation of data by the researchers and five of the women were unwell.

A positive TA was dependent upon the patient being able to discuss their illness experience with the professional (Roter 2000). And despite the findings from Lingley-Pottie and McGrath (2007), there was conflicting evidence about patients' disinhibition when using telemedicine. Cook and Doyle (2002) concurred with Lingley-Pottie and McGrath (2007) when a small, self-selected sample of 14 current service users of online therapy were asked to complete the WAI-S to measure the TA. Nine patients added additional comments after completing the WAI-S and several themes emerge from these comments. The feeling of disinhibition during online therapy was the most common theme. For example patients felt no fear of judgement or no embarrassment at being completely open and honest for the first time. The disinhibition described by Cook and Doyle (2002) is supported by data analysing WAI-s scores and satisfaction with online counselling from 81 self-selected clients involved with online therapy. Although clients commented on the loss of non-verbal communication this was offset by the disinhibition which was characterised by the advantage of anonymity and privacy (Leibert et al 2006). However, in oncology care delivered via video (Mair et al 2000) reported a different perspective. Whilst the patients (N=22) reported satisfaction with the professionals' interpersonal skills the patients explained that they were less likely to disclose sensitive information when compared to during face-to-face consultations. But the findings in the Mair et al (2000) study were qualified by the fact that participants also had face-to-face consultations with the same professional and the telemedicine clinic was mainly for monitoring as opposed to diagnosing.

The time allocated to a consultation may also impact on the TA. Having the time to establish a TA with patients/family was needed if an effective community service was to be delivered to palliative care patients (Tomison and McDowell 2011). Additionally, although

in GP computer consultations a TA was built over time and flourished when the consultation was not time constrained (Greenhalgh and Heath 2010), there was mixed evidence about the length of telemedicine consultations. When comparing video to face-to-face consultations patients felt that the video consultations were longer (Agah et al 2009b) but given that the patients were predominately male and elderly veterans the patient expectations may have differed from the general population in other clinical settings. Liu et al (2007) also found face-to-face consultations longer whilst Agha et al (2009a) found that there is no difference between the length of face-to-face and video consultations.

Another issue related to the strength of the TA when using telemedicine in palliative care is the challenge of providing comfort to a distressed patient. When used appropriately human touch has been demonstrated to be of value in health care generally (Sappington 2003) and specifically as a show of empathy or to offer comfort in low-tech high-touch environments like palliative care (Andre et al 2009). Patients engaged in online counselling in the mental health setting described the tension between the anonymity afforded by online interaction and the desire for personal contact with the therapist if they felt upset. However, for these clients the online therapy was not using VoIP and as such the clients were unable to see the therapist's face during the consultation. This lack of visual contact may have impacted on the desire for touch when distressed (Leibert et al 2006).

A lack of human touch was inherent to interactions using telemedicine and as such professionals should endeavor to use alternative behaviours that do not inhibit their consultation style and/or their ability to bond with the patient (Demiris et al 2006; Kole 2003). When addressing psychological issues in palliative care and offering comfort, professionals should be aware of the potential for counter transference. The professional's

awareness of their own personal and family history of illnesses, death and dying could make the professional vulnerable and have had a negative effect on the TA (Strada and Sourkes 2009). Similarly SPC nurses from services throughout Australia acknowledged a need for self-awareness of personal needs and a preparedness to encounter the emotional responses to intimate conversations with palliative care patients (Canning et al 2007).

There was limited robust evidence investigating the factors that impacted on the strength of the therapeutic alliance when using telemedicine. In a systematic review investigating the polarised opinions about using telehealth in psychotherapy Perle et al (2011) suggested that caution should be taken about comparing findings. The strength of the TA may have differed because of different client diagnoses, different telemedicine interventions, and the skill and attitude of the professionals to telemedicine. However what we do know is that there is an association between the TA and treatment outcomes.

2.6 The impact of the therapeutic alliance on treatment outcomes

Several meta-analytic reviews (Safran 2010) reported a correlation between a positive therapeutic alliance (TA) and positive treatment outcomes. These reviews included investigating the effectiveness of psychotherapy (Horvath and Symonds 1991) and evaluating the effectiveness of personal counselling (Martin et al 2000). More recently the relationship between the TA and treatment outcomes of individual psychotherapy covering more than 14,000 treatments also concluded that there was a significant correlation between the TA and positive treatment outcomes (Horvath et al 2011). Outcome measures in these meta-analyses included mood scales, symptom scales, compliance with treatment and whether or not the patient remained in therapy. However, caution should be taken when generalising the results from the Safran (2010) review to other

contexts as in the review the patients were all attending mental health services. Other supportive evidence (Arnow et al 2013) included an early TA being a predictor of subsequent symptom reduction in chronically depressed patients across dissimilar treatments.

Outside mental health services a systematic review across a wide range of population groups, non mental health diagnoses and primary/secondary care settings reported a positive association between patient experience, clinic safety and self-rated treatment outcomes (Doyle et al 2013). In the 55 studies included in the review the patient experience was related to empathy, listening and respect, which are all dimensions of the TA. In patients with a diagnosis of chronic illness using the Working Alliance Inventory to measure the TA, there was a correlation between positive TA and better adherence to the agreed treatment plan (Fuentes et al 2007), however the patients had a long-standing relationship with their nurse/doctor. Also, it was reported that having an established relationship can have a positive impact on the TA (Arnow et al 2013).

In contrast, although there was a plethora of evidence about the association between the strength of the TA and treatment outcomes Knaevelsrud and Maercker (2006) found that a consistently positive online TA measurement did not predict treatment outcome. The participating patients, n=48, were receiving a short-term, internet-based, cognitive-behavioural therapy program for post-traumatic stress. The treatment outcome was evaluated using two validated measurement instruments assessing the gain from pre-treatment assessment to the end of treatment. There was a low to modest association between the strength of the TA and treatment outcome. Potential bias compromised the generalisability of the findings: a small sample size, only 17% of applicants were included in the study and self-selection. So perhaps only those clients already comfortable with

using the internet were recruited.

Disciplines other than doctors and nurses also appreciated the clinical significance of the TA. A positive correlation between the patient-physical therapists TA and treatment outcomes was reported in a systematic review of patients attending physical rehabilitation (Hall et al 2010). Pain, disability, quality of life, depression, adherence, and satisfaction with treatment were the outcomes measures. But there were limitations to this review as only 13 prospective studies were included. Also, there was insufficient data to allow pooling of the results so the magnitude of the association was unclear. However, an exploration of how occupational therapists defined and used their TA with their patients reaffirmed the importance of the patient-professional relationship in occupational therapy (Cole and McLean 2003).

There was consistent evidence from a variety of health care disciplines and across different patient groups, diagnoses and treatments that the strength of the TA was associated with treatment outcomes. But the majority of the research reporting an association between the TA and treatment outcomes investigated face to face as opposed to telemedicine interventions. There were a limited number of studies focusing on the association between the TA and treatment outcomes in specialist palliative care.

2.6.1 The impact of the therapeutic alliance on palliative treatment outcomes

The TA has been called 'the cornerstone of medicine' (Rogers 2007 pg1594) and in palliative care the TA was highly valued by both the patient and the professional (Scott 2010). A positive TA between the patient and SPC nurse enhanced the patient's psychological well-being and ability to cope with their clinical situation (Richardson 2002). As part of a bigger study about developing competencies for SPC nurses Canning et al (2007) sent surveys to 238 SCP nurses across all states and territories in Australia. The

survey asked the nurses to ascertain the frequency that they performed various aspects of their role from 5 domains: complex supportive care, collaborative practice, leadership and improving practice. Nine nurses then completed a follow-up telephone interview exploring the results of the survey and the practice exemplars provided. The TA was identified as the most extensive and important aspect of the nurses' role and underpinned all other aspects of practice. Generalisability of the study was compromised as there was only a 31% response rate for the surveys and also the nurses self-selected for the follow-up interviews.

A multi-centered study investigated a new way of measuring the TA between 217 patients with advanced cancer and their oncologist (Mack et al 2009). Whilst acknowledging the range of validated TA measurement tools which were widely used in general medicine and mental health settings (Horvath et al 2011; Hall et al 2010; Safran 2010), the authors did not offer a compelling rationale for designing a new measurement tool. The patients considered their TA with the doctor an important aspect of end-of-life care and the TA was also associated with some palliative care treatment outcomes including greater existential well-being. And in a multi-site cohort of n=68 informal carers this association was taken one step further reporting that the patient perceived TA could be a predictor of caregiver bereavement adjustment (Trevino et al (2015). But in the Mack et al (2009) multi-centre study only the patient-oncologist TA was measured thus excluding all other team members some of whom may have impacted on caregiver bereavement. Additionally, there was little ethnic or racial diversity in the carer cohort. This lack of diversity was relevant as the issue of trust may be especially important in certain ethnic groups (Canales et al 2011) and trust is an integral component of the TA (Rogers 1951).

2.7 The impact of telemedicine on the therapeutic alliance in palliative care

The National Palliative and End of Life Care Partnership (2015) promoted the safe use of new technologies to build a therapeutic alliance with palliative care patients. It was recognised that better use of technology could help to bring support directly to the person and their family/carers. And in Scotland focus groups with patients, carers and palliative care professionals welcomed the use of telemedicine (Johnston et al 2012). However, given the association between the TA and treatment outcomes (section 2.6) it was important to be sure that telemedicine did not compromise the TA.

There were some examples of good practice using telemedicine in palliative care but none of these studies addressed the specific issue of the therapeutic alliance.

- Palliative care patients using Voice over Internet Protocol (VoIP) said that they were comfortable with the technology and thought that their ease in speaking openly via video would be enhanced with more practice (Keen and Carney 2007). However the findings reported only feasibility and patient satisfaction and were limited by the small sample size of two case studies.
- Palliative care patients involved in a remote system of checking physiological symptoms felt that the use of a videophone assisted the communication process between themselves and their nurse/doctor, whilst allowing the patient to remain in their own home (McCall et al 2008). However, the technology was used as a monitoring system only and not used for diagnosing. And although reference is made to assisting the communication process there was no assessment of either the efficacy of the communication between patient and professional or the therapeutic alliance.

- Watanabe et al (2013) concluded that video consultations were feasible with palliative care patients. A pilot study of multidisciplinary video conferencing to support palliative care patients attending rural clinics, with the health professional located at a different site was feasible. However the patients were accompanied by nurses trained in symptom assessment which could have impacted on the findings. Also assessing feasibility did not address efficacy of the intervention or strength of the TA.
- There were successful examples of using the Voice over Internet Protocol (for example Skype) in palliative care settings to facilitate the virtual presence of family members when physical presence was not feasible (Flannagan et al 2014; Jones 2014).

Despite the limited use of telemedicine in palliative care there remained unanswered questions about communication skills, attitudes and behaviours used during telemedicine encounters and their potential effects on the TA.

2.8 Justification for this study

There was evidence that a strong therapeutic alliance (TA) was related to treatment outcomes, and to facilitate a strong TA professionals needed to use specific skills, attitudes and behaviours. Internationally the use of telemedicine was gaining momentum (Barak et al 2009; Chang et al 2009; Liu 2007; Kern 2006) and the uptake of telemedicine in palliative care continued to rise (Johnston 2014; Johnston 2011; Kidd et al 2010). There was limited evidence about the strength of the TA when using telemedicine and in particular Voice over Internet Protocol (VoIP), for example Skype.

Given that the strength of the TA between the patient and the professional was related to treatment outcomes and the use of telemedicine continued to increase, it was timely to

further investigate the virtual relationship between patients and professionals. This research helped gain a better understanding of the factors that enhanced the TA in the absence of direct face-to-face contact in palliative care. Investigating how palliative care professionals could adapt their skills, attitudes and behaviours to enhance the TA when using VoIP had implications for treatment outcomes, staff training and service development.

Chapter 3: Study Design

Chapter 3 starts with the study aims and research questions and is followed by a critical review of the research design. The methodology of action research is then explored and the chapter concludes with a summary of the key points.

3.1 Study Aims

1. To identify the patients and professionals skills, attitudes and behaviours that affected the therapeutic alliance during video consultations in palliative care, and
2. To use an action research approach to work with professionals to explore strategies that enhanced the therapeutic alliance with patients during video consultations using a Voice over Internet Protocol (VoIP).

3.2 Research Questions

1. What skills, attitudes and behaviours used by palliative care patients and professionals during VoIP consultations affected the therapeutic alliance?
2. Using an action research approach, what strategies between patients and health care professionals enhanced the therapeutic alliance during VoIP consultations?

3.3 Research providing evidence for practice

The pinnacle of any clinical research was the transfer of the findings into practice and this could be a slow and haphazard process (Ward et al 2009). The aim of this clinical doctorate was to create knowledge, refine the knowledge and tailor the research to robustly answer the research questions whilst meeting the needs of patients, professionals and the Organisation (Graham et al 2006). This process could be described as a dynamic cycle starting with action and leading to implementation and application of knowledge. Dynamic models of knowledge transfer focus on the association and exchange between the producers and users of research (Jacobson et al 2003). As a methodology action

research was cyclic and gave the participants the opportunity to engage and influence the research process. This process is considered to be the cornerstone of action research and reflects how participants undertake critical self-reflective inquiry to improve their own practices and the context where these practices are carried out (Carr and Kemmis 1986).

A hierarchy of evidence was at the core of evidence based practice and was endorsed by the National Health and Medical Research Council (SIGN 2011; NHMRC 2009). The hierarchy ranked studies based on the rigour of the research and adopted a top down approach. Meta-analyses and systematic reviews ranked highest followed by randomised controlled trials, cohort studies and case control studies, with expert opinion and anecdotal evidence ranked lowest. However, this hierarchy had been challenged and the certainty of evidence was based on many factors and not only study design (Guyatt et al 2008). It had also been postulated that rather than having meta-analyses and systematic reviews as best evidence they should be used as a lens by which other types of studies could be appraised (Murad et al 2016). Even a randomised controlled trial (RCT) design could result in a low level of evidence due to study limitations, inconsistency of results and reporting bias (Guyatt et al 2008). The study design should be appropriate to answer the research question and in this current study an RCT would not have provided the answer.

The action research (AR) methodology empowered the patients and professionals and facilitated the broad depth of analysis needed to provide a transparent process of moving from evidence to recommendations for practice (Guyatt et al 2008). Action research had been criticised as being non-scientific (Waterman et al 2001), but unlike many other methodologies AR was not just about using data to come to conclusions. Action research was concerned with changing situations, not just interpreting them and systematically evolved changing both the participants and the situation under investigation. The

execution of this AR study was transparent and robust using a variety of data collection methods which generated a breadth of knowledge and depth of understanding (Fossey et al 2002).

3.4 Categories of Research Design

There were three broad categories of research design: quantitative, qualitative and a combination of both (Creswell 2009). In this current study a variety of data collection methods were used because an objective account of the therapeutic alliance complemented by a subjective appraisal of the experience and skills, attitudes and behaviours of professionals was needed to allow an in-depth analysis of using VoIP in palliative care. A quantitative study focused more on counting and classifying features and constructing statistical models and figures to explain what was observed (National Health and Medical Research Council 1995). A qualitative study was a good research design to understand the views and opinions of participants (Zailinawati et al 2006). This current study using an AR combined both quantitative and qualitative designs and best answered the research questions. The research questions asked: what skills, attitudes and behaviours used by palliative care patients and professionals during VoIP consultations affected the therapeutic alliance; and using an action research approach, what strategies between patients and health care professionals enhanced the therapeutic alliance during VoIP consultations?

3.4.1 Strengths and weaknesses of study design

For many studies there is potential to use more than one design (Creswell 2009). But in this current study because the patients were nearing the end of their disease trajectory the variety of data collection methods were appropriate as the emphasis was on minimising patient burden. The AR design also answered the research questions (Zailinawati et al

2006) and was feasible within the time and resources available (Teddlie and Tashakkori 2009). Consideration was given to the quality of the study, consistency of the findings when compared to other similar studies and the clinical impact and generalisability of the results (SIGN 2011).

Quantitative methods, such as using 'closed' or 'fixed' questions on surveys and questionnaires, are fairly inflexible when compared to other study designs. The advantage of this inflexibility was that it allowed for meaningful comparison of responses across participants and study sites (Robson 2002). Although for some areas of inquiry quantitative methods were best suited to answer the research questions in this current study additional qualitative data, facilitated by the AR methodology, enabled flexibility, a depth of understanding and different perspectives on the strength of the TA when using VoIP in palliative care.

Qualitative methods sought to gain a rich understanding of a topic from the perspectives of the local population it involved and was especially effective in obtaining culturally specific information about the values, opinions, behaviours, and social contexts of a particular population (National Health and Medical Research Council 1995). One advantage of qualitative design was flexibility. In this current study when collecting the qualitative data at interview with patients and professionals the interview schedule was adjusted enabling additional probes or lines of inquiry in subsequent interviews based on the responses from interviewees. Developing questions in this manner enabled a more in-depth understanding of the patients and professionals beliefs, attitudes, and experience (Babbie 1989). So, using both quantitative and qualitative methods in this study allowed a complex, detailed understanding of skills, attitudes and behaviours of participants that enhanced the TA when using VoIP.

3.5 Action research as a methodology

Action research (AR) was identified as being useful in healthcare settings that involved improvement in practice whilst seeking to empower service users and/or professionals (Crow et al 2009). Action research was concerned with creating organisational change and simultaneously studying the process involved (Avison et al 2001). As such, AR was selected as the most appropriate methodology to explore strategies that enhanced the therapeutic alliance during VoIP consultations with palliative care patients. Critical participatory AR, as demonstrated in this study, opened a communicative space where practitioners, and others affected by practice were able to explore, better understand and influence the outcomes of the inquiry (Kemmis et al 2014).

The approach of the founding father of AR, Lewin (1946) was underpinned by positivist, realist assumptions (Robson 2011). Kurt Lewin (1946) was a social psychologist concerned with social problems focussing on participative group processes to address conflict. The position taken by many more current action researchers was based on social constructivism (Hilsen 2006). However the realist and constructivist approaches were not mutually exclusive as critical realism was identified as an AR approach (Coghlan and Brannick 2014; Kemmis 2009). Critical realism involved taking note of the perspectives of participants which in this current study was demonstrated by the contribution from patients, nurses and doctors. Working in education, the seminal work of Stenhouse (1975) was pivotal in establishing AR as a research tradition in the UK and in Australia the participatory research movement added to the momentum (Hopkins 2002). At the core of the different models of AR that developed was the participatory nature of the process and this participation led to an opportunity for personal and professional self-reflection and growth (Reason and Bradbury 2001).

Following extensive reading about the different models of AR (McNiff and Whithead 2011; O'Leary 2004; Waterman 2001; Kemmis and McTaggart 2000; Hart and Bond 1995; Elliot 1991) I felt that my approach to AR as demonstrated in this thesis fitted best with the AR approach adopted by Kemmis et al (2014). To some extent my choice of this approach was influenced because I lived and worked in Australia for many years. During my residency in Australia I was employed as a clinician and a lecturer. The principle author Stephen Kemmis lived and worked in Australia so I was familiar with his work and his approach to AR had influenced my practice. In particular I liked the emphasis placed on the 'critical' component of the AR process which I believe was stronger when compared to other AR authors (McNiff and Whithead 2011; Hart and Bond 1995).

Participatory research differed from conventional research by promoting a shared relationship between the researcher, the community based analysis of the social issue and had a leaning towards community action (McTaggart 1997). Critical participatory AR differed from participatory AR in that it challenged the constraints on discussions that can exist in hierarchical organisations, where more senior professionals can have more of an opportunity to put their view forward (Kemmis et al 2014). Critical participatory action researchers aim to make their own practice more productive, fair and inclusive. Working collaboratively with others in the same setting the gathering of data, analysis and interpretation of the evidence followed by sharing of the findings was described by Kemmis et al (2014) as 'writing their own unfolding history as they make it' (p18). Critical participatory AR blurred the boundaries between theorists and practitioners, and gave the practitioners 'intellectual and moral' control over their practice (p26). Critical participatory AR allowed a process, undertaken in this thesis, where a shared concern, worth investigating and worth acting on was enabled.

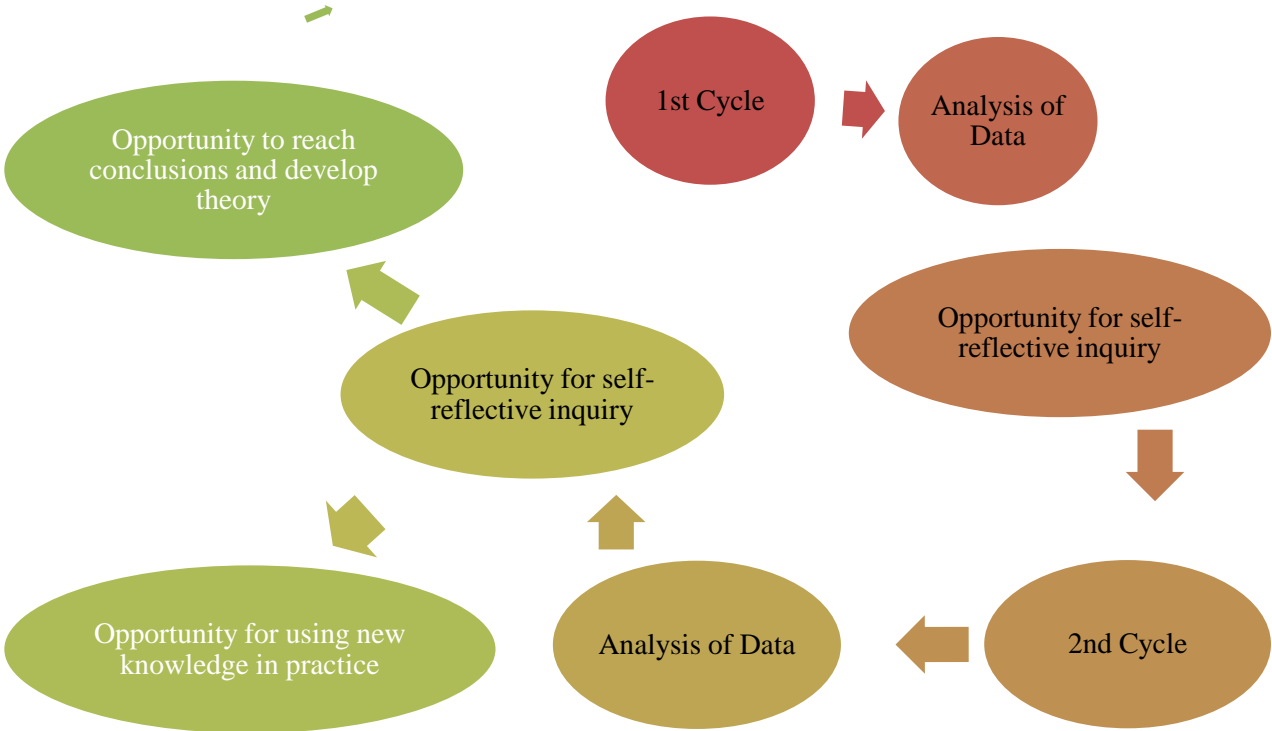
Action research investigated a specific area of interest in a practical context. The hallmarks of AR, the emerging nature of the evidence and flexibility, offered a unique opportunity to generate new knowledge (Koshy 2005). As applied to this current study, using VoIP in palliative care generated new knowledge about strategies that enhanced the therapeutic alliance. Many changes that happen in our lives are imposed however critical participatory AR enabled disciplined changes which allowed participants to take a thoughtful approach to reshape their work and lives (Kemmis et al 2014).

A particular strength of using AR for this current inquiry was that it provided a framework that linked patient and professional participation in research to action and change. By doing so, this process evidenced historical data about local service provision (Kemmis et al 2014). The involvement and empowerment of the service users was critical to answer the research questions and the sampling of patients and professionals was appropriate and sufficient to provide a comprehensive perspective of the area of inquiry (Fossey et al 2002). In AR the nature of the relationship between participants and the researcher is collaborative and the extent of the collaboration must be progressive and transparent (Le May and Lathlean 2001). The aims of this study required the active participation of the patients and professionals in the VoIP consultations. Additionally the professionals, and not the researcher, were asked to identify the strategies that enhanced the therapeutic alliance.

The patient-professional partnership enabled by AR (Heron and Reason 2001) allowed the researcher and the professionals to explore and better understand the relationship between the therapeutic alliance (TA) and VoIP. An exploration of this relationship provided an opportunity for the professionals to develop new or different ways of looking at the skills, attitudes and behaviours that enhanced the TA during VoIP consultations and

this was central to answering the research questions. Striking the right balance between action and reflection was critical to the validity of the study (Heron 1996), as such the two action cycles gave the professionals the opportunity to utilise new ways of behaving during their second VoIP consultation and by doing so enhancing the TA. Figure 1 represents the phases of the two cycles of action research.

Figure 1: Key Phases of Action Research



In reality, critical participatory AR initiatives may proceed in a less structured way and although it is important to complete all components of each AR cycle, becoming too focussed on the process can detract from the depth of inquiry (Kemmis et al 2014; Smith 1996/2001/2007; McTaggart 1996).

Action research provided an opportunity for the professionals to shape and control their

own learning (Knowles et al 2015). One approach to a successful learning experience included four components: motivation, doing, feedback and digestion (Race and Brown 1993). The intrinsic *motivation* of the professionals to improve their practice and better meet the needs of the patients drove them to first, volunteer to participate in the research and second, identify any deficit in their knowledge, skills or behaviours related to using VoIP. By *doing* the VoIP consultations the professionals were seeking a means to address any deficit in their knowledge/skills/behaviours. The nurses and doctors were familiar with competency based learning and reflective practice and had experience in responding to constructive *feedback* (Jeffery 2002) on their ability to enhance the TA during VoIP consultations. *Digesting* was associated with a sense of ownership, that is, an understanding and application of the new learning to practice (Nicol and Reid 2005; Race and Brown 1993). The participatory nature of AR as used in this study fulfilled the four components for successful learning.

Although in this study, the subject under investigation, the data collection tools and outcome measures were predetermined, the participatory nature and flexibility of AR allowed the participants to define the direction of the research (Creswell 2009). The AR methodology enabled a sequence of inquiry among four different types of knowledge: *experiential* (feedback that we get in real-time about the interaction with others); *presentational* (the trialling through which we examine our practice); *propositional* (evolved through experience and drawing on concepts and ideas); *practical* (an opportunity to fine-tune or change practice) (Reason 2002). This study encompassed these four stages within each cycle which increased knowledge and lead to the formulation of new ideas about enhancing the therapeutic alliance when using VoIP in palliative care.

The social context of the study, was the burden of disease and frailty of palliative care

patients, and was taken into account when selecting the study design and methodology (Fossey et al 2002). The patients were invited to participate in one VoIP consultation but not asked to digest the analysis. Although there was no expectation of learning for the patients they had the opportunity to learn/enhance their computer skills and use of VoIP. Additionally the patients' experience of the VoIP was integral to the feedback of the findings to the professionals at the focus groups providing the opportunity for patients to influence practice through their personal insights.

In this current study using a parallel strategy (Teddlie and Tashakkori 2009) allowed me to simultaneously collect data from multiple sources: numerical data related to skills; and narrative data enabling an in-depth exploration of beliefs and behaviours. Data were collected from both patients and professionals to give different perspectives on using VoIP. The AR methodology enabled the participants, in collaboration with the researcher, to take action (use VoIP) and create knowledge (strategies to enhance the TA and the VoIP experience) about that action (Coghlan and Brannick 2014; Kemmis 2009). The inquiry culminated in recommendations for practice and impacted on the Organisation's telemedicine strategy (section 6.1). Additionally, the findings contributed to the theory of how things were when using VoIP with palliative care patients. Whitehead (2005) referred to the theory that emerges from iterative cycles as living theory, and within healthcare the focus is often on developing practical outcomes that are practice relevant (Koch and Kralik, 2006). Both these perspectives are complementary and have the potential to inform both practice and contribute to the growing body of evidence around video-consultation.

3.5.1 Interpretive rigour

The participatory engagement enabled by AR can lead to a loss of critical perspective and one indicator of rigorous research is the distance between the interpreter and the subject

(Melrose 2001). But it could be argued that the patients/professionals/researcher formed a dynamic part of the process as it was their notions of reality that ultimately shaped practice (Cook 2009). The authenticity and coherence of this study was demonstrated by the experience of using VoIP being looked at from several points of view. Thinking, knowing, critiquing and learning from multiple perspectives is at the core of AR (Melrose 2001). In this study the critical participatory AR approach provided a safe communicative space in which the participants were encouraged to listen and understand each others' point of view, strive for mutual agreement and reach an unforced consensus about what we should do in the current situation (Kemmis et al 2014). The first cycle was an exploration of using VoIP and the second cycle was an attempt to improve or change the experience (Dick et al 1995). Presenting the findings to the focus groups allowed group members to listen to each other, debate and reflect which enabled a fair and accurate interpretation of the findings (Fossey et al 2002).

The sequential coding, revisiting and cross-referencing of each source of data built a comprehensive picture of the developing themes across all VoIPs and minimised my own interpretation of the evidence. In AR as the study progressed it was the participants and not me who interpreted the findings and influenced the direction of the study. As this current study evolved, the timeline allowed me to analyse questionnaire and VoIP transcript data and adapt the interview questions to truly reflect the voices of the participants. Additionally, the participants' views are presented verbatim (Davidson et al 2001) with quotes from both patients and professionals being presented in the focus groups and included in Chapter 5. During the focus groups the professionals were able to recognise components of their own VoIP experience (Rice and Ezzy 1999). By revisiting the findings from each VoIP consultation in the context of subsequent consultations, I was

able to embed corroborating and competing elements in the interpretation of the findings (Fossey et al 2002; Davidson et al 1997). When collecting data from a variety of sources it was important to remain focussed on the research questions. At each stage of data collection and analysis I asked myself will this evidence actually help answer the critical questions about the nature and consequences of using VoIP with palliative care patients (Kemmis et al 2014).

By using reflexive thinking I provided a more effective and impartial analysis. The process of reflexivity involved examining and consciously acknowledging assumptions and pre-conceived ideas brought into the research by me that could shape the outcome (Wilkie 2015). Making the research process itself a point of analysis helped reduce the risk of being misled by preconceptions (Cook 2009). Taking field notes after conducting the patient and professional interviews helped with my reflexive thinking (section 4.5.6). Revisiting my field notes in the context of the interview transcripts encouraged me to critically reflect on any biases or notions that I brought to the process that could have impacted on the interview process and analysis.

Reciprocity was integral to AR and was an ongoing interaction that aimed to establish and maintain equality between the participants and the researcher. The AR process should be a negotiation of meaning where the research findings are of benefit to both the participants and the researcher (Maiter et al 2008). To facilitate reciprocity, my selection and use of data collection methods was justified, described and explained in detail thus rendering the gathering and documenting of data transparent (Fossey et al 2002). Additionally, the findings from the first cycle were shared with the professionals during the focus group. My skilled facilitation of the focus groups enabled the professionals to digest and interpret the findings (Elwyn et al 2004). During the focus groups it was important as my co-participants

shared experiences that I maintained a 'collective stance of communicative action' (Kemmis et al 2014 p109); ensuring that I and others were inclusive and conducted ourselves with care and consideration. My role in the interpretation of the findings was clear and it was the professionals rather than I who identified the strategies that could potentially enhance the TA during VoIP consultations. My relationship with the patients and professionals was declared and I had no clinical role with the participating patients prior to their enrolment in the study. Both I and the professionals embraced the opportunity for mutual learning about a relevant area of interest (Trondsen and Sandaunet 2009).

3.5.2 Limitations of action research

As with any research methodology action research does have limitations. Acknowledging and minimising the impact of the limitations was integral to the integrity of the research.

The Kemmis model of AR was developed in the field of education. Underpinning the model was the idea that practitioners and not researchers were working with real challenges in their workplace and as such were better placed to conduct the research. The presumption that practitioners could address the challenges in their practice through research and actually have enough power to influence the system in which they worked could, in some circumstances, be unrealistic (Franco and Soares de Sousa Lisita 2004).

In reference to external validity, an action researcher seeks to lead an inquiry into a specific area of their own practice to generate new knowledge and theory. As such, conclusions from the research may be generalisable only within the same situation and the context of the work (Koshy 2005) (section 6.2.1). In this current study we used a critical participatory AR approach to help determine how best to use VoIP with palliative care patients we did not aim to produce evidence about the 'best way' to use VoIP for all patient consultations. But the research may be of interest to those working in similar situations or

with an interest in the field of inquiry and components of the findings may be generalisable (Kemmis et al 2014; Wang and Hannafin 2005). I anticipate that professionals using VoIP for patient consultations will learn from our experience. Action research has been criticised as being anecdotal and subjective (Holloway and Wheeler 2002; Waterman et al 2001). Yet AR is no different from any other research methodology in that fundamental to all robust research is the transparency of the process: context, data collection, methods, analysis and interpretation of the findings (section 3.3).

It was essential to the research process that the investigator neither manipulated nor disempowered the participants (Cook and Kothari 2001). There was a possibility that I became too embroiled in the problem setting (Baskerville 1999) and by doing so lost contact with the obligation to help the professionals to generate new knowledge about the enhancement of the TA using VoIP. To circumvent this potential limitation, I met on a regular basis with my academic supervisors who reviewed a random selection of interviews/VoIP/focus group transcripts.

There was a potential conflict in the dual role of the researcher (Holloway and Wheeler 2002; Olsen and Lindoe 2004) (section 4.7.1). I was currently employed as a Lead Clinical Nurse Specialist and had an active client list. Nurses are dedicated to the welfare of their patients and nurse education emphasised the nurse's role as patient advocate. I initially had difficulty in identifying and interacting with the participating patients as informants, as opposed to clients but exploring this challenge with academic supervisors helped address this issue (Hay-Smith et al 2016). The patient's awareness of my experience as a SPC nurse could have been an advantage as patients may have felt relaxed and as such felt more able to be candid during the interviews (Hay-Smith et al 2016). In addition, my clinical experience ensured that the burden of data collection to the patient was kept to a

minimum and any contraindications of data collection, in relation to adverse clinical events, were recognised and responded to in a timely and appropriate manner.

Likewise, in relation to the professionals, my role was that of investigator rather than supporting colleague or mentor. Following the research there was the potential that the relationship between the staff members and me would be compromised. However this risk was minimal as, in my usual clinical role I was regularly involved in facilitation of critical incident/reflective meetings where individual staff members' and team performance were discussed. Additionally, the participatory engagement and reciprocity enabled by AR fostered a mutual respect and provided a joint learning opportunity (Kemmis 2009; Trondsen and Sandaunet 2009) for both me and the nursing/medical staff. This opportunity for mutual learning consolidated the existing professional relationship.

As a novice researcher, at times the sheer volume of data seemed unwieldy. This feeling was not uncommon and Mellor (1999) discussed being overwhelmed by the volume of PhD data and talked honestly about feelings of personal inadequacy. When using a critical participatory AR approach, rather than becoming weighed down by data collection or too engrossed by methodological claims of validity and reliability, the emphasis should be placed on a robust analysis and interrogation of the evidence (Kemmis et al 2014). In action research there was a point, for both experienced and novice researchers, when the data can seem to be 'messy'. This was the point of interface between what is *known* and *nearly known* and was part of the process of generating new knowledge (Cook 2009) and contributing to theory about components of a specific situation in a specific context (Kemmis et al 2014). Regular meetings and support from academic supervisors confirmed that these feelings were part of the process of inquiry and not uncommon in Doctorate students.

To circumvent these potential study limitations, the research process was monitored by PhD supervisors from the University of Stirling, one of whom had experience of action research.

3.6 Application of action research

Action research enabled inquiry within both the specific and the practical context; was participatory in nature and went through cycles of critical reflection and action (Kemmis 2008). Hockley and Froggatt (2006) demonstrated how the participatory nature of AR could be utilised to develop the palliative care knowledge of staff working in two nursing homes. Staff identified issues that they felt important to improve end of life care. The findings were explored with staff and management and both discussed with the researcher how the study should be taken forward. The main action in one nursing home was the development of collaborative learning groups. In the other nursing home staff worked together to adapt a tool to help staff anticipate the needs of a dying resident. The shift from the researcher to the participants directing the research process was clearly demonstrated. Both nursing homes volunteered to take part in the research and it was acknowledged that the staff consenting to participate when the direction of the research and what was to be undertaken was not agreed at the onset could be considered a breach of consent. Given the dynamic and flexible nature of AR a process of ongoing consent may be more appropriate (Meyer 1995).

In this current study, I identified the area of inquiry as strategies that could enhance the TA during VoIP consultations and decided on procedures for collecting and recording data. Professional participants identified patients to be approached by the researcher and asked to participate in the study (chapter 4.2) The participatory nature of AR allowed the participants and I to be involved in and explore the VoIP experience, with everyone having

a role in making sense and drawing conclusions from the findings (Heron and Reason 2001). The critical participatory AR approach encouraged partnership working and joint ownership of the process (Kemmis et al 2014). However, the balance in the partnership between the professionals and I changed as the study progressed.

Over the course of the study I facilitated and encouraged the ownership of the study to shift away from me (Wallis 1998) and towards the professional participants. I designed the study and the action component (VoIP consultation); selected the data collection tools (WAI-S, audio recordings, interviews, and focus groups) and carried out the analysis of the data. Following the focus group when findings from the first cycle were presented, the professionals were encouraged to explore the findings and identify the strategies that could be taken forward and tested in the second cycle. This inquiry focused on providing the professionals with an opportunity to reflect on their practice during VoIP consultations. This reflection aimed to lead to changes in the individual's skills, attitudes and behaviours that contributed to the enhancement of the TA and as a result a shift towards more positive clinical outcomes.

The research was interactive with the professionals assuming a more active role in the process. Engaging in self-evaluation and reflection in a meaningful way gave the professionals an opportunity to develop positively (Johns 2002; Gibbs 1988) from the VoIP experience. Individuals were encouraged to take responsibility for what they did or did not do (Grainger 2010; Bolton 2001) to enhance the TA when using VoIP.

3.7 Summary of key points

There were several categories of research design and within those categories was a hierarchy of evidence but critical to the rigor of any study is the selection of a research design that best answers the research questions (Creswell 2009). In this study a critical

participatory AR approach was used (Kemmis 2009). Using a variety of data collection methods enabled the participants and I to examine and explore the use of VoIP in palliative care in a comprehensive, methodical and detailed manner. I recruited both patients and professionals to include data from different perspectives and a variety of data collection methods further enhanced the depth of inquiry.

Chapter 4 describes the research methods in more detail.

Chapter 4: Research Methods

In Chapter 4 participant selection and recruitment are explained and discussed in detail. Methods of data collection are then justified and explored. The Chapter concludes with a detailed description of the analytical process.

4.1 Population and Sample

4.1.1 The population

The study population was the Voice over Internet protocol (VoIP) consultation between patients and professionals in a Hospice out-patient service.

4.1.2 The sampling frame

A large UK Primary Care Trust (PCT) responsible for ensuring that patients/family members within a designated geographical area have access to high quality health services when they need them (NHS Dorset 2009). The sampling frame was the patients and the professionals who were involved with adult hospice out-patient consultations.

Consultations with local stakeholders highlighted a need for equity of access to services and for residents to be treated with dignity and respect. The consultation also supported the development and better use of 'care closer to home' and the use of technology for remote care. Despite most people stating that they wished to die at home, a high proportion of the local population died in hospital. The PCT's strategic plan stated that by 2014 three hundred additional people would choose and be able to die at home (NHS Dorset 2009).

At recruitment, the population of the PCT was 404,789, 3.9% of whom were 85+ years of age. Of the 4718 deaths during the period 2008-2010, 1340 of those patients had a diagnosis of cancer. When looking at place of death: 55.4% died in hospital, 19.1% in a care home, 19.7% died in their own home, 3.8% died in a Hospice, all other locations

accounted for 1.9% of deaths; these figures are similar to the UK average for place of death (National End of Life Care Intelligence Network 2012). The amount spent on Specialist Palliative Care (SPC) in the PCT 2010-2011 was £4,803,000, well above the UK average of 2,731,034; the NHS spend on SPC per PCT death 2011-2012 was £1.018 (Marie Curie Cancer Care 2012).

One agency provided SPC in north, south and west of the PCT. The services included an 18 bed in-patient unit (serving 300 people annually), 3 Day Hospice sites (serving 350 people each year), a community based specialist nursing service employing 13 full and part-time clinical nurse specialists (supporting 650 patients per year), an acute hospital-based service supported by 3 part-time clinical nurse specialists and 7 part-time medical staff (Weldmar Hospicecare Trust 2012).

4.1.3 The Sample

Exploratory samples are often used in small-scale research as a way of probing relatively unexplored topics and can lead to generating new ideas or theories. Because this is the purpose of exploratory samples it is not always necessary to get a cross-section of the population (Denscombe 2014). Purposive sampling is an example of an exploratory sample. As such, purposive sampling operates on the premise that focussing on a relatively small number of events deliberately selected for their specific attributes offers the best information. Using purposive sampling I hand-picked specific professionals that I thought were likely to produce the most valuable data.

Purposive sampling allowed me to access nurses/doctors who participated in consultations in a Hospice out-patient service. At the time of this research no other members of the multidisciplinary team were involved with out-patient consultations. The professional sample aimed to include: nurses or doctors, both genders and a range of

ages. There was a pool of 22 professionals who were approached and asked to participate with a view to recruiting six professional participants (section 4.2.1). Recruitment to research studies can be problematic with time limitations and work demands of nursing and medical staff bringing significant challenges (Weierbach et al 2010). Given these challenges, I anticipated that less than 50% of the potential participants would both want to participate and meet the selection criteria. Whilst it was important that the amount of data collected be sufficient to answer the research questions, the data also needed to be manageable in terms of collection and analysis (Robson 2002). The amount of data collected from six professionals was substantial. Additionally, the variety of data collection methods enabled a depth and breadth of analysis (Creswell 2009) to explore the therapeutic alliance (TA) during VoIP consultations. Each professional was asked to recruit and partake in a VoIP consultation with one patient for each of the two action cycles. The patients would ideally already be a member of a nurse/doctor's caseload.

Purposive sampling enabled access to a particular subset of people and allowed me to reject people who did not fit a particular profile (Robson 2002). Poor communication skills impacted on the TA (Kleja et al 2009; Roter et al 2000) so, a high level of communication skills was needed to facilitate an effective patient consultation in palliative care (Larkin 2010; Fellowes et al 2004). There was evidence that experience alone did not reliably improve communication skills (Fellowes et al 2004; Jenkins and Fallowfield 2002) and as such regular communication skill training was recommended (Kleja et al 2009; Scottish Government 2008a; NICE 2004; Wilkinson et al 1999). So, in this current study only staff who had completed communication skills training were invited to participate.

The use of social networking e.g. using video equipment to communicate was increasing (D'Andrea et al 2010). Also an individual's experience with using video to converse could

have impacted on their ability to communicate effectively during VoIP consultations (Visser et al 2009; Wakefield et al 2008; Currell et al 2000). So, I selected professionals who had a range of experience with using VoIP; for example, using Skype to communicate with family members/friends, as part of online education programmes, or for communication between patients/health professionals.

4.1.4 Health professionals

Inclusion criteria was nurses and doctors:

1. who engaged in palliative care consultations with Hospice patients.
2. with confidence to use a computer.
3. who had completed a communication skills course.
4. who were fluent in English.
5. who gave informed consent.

Exclusion criteria was nurses and doctors:

1. who had not completed a communication skills course.
2. with no confidence to use a computer.
3. who were not fluent in English.
4. who were unable or unwilling to give informed consent.

4.1.5 Patients

Only patients already known to the Hospice service, and no new referrals, were given the opportunity to participate in the research. The VoIP consultation replaced one face to face consultation with a Hospice nurse/doctor and following the VoIP consultation standard face to face service resumed.

Inclusion criteria was patients:

1. who were living in their own home and attended the Hospice out-patient service

during the study period.

2. who had a prognosis of more than three months, as estimated by the professional involved.
3. who were able to attend an out-patient clinic.
4. who gave informed consent.
5. who were fluent in English.
6. who had the physical ability to participate in a VoIP consultation.
7. who were able to communicate verbally.
8. who had capacity to engage and understand verbal communication.

Exclusion criteria was patients:

1. who did not live in their own home.
2. who had an estimated prognosis of less than three months.
3. who were unable to attend an out-patient clinic.
4. who were unwilling or unable to give informed consent.
5. who were not fluent in English.
6. who did not have the physical ability to participate in a VoIP consultation.
7. who were unable to communicate verbally.
8. who did not have the mental capacity to engage and/or understand verbal communication.

4.2 Recruitment

Before recruitment commenced approval was given from: Stirling University School of Nursing Midwifery and Health Ethics Committee, the NRES Committee East Midlands – Nottingham 2 (ref: 13/EM/0220 (Appendices 17a/b), the participating Hospice (Appendix 19) and the NHS Primary Care Trust Research and Development Committee.

4.2.1 Recruitment process for health professionals

In an effort to protect the anonymity of the participants in the relatively small working environment, the professionals were approached by the researcher rather than a third party. Although the professional's line manager knew that the research had commenced, they were not aware of which of the professionals fitted the inclusion criteria and wanted to participate in the research.

An invitation letter giving a brief explanation of the study (Appendix 1) and a Study Information Sheet (Appendix 2) was sent to the professionals involved with out-patient consultations. Hospice medical staff, community clinical nurse specialists and ward Sisters received an invitation. If the professional wanted more information about the study they were asked to contact the researcher by phone or email within one week of receipt of the letter. A successful AR study relied on the active participation of the participants, if the nurse/doctor was motivated to initiate contact with the researcher it was hoped that they would be more likely to be committed and to remain engaged for the duration of the study. However, if a professional did not contact the researcher, then within one week of receipt of the letter the researcher made contact with the individual nurse/doctor to ascertain if they had received the invitation and/or were interested in participating.

If the professional wanted more information about the study the researcher first checked that the professional met the inclusion criteria, and second arranged a meeting to take place within one week. During the meeting the researcher:

1. explained the study in more detail.
2. if the professional was willing, obtained written consent. Prior to giving written consent to participate, the professional was encouraged to ask questions and to discuss any concerns that they might have in relation to any aspect of the study.

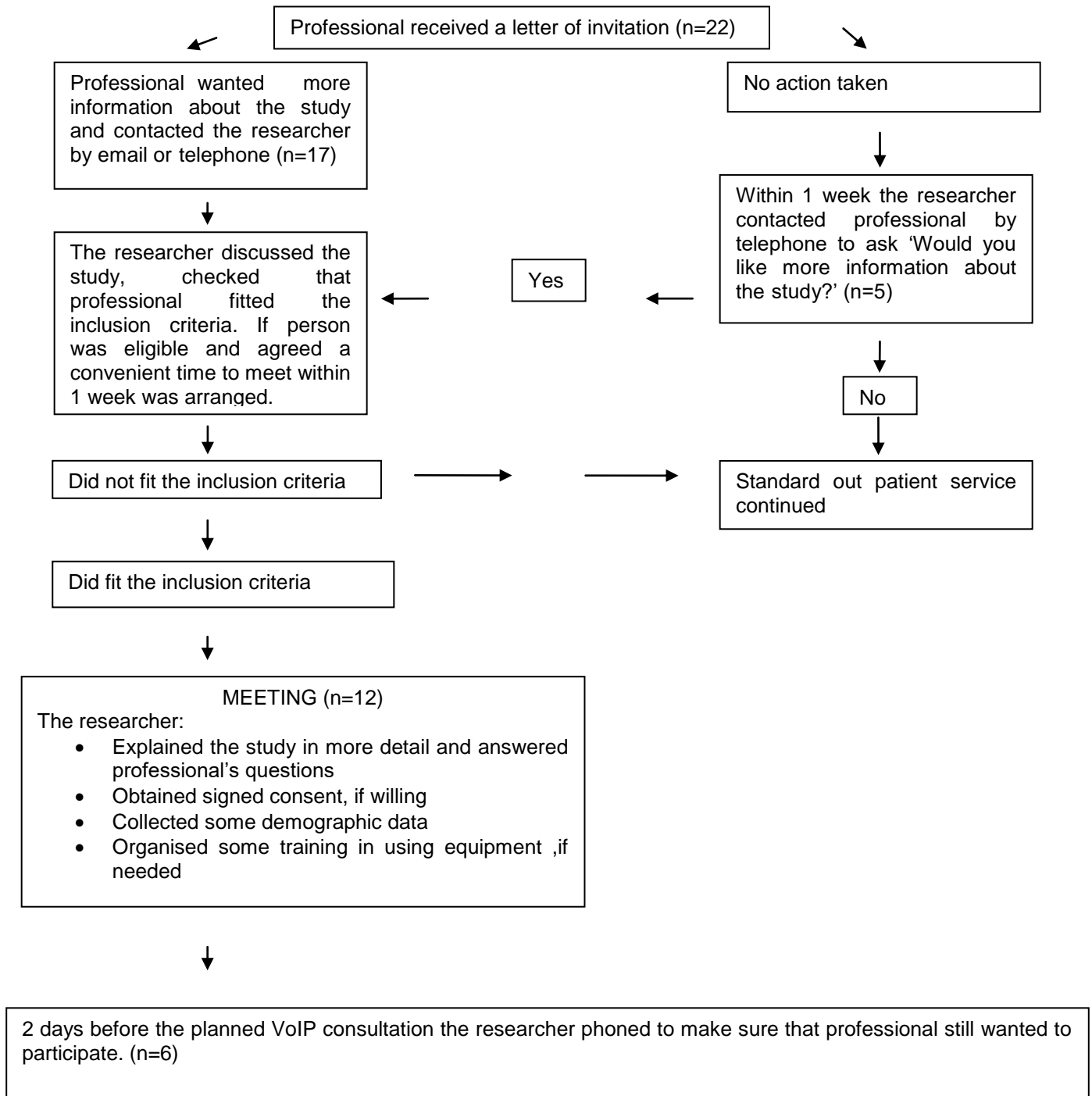
3. collected some of the demographic data.
4. if necessary, organised training to use the VoIP.

As more than six professionals wanted to participate, a cross-section of the professionals to include both genders, a range of ages, disciplines and previous experience with VoIP were recruited. Nurses/doctors who were willing to participate but were not selected received a letter from me thanking them for their interest and explaining that their services were not required (Appendix 18).

Two days prior to the proposed VoIP consultation, I contacted the professional by phone to confirm that they still wanted to participate in the study. The professional could still withdraw from the study at this point. If the professional withdrew from the study the medical secretary contacted the patient with an alternative face to face appointment with the same professional.

If a professional met the Inclusion Criteria, but declined to participate they were thanked for taking the time to consider participation and the standard mode of consultations continued. If the professional enrolled in the study and then decided to withdraw, they were sent a letter thanking them for their participation and the standard mode of consultations continued. The individuals did not need to explain their reason for either declining to participate or withdrawing from the study. Figure 2 represents the process for recruitment of professionals.

Figure 2: Recruitment of professionals



4.2.2 Recruitment process for patients

The professional had two different means of recruiting patients. For patients already known to the professional and if the patient fitted the Inclusion Criteria, at the end of a routine face to face consultation the professional provided a brief explanation about the study and gave the patient an Invitation Letter requesting their participation in the study (Appendix 3) and a Study Information Sheet (Appendix 4). The patients were also asked to give written permission for me to contact them by phone and I received the permission document (Appendix 3). Alternatively if a referred patient not known to the professional but living in the catchment area and registered with a local GP service fitted the Inclusion Criteria the professional made contact with the patient by phone and provided a brief explanation about the study. If the patient was interested the Invitation Letter and the Study Information Sheet were sent to the patient's home. The patients were asked to return the signed permission for me to contact them by phone.

The patient had forty-eight hours to discuss the Study Information Sheet with their family/GP/other before I contacted the patient by phone. If the patient still wanted to participate in the study, we arranged to meet at a time/place convenient for the patient. The purpose of the meeting was four-fold, after I explained the study in more detail:

1. If the patient was willing, written consent was obtained. Prior to giving written consent the patient was encouraged to ask questions and to discuss concerns that they might have in relation to any aspect of the study.
2. It was ascertained if the patient's family and/or next-of-kin was aware of their participation in the study. In the event of the patient dying during their involvement in the study, this information enabled the researcher to make contact with the family member to thank them for the patient's participation and offer condolences on

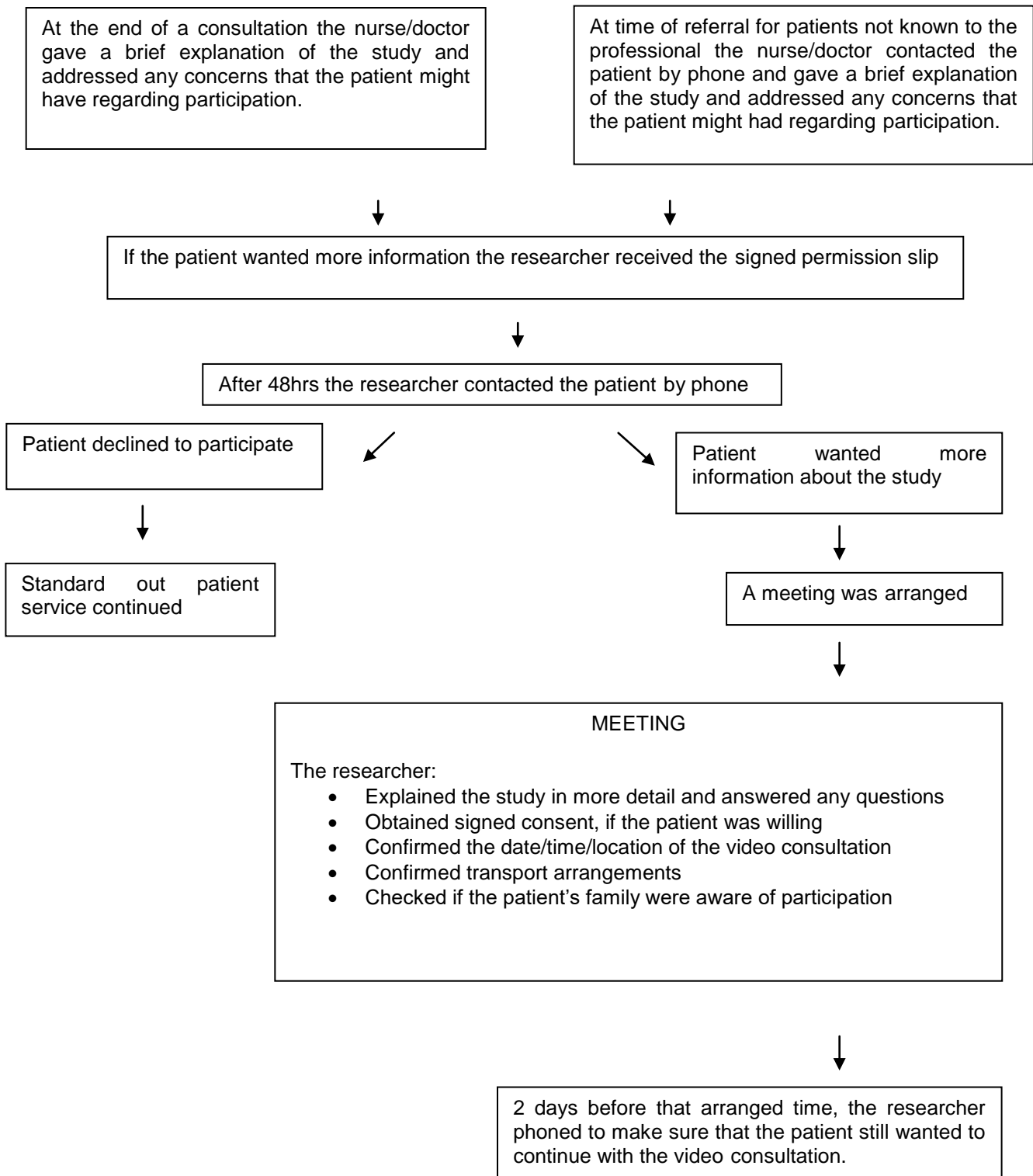
behalf of the research team.

3. The most convenient clinic location for the VoIP consultation was selected and if necessary transport organised.
4. Demographic data was collected.

Two days prior to the proposed VoIP consultation, I contacted the patient by phone to confirm that they still wanted to participate in the study. The patient could still withdraw from the study at this point. If the patient withdrew I contacted the participating nurse/doctor and organised a face to face consultation. If the patient completed a VoIP consultation they were sent a letter thanking them for their participation and the standard mode of consultation resumed.

If a patient met the Inclusion Criteria, but declined to participate the patient was thanked for taking the time to consider participation and the standard mode of consultations continued. If the patient enrolled in the study and then decided to withdraw, they were sent a letter thanking them for their interest and the standard mode of consultation continued. Patients did not need to explain their reason for either declining to participate or withdrawing from the study. If a patient's health deteriorated at any point in the study and they were unable to participate alternative arrangements for contact with the appropriate Hospice staff were made. If the patient died during participation in the study, and the family were aware of their involvement, the patient's family were sent a letter of appreciation for the patients' inclusion in the study (Appendix 13). Figure 3 represents the process for recruitment of patients.

Figure 3: Recruitment of patients



4.3 Consent and Confidentiality

4.3.1 Consent (Appendices 5/6)

As described above, the process of recruitment endeavored to minimise the burden and protect the participants from any coercion. The quality of care-giving in palliative care could be affected by the number of different professionals interacting with an individual patient (Worth 2006; Walshe et al 2010). Patients valued interpersonal continuity as it gave a sense of security, coherence and confidence in care (von Bultzingslowen et al 2006). As such, where possible a nurse/doctor whom the patients already knew approached the patients and briefly explained the research.

4.3.2 Confidentiality

The Hospice was a small community so protecting the anonymity of the participants was a challenge. Codes were allocated for each person, only I had full access to the participants' identity and data. In terms of the data generated, during the focus groups (FG) although analysis of the data was presented and discussed with the professionals, no individual nurse, doctor or patient was identified. I had approached eligible nurses and doctors and an individual's agreement to participate was not discussed with any other staff member. At the start of the study the researcher was the only other Hospice employee who knew the identity of the professional participants. The identity of professionals who were approached but declined to participate were also known only to the researcher. However, the professionals' anonymity was compromised to some extent by their participation in the focus groups with their colleagues. Professionals attending the FGs were encouraged to keep the group membership confidential and by doing so abide by the ground rules that were agreed between group members. Only the professional involved in the VoIP consultation and the researcher knew the patients' identity although the patients may have

decided to inform family members and/or others.

During the consultation the professional was alone in an office; the researcher connected and started the equipment in the patient's clinic room and then left the room. The patient decided if a friend/family member was present in the clinic room during the consultation. Following the consultation the professional made a standard entry into the patient's case notes.

Obtaining, recording and storage of the data complied with the Data Protection Act 1998 (Department of Health 2009a). During the study, all written data was kept in a locked filing cabinet in a locked room and electronic data was stored on a password protected computer. Audio recordings were deleted following transcribing and five years following completion of the study the transcripts of consultations and interviews will be destroyed. Additionally, there was an agreement with the participants about the conditions under which research accounts would be published and therefore accessible in the public domain.

4.4 Equipment

Using a networked Hospice computer, both the patient and the professional were located in the most convenient Hospice location for them. A Voice over Internet Protocol (VoIP) was used to facilitate the video consultation between the patient and the professional; VoIP is a computer programme that facilitates a high quality video call, via a broadband connection (Liu 2007; www.educause.edu/eli); the interaction between the two parties was audio recorded and transcribed.

The VoIP of choice was Skype. Skype had a complex method of encrypting both voice and image and was encrypted to a level that complied with the national data protection guidelines for the security of medical data (QIPP Digital Technology 2012; Scottish

Government 2008b). As such it was generally considered a secure site similar to any other voice transmission sites with the same Internet Protocol (Skype Website cited in Brecher 2013).

For the consultation I set up the VoIP and the audio recording equipment in the consultation room; an Olympus DM-550 digital voice recorder was used. Each professional had an opportunity to practice using the VoIP with me before the patient consultations commenced. The professionals also had access to a VoIP troubleshooting checklist (Padgham et al 2005). Because access to and reliability of internet connections was challenging (Taylor et al 2015), I was present nearby the patient to resolve any problems that arose with the computer and/or accessing Skype.

4.5 Data Collection

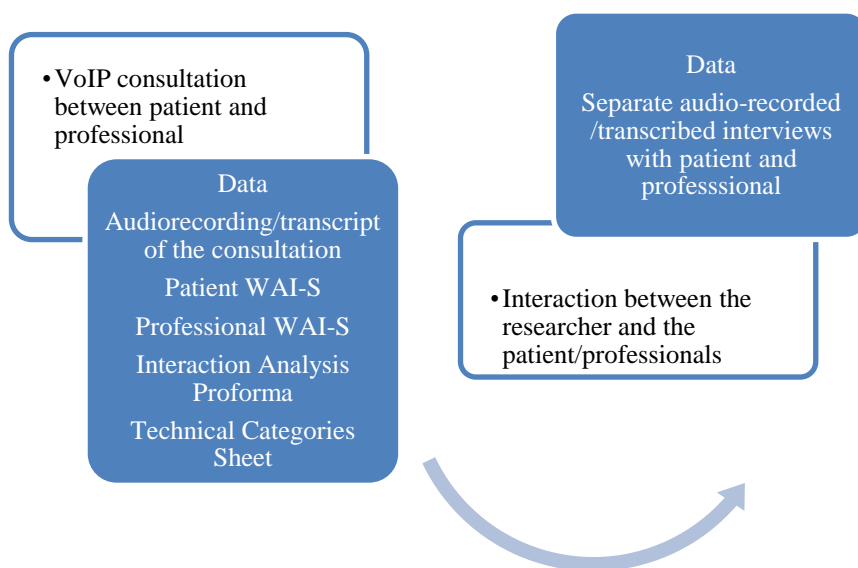
4.5.1 Using a variety of data collection methods in action research design

Within the AR design a variety of data collection methods were used which enabled the opportunity of both explaining and exploring (Creswell 2009) the factors that influenced the TA during VoIP consultations. Using a variety of methods meant that qualitative data, quantitative data and data from different perspectives were collected (Brannen 2005). This data collection process enabled a comprehensive, objective and robust AR study. A narrow view of the TA could have been misleading but approaching the subject from the perspective of the patients, the professionals and me enabled me and the professionals to gain a more comprehensive understanding (Robson 2002) of the TA when using VoIP in palliative care. The collective perspective of the professionals, generated during the focus groups, added depth to the inquiry. The strengths and limitations of the data collection methods are discussed in section 4.5.

Each data collection method complemented the other by adding a different dimension to

the inquiry. During the analysis, I ascertained how data collected by different methods checked, validated, corroborated or conflicted with each other (Brannen 2005). Exploration of the corroborating or conflicting evidence facilitated a more in-depth investigation of the TA when using VOIP. Using AR I embedded any conflicting findings into the next phase of data collection and the next cycle, thus adding strength to the findings and recommendations. In Figure 4 the white boxes represent the conditions that enabled the different sources of data collection; the blue boxes itemise the data sources.

Figure 4: Data collection during each consultation



Analysis started after the first VoIP consultation and each stage was revisited and cross-referenced between each consultation for the duration of the study. In AR each phase of a cycle was influenced by the previous phases, but also each cycle was influenced by previous cycles (Schein 2001). During each cycle I added to and adapted the interview questions for each participant to encompass emerging ideas. For example some

professionals made reference to eye contact when using VoIP so in subsequent interviews both patients and professionals were asked specific questions about eye contact. Evidence from the audio/transcript of the VoIP consultations, WAI-S data and the analysis from each individual VoIP consultation were embedded into the subsequent consultations in the same cycle. Following all six consultations the findings from cycle 1 were presented at the focus group (FG). During the FG the professionals were asked to identify strategies that could contribute to the enhancement of the TA. The professionals then had the opportunity to test the strategies during their second VoIP consultation. Below each method of data collection is explained.

4.5.2 Demographic Data

Demographic data were collected from both the patients and the professionals using a standardised questionnaire. Whilst meeting with the professional to explain the study and after obtaining written consent some information was collected. The information included: age, gender, job title, the date of their most recent communication skills training, previous experience with using VoIP and the post code of locations during the VoIP (Appendix 7a). The number of previous consultations with the same patient was collected as it is reported that the TA improved over time when patients had established a personal relationship with the professional (Lambert and Barley 2001; Little et al 2001; Roter 2000; Mikulincer and Nachshon 1991). However, in telemedicine there was evidence that a TA could exist without any prior face to face contact (Knaevelsrud and Maecker 2006; Lingely-Pottie and McGrath 2006; Cook and Doyle 2002). After explaining the study and obtaining consent, during the meeting with the patient I collected information about: age, gender, post code of preferred consultation location, and previous experience with using VoIP (Appendix 7b).

4.5.3 Audio-recording of the VoIP Consultation

The audio-recording of the VoIP consultation provided a true record of what was said and how it was said. As such, an objective rather than subjective record was provided which enabled an in-depth analysis of the skills, attitudes and behaviours used during the interaction. Revisiting the audio/transcript as the study progressed allowed identification of recurring themes and conflicting evidence across different methods of data collection and across all consultations. And additionally, critical to an AR design encouraged me to interpret the data in a way that truly represented the participants.

Process

The verbal interaction between the professional and the patient was recorded by placing a high-spec Olympus DM-550 digital voice recorder beside the microphone on the computer. In collaboration with the patient/clinic staff the researcher tried to keep distractions in the environment to a minimum for the duration of the consultation. For the duration of the study, the electronic file of the recording was stored on a password protected computer in the Hospice.

Limitations of audio-recordings

Using audio-recording equipment may have inhibited a relaxed and genuine response from the participants. The digital recorder used was small, silent and discreet also prior to the consultation how the recorder worked and where it would be placed during the consultation had been demonstrated to the patient.

Although transcribing audio-recordings was time consuming and costly the recordings allowed me to revisit the data as the study progressed. Revisiting the data was imperative in AR and allowed me to corroborate and/or look for conflicting evidence emerging in subsequent data collection. This process of revisiting the data enabled me to explore

issues in more depth and adapt interview questions to include emerging ideas.

4.5.4 Questionnaires

Questionnaires are often used to gather large sample measurements. However, in this study the quantitative questionnaire, the Working Alliance Inventory Short Form (WAI-S) was used to build a broader picture of the interaction and TA for each consultation. The WAI-S data added to the accumulated qualitative data from each consultation and strengthened the findings. Before a questionnaire was used the benefit versus the burden of the intervention was assessed. As such, a questionnaire that included items related to agreement on goals, agreement on tasks and the development of bonds, without being excessively burdensome to the patient, was appropriate for use with palliative care patients.

There were a variety of questionnaires, originating in mental health, that measure the TA (Fenton et al 2001; Hatcher and Barends 1996; Tichenor and Hill 1989). More recently, based on the theoretical framework for the TA in psychiatric practice, cancer services developed a scale to measure the TA between oncologists and cancer patients (Mack et al 2009). However, in research investigating the TA, the Working Alliance Inventory remained the most commonly used measure (Hatcher and Gillaspay 2006; Martin et al 2000). The Working Alliance Inventory Short Form (WAI-S) was a shorter version of the Working Alliance Inventory (Horvath and Greenberg 1989). Research showed support for the reliability and validity of both the Working Alliance Inventory (Horvath 1994) and the Working Alliance Inventory Short Form (Busseri and Tyler 2003; Tracey and Kokotovic 1989).

The WAI-S was designed for, and validated in an English speaking population and measured the cognitive/emotional aspects of the TA. The WAI-S is a self-administered

questionnaire consisting of twelve items, scored on likert scales; the items are categorised into three sub-scales: therapeutic bond, agreement on tasks and agreement about goals (Tracey and Kokotovic 1989). The WAI-S was selected for four reasons:

Measured agreement on goals of care (Horvath and Greenberg 1989). In palliative care during consultations the patient's agenda should be acknowledged, alongside the professional's agenda. Consequently, both interventions and service provision should be decided in partnership (Scott 2010; Dalgaard and Delmar 2008; Richardson et al 2007).

Was designed for use in all types of therapies, as opposed to only mental health (Horvath and Greenberg 1989).

Was a reliable and valid measure for use when interacting with vulnerable patients (Lingley-Pottie and McGrath 2006; Knaevelsrud and Maercker 2006).

Had only twelve questions. Palliative care patients are usually frail and debilitated as such the patients may be tired after participating in the consultation with the nurse/doctor. A short questionnaire minimised the burden to the patient when compared to the longer version of the WAI (36 questions) or other questionnaires.

The self-administered questionnaire facilitated data collection from all participants following their VoIP consultation. The WAI-S scores were a subjective interpretation of factors that had an effect on the TA during the VoIP consultation. The WAI-S 'goal' sub-scale addressed the extent to which therapy goals are important, mutual and realistic. The 'task' sub-scale focused on the participant's agreement about the steps taken to help improve the patient's situation. The 'bond' sub-scale measured mutual liking and attachment by focusing on tone of voice, empathy and comfort in exploring intimate issues (Fenton et al 2001). In palliative care the intimate issues could be related to symptom management and/or death and dying.

Process

Once the VoIP consultation finished, I asked the patient to complete the client version of the WAI-S (Appendix 8a). If the patient was too tired or unwell to complete the questionnaire on that day, the questionnaire could be returned in a stamped addressed envelope within 48 hours of the consultation. The professional was asked to complete the therapist version of the WAI-S (Appendix 8b) preferably on the day of the consultation and email the questionnaire to the researcher within 48hrs of the VoIP. For forms not returned within 48hrs the researcher made a follow up phone call to the participant to ask that the completed WAI-S was returned.

Within each consultation, the WAI-S data were cross-referenced with data from the audio-recording of the VoIP consultation and this process helped shape some of the questions asked in the separate interviews with the patients and professionals. Data were also cross-referenced across the whole data set to include all consultations in both action cycles.

Limitations of questionnaires

General frailty and a high level of co-morbidities in palliative care patients could have affected the patient's ability to complete a questionnaire and consequently could have influenced the rate of missing data which could have biased the results (Fielding et al 2006). To circumvent this limitation the Inclusion Criteria included patients with a prognosis of more than three months.

Because responses may be influenced by what the participants want me to hear, participating patients were reminded that no individual participant would be identified by name in the analysis or feedback of results and that regardless of their responses their relationship with the Hospice would not change.

4.5.5 Interviews

The professional interview (Appendix 9) provided an opportunity to gather data about: skills, attitudes and behaviours identified by the professionals as being of relevance to the TA in their individual VoIP interaction, the professional's response to the accumulated findings from the analysis of data from the audio-recordings and any issues related to the use of the VoIP equipment. The patient interview (Appendix 10a/b) provided an opportunity to gather data about issues, identified by the patient as being relevant to the TA but not necessarily covered by the WAI-S questions and any issues related to using the VoIP equipment.

A semi-structured interview format was used with both patients and professionals to gather in-depth information about the professional's skills, attitudes and behaviours and their experience of the VoIP consultation. The semi-structured schedule allowed the inclusion of specific questions related to emerging ideas and this fitted with the dynamic and evolving nature of AR. Broad open-ended questions encouraged the interviewee to offer responses that were not pre-determined by my questions (Jackson et al 2008).

Following completion of the WAI-S the patients and professionals were interviewed separately. All participants had the opportunity to be interviewed either on the same day or within a few days of the consultation. For the patients the date for the interview was dependent upon their physical condition. By providing a record that could be revisited, the audio-recording of the interviews allowed the researcher to give full attention to the discussion during the interviews.

Patient interview process

Following the consultation and completion of the WAI-S, although the patients already knew from the Study Information Sheet that an interview was planned, I asked permission

to conduct an audio-recorded interview (Appendix 10a/b). Given the patient cohort and potential for deterioration in their condition, asking permission gave the patients the opportunity to decline. The purpose of the interview was to discuss the patient's experience of the VoIP consultation in relation to the skills, attitudes and behaviours of the professional and also factors related to the use of VoIP to enable the consultation.

The interview took place at a time and place convenient for the patient. The duration of the interview was approximately 30 minutes. During the interview I tried to minimise any environmental factors that could potentially disrupt the interview (telephones, people entering the room) (Pontin 2004). If an unexpected interruption occurred I either, stopped the audio-recording and dealt with the interruption before continuing with the interview, or the interview was rescheduled.

Professional interview process

Following the consultation and completion of the WAI-S I asked permission to interview the professional (Appendix 9). The duration of the interview was approximately thirty minutes and when feasible face-to-face or alternatively by telephone. The purpose of the interview was to discuss the professional's experience of the VoIP consultation in relation to the skills, attitudes and behaviours used by the professionals and factors related to the use of VoIP to enable the consultation.

Both patient and professional interview protocols consisted of open-ended questions. During the interview, I used the skills of reflection, clarification and summarising to explore the interviewee's responses. As the study evolved different factors that affected the VoIP experience emerged and questions, related to these emerging factors, were included in subsequent interviews. This approach allowed me to facilitate an in-depth exploration of emerging ideas which resulted in a more comprehensive analysis of the TA during VoIP

consultations.

Limitations of interviews

Although when compared to questionnaires conducting interviews are time consuming and costly for transcribing, interview data adds another dimension to the findings. The interview data were cross-referenced with the consultation and WAI-S data and the accumulated findings provided powerful evidence for drawing conclusions. Transcribing the interviews was vital to the AR design and the analysis as it allowed repeated and convenient revisiting of the data and comparison across all data sources.

The researcher-participant interview was based on mutual respect, equality as individuals (Holloway and Wheeler 2002) and a desire to work collaboratively to explore factors that potentially affected the TA. I built a rapport using effective communication skills, for example techniques from neuro-linguistic programming (Agness 2011; Boyes 2010). Also, I encouraged the participant to be an active partner in the interview process by showing genuine interest in their perspective.

Peer interviews presented their own unique challenges. Having an established professional relationship prior to the research could be an advantage as the familiarity could facilitate an open and honest discussion. However, if the pre-research relationship had been less than cordial then the discussion may not have flowed so freely. Additionally, because of the established relationship there was the potential for me to become over-involvement and/or over-identify with the professionals. To circumvent this challenge I endeavoured to keep the interview interaction separate from the professional work practice. As the role of the interviewer influenced the quality of the data collected, the research supervisor read the transcripts and offered me advice on the content and technique of the first few interviews in each cycle.

4.5.6 Field Notes

Field notes provided an opportunity to pick up on relevant details not captured by the other data collection methods and for me to keep a record of what happened, of emerging ideas and of the research process itself (Koshy 2005). The field notes also helped with reflexive thinking (section 3.5.1). The field notes summarised my observations, thoughts, impressions, frustrations, feelings and ideas that emerged throughout the study. Field notes were especially useful immediately after the interviews, allowing me to capture what was not said (Morse 1994). Issues such as the interviewee's body language and attitude used in conjunction with the interview transcript helped me gain access to the meanings that the interviewees attached to skills and behaviours that influenced their TA when using VoIP.

Process

No notes were taken during the interviews as this may have detracted from the facilitation of the interview itself and the flow of conversation. But notes were written as soon as possible after the interviews had concluded.

Limitations of field notes

Excessive field notes can lead to difficulties, in terms of not only the volume and interpretation during analysis, but also can personalise the situation. As such, subjectivity and bias can be introduced into the process. To circumvent this potential problem, the Supervisors had the opportunity review the field notes.

4.5.7 Focus Groups (Appendix 11)

The success of the focus group (FG), in terms of partnership working, sharing of ideas, reaching some agreement and identifying recommendations, underpinned the AR methodology. Although for professionals FGs can facilitate frank exchanges between the

team members (Borg et al 2012) by agreeing to participate in the FGs the professionals' anonymity was lost. The FGs closed the loop of each research cycle and allowed for generation of ideas and strategies, and contributed to the collective consciousness in using Skype with palliative care patients (Kemmis 2008). The professionals had the opportunity to implement the strategies in cycle 2 and/or carry them forward in their future practice. Achieving this generation of ideas was a challenge for the researcher's group facilitation skills. Participants in the group had a combination of individualistic, competitive and cooperative impulses and goals (Johnson and Johnson 1987). However, my self-awareness enabled me to bring to the fore my own experience in group facilitation, cooperative impulses and goals for the benefit of the group.

With skilled facilitation, the FGs enabled an exploration of the collective rather than the individual VoIP experience and the group dynamic generated new thinking about the TA. This generation of new knowledge by the professionals was integral to the AR methodology. The main purpose of AR is to produce practical knowledge that can be used in everyday practice and by doing so contribute to the broader well-being of individuals and communities. AR is not only about seeking practical outcomes but also helping to develop new ways of understanding (Reason and Bradbury 2001) The FGs provided a forum for the professionals to engage in critical reflection of their own and colleagues' practice in relation to the skills, attitudes and behaviours that affected the TA when using VoIP. The FGs provided the individuals and the group with an opportunity for learning, professional growth and an unforced consensus about changes to practice (Kemmis 2008; Gaventa and Cornwall 2001). And the discussion, facilitated by me, enabled the group to identify strategies that potentially enhanced the TA in subsequent VoIP consultations.

Process

Following the analysis of data the professionals were asked to participate in an audio-recorded FG. The FG had a closed membership of participating professionals for each action cycle. The duration of the FG was 1-2 hours with venues, dates and times agreed at the beginning of each cycle.

The group members shared objectives (Elwyn et al 2004) discussed and explored experiences, reflected on their own and other group members practice, collectively identified strategies that could potentially contribute to the enhancement of the TA and agreed to take these strategies forward for implementation during the subsequent VoIP consultations. To enable the group interaction inquiry fundamental to AR (Kemmis 2008; Heron and Reason 2001), a combination of presentational, coordinating and space-giving group facilitation styles were used (Bond and Holland 1998).

The FGs had two levels first the presentation of the data and second the generation of the professionals' strategies. Prior to the data presentation I, using a coordinating approach, agreed on the guidelines for participation, or ground rules. The ground rules helped contextualise the situation and provided the group with a framework to ensure open, respectful dialogue and maximum participation (Holloway and Wheeler 2002). A directive approach was used to challenge non-compliance with the ground rules or negative behaviour.

For the data presentation, I adopted a presentational style to report the findings from the analysis of each AR cycle. The findings included: emerging themes, recurring patterns of behaviour, associations, examples of specific skills, attitudes and behaviours that impacted on the TA. Areas of congruence and/or disagreement between the participants and information about the participants' VoIP experiences were also presented. During the presentation no individual participant was identified from the data, rather collated data

were presented and when necessary, supported by anonymous examples and/or direct quotes from the findings.

The data presentation underpinned the second stage of the process which was the generation of the professionals' ideas relating to skills, attitudes and behaviours that contributed to the enhancement of the TA. To facilitate the discussion and exploration of ideas I primarily adopted the space-giving and coordinating facilitation styles (Bond and Holland 1998). The professionals were encouraged to become immersed in their action and experience of the VoIP consultations (Heron and Reason 2001). This level of engagement was at the crux of the critical participatory AR approach, was linked to each research cycle and enabled investigation of the professionals shared reality as they were striving for inter-subjective agreement about the VoIP experience (Kemmis 2008).

The group members were encouraged to collectively discuss their experience of the VoIP consultations in light of the data presented. By impartial coordination I tried to guide the group's interaction towards their objective, which was to generate strategies to enhance the therapeutic alliance. I used the skills of reflection, clarification and paraphrasing to engage with the group thus providing an opportunity for both individuals and also the group to clarify ideas, organise and consolidate their thoughts, reach agreements and develop their strategies.

Within one week of the first FG each professional received a newsletter identifying the strategies agreed by the group to test in the second action cycle. In the second FG the group members had an opportunity to explore the analysis of the testing of the strategies identified in the first FG to help generate further strategies for the enhancement of the TA when using VoIP. Within one week of the second FG each professional received a newsletter identifying the strategies agreed by the group. This process ensured that both

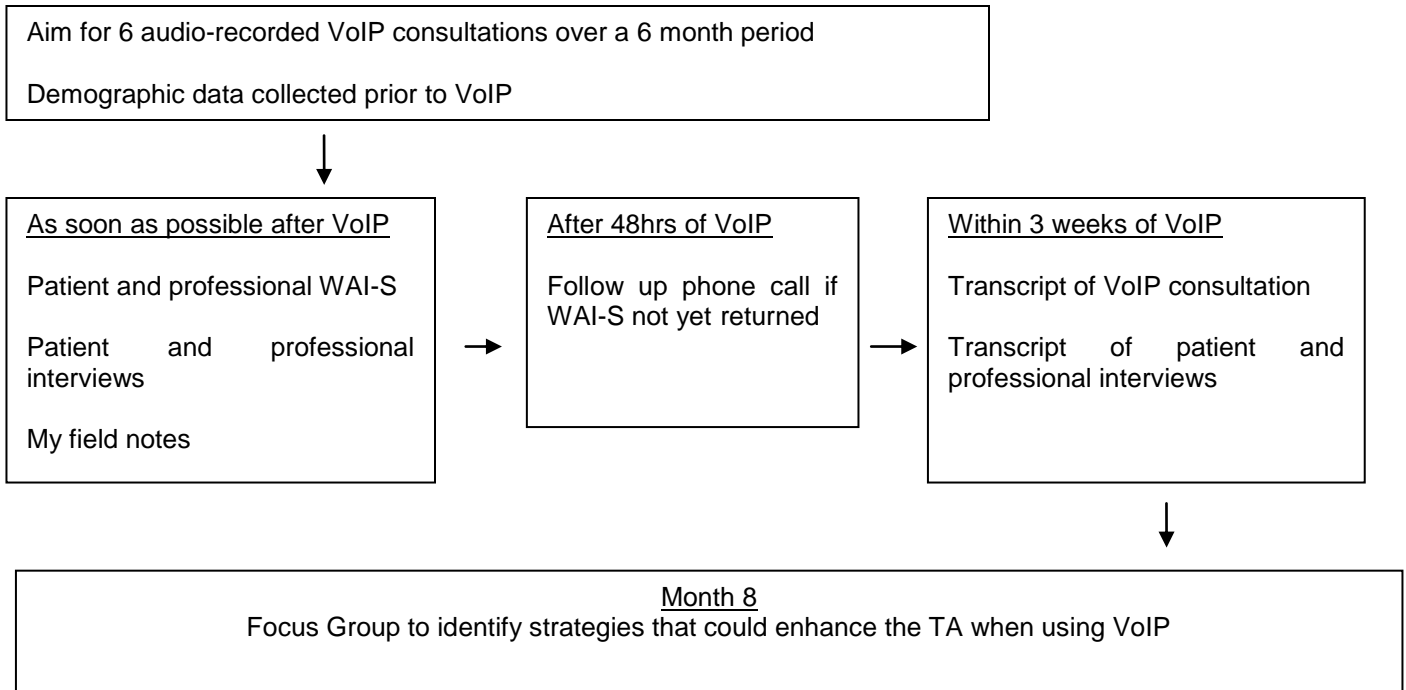
AR cycles were linked and that the knowledge generated continued to evolve across both action cycles.

Limitations of focus groups

Although FGs do not achieve the depth of one-to-one interviews, an individual group member's opinions or ideas can be taken and refined by the group. This process can result in more accurate information (Elwyn et al 2004). The FGs provided me with data about similarities and differences within the group, as opposed to an individual participant's opinion about the skills, attitudes, behaviours that contributed to the enhancement of the TA. Using the transcript from the first FG the academic supervisors gave feedback on how my facilitation skills could be enhanced prior to FG2.

To summarise, the data collected from each of the 10 separate consultations included: a transcript of the audio-recorded VoIP consultation, patient and professional TA questionnaires, individual interviews and field notes. Additionally, on completion of each cycle a transcript of the audio-recorded FG attended by professionals completed the data collection for each cycle. Figure 5 represents the timeline for data collection during each action cycle.

Figure 5: Timeline for data collection during each cycle



4.6 Data Analysis

The analysis was systematic and ran in parallel with the data collection. As the study progressed the participants directed the analysis by interpreting the findings. Three approaches were used to boost rigour: triangulation across data sources, researcher reflexivity and member-checking, that was feeding back the findings to the professionals for review and reflection (Meyer 2001). Conversation analysis (Willig 2003) or discourse analysis (Hutchby and Wooffitt 1998) could have been used to examine the dialogue during the VoIP consultations but thematic analysis was used because it was flexible whilst enabling a rich, detailed and complex account of the data (Braun and Clarke 2006). Thematic analysis could be thought to be too flexible with researchers adopting an ‘anything goes’ approach (Antaki et al 2002). The inclusion of an explicit account of how the analysis was done (section 4.6) provided evidence that the analysis was theoretically and methodologically sound. Initially when the first data were analysed a low level of

analysis emerged but by revisiting data sources and moving back and forth between current and previous findings a deep level of understanding emerged.

Analysis started following the first VoIP. As the study progressed findings from the analysis informed the data collection, for example additional questions were added to the pre-set interview schedule. The analysis from the audio of the VoIP consultations, WAI-S, interviews, Interaction Analysis Proformas, Technical Categories Sheets and focus groups were cross-referenced and collated to identify skills, attitudes and behaviours that affected the TA during VoIP consultations.

4.6.1 Quantitative

The transcript of the VoIP was coded using the Interaction Analysis Proforma to identify the types of talk used by the professionals to facilitate the TA. The Technical Categories Sheet allowed coding of the technological aspects of the exchange and the WAI-S recorded the participants' perception of the TA. Two experienced academic supervisors from the University cross-checked the coding from a selection of consultations in each action cycle. The three sources of quantitative data collection are explained in the next section.

Interaction Analysis Proforma

The Interaction Analysis Proforma (Appendix 12a) combined the validated Roter Interaction Analysis System with some additional items identified in the palliative care literature as needed to facilitate an effective consultation.

Interaction analysis originated in cognitive psychology and was commonly used to analyse the therapeutic encounter in healthcare. Interaction analysis examined the consultation in relation to the portion of time spent on different types of talk encompassing evidence of a patient-centred approach and/or shared decision-making. Verbal interaction in the

professional-patient encounter could be categorised into 'care talk' for example emotional and social interaction or 'cure talk', for example diagnosing or treating the disease and symptoms (Greenhalgh and Heath 2010). Data were collected by examining the transcript from the VoIP consultation against the types of talk itemised on the data collection form (Interaction Analysis Proforma).

The Roter Interaction Analysis System (RIAS) was a method of process analysis applied to audio/video recordings of medical encounters, was reliable and valid (Roter et al 2000/1998/1997) and had been widely adopted by researchers internationally including services in both oncology (Eide et al 2003; Ishikawa 2002a/2002b; Ford et al 1996) and palliative care (Roter et al 2000; Timmermans et al 2007/2006/2005). The RIAS had also been used across a variety of health disciplines including nursing, as opposed to only medicine. In addition to using the RIAS some additional items, identified in the palliative care literature as being fundamental to patient-professional consultations, were added (Dunphy 2011; Kissane 2010; Faulkner and Macguire 1994).

The patient/professional encounter during the VoIP consultation included aspects of health education, patient empowerment and therapeutic relationship building. Using the Roter Interaction Analysis System as a baseline and evidence from the general and palliative care literature, the categories included in the Interaction Analysis Proforma were:

- socio-emotional and task-focused elements of the exchange (Roter and Larson 2002)
- communication events that correlated with health outcomes (Miller and Nelson 2005); opening and closing the session (Ferguson 2006; Maguire et al 1986)
- summarising recommendations and asking the patient for feedback at end of the consultation (Maguire et al 1986)

- working in partnership with the patients, rather than assuming a dominant role in the interaction (Smith et al 2009; Schmid et al 2008)
- facilitating a positive, patient-centred approach as opposed to being disease focused (Richardson 2002; Little et al 2001; Mishler 1984)
- being non-judgmental and supportive, rather than disapproving towards the patient (Laidlaw et al 2007)
- using reflection, clarification and paraphrasing to show a caring attitude. This approach not only encouraged the patient to interact with the professional, but also to talk more about emotions (Schmid et al 2008; Roter 2000; Roter et al 1995)
- demonstrating positive verbal behaviours such as agreements, approvals, and compliments (Roter 2000)
- demonstrating positive non-verbal behaviours such as use of open end questions, appropriate phrasing/tone/speed (Roter and Larson 2002)
- demonstrating positive attitudes such as qualities of friendliness, sincerity and interest (Preston 2005; Roter 2000)

Using the Interaction Analysis Proforma as the data collection tool alongside the transcript of the VoIP consultation, sentences from the transcript were categorised against the items on the collection tool. For example a professional asking for clarification about the patient's dose of painkiller would be categorised as a 'data-gathering' item on the Interaction Analysis Proforma. Listening to the actual recording, as opposed to reading the transcript, enabled the inclusion of other dimensions of communication not evident when reading the transcript. For example nuances and the pace of the conversation complemented the actual words spoken and added meaning to the interaction. So, when revisiting the Interaction Analysis Proforma data from each consultation over the duration of the study

listening added to the depth of analysis. For each consultation the Interaction Analysis Proforma collected objective evidence about the skills, attitudes and behaviours used during the VoIP consultations.

The Technical Categories Sheet

The Technical Categories Sheet (Appendix 12b) allowed collection of information directly related to the VoIP hardware and software. The RIAS was modified for use in telemedicine by adding technology-specific subcategories (Nelson et al 2010; Miller and Nelson 2005) and the Technical Categories Sheet itemised these subcategories with the addition of 'response to and management of interruptions' and the word 'professional' replaced 'doctor'.

Using the Technical Categories Sheet as the data collection tool and the transcript of the VoIP consultation sentences from the transcript were categorised against the items on the collection tool. For example a patient telling the professional to move closer to the screen at the start of the consultation would be categorised as a 'gives orientation instruction' item on the Technical Categories Sheet. For each consultation the Technical Categories Sheet collected objective evidence about the skills, attitudes and behaviours related to the VoIP hardware and software used during the consultations.

On completion of the Interaction Analysis Proforma and Technical Categories Sheet for the consultation the items categorised were read in the context of the WAI-S scores. Looking for correlations between items regularly used and strong or weak perceptions of the TA helped identify what skills, attitudes and behaviours could strengthen the TA.

Working Alliance Inventory Short Form (WAI-S)

The 12 item WAI-S has three sub-scales that included measurement of goals, tasks and bonds. The scoring key identified which items on the inventory contributed to each of the

three sub-scales. In order to best answer the research questions and explore the skills, attitudes and behaviours used during the VoIP the WAI-S (Appendices 8a/b) was scored as an overall measure of the TA and separate sub-scale scores were also computed.

Using the scoring key (Appendix 8c) I scored the patient and professional's WAI-S. There was no 'right' score, however, the higher the score for each item the stronger the therapeutic alliance. This scoring enabled me to ascertain the individual participant's perception of goals, tasks and bonds. And, the separate analysis of each sub-scale allowed me to identify very positive or very negative aspects of the consultation. For example the highest score in the goals sub-scale was 28 and any patient scoring 28 had confidence that there was congruence between the patient and professional about goals of care. The scoring did not take place until after I had analysed the transcript of the VoIP consultation using the Interaction Analysis Proforma and Technical Categories Sheet. An awareness of the WAI-S scores before completing the aforementioned task could have influenced my interpretation of the evidence.

The patient and professional WAI-S scores were added up and the first level of analysis was to compare any differences between the patient and professional's scoring and any particular very strong or very weak aspects of the sub-scales. This data was then investigated in the context of the items recorded on the Interaction Analysis Proforma and the Technical Categories Sheet that is the types of talk used by the professionals. This allowed comparison between the subjective perception of the TA and what skill, attitudes and behaviours were used by professionals to elicit this perception.

The preliminary analysis of data collected from the Interaction Analysis Proforma, the Technical Categories Sheet and the WAI-S were explained in the section above and this process was duplicated for each consultation. This low level of analysis was revisited in

the context of findings from all previous and subsequent findings. The process of revisiting data several times in the light of emerging findings allowed the identification of similarities and differences which could strengthen or weaken aspects of the findings. The next stage was to consider the findings from the quantitative data in the context of the qualitative data.

4.6.2 Qualitative

Compared to quantitative research where strategies for analysis are often predetermined, qualitative analysis, although no less robust, was more flexible (Nolan 2008). Initially the plan was to use the qualitative research software NVivo to code and organise the qualitative data with all qualitative data from the interviews and focus groups (FG) being coded in the same way. Although NVivo allowed cross-referencing across consultations and cycles, as a novice user I found the software was cumbersome and as such counterproductive in enabling me to truly engage with the data. So, the analysis proceeded without use of the software package.

Thematic analysis was one of the most common forms of analysis in qualitative research (Guest 2012) and identified, examined and recorded patterns within data sets (Braun and Clark 2006). Thematic analysis was appropriate to use in this study because it allowed sequential coding of the data and the flexibility needed to effectively utilise the AR design. Using thematic analysis within a critical participatory AR approach allowed for the identification of common themes and issues that arose; interrogation of those themes led to shared insights into and decisions about how to change practice (Kemmis et al 2014). This analysis produced a rich thematic description of the dataset rather than a more detailed account of one particular theme and was conducted using six phases (Braun and Clarke 2006):

Becoming familiar with the data. The AR design assumed that the language used in the data reflected and enabled articulation of meaning and experience. Immersing me in each consultation allowed identification of broad ideas capturing anything arising in the data that related to the research questions. This phase involved repeated reading of all data sources within each consultation before the coding for each source started and although time consuming, this allowed the researcher to actively search for potential meanings and patterns.

Generating initial codes. Pre-determined codes included bonds, tasks, goals, all items included in the Interaction Analysis Pro-forma and Technical Categories Sheet. Iterative codes also emerged from within the data. Rather than being theoretically driven, the analysis was inductive and driven by the data. Coding did not adhere to the pre-existing coding frame (Appendices 12a/b) but evolved as questions arose during the coding process. Once coded, the data were organised into meaningful groups (Tuckett 2005) and the initial list of codes generated from each consultation helped to both crystallise key concepts that could be applied to the rest of the data and with the interpretation of the findings.

Searching for themes. The coded data were re-focused into a broader level by the identification of themes. In this phase the interpretative analysis of the data started with identification of the key points and arguments (Boyatzis, 1998) about the TA when using VoIP in palliative care. It was important to identify as many potential themes and patterns as possible as a common criticism of this phase is that the context can be lost (Bryman 2001). To circumvent this criticism the themes were identified by: combining similar codes to form an over-arching theme; initially including some extracts from the data in more than one theme; sub-dividing one code into two separate themes. Other extracts were not

included in any theme but kept aside and reviewed as the study progressed and the surrounding data helped add meaning and context to the findings. For example one professional raised the issue of *eye contact* when using VoIP; this item was initially included in the partnership building theme. But as the study progressed and more participants made reference to the impact of eye contact, or lack of eye contact, a pattern was emerging and *eye contact* became a separate theme.

Reviewing themes. Examining the data at a semantic level means not looking for anything beyond what a participant has said. Analysing data at an interpretative level allowed examination of the underlying ideas and assumptions that shaped and informed the data (Boyatzis 1998). Data within each theme needed to be cohesive and meaningful with identifiable distinctions between themes (Patton 1990). The themes identified from the early analysis were then taken forward for inclusion in the subsequent interviews, revisited in the light of emerging data and presented at the focus groups. Identification of themes was a dynamic process and produced a 'picture' of the data which enabled me and others to demonstrate links across the dataset.

Defining and naming themes. The AR methodology, in particular the focus group component, enabled the professionals to take a pivotal role in defining the themes at the end of each cycle. It was important to capture the essence of each theme and interpretation involved presenting extracts from the data that explained what was interesting about each theme and why.

The themes identified prior to the focus groups (FGs) were founded on evidence from the analysis of the quantitative and qualitative data. Presentation of the analysis in the FGs gave the professionals an opportunity to challenge what they perceived as misinterpretations or errors; this process of member-checking enabled testing/changing of

the themes and conclusions with the participants from whom the data was collected (Creswell 1998). Member-checking was thought by some to be the most critical technique for establishing the credibility of the data (Lincoln and Guba 1985). However, member-checking was controversial. Some contend that member-checking could lead to confusion because participants may change their mind about an issue; additionally different participants may have different views of the same data (Angen 2000; Morse 1994). In this study this difference of opinion happened and was useful as it added to the rigour by helping to make the argument in relation to the research questions (Braun and Clarke 2006). This depth of analysis enabled the presentation of emerging themes, contradictions and similarities to engage the professionals in the iterative process.

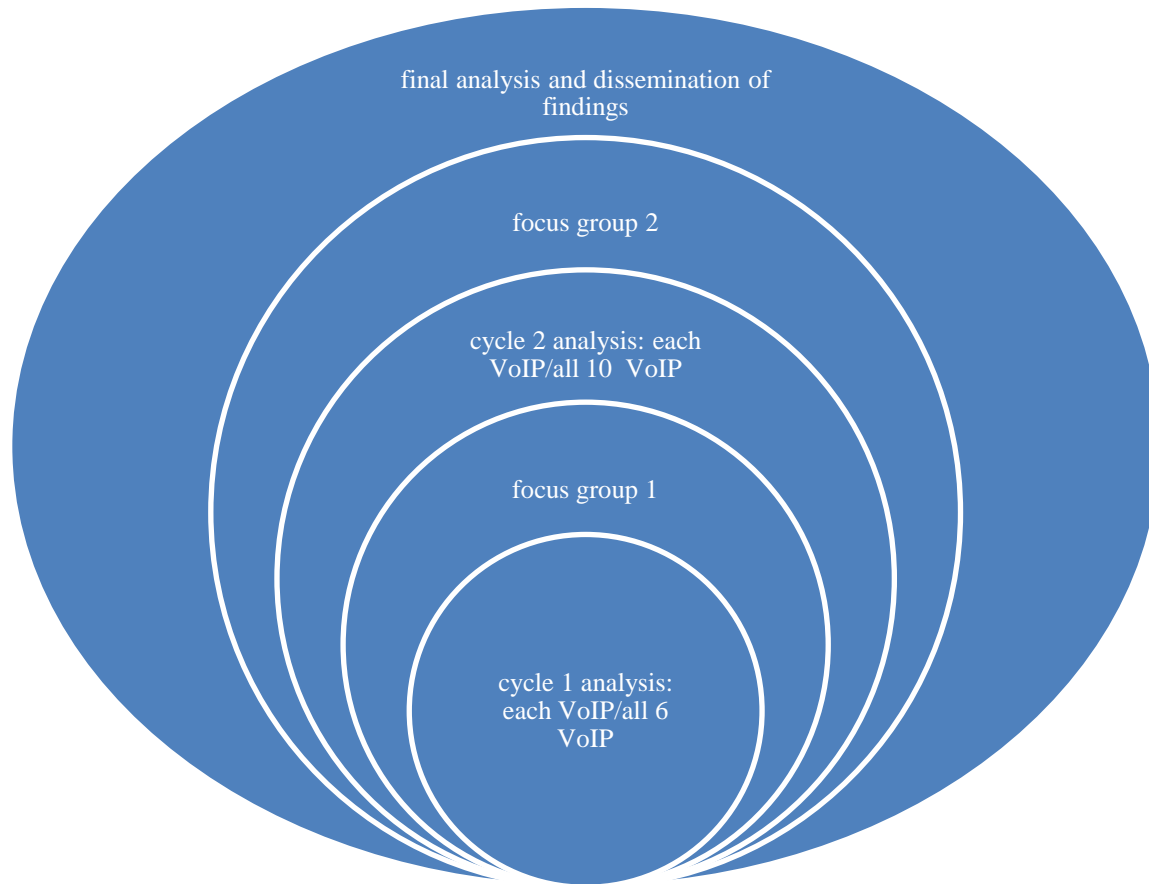
Producing the report. The analysis involved moving back and forth across the entire data set in an attempt to truly interpret the data to reflect the opinions of the participants. Writing down ideas, potential codes and themes started following the first VoIP consultation and continued throughout the entire analytical process. The aim of this current research was to give a coherent logical account of the story the data told whilst providing sufficient evidence to demonstrate the significance of the themes. Table 1 summarises the phases of coding and analysis:

Table 1: Sequential coding and analysis of data for each VoIP Consultation

Data Source	Timeline	Resources
Audio-recording/transcript of VoIP consultation	1 st coding within 3 weeks of VoIP consultation	Interaction Analysis Proforma Technical Categories Sheet ↓ Analysis
WAI-Ss (patient and professional)	Within 4 weeks of VoIP consultation	WAI-S Scoring Key ↓ Analysis
Patient and professional interviews – schedules amended in response to emerging analysis		
Patient and professional interviews	Within 3 weeks of VoIP consultation	Transcript of patient and professional interviews ↓ Analysis
All data sources cross-referenced and revisited throughout the study to make sense of emerging conflicts and corroborations; each stage of the analysis informed subsequent stages		
Focus groups	Month 8 of each AR cycle	Transcript of focus group

The research cycles were convergent, with the participants and the researcher looking several times at the same issues (Heron and Reason 2001). Figure 6 represents a summary of the process of analysis.

Figure 6: Process of analysis



4.7 Challenges for the clinician-researcher.

It can be challenging to resist the temptation to respond as a clinician when working as a researcher collecting and interrogating the data generated in a study. For example in this current study:

- Patients, knowing that I was a SPC nurse may have expected a clinical response to revelations about either physical symptoms or intense unexpected emotions expressed during data collection. If a patient cried during an interview it would be challenging for me not to respond in a counselling role or alter the interview schedule to avoid any potentially emotive topics (Hay-Smith et al 2016). Altering the schedule for this reason would have compromised the integrity of the study.
- The aim of the study was for the participants to generate new knowledge about

enhancement of the TA when using VoIP and this process involved critical self-reflection. Given that the TA was, to some degree, dependent upon effective communication skills and behaviours it would be challenging for me not to advise a professional about how to improve their communication skills if having witnessed some less than optimum practice during data collection. Such an intrusion would have compromised the integrity of the study.

- During the first stage of analysis using the Interaction Analysis Proforma, Technical Categories Sheet and WAI-S, methodical and sequential coding was imperative to accurately represent to data. The timeline for analysis was important for the integrity of the study as knowing the participants WAI-S scores before coding the Interaction Analysis Proforma and Technical Categories Sheet could have influenced my coding and by doing so misrepresented the findings.

4.8 Ethical considerations

4.8.1 Vulnerable population

Although patients referred to hospice out-patient services have progressive disease and possibly a poor prognosis (Hearn and Higginson 1998), palliative care patients in this study and others (White and Hardy 2009; McCall et al 2008) were enthusiastic about participation in research. The population of palliative care patients was diverse and in relation to participation in research a dying patient is not necessarily more vulnerable than any other patient group (Alexander 2010; Berry 2004). By not treating palliative care patients with the same deference afforded to other patient groups, not only might this be unethical (Alexander 2010; Nambisan 2010; Pautex et al 2005), but also the patients would be denied the respect they are entitled to as an individual recipient of health care.

Palliative care patients had commented that participation in research can make them feel

empowered, that their life and illness experience had been worthwhile, and that by contributing to the research their contribution could potentially improve the experience of other patients with similar diagnoses (Henderson et al 2005; Pautex et al 2005). Palliative care patients, carers and clinical staff also agreed that using video-recorded consultations with appropriate patients was an acceptable and worthwhile way of investigating communication in palliative medicine (Pino et al 2017). However, one potential risk was that the patients may have felt some discomfort or became emotionally distressed by an enhanced level of understanding of their situation (Alexander 2010). This potential risk had resulted in some health care professionals and/or local research ethics committees assuming the role of 'gatekeeper' by restricting palliative care patients' access to research (Walker and Read 2011; Nambisan 2010). Professionals and research committees should be aware of their role as gatekeepers and whilst maintaining robust monitoring of the research process should not be paternalistic and deny palliative care patients the right to make their own decisions (Executive Agency for Health and Consumers 2011). In this study I carefully considered the potential risks and benefits to potential participants by using the accepted four principle approach that underpins all medical ethics: autonomy, beneficence, non-maleficence and justice (Nambisan 2010; Casarett and Karlawish 2000; Beauchamp and Childress 1979).

As an experienced palliative care nurse I had contact with the patients to request consent and collect data. This contact provided an opportunity to identify any distress or contraindications for patient participation in the study. Although no patients used the service, the Hospice Family Support Team was available for patients who felt any distress related to any aspect the study. Additionally, the research design: inviting the patient to participate in only one VoIP and the flexibility in scheduling location and time

(Chaiviboontham 2011) not only minimised the burden to the patient but I feel also maximised recruitment and retention of the patient cohort.

4.8.2 Confidentiality

Some patients were approached by their professional but declined to participate in the study and this introduced a potential breach in patient confidentiality. To circumvent this issue, there was a clause in the professional's consent form in which the professional agreed that no other person would be told that the individual patient was approached and asked to participate in the research. I would not know if an individual patient had declined to participate.

By participating in the focus groups the professionals waived their anonymity with other participating nurses/doctors. By the professionals agreed to maintain confidentiality regarding group members' identity and any group discussions.

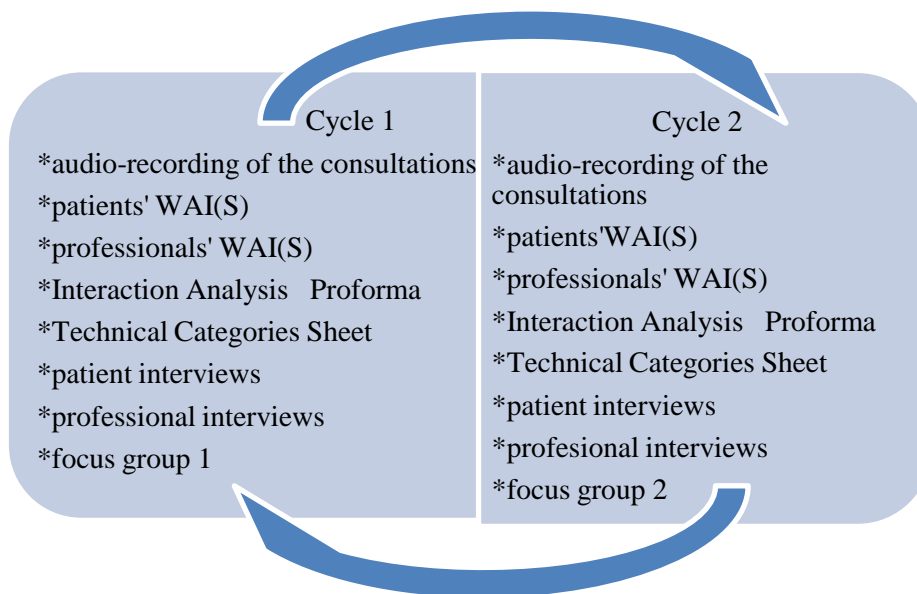
4.8.3 Copyright

I received permission from the designer of the WAI-S for limited copyright release (Appendix 16). The Roter Interaction Analysis System organisation was made aware that the research was taking place.

Chapter 5 Findings

This chapter reports the findings from the analysis of the qualitative and quantitative data (section 4.5). There were two cycles of action research (AR) the findings from cycle 1 are reported followed by the findings from cycle 2. The key findings gleaned from the whole dataset are summarised and the chapter concludes with strategies that potentially enhanced the TA when using VoIP. Figure 7 represents the cross-referencing of findings from both cycles 1 and 2.

Figure 7: Cross-referencing the findings from both cycles



5.1 Selection of individuals based on professional and personal attributes

The recruitment of the professionals took place over a period of one month, from first point of contact to consent (section 4.1-4.3). Table 2 represented data collected about the nine nurses and three doctors who consented to participate in the study. To protect the anonymity of the six professionals recruited, each was allocated a unique identification number (UIN). For the duration of the study the professional was identified by their UIN as opposed to their name and only the researcher knew the UIN of each participant.

Table 2: Data about consented professionals

Subject	Gender	Experience with VoIP	Communication skills training	Job Title	Age group (yrs)	UIN
A	F	None Apprehensive	2013	*CN	51-60	1
B	F	Regular - personal	2011	CN	51-60	
C	F	A few times - personal	2000	CN	51-60	2
E	F	None	2007	CN	31-40	
F	F	None	2012	CN	41-50	
G	F	A few times-professional	2012	CN	31-40	5
H	F	None	2005	CN	51-60	
I	F	Once only-professional	2001	CN	51-60	
J	F	None	2005	CN	51-60	6
R	F	A few times - professional. Apprehensive	2011	Doctor	41-50	4
S	M	Regular personal	2012	Doctor	41-50	3
U	F	Regular personal	2011	Doctor	41-50	

*Community Nurse (CN)

Diversity

Purposive sampling was used to access nurses/doctors who worked in a Hospice out-patient service. To identify the widest possible set of subjects with a variety of views/experience of using VoIP, the researcher selected a cross-section from the 12 consented professionals.

Communication skills training

Regular communication skills training is recommended for all health professionals (Scottish Government 2008a; NICE 2004). In palliative care an advanced level of communication skills is needed to facilitate a therapeutic consultation (Larkin 2010;

Fellowes et al 2004) and communication skills training, as opposed to experience alone, is necessary to improve communication skills (Fellowes et al 2004). Of the 12 professionals there was a range of 1-13yrs since the completion of communication skills training. The two professionals at each end of the time range for completing communication skills training were selected (UIN1 and UIN2); both these subjects were nurses with little or no experience of using a VoIP.

Experience with Voice over Internet protocol (VoIP)

The professional's previous experience of using a VoIP could have influenced the professional's ability to communicate effectively when using VoIP as opposed to a face to face consultation. Four professionals had no experience of using a VoIP: two of these subjects were excluded as they were newly appointed to the role of Community Nurse (CN); one subject had already been selected in the communication skills training category; the remaining subject, a nurse, (UNI6) was included in this category because of her lack of experience in using a VoIP. A doctor, (UIN4) was also selected because she had very little experience and was apprehensive about using a VoIP. At the other end of the spectrum, UNI3 was selected as this subject used a VoIP on a regular basis.

Job Title

Two of the nine nurses who consented had been newly appointed to the role of Community Nurse within the last month. These two nurses were not selected because their lack of community experience, as opposed to VoIP could have influenced their ability to facilitate an effective consultation in palliative care.

Two of the three doctors were selected because of the gender (UIN3) and their apprehension about using a VoIP as a mode of communication with patients (UIN4).

Age group

Six of the 12 professionals were in the 51-60 age group, four professionals were in the 41-50 age group and two professionals were in the 31-40 age group. The total number of professional subjects needed was six; as three subjects had already been selected in the 51-60 age group and two subjects had been selected from the 41-50 age group, the sixth professional selected was in the 31-40 age group (UIN5). UIN5 not only represented the 31-40 age group but had also completed communication skills training within the last year and had limited experience of using a VoIP.

Gender

The 12 consented professionals included eleven females and one male. To circumvent any potential gender bias, it was important to have a mix of both male and female participants and as such the male (UIN3) was selected to participate.

5.2 Cycle 1

5.2.1 Participant Profiles

In this section a short descriptive analysis of the participant profiles, including demographic data will be presented. To facilitate robust research it was important to recruit a sample population that acknowledged the potential variances associated with the therapeutic alliance and telemedicine (section 2.5). Although the Organisation comprises of a multi-disciplinary team of health care professionals, with a few exceptions all patients registered with the Service are assigned a specialist Hospice nurse and doctor. As such, the sample population included nurses, doctors and patients. The nurses and doctors recruited were invited to participate in both cycle 1 and cycle 2. Using the patient inclusion criteria (section 4.1.5), each professional was asked to recruit one patient for each cycle.

Cycle 1 included 4 nurses and 2 doctors; each was given a Unique Identifier Number (UIN) ranging from UIN1 to UIN6, the professional was identified by the same UIN for both cycles 1 and 2. Each of the six patients in cycle 1 was identified by 'a'. Thus the patient who engaged with professional UIN1 was identified as UIN1a, the patient who engaged with professional UIN2 was identified as UIN2a and so on.

The participant data included demographic information and variables which could potentially have an impact on the experience of using Voice over Internet Protocol (VoIP). For all participants, variables included: age, gender, previous experience with using the (VoIP) (Visser et al 2009) and number of previous consultations between the same professional/patient (Lingely-Pottie and McGrath 2006) (section 2.5). Additionally the professionals' profiles included: the role of the professional and length of time since most recent communication skills training (Larkin 2010), Table 3 represented the participant profiles for Cycle 1.

Table 3:-Participants Profiles (Cycle 1)

UIN	Age (yrs)	Gender	Diagnosis	Nurse/ doctor/ patient	Year since registration	Time since most recent communication skills training	Previous experience of a VoIP	Previous consults (with same prof)
1	51-60	F		Nurse	32yrs	13yrs	None	
1a	61-70	M	Chronic lung disease	Patient			Regular social	None
2	51-60	F		Nurse	40yrs	6mths	Few social	
2a	71-80	F	Chronic lung disease	Patient			None	None
3	41-50	M		Doctor	16yrs	3yrs	Regular social	
3a	51-60	F	Breast cancer	Patient			None	None
4	41-50	F		Doctor	25yrs	2yrs	None	
4a	71-80	M	Prostate cancer	Patient			None	None
5	31-40	F		Nurse	14yrs	18mths	One work	
5a	71-80	F	Breast cancer	Patient			One social	Three
6	51-60	F		Nurse	41yrs	5yrs	None	
6a	71-80	M	Lung cancer	Patient			None	More than 20

There were three male and three female patients aged 55-76yrs. Of the six patients four had a diagnosis of cancer and two had a diagnosis of life-limiting lung disease. Previous experience of using VoIP ranged from none to regular social use. Although all patients were known to the Service, only two of the six patients had previous contact with the same professional, as such, four patients interacted with a professional with whom they had not met prior to the VoIP consultation.

The professional sample, aged 35-59yrs, included four nurses and two doctors of whom one was male and five female. Previous experience of using VoIP ranged from none to regular social use and the time since the most recent communications skills training

ranged 6mths-13yrs. The time in years since professional registration ranged from 14yrs-41yrs.

Participants were asked to complete the Working Alliance Inventory (short) (WAI-S) immediately after the consultation: the WAI-S separately measured the patients' and the professionals' perception of the therapeutic alliance.

5.2.2 Working Alliance Inventory (Short) (WAI-S)

In this section the findings from analysis of the WAI-S data from cycle 1 were presented. The WAI-S measured the therapeutic alliance (TA) between a client and professional; and the TA is at the crux of the research question. Collection of quantitative data that measured different components of the TA from both the patients' and professionals' perspective when analysed in the context of the qualitative data from several different sources (section 4.5) added to the strength of the evidence and made the recommendations from the research more robust.

Table 4 represented the WAI-S scores for each participant in each of the six separate consultations. The participants' scores were presented in each of the three separate subscales, tasks/bonds/goals with the bottom row of the table showing the total WAI-S score for each patient and professional.

Table 4: WAI-S Scores (Cycle 1)

Consultations												
	1a		2a		3a		4a		5a		6a	
Tasks	Pat	Prof	Pat	Prof	Pat	Prof	Pat	Prof	Pat	Prof	Pat	Prof
Q1 +	6	6	5	6	7	6	7	5	6	7	5	7
Q2 +	4	6	5	5	5	5	6	6	5	7	4	6
Q8 +	7	6	6	5	7	6	7	6	7	7	4	6
Q12 +	6	6	6	6	7	6	7	5	7	6	6	6
Sub-total	23	24	22	22	26	23	27	22	25	27	19	25
Bond												
Q3 +	5	6	6	6	7	6	7	5	7	7	4	6
Q5 +	7	6	6	5	7	5	7	5	7	6	5	7
Q7 +	7	7	6	6	7	6	7	7	7	7	6	7
Q9 +	7	6	6	6	7	6	7	6	7	7	7	7
Sub-total	26	25	24	23	28	23	28	23	28	27	22	27
Goals												
Q4 -	-1	-2	-2	-5	-1	-4	-1	-1	-1	-1	-2	-1
Q6 +	7	6	7	4	7	5	7	5	7	7	5	7
Q10 -	-1	-2	-2	-5	-1	-5	-1	-2	-2	-2	-3	-2
Q11 +	6	6	6	6	7	5	6	5	6	7	6	6
Sub-total	11	8	9	0	12	1	11	7	10	11	6	10
Totals	60	57	55	45	66	47	66	52	63	65	47	62

In terms of time and effort, the participants did not find completion of the questionnaire burdensome. Participants completed the WAI-S within 48hrs of the consultation with the exception of one professional, UIN1, who completed the questionnaire within one week of

the consultation (section 4.5.4).

All participants reported a positive TA, the higher the value the more positive the TA. When looking at the final total, the bottom row of numbers, in four out of the six consultations the patients scored higher than the professionals; the difference in the scores between patients and professionals ranged from three to nineteen points. However, in consultation 5a the professional scored two points higher than the patient; and in consultation 6a the professional scored fifteen points higher than the patient across all three components of the TA (section 2.4).

When comparing the difference in patient and professional scores across each of the three subscales of the TA: the difference for agreement on tasks ranged from 0-6 points; bonding ranged from 1-5 points and agreement of goals ranged from 1-11 points. As such, the greatest difference in scoring between patient and professional was for agreement on goals in consultations 2a (nurse) and 3a (doctor); the patients scored nine and eleven points higher than the professionals respectively. However, these single data were not interpreted in isolation but were explored in the context of the consultation transcripts and subsequent interviews with both patients and professionals (section 4.6.2).

Analysis of the WAI-S data established that a positive TA can be facilitated during VoIP consultations between palliative care patients and specialist palliative care nurses/doctors. Additionally, none of the variables that could potentially affect the TA, that is age, gender, role of professionals, length of time since most recent communication skills training, previous experience of using VoIP and previous consultations with the same professional (section 4.5.2), appeared to negatively affect the TA.

Analysis of the audiotape of the consultation enabled scrutiny of what was actually said during the interaction between the patient and the professional. Other factors, for example

tone of voice, pace of conversation, communication skills utilised by professionals during the consultation, factors that could affect the TA were analysed separately and then in the context of the findings from the WAI-S analysis.

5.2.3 Audio-recorded VoIP consultations

In this section a concise descriptive analysis of the transcript from the consultations was presented in the form of a table which includes items identified in the literature as requirements necessary to facilitate a positive TA between patient and professional (section 4.6.1). The purpose of analysing the audio-recording of each consultation was to provide a true record of what was said and how it was said, an objective rather than subjective record. The audio recording enabled an in-depth analysis of the skills/attitudes/behaviours used during the interaction. Using the Interaction Analysis Proforma (Appendix 12a) and the Technical Categories Sheet (Appendix 12b) the data from the consultation transcript were analysed; both tools were designed to include evidence from academic literature related to the TA, advanced communications skills and the use of VoIP in healthcare. Examples of Interaction Analysis Proforma coding: professional UIN1a saying ‘they keep talking about heat waves this summer.....’ = social talk; and Technical Categories Sheet coding: patient UIN6a ‘(nurse) you need to go closer and talk louder’ = patient instructs professional.

Each consultation was analysed separately, this analysis resulted in a thin description, a superficial account of the analysis. As the analytical process evolved across cycles 1 and 2, a comparison between the data from each subsequent consultation and then across the whole dataset cumulated in a thick description (section 4.6.2), a detailed account and an audit trail which evidenced the emerging themes, interpretation, patterns of relationships and conclusions (Holloway 1997). The findings from this in-depth analysis were presented

to the professionals in the focus groups. Table 5 represented a summary of the Interaction Analysis Pro-forma and technical categories Sheet data from the first action cycle.

Table 5: Summary of the Interaction Analysis Pro-forma and Technical Categories Sheet Data (Cycle 1)

Consultation	1a	2a	3a	4a	5a	6a
Interaction Analysis Pro- forma						
Opens session	yes	yes	yes	yes	yes	no preamble
Biomedical topics	7	11	6	9	7	7
Social talk	4	11	3	3	8	5
Data gathering	6	5	13	11	7	12
Psychosocial	5	6		11	6	10
Positive talk	3	6	3	8	8	8
Responds to emotions	2	8				8
Partnership building	3	6				2
Probes	0	5	3			
Elicits values	4	2				
Missed cues						2
Leading questions			5			
Clarification			6		3	2
Reflection			2	5	4	3
Open-ended questions				10	5	
Appropriate closed questions					4	
Elicits plan	2	1			1	
Closes session	No summary or forward plan	yes	yes	yes	yes	yes
Technical Categories Sheet						
Empathy: professional to patient		1	2	1	2	
Reassurance: professional to patient Patient to professional			1	1	2	2
Patient instructs professional						1

As may be expected in a palliative care clinician's interaction with a patient, in all six consultations there was extensive data gathering and biomedical topics; additionally psychosocial issues rated highly (section 2.6.1). Overall in compliance with recommendations from the health care literature relating to advanced communication skills (Kleja et al 2009), there was use of leading and closed questions to elicit information and open questions to sensitively explore issues in more depth. For the most part the professionals responded to cues from patients that offered an opportunity for the professional to explore any issue raised by the patient; there was also evidence of using clarification and reflection. In addition to communication skills the ability to use the technology effectively was critical to the facilitation of a TA with the patient.

During cycle 1 the professionals had assistance to set up the equipment and access VoIP; a professional facilitated the access for the patients and then left the room. When consenting to participate in the research the majority of the sample population expressed some concerns about their comfort/competence in relation to using computers and/or VoIP. To ensure that the population sample truly represented the Organisation's range of employees and patient cohort, participants with a broad range of previous experience of using VoIP and/or confidence were recruited (section 4.2). Both patients and professionals commented on their anxieties relating to the technology:

Professional UIN5 'I'm not very technological but I think it will come with practise if we use (VoIP) on a regular basis'.

Patient UIN2b 'I didn't even know how to turn on a computer before this, but I would definitely use it again it (VoIP) was great'

Additionally, four of the six professionals offered support and/or technical advice to the patients. But perhaps of more significance and providing evidence that the VoIP

consultation was a partnership between the two parties, with partnership being an important aspect of building a TA between patient and professional, UIN6 was supported and given technical advice from the patient.

In relation to the technology, there was a shift in perception of participants following their first VoIP experience in a clinical setting with all participants finding the experience useful to practice and all but one professional participant finding the experience of VoIP less daunting than they anticipated. The professionals made reference to the need for training in using VoIP and this theme was explored in the focus group (section 5.2.12)

The initial findings from the analysis of the audio-recordings when compared to the analysis of the WAI-S scores highlighted some differences between what the professionals perceived happened in relation to the TA and what actually happened.

5.2.4 Comparison between WAI-S scores and analysis from audio-recordings

In this section a comparison was made between the WAI-S scores and findings about the TA as evidenced in the audio-recordings of the consultations. As the analysis progressed the findings from each data collection method for each consultation were compared and cross-referenced. This process enabled the identification of similarities and differences between both the patients' and the professionals' perceptions of the TA within a consultation and also a comparison between each separate consultation (section 4.6.2).

Measuring the TA involved looking for evidence that the professional (helper) and client have been working together in their particular helping context, at the time of an interaction (<http://wai.profhorvath.com/what-is>). A correlation between the scores of both parties could suggest that the professional used their skills/behaviours to facilitate a positive TA; in order to achieve this correlation the professional needs insight into their own practice in relation to the three components of the TA which were agreement of tasks, bonding and

agreement on goals (section 2.4).

In consultation 3a, there was a significant difference in the two participants' scores on one subscale of the TA, the patient scored twelve for agreement on goals, whereas the professional recorded only one point; there was however evidence from the consultation transcript to contradict the professionals' perception:

Professional UIN3 '...if you are happy, and it sounds like you have come to that mind, let's wait and see what happens after the chemo'

Patient UIN3a 'yes, that definitely makes sense'

The conversation leading up to this extract provided evidence that the professional explored different options for pain control and the potential side effects of medications before reaching a compromise and agreement with the patient.

Consultation 2a provided another example to contradict the professional's perceived absence of agreement on goals; the patient scored nine for agreement on goals whereas the professional scored zero:

Professional UIN2 '....but living is about more than that (poor prognosis) ...it's to do with lots of other things....part of me thinks it's better to be positive, to look forward'

Patient UIN2a 'yes, I'm like that...there's a lot more to living than just science....you were on the same vibration as me'.

This extract followed some discussion about poor prognosis and the benefits of patients trying to have a realistic but positive attitude and the professional sensitively used leading questions and clarification to ascertain the patient's insight into their illness before reaching an agreement on how to take forward realistic goals.

These examples demonstrated some disparity between the patients' and professionals' perception of the TA. These differences in perception, which could have impacted on

treatment outcomes (section 2.6) were explored in the context of subsequent methods of data collection

5.2.5. Interviews

In this section a concise analysis of the data from the patient and professional interviews were presented; additionally comparisons were made and the findings cross-referenced from each data collection method for each consultation and across all six consultations. The interviews added another dimension to the analysis by providing an opportunity to explore the participant's overall experience of the VoIP.

All interviews took place within 48hrs of the consultation (chapter 4.5.5). The semi-structured interviews (Appendices 9/10a) provided an opportunity to: discuss the overall experience of the VoIP; consider the experience of factors that influenced the TA and VoIP; explore skills/attitudes/behaviours of professionals evidenced by the WAI-S scores and the consultation transcripts. The open questions included in the interview supported discussion about emerging themes and 'member-checking'. Member checking enabled a checking of the validity of an account (Creswell 1998); the participants were asked to clarify/explain what they intended by their words or actions during the VoIP.

Prior to the consultations some participants were apprehensive about different aspects of the VoIP: both patients and professionals were concerned about their ability to 'use a computer'; others felt that communication via a computer screen would be difficult and/or ineffective; professionals raised concerns about the ability to build a rapport and 'connect' with patients when they were not physically present alongside the patient.

From analysis of the data the following themes were identified and are discussed in the sections that follow:

- Patient selection in relation to the Therapeutic Alliance (TA) when using VoIP

- Relationship between communication skills and the TA when using VoIP
- Using VoIP when exploring potentially sensitive conversations
- The skills/attitudes/behaviours needed to facilitate the TA when using VoIP
- The VoIP experience

5.2.6 Patient selection in relation to the TA when using VoIP

When consenting to participate in the research, some professionals (UIN 1/2/5) raised concerns about older patients being able and/or comfortable with using VoIP. However, following the experience of VoIP there was a shift in the attitude of the professionals who appeared to be surprised to see older patients demonstrate confidence in and a liking for using VoIP:

Professional UIN5 '...the older generation are more open to it'

Professional UIN2 'Yep, I was surprised how well the older lady that I spoke to took to it, and I'm not sure if she used (VoIP) before or not but she actually, it was a lot easier than it was going to be and the patient, she must have been 75 (yrs) plus easily, wasn't fazed by it at all'.

Both patients and professionals identified some situations where they thought that using VoIP might be inappropriate or detrimental to the TA between the two parties. Because some participants just may not like using technology, UIN5 raised the question of patients having a choice of either face to face or VoIP consultations. Other circumstances potentially detrimental to the TA, covered both physical, including impaired sight (UIN4), poor performance status (UIN1a) and mental attributes of patients; specifically cognitive/sensory impairment:

Professional UIN3 '...with cerebral problems, dementia and head problems'

Professional UIN2 'If the patient was withdrawn, reticent'

Additionally, in relation to patient selection, participants raised the issue of the feasibility of performing a physical examination. Patient UIN1a thought that a patient could show a bed sore to a professional during a VoIP consultation, whereas professionals, including UIN2/6, identified challenges specifically related to the clarity of the picture enabling assessment of for example skin lesions/jaundice/pallor. UIN3 sounded frustrated by the challenges associated with physical examination:

Professional UIN3 '.....a lack of examination permeates the whole consultation....it is not a big bother.....we are just used to thinking with our hands as well as head and ears'.

As such, UIN4 recommended that a separate appointment would need to be arranged if a full physical examination was needed.

The theme of patient selection in relation to the feasibility of establishing a positive TA during the VoIP consultations, exploring both physical and mental attributes of patients, patient preferences and also the practicalities of physical examination via VoIP was taken forward for further discussion at the focus group (section 5.2.12). There were some inconsistencies in the opinions of both patients and professionals in relation to the patient selection as such this theme was explored in relation to the individual professionals' skills, attitudes and behaviours associated with the use of VoIP.

5.2.7 Relationship between communication skills and the TA when using VoIP

There was evidence in the academic literature that specific skills, attitudes and behaviours, aspects of effective communication, can enable professionals to facilitate a TA (Roter et al 2000) with palliative care patients. One such skill is the ability of the professional to recognise and respond to cues from the patient (Smith et al 2009).

In consultation 6a the professional demonstrated poor communication skills by missing

cues from the patient, however, despite this omission the TA was perceived as positive by both parties with the professional rating the TA more positive than the patient by a difference of 15 points. The patient reported a pain, the professional moved onto discussing other symptoms before the patient brought the discussion back to the subject of the pain:

Professional UIN6 'okay so have had the pain before...we will probably need to think about that one'

Patient UIN6a 'when we finish the interview can I show you the bone (site of pain)?'

Not only did the professional have no insight into missing the cue from the patient but also, during the interview with the patient it became apparent that the patient was satisfied that the issue of pain had been dealt with in a timely and effective manner:

Patient UIN6a '...she said I will look into it, I mean that put my mind at rest'.

This extract could demonstrate that neither the patient nor the professional had an expectation that the symptom of pain should have been addressed during the VoIP consultation. Whilst acknowledging that the lack of expectation could well have been the same had this consultation been face-to-face, this lack of expectation could be due to several factors: apparent lack of the professional's insight into the expectation of the role of a specialist palliative care nurse in assessment and management of physical symptoms could perhaps explain why the professional's TA score was more positive than the patient's, with the difference in scoring being 15 points. Conversely, the lack of expectation could be the professional's attitude towards completing a pain assessment using VoIP. This issue was explored with the professionals during both the interviews and the focus group. However, despite this difference in scoring, the experience of the VoIP remained positive for the patient.

5.2.8 Using VoIP when exploring potentially sensitive conversations

Exploring potentially upsetting topics was a critical component of a palliative care clinicians' work (Larkin 2010). For example discussing issues relating to breaking bad news (UIN 4), prognosis (UIN2), Advance Care Planning, including resuscitation orders and preferred place of death (UIN5), and bereavement (UIN3) are discussed on a daily basis:

Professional UIN4 'Breaking bad news I would be very uncomfortable doing that on (VoIP)'

Professional UIN2 'I felt alright discussing it (prognosis)'

The challenges of exploring Advance Care Planning and/or bereavement with patients led to discussion about the challenges of comforting distressed patients when using VoIP:

Patient UIN3a 'It would be more difficult...you can't do touch...you can't even give them a tissue'.

Professional UIN2 'You couldn't reach out and hold their hand'

Whilst some participants had reservations about discussing sensitive and potentially emotive subjects using VoIP, others were comfortable having these discussions and said that the skills needed were no different to the skills used during face to face consultations (UIN1). Patient UIN4a explained that it was no more difficult discussing sensitive issues using VoIP when compared with face to face but the ability to provide comfort to a distressed patient remained a challenge:

Patient UIN4a 'I don't know what (the professional) could have done'.

Since there were some concerns raised relating to the skills/attitude/behaviours and/or the efficacy of having potentially sensitive conversations, using VoIP, a critical component of any palliative care clinician's role, this theme was worthy of closer investigation. As such,

this theme of holding conversations about potentially sensitive subjects and the ability to offer comfort to distressed patients via VoIP was explored in focus group1 (section 5.2.12).

5.2.9 The skills/attitudes/behaviours needed to facilitate the TA when using VoIP

Enabling a TA was dependent upon many factors (section 2.4) however integral to the facilitation of a positive TA between two parties are the skills, attitudes and behaviours of the professionals involved in the interaction. Several issues were raised relating to skills, attitudes and behaviours that had an effect on the VoIP conversation:

Professional UIN2 'you have to hold the eye contact and that makes it much more intense, if I look off screen (the patient) will think I am not looking at them

Professional UIN3 'There was no eye contact and that was bizarre...you don't get the perception of eye contact'

In relation to eye contact UIN1 and UIN5 differed in opinion saying that they just looked at the screen and were not aware of any issues related to eye contact. However, for consultations 1a/2a/3a/5a the professionals' awareness of eye contact did not negatively affect the WAI-S scores or the professionals' ability to bond with the patients (section 6.1). Some thought that this issue of eye contact was related to lack of experience with using VoIP however, UIN3 used VoIP socially on a regular basis:

Professional UIN3 'it's (VoIP) completely different you know the (family members) signals from their voice and you have got different ways of conversation, the conversation you are very familiar with'.

This could suggest that familiarity with patterns of conversation, tone, inflections may for some make the conversation flow more easily and this raised the question about the relationship between the context of the VoIP interaction and the behaviour of the participants in relation to the TA which was explored in the focus group.

A perceived difference in the pace/intensity of the conversation and/or an increased awareness of the time factor was raised by some professionals who felt that the pace using VoIP was faster than face to face:

Professional UIN4 'I was conscious that I didn't want any pauses....I felt that I had to keep to the point'

Professional UIN2 'the conversation is much more intense...it (VoIP) makes the conversation much more concentrated'

However in contrast to the professionals, patients felt that there seemed to be more time to have a conversation when compared to their usual face to face consultation, feeling that there was no need to rush as they felt like they had the undivided attention of the professional:

Patient UIN1a '...I felt that the time was there, I didn't have to think oh I have only got a ten minute slot'

Patient UIN5a 'She was listening to me all the time...very in to what she was doing'

Because of the difference of opinion between some patients and professionals regarding the perceived pace of the conversation during VoIP, this subject was explored during focus group 1. Additionally, in the interviews patients were asked if they could explain what factors relating to the professionals' attitude or behaviour portrayed that they were actively listening:

Patient UIN2a'she waited to see what I understood, where I was coming from and then she tried to meet me'

Patient UIN3a '..(the professional) picks up on what you say and takes it seriously and then goes on with that...'

Although the duration of each interview was short and initially some patients and professionals felt that they did not have much to contribute, by using open-ended questions participants soon raised both similar and contrasting ideas and opinions. These data generated from the interviews and analysed in the context of all data sources enabled the identification of themes (section 4.6.2). These themes related to: utilising technology to facilitate a consultation; communication skills including body language; attitudes and behaviours including the pace of the conversation; and factors that had an impact on the ambience of the conversation revealed contrasting experiences and challenges. These themes were explored in more depth in the focus group.

5.2.10 The VoIP experience

The aim of the research was to explore strategies that could be used to enhance the TA (section 3.1). Because the experience of using VoIP would have affected the perceived TA for both patients and professionals, and as such could have an impact on clinical outcomes, participants were asked about their VoIP experience during the interviews. Although the experience of using VoIP was positive for all 6 patients, not all patients preferred VoIP to face to face consultations. Additionally patients identified specific issues that had an impact on their VoIP experience; although not affecting the TA, patients preferred the professionals to have prepared by reading their case notes prior to the consultation and offering solutions to issues raised by the patients was also appreciated. Positive comments from patients included: 'less intimidating' (UIN1a); 'more friendly' (UIN2a) and 'more peaceful' (UIN6a) when compared to face to face consultations. Additionally, three out of six patients felt that when using VoIP patients were on neutral ground with the professional assuming a less dominant role:

Patient UIN4a ‘..perfect just the same as face to face’

Patient UIN1a ‘...sometimes it can be a little intimidating (a consultation) and it’s (VoIP) easy to sometimes talk to a machine, although you are not, you are speaking to the (professional)’

However, in contrast to this positivity not all patients preferred VoIP rather than face to face consultations:

Patient UIN3a ‘...some people might find it daunting’

Patient UIN5a ‘Face to face is better....sitting in front of me I can see your thinking...’

This difference in opinion amongst patients lends credence to the idea that VoIP is not suitable for all patients (section 6.3.4) and that perhaps some process that allows patients to choose their preferred mode of communication would be better.

The importance of helping patients to relax before starting discussion about clinical matters was thought to be important to make the VoIP experience more therapeutic and beneficial in terms of treatment outcomes (section 2.6.1). However some professionals found this process a challenge via VoIP when compared to face to face; for UNI1/2 this was expressed by using social talk to try to ‘normalise’ the conversation:

Professional UIN2 ‘when in the home you go through some sort of social meet and greet connection which you don’t get with (VoIP)’

and patient UIN3a appreciated the social talk and felt that it added to the positive experience of the interaction with the professional:

Patient UIN3a ‘It was nice when he asked about other things not just medical’

For some patients, the convenience and practical benefits of using VoIP added to the positive experience: being able to remain in the comfort of your own home for a

consultation (UIN1a); no need to travel (UIN1a/3b/4a); no need to find an elusive parking space or pay for parking (UIN1a/4a); saves time for both patients and professionals; professionals can see more patients in any one day (UIN1a).

Although allowing for the differences between face to face and VoIP consultations 'it was different but good' (UIN1), overall from the professionals there was a clear shift to a more positive attitude regarding the value of VoIP following their first experience of using VoIP; however, some participants expressed ambivalence about the VoIP experience in relation to having potentially sensitive conversations (UIN3a/4) (section 5.2.8) and the use of the computer hardware (UIN5) (section 5.2.3).

Professionals UIN1/2/3/5 suggested that their skills, comfort and confidence with using VoIP would improve with practice. The participatory aspect of Action Research promoted a sense of ownership for participants (Heron and Reason 2001). The AR approach used in this current study enabled the professionals to consider the practice of using VoIP in the palliative care context from both an objective perspective (outsider/observer) and also a subjective perspective (insider/participant/self) (Kemmis 2008). One of the benefits of using this AR approach was that it allowed the professionals who expressed ambivalence following cycle 1 to revisit their perception and feelings about the VoIP experience in cycle 2 (section 5.3.9).

5.2.11 Themes that emerged from the analysis in cycle 1

Based on the analysis of all the evidence from cycle 1 a Thematic Chart that included both a priori and emerging concepts and themes (Braun and Clarke 2006; Graham et al 2006) was populated. The content from the Thematic Chart (Figure 6) was used to present the findings and to facilitate discussion in focus group 1 (section 5.2.12).

Table 6: Thematic Chart in preparation for Focus Group 1

Themes to be explored in Focus Group 1						
Themes	Case 1a 1=prof 1a=patient	Case 2a 2=prof 2a=patient	Case 3a 3=prof 3a=patient	Case 4a 4=prof 4a=patient	Case 5a 5=prof 5a=patient	Case 6a 6=prof 6a=patient
Therapeutic alliance (TA)	Positive (1/1a)	Positive (2/2a)	Positive (3/3a)	Positive (4/4a)	Positive (5/5a)	Positive (6/6a)
Previous experience of VoIP helpful for TA	Yes (1/1a)	Yes (2) Not known (2a)	Yes (3a) No (3)	Yes (4) Not known (4a)	Yes (5/5a)	Not known (6/6a)
VoIP wanted as an option	Yes (1/1a)	Yes (2/2a)	Yes (3/3a)	Yes (4/4a)	Yes (5/5a)	Yes (6/6a)
Appropriate to discuss 'sensitive' issues via VoIP?	Not known (1/1a)	Yes (2/2a)	Yes (3a) No (3)	Yes (4a) No (4)	Yes (5/5a)	Not known (6/6a)
Distressed patients can be comforted	Yes (1) Not known (1a)	No (2) Not known (2a)	Yes (3a) No (3)	No (4) Not known (4a)	Not known (5/5a)	Not known (6/6a)
Is VoIP more intense/focussed?	No (1/1a)	Yes (2/2a)	Yes (3a) No (3)	Yes (4a) No (4)	No (5/5a)	Yes (6) Not known (6a)
Any change to communication skills	No (1/1a)	Yes (2) No (2a)	Yes (3a) No (3)	Yes (4) No (4a)	No (5/5a)	No (6/6a)
Need for patient selection criteria	Yes (1/1a)	Yes (2/2a)	Yes (3/3a)	Yes (4) Not known (4a)	Yes (5/5a)	Not known (6/6a)
Do staff need extra skills Tech (T) Communication (C)	T-Yes (1/1a) C-No (1a)	T-Yes (2/2a) C-No (2/2a)	T-Yes (3/3a) C-No (2/2a)	T-Yes (4/4a) C-No (2/2a)	T-Yes (5/5a) C-No (2/2a)	T-Yes (6/6a) C-No (2/2a)
Physical Examination	No comment	Partly can do (2)	Can do (3a) Can't do (3)	Can't do (4)	No comment	Can't do (6/6a)
Benefits of VoIP as an option to patient and/or Organisation	Yes (1/1a)	Yes (2/2a)	Yes (3/3a)	Yes (4/4a)	Yes (5/5a)	Yes (6/6a)
Potential negative impact of VoIP to organisation and patients	No comment	No comment	Yes (3)	No comment	No comment	No comment

5.2.12 Focus Group 1

There were two parts to focus group1 (FG1) starting with a presentation of the data and leading to discussion and identification of strategies. In this section an analysis of the findings from focus group 1 are presented. The section culminates in a list of the strategies, agreed by the professionals that could be implemented in cycle 2 in order to enhance the VoIP experience for both parties.

On completion of cycle 1, all 6 professionals were invited to attend FG1. Discussion and interpretation of the initial analysis provided an opportunity for the professionals to explore the collective, rather than the individual experience of a VoIP consultation and engage in constructive critical reflection of their own and colleagues' practice in relation to skills, attitudes and behaviours that influenced the TA. Section 4.8.2 explored issues related to confidentiality. The focus group also gave the professionals an opportunity to challenge what they perceived as misinterpretations or errors; this process of member-checking enabled testing of themes and conclusions with the participants from whom the data was collected (Creswell 1998). The professionals were encouraged to identify strategies that could potentially contribute to the enhancement of the TA in the subsequent VoIP consultations in cycle 2.

Patient selection was explored and there was an agreement that it would be disadvantageous to offer some cohorts of patients a VoIP consultation. Examples included patients with specific physical and/or mental attributes including hearing deficit. As such, the participants were surprised to hear that although three of the six patients, UIN1a/4a/6a, participating in cycle 1 had what the individual patients described as a significant hearing deficit this deficit did not appear to have any effect on the TA.

There were also differences in opinions of both patients and professionals about the benefit of previous contact between the two parties with some professionals saying that it was not important to have met prior to the VoIP whilst others considered previous contact an advantage:

Patient UIN4a 'no need to already know the doctor, I see so many people all the time'

Professional UIN6 'I know him (the patient) quite well. I felt that was the key point, that we could easily connect'

Professional UIN3 'Better, easier if a patient you have already met'

However, the findings from the analysis provided evidence that previous contact between the two parties did not correlate with the positivity of the therapeutic alliance.

There were also contrasting viewpoints regarding the efficacy of performing a physical examination using VoIP. Both patients and professionals acknowledged that on some occasions a physical examination was needed. Some patients (UIN1a/3a) thought examination feasible whereas professionals were more cautious when discussing the practical aspects of conducting a physical examination. Through focus group discussion the professionals reached agreement that some aspects of physical assessment could be achieved using VoIP, for example seeing a pressure area, whereas other aspects of the examination could not be achieved, for example palpation of an abdomen.

Discussing potentially emotive topics, for example preferred place of death or resuscitation orders, raised concerns for some professionals relating to the appropriateness of having such discussions using VoIP and in particular how a professional could provide comfort if a patient became upset. Professionals UIN1/5 agreed that the professional should respond to the cues from the patient about potentially sensitive topics as they would in a

face to face consultation. However, all professionals acknowledged the importance of responding to cues from the patients, no matter the potential discomfort for the professional. Professional UIN4, who felt ambivalent about having discussions about potentially sensitive subjects using VoIP, provided a compromise:

Professional UIN4 'If you were going to have the conversation (about emotive topics) you could ask for someone else to be there with them (the patient)'

The discussion culminated in a consensus of opinion between the professionals on all topics. To summarise, the strategies that emerged from FG1 were separated into 3 categories and presented in the form of a newsletter to the professionals before cycle 2 commenced (Appendix 14). The newsletter gave the professionals an opportunity to digest the information and implement the strategies during their next VoIP consultation. The three categories of themes were: *practical*, mostly related to use of the equipment; *behavioural*, primarily about communication skills; *contextual*, which considered extrinsic issues that might affect the TA during VoIP consultations.

Practical

- To facilitate communication, computers should be equipped with built-in audio.
- Separate private rooms for staff and patients would enable confidentiality.
- Read patient's notes prior to the consultation.
- Do not minimise the image of the patient on the screen.
- Look at the patient's image on the screen rather than the webcam.
- Complete a mandatory VoIP education package inclusive of practical and theoretical components.

Behavioural

- Use the same communication skills that you would use during a face to face consultation.
- Be your usual spontaneous self, ignore the webcam.
- Respond to cues from the patient to engage in 'sensitive' conversations.
- Do not rush the consultation; take time to explore the needs of the patient.

Contextual

- Some patient's may feel less 'vulnerable' when compared to face to face consultations, and as such the patient may feel more able to explore 'sensitive' subject matters.
- Transfer the skills you would use when using VoIP socially to 'normalise' the conversation; include some social talk.
- Respond to a patient's distress as you would in a face to face consultation.
- With the exception of significant cognitive impairment do not exclude patients because of a specific diagnosis/symptom.
- Using your clinical judgment to do components of physical examination feasible during VoIP.

5.2.13 Key findings from cycle 1

At the conclusion of cycle 1 the overall impression from both patients and professionals was that VoIP was user friendly and that there was a definite role for VoIP to complement existing practice. It was agreed that VoIP should never replace existing face to face consultations but for some patients, in some circumstances VoIP may well have advantages over face to face consultations. There was however a strong agreement between participants that patients fitting the selection criteria, should have a choice in the

mode of consultation, rather than only being offered the VoIP option because it was more convenient for the professional. A positive therapeutic alliance was evidenced in all six consultations and although the sample size was small, patients n=6 and professionals n=6, none of the pre-determined variables of age, gender, diagnosis, previous experience of using VoIP, time since most recent communications skills for professionals or previous consultations with the same patient had an effect on the ability of the professional to establish a positive TA.

For both patients and professionals there was a positive shift in attitudes towards VoIP. Patients who had reservations about being able to communicate with someone via a computer and professionals who, prior to using VoIP had reservations about being able to facilitate a positive therapeutic alliance with patients via a computer screen were pleased to discover that their experience of VoIP refuted this idea. Also, participants who were nervous about the technology were surprised about the positive effect of VoIP and relative ease of use.

During the focus group, the professionals agreed on strategies that they could employ to enhance the TA in subsequent VoIP consultations. The strategies included practical, behavioural and contextual interventions; the professionals were given a written copy of the strategies (Appendix 14) and encouraged to implement the strategies during their VoIP consultation in cycle 2. It was anticipated that utilising the strategies would enhance the TA and VoIP experience for both patients and professionals.

5.3 Cycle 2

Analysing data from cycle 2 in the context of the analysis from cycle 1 enabled identification of recurring themes and contradictory evidence which facilitated interpretation of the data to accurately represent the participants collective viewpoints.

Action Research (section 3.5) allowed the professionals to inform and influence the strategies used to enhance the TA during VoIP consultations. At the end of cycle 1, in the focus group, by asking the professionals to identify the strategies that could enhance of the therapeutic alliance (section 2.4) the professionals appeared to engage with cycle 2 not only with less apprehension when compared with cycle 1 but also a greater sense of control over their VoIP experience as evidenced by comments made by the professionals when interviewed (section 5.3.5).

5.3.1 Participant profiles

In this section a concise descriptive analysis of the participant profiles for cycle 2, including demographic details was presented. At the start of the research the professionals consented to participate in two cycles of Action Research, however, before cycle 2 commenced two professionals withdrew from the research: UIN4 cited clinical commitments as the reason for withdrawing and UIN6 retired from the Organisation and as such was no longer able to participate. As in cycle 1, each of the four remaining professionals were asked to recruit one patient to participate in cycle 2 (section 4.2.2).

Cycle 2: nurses n=3, doctors n=1, and patients n=4. The professionals were identified by the same Unique Identifier Number (UIN) as in cycle 1; each patient in cycle 2 was identified by 'b', whereas in cycle 1 each patient was identified by 'a'. This method of identification facilitated ease of recognition for each professional's contribution to the research, for example for professional UIN1, data from cycle 1 would be identified as consultation 1a; and the same professional's consultation in the cycle 2 would be identified as 1b. Table 7 represented the participant profiles for cycle 2.

Table 7: Participant Profiles (Cycle 2)

UIN	Age (yrs)	Gender	Diagnosis	Nurse/doctor/patient	Year of registration	Time since most recent communication skills training	Previous experience of a VoIP	Previous consults (with same prof)
1	51-60	F		Nurse	32yrs	13yrs	Cycle 1	
1b	61-70	M	Lung cancer	Patient			Few social	None
2	51-60	F		Nurse	40yrs	6mths	Few social plus Cycle 1	
2b	61-70	F	SCC Tongue	Patient			None	None
3	41-50	M		Doctor	16yrs	3yrs	Regular social plus Cycle 1	
3b	51-60	F	Breast cancer	Patient			Cycle 1	Cycle 1
5	31-40	F		Nurse	14yrs	18mths	One work plus Cycle 1	
5b	71-80	F	Lung cancer	Patient			None	More than 20

There were three female and one male patient aged 55-79yrs. All four patients had a diagnosis of cancer and previous experience of using VoIP ranged from none to a few social uses. As per the patient inclusion criteria no patient was new to the Service however professional contact with the same professional varied; patient UIN5b had interacted more than twenty times in face to face consultations with the same professional and patient UIN3b had participated in the first cycle and as such had previous VoIP experience with the same professional (section 2.4).

When compared with cycle 1, the age range in cycle 2 was similar but unlike cycle 1 there were no patients with a diagnosis on non-malignant disease in cycle 2. Previous experience with using VoIP was the same for both cycles ranging from none to a few social uses. Likewise, previous contact with the same professional was the same as cycle 1 ranging from no previous contact to more than 20 previous contacts; although all patients were known to the Service, two out of the four patients had no previous contact

with the same professional.

Two professionals who had participated in cycle 1 declined to participate in cycle 2. As such, the professional age range was 35-59yrs and included three nurses and one doctor all of whom participated in cycle 1. The time in years since professional registration ranged from 14-40yrs. Previous experience of using VoIP ranged from once, during cycle 1, to regular social use and the time lapse since most recent communication skills training ranged from 6mths-13yrs.

Participants were asked to complete the Working Alliance Inventory (short) (WAI-S) immediately after the consultation. The WAI-S separately measured the patients' and the professionals' perception of the therapeutic alliance (section 4.5.4).

5.3.2 Working Alliance Inventory (short) (WAI-S)

In this section a concise descriptive analysis of the WAI-S data from cycle 2 were presented; the WAI-S measured the therapeutic alliance (TA) between the client and the professional. Similarities and differences in the WAI-S scores between cycles 1 and 2 were also explored. Comparing the scores from both cycles provided an opportunity to ascertain if the process of reflection and agreement on strategies in focus group 1, that could potentially enhance the therapeutic alliance, made any difference to the professionals' skills, attitudes and behaviours and/or insight into their own practice.

Figure 8 represented the WAI-S scores for professionals participating in both action cycles. Numbers 1/2/3/5 identified the professionals and 'b' identifies the patient who interacted with that professional in cycle 2. The participant scores were presented in three separate subscales: agreement on tasks, the development of bonds and agreement on goals (section 6.0.2). To facilitate a comparison of the WAI-S scores between the two cycles, in the sub-total and total rows the numbers in parenthesis were the scores from the

same professional's consultation in cycle 1.

Table 8: WAI-S Scores (Cycles 1 and 2)

Consultations								
	1b		2b		3b		5b	
Tasks	Pat	Prof	Pat	Prof	Pat	Prof	Pat	Prof
Q1 +	7	7	6	3	6	6	6	6
Q2 +	6	6	7	5	7	7	6	6
Q8 +	7	7	7	5	7	7	7	6
Q12 +	7	6	7	5	7	6	6	7
Sub-total	27 (23)	26 (24)	27 (22)	18 (22)	27 (26)	26 (23)	25 (25)	25 (27)
Bond								
Q3 +	7	6	6	6	7	6	6	7
Q5 +	7	6	6	6	7	7	6	6
Q7 +	7	7	6	7	7	7	7	7
Q9 +	7	6	7	5	7	6	7	7
Sub-total	28 (26)	25 (25)	25 (24)	24 (23)	28 (28)	26 (23)	26 (28)	27 (27)
Goals								
Q4 -	-1	-1	-1	-3	-1	-1	-1	-2
Q6 +	7	7	7	6	7	7	7	7
Q10 -	-1	-1	-1	-5	-1	-1	--1	-2
Q11 +	7	7	7	6	7	7	6	7
Sub-total	12 (11)	12 (8)	12 (9)	4 (0)	12 (12)	12 (1)	11 (10)	10 (11)
Totals	67 (60)	63 (57)	64 (55)	46 (45)	67 (66)	64 (47)	62 (63)	62 (65)

Both patients and professionals said that completion of the questionnaire was not a burden in terms of time or effort. As per protocol (Figure 5) all patients completed the WAI-S on the day of the consultation. One professional, UIN5, completed the WAI-S on the day of the consultation with the other three professionals completing within one week of the consultation.

In cycle 2, as in cycle 1, all participants reported a positive TA; the higher the score the more positive the TA. When looking at the total score, that is, the bottom row of numbers:

- As in cycle 1 UIN1/2/3 scored lower than the patients (cycle 1 scores in parenthesis); however the degree of difference in scoring between the patient and professional changed between the two cycles.
- For the total score, in cycle 1 professional UIN3 scored nineteen points lower than

the patient; whereas in cycle 2 the professional's score was only three points lower when compared to the patient's score; it should be noted that the same patient participated in both cycle 1 and cycle 2 with this same professional.

- For the total score, in cycle 1 professional UIN2 scored ten points lower than the patient whereas in cycle 2 the professional's score was only two points lower when compared to the patient's score; unlike UIN3, this professional met with different patients in both cycles.
- As with UIN2, UIN1 met with a different patient in both cycles. For both cycles 1 and 2 WAI-S scores from UIN1 were lower than the patient scores. However, unlike UIN2 and UIN3 where there was a reduction in the degree of difference between patient and professional WAI-S scores, for UIN1 there was an increase of one point in difference when compared to cycle 1.
- With two different patients for each cycle, in cycle 1 UIN5 rated the total WAI-S score higher than the patient, in cycle 2 both patient and professional scored the same.

In cycle 2, with the exception of one professional, UIN5, the total WAI-S scores were higher when compared with cycle 1; the higher scores demonstrating a more positive TA (Hanson et al 2002) and there is a correlation between a positive TA and positive treatment outcomes (Safran 2010).

When comparing the difference in patient and professional scores across each of the three subscales of the WAI-S, sub-scales that represent different components of the TA:

- For agreement on tasks, UIN1/2/3 scored lower than the patients with the difference between patient and professional scores ranging from one to nine points; professional UIN5 scored the same as the patient.

- For bonding, UIN1/2/3 scored lower than the patients with the difference between patient and professional scores ranging from one to three points; professional UIN5 scored one point higher than the patient.
- For agreement on goals both UIN1 and UIN3 scored the same as the patient; for professional UIN3 this agreement was significantly different when compared to cycle1. When meeting with the same patient, in cycle 1 for agreement on goals professional UIN 3 scored eleven points lower than the patient.
- Professional UIN2 in agreement on goals scored lower than the patient in both cycles 1 and 2; the difference being nine points and eight points respectively.
- Professional UIN5 in agreement on goals scored one point higher than the patient in cycle 1 and one point lower than the patient in cycle 2.

Analysis of the WAI-S data from both cycles 1 and 2 established that a positive TA, evidenced by higher as opposed to lower WAI-S scores, can be facilitated during VoIP consultations between palliative care patients and specialist palliative care professionals. Significantly, the majority of professionals in both cycles scored their therapeutic alliance lower, that is less positive, than the patients scored (section 4.5.4). The WAI-S scores were not analysed in isolation, rather explored in the context of all methods of data collection across all consultations (section 4.6.). Additionally, as the analysis evolved the ways in which the professionals adopted the strategies agreed in the focus group to try to enhance the TA (Appendix 14) were also explored.

Analysis of the audiotape of the consultation enabled scrutiny of what was actually said during the interaction between the patient and the professional. Other factors, for example tone of voice, pace of conversation, communication skills utilised by professionals during the consultation, factors that could affect the TA were analysed separately and then in the

context of the findings from not only the cycle 2 WAI-S analysis but also the findings from cycle 1.

5.3.3 Audio-recorded consultations

In this section a concise descriptive analysis of the VoIP audio-recordings from cycle 2 was presented in the form of a table. Similarities and differences between the findings from both cycles were also discussed. Comparing findings from both cycles provided an opportunity to ascertain if there had been any changes in the skills, attitudes or behaviours of the professionals and/or if they took the opportunity to implement the strategies agreed in focus group1 (Appendix 14) to try to enhance the TA and potentially improve the patients' experience of the VoIP and treatment outcomes (section 2.6). In Table 9, to facilitate a comparison between the data from both cycles, data from cycle 1 were presented in parenthesis.

**Table 9: Comparison of data from the Interaction Analysis Pro-forma
and Technical Categories Sheet (cycles 1 and 2)**

Consultation	1b	(1a)	2b	(2a)	3b	(3a)	5b	5a)
Interaction Analysis Pro-forma								
Opens session	Yes	(yes)	Yes	(yes)	Yes	(yes)	Yes	(yes)
Biomedical topics	8	(7)	10	(11)	7	(6)	12	(7)
Social talk	4	(4)		(11)	3		4	(8)
Data gathering	13	(6)	15	(5)	12	(13)	7	
Psychosocial	5	(5)	8	(6)			9	(6)
Positive talk	6	(3)	6	(6)	5	(3)	9	(8)
Negative talk	1				1			
Responds to emotions	6	(2)		(8)			8	
Partnership building	3		2	(6)	2		2	
Probes				(5)	2	(3)		
Elicits values	4		4	(2)			3	
Missed cues			2					
Leading questions					3	(5)		
Clarification					6		3	
Reflection					2		4	
Open-ended questions							5	
Appropriate closed questions							4	
Elicits plan	2		1		3		1	
Closes session	Yes (No summary or forward plan)		Yes	(yes)	yes	(yes)	yes	(yes)
Technical Categories Sheet								
Empathy: professional to patient			1	(1)		(3)		(2)
Reassurance: professional to patient Patient reassures professional	2		2					(2)
Professional instructs patient			1					
Patient instructs professional	1							

In all four consultations there were extensive data gathering and biomedical topics and psychosocial issues rated highly (section 2.6.1). There was little value in comparing each aspect of advanced communication skills utilised by each professional in each cycle as the skills/attitudes/behaviours were in response to a specific conversation and set of circumstances, as such what was important was that there was evidence that as in cycle 1 the professionals applied the recommendations from the health care literature relating to advanced communication skills (Kleja et al 2009). The positive TA reported in the patient WAI-S scores was evidence that the professionals used appropriate communication skills to meet the patient's needs (section 4.6.1).

The professionals agreed that because they had completed one VoIP consultation under research conditions, in general they found the process in cycle 2 less daunting when compared to cycle 1. At the start of the research some professionals had raised concerns about their comfort and/or competence with using computers with UIN1 describing themselves as 'a technophobe'. However in cycle 2:

Professional UIN1 'I enjoyed it (VoIP)....I was less nervous....a lot easier than I would ever have thought' and '..it didn't feel different from a normal (face to face) consultation'.

Although in cycle 2 the patient reassured and instructed UIN1 about the technology, the professional acknowledged a more confident attitude regarding the technological aspect of the VoIP experience. UIN1 mentioned in their interview that they implemented a strategy identified in focus group1 (section 5.2.12) by treating the VoIP consultation the same as they would a face to face consultation.

As in cycle 1 the initial findings from the analysis of the audio-recordings when compared to the analysis of the WAI-S scores highlighted some differences between what the

professionals perceived happened in relation to the TA and what actually happened

5.3.4 Comparison between WAI-S scores and analysis from audio-recordings

In this section a comparison was made between the subjective WAI(S) scores and the objective findings about the TA as evidenced in the audio-recordings of the consultations. Not only was a comparison made between patients' and professionals' scores in cycle 2, but also an exploration of the similarities and differences between the scores in cycle 1 and cycle 2. A correlation between the scores of both parties could suggest that the professionals had used their skills, attitude and behaviours to enhance TA. In order to achieve this correlation the professional needs insight into their own practice in relation to the three components of the TA: agreement of tasks, bonding and agreement on goals. For all four professionals who participated in both cycles 1 and 2, with the exception of UIN2, there was little disparity between the WAI-S scores and the findings from the audio-recordings. As in cycle 1, for UIN2, there was a difference in the professional's perceived absence of agreement on goals; the patient scored twelve for agreement on goals whereas the professional scored four:

Patient UIN2b ' ...I don't want loading up with drugs that will make me dopey...'

Professional UIN2 'Okay, we can wait to see if it settles'

This extract is part of a nausea assessment with the professional suggesting a medication that would help the symptom, however despite a discussion about the benefits versus the burden of the medication the patient did not want to take the medication and could not be persuaded that the recommended medication would not cause unwanted side effects. The professional listened to the patient and came to a compromise, that is, an agreement on the goals of care.

Additionally, UIN2 in relation to agreement on tasks whereas in cycle 1 both UIN2 and the

patient scored twenty-two points, in cycle 2 there was a difference in the patient/professionals scores for agreement on tasks; the patient scored twenty and the professional scored eighteen. Despite these differences in the scores for agreement on goals/tasks, the overall TA remained positive and the professional reported a 'good' experience of using VoIP. Throughout the consultation there were examples relating to symptom management, social circumstances, psychosocial issues where the professional collected information, elicited values and agreed on appropriate and achievable tasks with the patient. Additionally, the positive TA could in part be attributed to the fact that professionals tried to implement strategies agreed in the focus group 1 (Appendix 14) that could enhance the TA: that is, responding to cues from the patient; taking time to explore the needs of the individual patient.

These examples demonstrate some disparity between the patients' and professionals' perception of the TA. These differences in perception, which could have an impact on treatment goals/outcomes (section 2.3.1), and also the professionals willingness to implement the agreed strategies were explored during the interviews and in the context of subsequent methods of data collection.

5.3.5 Interviews

In this section a concise descriptive analysis of the data from the patient and professional interviews in the context of all other data sources from cycle 2 were presented. Findings from cycle 2 were compared and cross-referenced to the findings from cycle 1.

From analysis of the data in cycle 2, cross-referenced with data from cycle 1, the following themes were identified:

Patient selection and the therapeutic alliance (TA) when using VoIP

Relationship between communication skills and the TA when using VoIP

Sensitive conversation and providing comfort to a distressed patient when using VoIP

The VoIP experience and shifting perceptions

Governance and VoIP

5.3.6 Patient selection and the TA when using VoIP

In cycle 1 the professionals raised concerns about patient selection in relation to both physical and mental attributes of patients excluding individuals from VoIP consultations. Following the exploration of the subject during the focus group 1 (section 5.2.12) and agreement on strategies it was decided that only patients with cognitive impairment and those physically unable to use VoIP should be excluded from cycle 2; all professionals implemented this strategy. Whereas in cycle 1 the discussion related to patient selection was broad, in cycle 2 it focussed on two specific aspects: patients with hearing difficulties and patients needing a physical examination.

Regarding hearing difficulties, in cycle 1 patients UIN1a/6a described themselves as having hearing difficulties and yet explained that they able to hear the conversation with the professional during the VoIP consultation; this positivity was reinforced by a patient in cycle 2 who described themselves as having hearing difficulties

Patient UIN1b 'I'm nearly deaf and I could hear fine'

An example of why patient choice in using VoIP is important if provided by UIN2b. This patient agreed that she was impressed with the VoIP:

Patient UIN2b 'It was as if (the professional) was in the room, it was fab'

But this patient then added that she wouldn't want to use VoIP again. When asked if a home visit was needed but due to circumstances, such as inclement weather there was no access to the home, if VoIP would then be a viable option:

Patient UIN2b 'I could do it (VoIP) definitely, because it's (VoIP) great'

Because VoIP technology can be unreliable (section 2.3), both patients and professionals in both action cycles were asked to rate the quality of the picture and sound. Both picture and sound quality were rated acceptable for consultations with the exception of a full clinical assessment of physical symptoms.

Regarding the need for physical examination professional reservations about using VoIP are perhaps best summed up by professional UIN3:

Professional UIN 3 '...a lack of examination (physical) permeates the whole consultation'

However, despite the reservations expressed above, this professional did try to implement the strategy from FG1 recommending that a clinician should use their clinical judgment to complete components of a physical examination feasible during VoIP. Although in cycle 1 the inability to perform a physical examination seemed to leave the professional feeling frustrated, in FG2 the same professional provided an example of physical examination being achieved using VoIP (section 5.2.6). Additionally, in contrast to the professional, the patient involved with this VoIP consultation was satisfied that an adequate physical examination had taken place:

Patient UIN3b 'it was good to let (the professional) see what I was talking about (skin lesions)'

Unlike in cycle 1, in cycle 2 the professionals sought solutions to the challenges of physical examination suggesting that the examination could be completed via a third person who was sitting alongside the patient or physical examinations could be completed using a high definition camera with a zoom facility, use of audio stethoscope or dual stethoscopes as used when teaching physical assessment skills.

5.3.7 Relationship between communication skills and the TA when using VoIP

Whereas in cycle 1 there was some evidence of professionals missing cues from patients and by doing so failing to engage in conversation about issues that were of significance to individual patients, in cycle 2 no professional omitted to respond in appropriate manner to cues from patients. Additionally there were many examples of a high standard of communication skills demonstrated by the professionals (Table 9). When patients were asked to explain why they thought that the professional was listening to them:

Patient UIN1b (the professional's) '*face reacting.....body language reacting*' (to what the patient was saying)'

Patient 3b (the professional) 'looked interested...answered my questions'

All patients and professionals agreed that no additional communication skills were needed to communicate effectively and facilitate a therapeutic alliance using VoIP.

Because in cycle 1 both patients and professionals made reference to the perceived pace and intensity of the conversation using VoIP being different when compared to a face to face consultation, this issue was explored in more depth during the interviews in cycle 2.

- Whereas in cycle 1 professional UIN2 felt that during the VoIP interaction with the patient the eye contact was more intense and the conversation more focussed, in cycle 2 professional UIN2 felt that because it was the second attempt at VoIP the eye contact was the same as in face to face consultations; the patient taking part in this consultation, UIN2a, agreed that the pace and eye contact were no different than during face to face consultations.
- Whereas in cycle 1 some patients had the perception that the professional was giving them more time for the consultation, when compared with face to face consultations, in cycle 2 patients UIN1b/2b/3b/5b all agreed that the pace of the

conversation was the same as in face to face consultations.

- In neither cycle 1 nor cycle 2 did patients have the perception that the interaction was more intense when compared to a face to face consultation.
- Professionals UIN1/2/3 agreed that being anxious due in part to their relative inexperience of using VoIP for consultations could have made them speak more quickly as such giving the impression of greater intensity, when compared to face to face consultations. Also, professionals UIN1/2/3 agreed that they were more focussed on what they were saying and/or felt that they had a heightened awareness of time passing when compared to face to face consultations.

5.3.8 Sensitive conversations and providing comfort to a distressed patient when using VoIP

In cycle 1 there were contrasting perceptions about the efficacy and/or appropriateness of discussing potentially sensitive subjects using VoIP (section 5.2.8). But as a strategy identified in FG1 the professionals agreed to respond to cues from the patient to engage in sensitive conversations and respond to a patient's distress as they would in a face to face consultation (Appendix 14). In cycle 2, all patients and professionals agreed that sensitive issues should be explored using VoIP if timely and appropriate for the individual patient.

Although both patients and professionals made comment about the challenges of providing comfort, it was the patients, not the professionals who tried to find solutions or alternate means of providing comfort via VoIP; UIN1b explained that it was no different from when having a face to face consultation, additionally:

Patient UIN 3a 'Well words and a kind face and attitude are comfort'

Patient UIN 5b '....if I was feeling low and (the professional) wasn't able to visit me then I could just go the computer and talk with someone...that would be absolutely

lovely’.

5.3.9 The VoIP experience and shifting perceptions

Although some patients and professionals acknowledged that they were anxious about using VoIP, in cycle 1 the same participants reported that using VoIP was a positive experience. The reasons identified for their anxiety were concerns about their ability to ‘use a computer’, that communication via a computer screen would be difficult and/or ineffective and professionals raised concerns about the ability to build a rapport and ‘connect’ with patients when they were not physically present alongside the patient.

Similarly in cycle 2 the patients said that they felt anxious prior to using VoIP; their anxieties related to using the VoIP equipment, meeting a new member of staff or their involvement in research. In cycle 2 following completion of the VoIP all four patients said that they were glad to have participated and would be willing to use VoIP in the future. Professionals in cycle 2 reported being much less anxious when compared to their first VoIP experience in cycle 1; although still slightly anxious about having the content of their consultations audio-taped and analysed all professionals agreed that they were pleased to have participated in the research. Additionally, all four professionals agreed that there was a place for using VoIP in the Organisation to complement their existing practice:

Professional UIN1: ‘...as long as you are doing home visits as well as VoIP so that you are fully aware of the home situation’.

5.3.10 Governance and VoIP

Although keen to continue to utilise VoIP in practice, in cycle 1 some professionals had concerns about governance and in particular data protection. In cycle 2 only one professional raised the issue of governance and the professional appeared to be comfortable with the security of data explaining that VoIP was already being used in

healthcare.

Professional UIN1'..as long as the patient is in their own home and we are in a private office....I don't see any problem with confidentiality'

However, given that there is some controversy over the use of VoIP in healthcare (Wade et al 2012), the issue of Governance was explored in focus group 2.

5.3.11 Themes that emerged from the analysis in cycle 2

Based on the analysis of all the evidence from both cycles a Thematic Chart that included both a priori and emerging concepts and themes (Braun and Clarke 2006; Graham et al 2006) was populated. These themes related to: the skills, attitudes and behaviours needed by professionals to facilitate a positive TA using VoIP, the implementation of strategies identified in FG1 as having the potential to enhance the TA and the challenges and benefits of utilising VoIP in the Organisation. A Thematic Chart that included both a priori and emerging concepts and themes (Braun and Clarke 2006; Graham et al 2006) was populated and is represented in Table 10. The content from the Thematic Chart was used to present the findings and to facilitate discussion in focus group 2 (FG2).

Table 10: Thematic Chart in preparation for Focus Group 2

Themes explored in Focus Group 2				
Themes	Case 1b 1=prof 1b=patient	Case 2b 2=prof 2b=patient	Case 3b 3=prof 3b=patient	Case 5b 5=prof 5b=patient
Therapeutic alliance (TA)	Positive ^(1/1b)	Positive ^(2/2b)	Positive ^(3/3b)	Positive ^(5/5b)
VoIP wanted as an option	Yes ^(1/1b)	Yes ^(2/2b)	Yes ^(3/3b)	Yes ^(5/5b)
Pace of conversation different due to VoIP	Yes ⁽¹⁾ No ^(1b)	Yes ⁽²⁾ No ^(2b)	No ^(3/3b)	No ^(5/5b)
Is physical examination possible using VoIP?	Partially ^(1/1b)	Partially ^(2/2b)	Partially ⁽³⁾ Yes ^(3b)	Partially ^(5/5b)
Additional/different communication skills needed?	No ^(1/1b)	No ^(2/2b)	No ^(3/3b)	No ^(5/5b)
Sensitive issues can be discussed using VoIP	Yes ^(1/1b)	Yes ^(2/2b)	Yes ^(3/3b)	Yes ^(5/5b)
Distressed patients can be comforted	Yes ^(1/1b)	Yes ^(2/2b)	Yes ^(3/3b)	Yes ^(5/5b)
Does VoIP have benefits for the patients?	Yes ^(1/1b)	Yes ^(2/2b)	Yes ^(3/3b)	Yes ^(5/5b)
Does VoIP have benefits for the Organisation?	Yes ^(1/1b)	Yes ^(2/2b)	Yes ^(3/3b)	Yes ^(5/5b)

5.3.12 Focus group 2

In this section an analysis of the findings from focus group 2 (FG2) discussed in the context of the findings from cycle 1, were presented. This section culminated in a summary of the key findings from the research which were then explored in chapter 6.

All four professionals who participated in cycle 2 were invited to attend a focus group (FG2). As when attending FG1, the professionals were given the opportunity to challenge

what they perceived as misinterpretations of the data and/or findings; this member-checking enabled testing of themes and conclusions with the professionals from whom the data was collected (Creswell 1998).

One common theme that arose throughout both FG1/2 was the ease of using VoIP, in reference to cycle 2:

Professional UIN1 '....I just couldn't believe how easy it was'

Professional UIN2 ' ...much easier than I thought...it was a surprise for me...I would do it again anytime....well if the patient wanted to'

Although user friendly, the issue of reliability of the equipment was raised by professionals who admitted that they lacked confidence when using computers:

UIN2 'What happens when the equipment doesn't work, I had a terrible time.....what a panic, that's what the patient said'

However, all professionals agreed that this concern could be addressed with training in using VoIP, practice in using the equipment and a prompt sheet with advice on how to fix minor problems with the equipment.

Despite an overall correlation between the patient and professional assessments of the therapeutic alliance, as evidenced by the positive WAI-S scores, there were disparities between some patient/professional scores, with the professional scoring lower than the patient. Professionals discussed the potential impact on practice of this difference between the higher (more positive) patient score and lower (less positive) professional score. All professionals agreed in principle that as long as the therapeutic alliance was positive then the different perspective of the professional did not matter in practice. However, UIN1 did suggest that some mentoring or joint VoIP consultations with the professional who underestimated their skills in establishing a positive TA could be beneficial in relation to

professional development of the individual.

Following cycle 1 there was an agreement that only patients with cognitive impairment and/or those physically unable to use VoIP should be excluded from the choice of using VoIP. The issue of older patients being given the choice to use VoIP was also discussed in cycle 1 and everyone agreed that the age of the patient was not relevant. When disclosing that some patients who used VoIP had hearing difficulties the professionals appeared to be surprised that the patients had no problem hearing the conversation when using VoIP. In relation to professionals having a choice of using VoIP:

Professional UIN5 'People (professionals) should have a choice, its (VoIP) not for everyone, but once you use it once you realise how easy it is'

The group concluded that if/when the Organisation had a policy for using VoIP they would utilise the technology when they thought it appropriate for the individual patient. However, there was some concern that VoIP although easy to use and convenient for organisations in relation to efficient use of resources, the patient needs should remain central to the Service provision and mode of consultation:

Professional UIN2 '...its care and compassion, not just costs'

In relation to skills/attitudes/behaviours, the professionals agreed that using their transferrable communication skills the therapeutic alliance could be facilitated either during face to face consultations or when using VoIP:

Professional UIN5 '...yes it doesn't matter if its (the consultation) face to face or not'

The professional UIN1 who admitted to being very anxious and a 'technophobe' prior to cycle 1 responded to the aforementioned comment by saying that when using VoIP:

Professional UIN1 '... the patient is in their own environment, you just can't touch them, it is just like being in their home with them'

Both patients and professionals agreed that some aspects of clinical examination could be performed using VoIP. Whilst in cycle 1 UIN3 appeared to be frustrated that a physical examination could not be included in the consultation, in cycle 2 there appeared to be a shift of opinion:

Professional UIN3 'I had a consult (VoIP) when it worked...the lady had clonix – and she demonstrated it to me right there on VoIP, she showed me her arm movements'

Other professionals agreed that some aspects of a physical examination could be completed giving examples of patients pointing to a pain site or showing a rash to the clinician whilst using VoIP.

Compared with FG1 when there was some alteration of opinion, in FG2 there was agreement that potentially sensitive conversations can, and in response to cues from patients, should take place when using VoIP. It was suggested that if any professional did not feel comfortable having these conversations using VoIP that was perhaps related to the skill of the individual rather than the VoIP per se:

Professional UIN1 'Well that says more about the (the professional) than VoIP'

Governance and in particular data protection was raised as a concern on several occasions throughout the research; one staff member pointed out that speaking with a patient using VoIP, with the patient in their home or in the Organisation's private office, is more confidential than when speaking on the phone to a patient in a busy office where several clinicians and administration staff may be present. However, it was agreed by the professionals that Governance issues would need to be investigated more thoroughly to ensure that the Organisation's VoIP policy complied with national recommendations.

The professionals UIN1/2/5 showed clear indications that they were moving forward with

the idea of using VoIP by discussing with their colleagues specific patients with whom they could potentially utilise VoIP:

Professional UIN5 '....I should ask him (patient) if I can review him on VoIP, I mean he is stable...what do you think?'

Other potential uses for VoIP suggested by the professionals included:

- Triage for patient's who live a far distance from the inpatient unit who are requesting admission
- Triage to prioritise home visits
- Offer VoIP to stable patients instead of face to face consultations

Key points from FG2 were presented to the professional participants in the form of a newsletter (Appendix 15). Whilst some staff members were keen to have the opportunity to use VoIP for future consultations, others, although acknowledging the usefulness of VoIP in practice, were less enthusiastic about routinely using VoIP in their practice.

5.4 Key findings from cycles 1 and 2

Discussing the findings from cycle 2, in the context of the findings from cycle 1, helped the professionals clarify and strengthen their findings. The key findings from the analysis answered the research questions: firstly to identify what skills, attitudes and behaviours used by palliative care patients and professionals during VoIP consultations affected the therapeutic alliance; secondly, using an action research approach, what strategies between patients and health care professionals enhanced the TA? The Key findings from the research were summarised in two categories below.

5.4.1 Skills/attitudes/behaviours that enhance the TA when using VoIP

- A positive therapeutic alliance (TA) can be facilitated using VoIP.

Prior to the first cycle some professionals had reservations about their ability to facilitate a

TA via a computer screen however, by completion of the second cycle there was a positive shift in the attitude of all professionals, including the 2 professionals who withdrew from the study after completing cycle 1. The professionals agreed that they had been on a learning curve enabled by their first use of VoIP followed by the opportunity to engage in discussion and exploration about using VoIP before their second VoIP consultation; professionals concurred that their experience throughout both cycles, facilitated by the action research methodology, changed their perceptions about using VoIP.

Professional UIN5 'Yes that's right it shows that we can have a therapeutic alliance (using VoIP) we can connect with our patients. Doesn't matter if it's face to face or not you don't need to be in their home'.

VoIP is also user friendly even for participants with limited IT skills.

Professional UIN1 'Well I didn't think I would be able to do it – I'm a technophobe – but it (VoIP) went well and I enjoyed the experience'.

Although not reflected by the strength of the TA, prior to using the VoIP some patients raised concerns about being able to communicate via a computer. But regardless if this was the first meeting between the two parties, the WAI-S scores from both cycles provided quantitative evidence that a positive TA was attainable when using VoIP. Although the sample size was small the WAI-S scores were more positive (higher) in cycle 2 when compared to cycle 1.

- Some professional's displayed a lack of awareness about the strength of their TA with individual patients.

The inconsistency in the patient and professional's perception of the TA was demonstrated by the difference in the WAI-S scores. The higher the WAI-S score the more positive the strength of the TA and for some consultations the patients scored higher than the

professionals. Despite knowing that a positive TA correlates with positive clinical outcomes, because evidence from the academic literature was presented in focus group 1, the professionals thought the disparity between patient and professional perception of the TA was of no significance.

- The context of and use of technology within the conversation can affect the TA.

During both cycles patients and professionals, both inexperienced and experienced VoIP users, were apprehensive about their ability to use the technology effectively and with confidence. Participants also identified that the practicalities of using the technology and troubleshooting any simple problems with the technology could be detrimental to the VoIP experience. Those experienced in using VoIP socially had concerns about transferring the skills used for social VoIP contact to a medical consultation. The professionals felt that the context of the interaction, that is professional as opposed to social, had an effect on their behaviour and could potentially have an impact the TA:

Professional UIN3 'It's (VoIP for professional use) completely different you know your family members signals from their voice and you have got different ways of conversation (with family), the conversation that you are familiar with'

- Competent, experienced specialist palliative care professionals do not need additional communication skills training to successfully facilitate a TA using VoIP.

When asked directly if professionals should be taught different communication skills to enable them to use VoIP, all patients and professionals agreed that communication skills were transferable across different modes of interaction for example face-to-face/telephone/VoIP:

Patient UIN2a'...this (professional) could communicate so it (VoIP) didn't

make any difference'

- *Patients identified specific professional behaviours that could enhance the TA.*

Behaviours included: evidence that the professional had read the patient file prior to the consultation; some preamble and social talk at the start of the consultation as was usual in face to face consultations; evidence that the professional was working with the patient as opposed to the professional's agenda; a feeling that the professional was listening but more importantly actively offering solutions to the issues raised by the patient. Although an absence of these behaviours did not adversely affect the WAI-S scoring when the professionals included these behaviours the patients reported during interviews that there these behaviours did enhance the TA.

- Discussions about sensitive topics when using VoIP do not adversely affect the TA.

Having conversations about sensitive topics for example resuscitation, preferred place of care, advance care planning is a routine component of the work of nurses/doctors in SPC teams. It was demonstrated during the VoIP consultations that if professionals behaved as they would during a face to face consultation, discussing sensitive topics if/when appropriate, patients responded as they would in a face to face consultation. For the professionals who felt uneasy discussing sensitive topics using VoIP, the AR methodology provided an opportunity for ongoing professional development following completion of the study.

Engaging in conversation about sensitive topics can lead to patients crying or becoming distressed; when using VoIP this potential distress was a source of concern for some professionals. However, patients emphasised that comfort can be provided without touch and identified skills and behaviours that they found comforting; for example the professionals' choice of language and specifically using comforting words and a kind

gentle tone of voice, the professional's body language including leaning in towards the computer screen.

- For some patients VoIP offered a convenient option for consultations.

Two patients commented that in relation to communication skills, some patients may actually prefer VoIP as opposed to face-to-face consultations:

Patient UIN1b 'doing that (VoIP) for some people makes it easier for them to talk, more comfortable with technology than they are with people'.

Additionally, patients commented on some practical advantages of having VoIP as an option for consultations. The advantages included the convenience of not having to leave the comfort of their own home, a saving in the cost of fuel and no stress when trying to find a parking space at hospital sites. Given the rural location of some patients VoIP enabled a consultation without spending a whole day travelling to and from home and often being asked to wait to see professional.

5.4.2 Strategies that enhance the TA when using VoIP

- VoIP as a viable treatment option

Whilst acknowledging the role of VoIP in palliative care the professionals were keen to emphasis patient as opposed to only Organisational benefits. The professionals agreed that the Organisation should not use VoIP for the convenience of the professionals or to save money on time and travel; the professionals identified a definite role for VoIP to complement and enhance the existing Service and potentially allow the Organisation to expand the Service within an existing budget. This sentiment was expressed by the professionals in FG2:

Professional UIN2 'It (VoIP) can and should be used...it has a place'

- Mandatory training packages for professionals

It was agreed during FG2 that all professionals, including those who use VoIP socially on a regular basis, should complete a VoIP training package before starting VoIP consultations. This mandatory training was advocated because the professional's confidence and competence in using VoIP was not greater for experienced VoIP social users when compared to novice users; additionally VoIP experience did not strengthen the TA.

- Appropriate patient selection for VoIP

All patients who participated said they would like to have VoIP as an option for their future consultations however, although the professionals were keen to offer an equitable service there were reservations about all patients being offered VoIP. The professionals agreed that patients with cognitive impairment, those who are physically unable to use the equipment or patients needing a full physical examination should not be offered VoIP to replace a face-to-face consultation. However, for all other patients, the choice of using VoIP should lie with the patient as opposed to the professional.

- The benefits of the action research methodology

Throughout this research process patients and professionals described a sense of empowerment and satisfaction generated by their involvement with the study. Patients spoke about being glad of the opportunity to give an opinion about a new initiative that would help the Organisation; whilst acknowledging their own poor prognosis, they hoped that their contribution would be of benefit to future patients. During recruitment professionals explained that they were glad to be involved with the research, and having their opinion valued rather than a new mode of consultation being introduced by the Organisation without consulting with the clinicians. These feelings of self-worth and empowerment could be attributed to the participatory nature of the AR methodology and

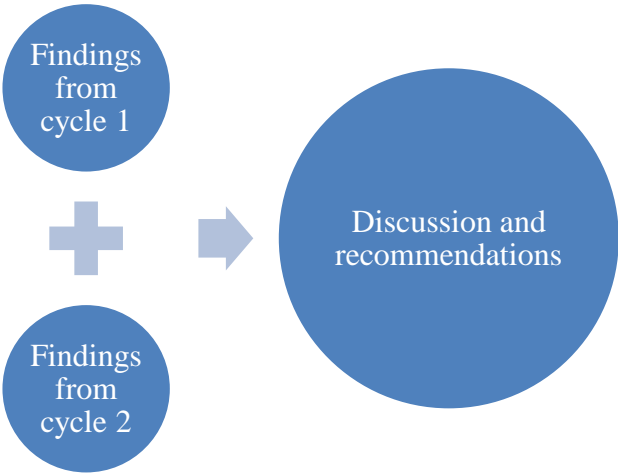
where appropriate to the research questions AR should be considered for future research initiatives.

- The challenges of clinical governance

Some professionals raised concerns about data protection and issues related to documentation of VoIP consultations. A variety of VoIP software is readily available and used within healthcare and healthcare organisations continue to monitor and address the associated challenges of governance. Current practice, government recommendations and the Organisation’s strategic plans for the use of telemedicine, including VoIP are explored in section 6.2.

In the Discussion chapter the findings from the research were explored in the context of current literature and the research questions. The research questions asked what skills, attitudes and behaviours used by palliative care patients and professionals during VoIP consultations affected the TA and also what strategies enhanced the TA. The Discussion chapter concluded with recommendations for practice. Figure 8 was a visual representation of the relationship between the action cycles and the findings.

Figure 8: Relationship between the action cycles and the findings



Chapter 6: Discussion

This study identified some skills, attitudes and behaviours that affected the therapeutic alliance between patients and palliative care professionals during VoIP consultations. Using a critical participatory action research approach (Kemmis et al 2014) strategies that enhanced the therapeutic alliance between the patients and professionals using Skype were identified. Both patients and professionals reported a strong therapeutic alliance when using VoIP and described a positive VoIP experience. Patients valued the opportunity to use VoIP for future consultations with members of the palliative care team. Professionals recommended that VoIP be included in future practice to complement the Organisation's current Service provision. Professionals also acknowledged that VoIP consultations were not appropriate for all patients and selection should be made depending on patient preference and the reason for the consultation.

6.1 Strengths and weaknesses of the findings in relation to other studies

6.1.1 The therapeutic alliance and using VoIP in palliative care

Voice over Internet Protocol, for example Skype consultations, was used on a small scale in the palliative care (Beresford 2017; Collier et al 2016; Tieman et al 2016). However, prior to this study there was no research about what skills, attitudes or behaviours enhanced the professional's TA with palliative care patients when using VoIP. As such, the findings from this study added to the current body of knowledge.

In palliative care recent telehealth research has explored attitudes of stakeholders, feasibility, acceptability, symptom monitoring and practical aspects of using telehealth (Collier et al 2016; Johnston 2014; Tieman et al 2014; Watanabe et al 2013; Stern et al 2012; Duursma et al 2011). But none of these studies investigated the therapeutic alliance when using VoIP in palliative care. The majority of research into telehealth and the TA was

in the mental health setting and in a systematic review Sucala et al (2012) concurred that telehealth, including VoIP, did not have a negative impact on the TA. The findings from this current study added to this evidence base. A strong TA can be established when using VoIP in palliative care. Additionally, there were professional skills, attitudes and behaviours that enhanced the TA when using VoIP (section 5.4).

6.1.2 The professionals' skills/attitudes/behaviours needed to enhance the TA when using VoIP

Patients in this current study identified professional qualities that impacted on the TA and the quality of VoIP experience. The qualities included: honesty, being respectful, friendly, alert, reflective, supportive, warm and being open. Likewise similar qualities were identified as strengthening the TA in face to face consultations (Ackerman and Hilsenroth 2003) mental health online therapy (Lingley-Pottie and McGrath (2007) and outside of mental health empathy, listening and respect were identified by patients as attributes that strengthened the TA (Doyle et al 2013).

The DoH recommended that all SPC staff have annual advanced communication skills training (End of Life Care Team, DH 2009). However, in many organisations this recommendation for training extends to nurses and not necessarily across all disciplines. In this current study the strength of the TA when using VoIP did not seem to correlate with the length of time since professionals attended advanced communication skills training. When comparing VoIP to face-to-face consultations professionals' communication styles differ (Nelson et al 2010; Agha et al 2009a); but what correlated with positive treatment outcomes is that the professional established a positive TA with the patient. Therefore perhaps consideration should be given to education about the importance of the TA (Lambert and Shimokawa 2011; Duncan and Miller 2008) as opposed to communication

skills per se.

When exploring the correlation between the professional versus patient variability in measuring the TA and treatment outcomes Baldwin et al (2007) concluded that the professional score more accurately predicted outcome. Although clinical outcomes were not measured in this current study, the lack of the professionals' awareness of the strength of the TA (section 5.3.2) had implications for future professional development and this premise was supported by (Canning et al 2007). Using clinical supervision as part of an action research approach Bergdahl et al (2011) encouraged nurses to learn how to reflect on their ability to create a good caring relationship with palliative care patients. The nurses felt empowered and acknowledged that they had developed their ability to reflect on the TA (Bergdahl et al 2011) and this insight changed their practice. However, this action research was conducted in response to complaints concerning the care of palliative care patients which may have impacted on the findings. Professional insight into the TA was important because there was evidence across several healthcare settings, including palliative care, that there was a correlation between a positive TA and positive treatment outcomes (Safran 2010; Fuertes et al 2007).

In this current study some professionals raised concerns about discussing sensitive topics and/or comforting distressed patients when using VoIP. And, in my field notes I commented on the hesitation and apparent apprehension by some professionals as they approached discussions about topics related to Advance Care Planning. However, despite the concerns raised emotive subjects were explored and comfort provided with no adverse effect on the TA. This outcome was not surprising given that VoIP enables synchronous virtual encounters. VoIP enabled both verbal and non-verbal cues and accommodated the majority of the determinants of the routine patient-professional communication with the

exception of touch and physical closeness (Demiris et al 2006; Kole 2003). Because emotional exchange is so integral to the patient-professional relationship non-verbal aspects of communication play a moderately larger role when compared with verbal communication (Grzybowski et al 1992). VoIP enabled eye contact (Suzuki et al. 2006), and eye contact (if culturally appropriate) was an aspect of non-verbal communication used by healthcare professionals to convey intimacy and comfort to patients (Toh et al 2016). Eye contact was identified by professionals in this current study as a communication technique used to facilitate the TA. My field notes made reference to what looked like some of the professionals' awkwardness as they seemed unsure where to look during the first cycle of VoIP consultations. However, I did not notice this same awkwardness in the second AR cycle. The professionals discussed this issue of eye contact in the focus groups and some staff, who had concerns in the first AR cycle acknowledged that they felt no apprehension about eye contact in the second AR cycle. VoIP also allowed the patients to remain in the familiar and comforting environment of their own home which could be advantageous if/when the patient did become distressed (Toh et al 2016).

6.1.3 Appropriate use of VoIP and patient selection

Although professionals in this study would have preferred to use VoIP with a patient whom they had already met, using VoIP to interact with a patient not already known had no detrimental effect on the strength of the TA. Other studies reported that the professionals preferred a degree of familiarity with the patient prior to a VoIP consultation (Johnston et al 2012) and using VoIP for an initial consultation was less than ideal (Collier et al 2016; Johnston et al 2012; McCall et al 2008). Therefore when possible it was agreed by the professionals in this study that it would be better where possible to offer VoIP for follow up

as opposed to initial contact with patients.

In this current study concerns about older patients being unable or unwilling to engage with VoIP were unfounded and there was no evidence to suggest that older patients should be excluded from using VoIP. This finding was supported by evidence that use of the Internet was comparable between older and younger generations (Office of National statistics 2017; Age UK 2011). All patients, aged 60-79yrs, recorded a positive TA and stated that they enjoyed the VoIP experience. Palliative care professionals interviewed following a telehealth pilot study in Australia also raised concerns about older patients (Collier et al 2016). However in contrast a prospective feasibility study of 43 community based patient/carers using VoIP to contact SPC/GP to discuss symptoms or carer self-assessment found that older patients/carers were able to use technology and provide data that would not otherwise have been available to SPC teams. As a result telehealth was embedded into the Service however there were limitations to this Australian study in that only one SPC service was involved, there was no control group and patients were not randomly selected (Tieman et al 2016). In relation to using VoIP for consultations this current study provided evidence that older patients should be treated the same as other adult age groups in reference to the option of using VoIP consultations.

The professionals in this study raised concerns about the feasibility and/or appropriateness of clinical assessments with no 'hands on' component. However, patients were less concerned and thought that some aspects of physical assessment could be undertaken using VoIP (section 5.3.6). Australian clinicians raised similar concerns about the medico-legal aspect of making clinical judgements based on audio/visual assessment with no 'hands on' component to the assessment (Collier et al 2016). Therefore further research may be needed into the components of physical assessment that can be done

when using VoIP and issues relating to the legal aspects of making clinical judgements when using VoIP.

Whilst acknowledging the benefit of enhanced access to SPC, both the availability and usability of equipment and also the reliability and connectivity of the internet connection was raised in this current study. Although in this current study connectivity was not problematic both patients and professionals acknowledged that connectivity may be a challenge if the patients were at home using VoIP as opposed to a Hospice location chosen for the convenience of the patient. Similar concerns were raised in a thematic analysis of mixed methods research exploring the palliative care patients/family members' thoughts about remote visual contact with SPC professionals. Findings reported connectivity challenges in 36% of home based video calls were reported (Stern et al 2012).

It was concluded from this current study that VoIP should be used to complement existing Service delivery. In an evaluation of telehealth initiatives across Scotland Johnston et al (2012) agreed that whilst patients/families welcomed telehealth it should be an adjunct to care rather than an alternative to the routine clinical care. Whilst in this current study patients had a prominent role in the research process, the telehealth initiatives in Scotland were principally conducted between professionals although in some cases patients had wanted to be part of the VoIP discussions about their care. In my field notes I had commented that patients appeared to be pleased to be asked to participate in this research and liked the idea of helping to influence the future Hospice Service. There seemed to be a sense that the patients were used to research being 'done to them' as opposed to them actually being involved as equal partners in the research. Outwith the formal patient interviews some patients made reference to the loss of control they felt by

the impact of their symptoms and disease. It appeared that this current study offered some sense of usefulness and feeling 'needed'. Additionally, when interviewing a group of palliative care clinicians Johnston et al (2012) reported that none had any experience or knowledge of using VoIP clinical consultations in the palliative care setting. As such, whilst acknowledging that this current study engaged professionals employed by one Hospice organisation and a cohort of community-based patients who access the same Service, the findings added to the body of knowledge about using VoIP in palliative care. Further research may be needed to investigate how the findings from this current study can be applied to other contexts and services.

6.2 Meaning of the study: possible mechanisms and implications for clinicians or policy makers

6.2.1 Generalisation of the findings from this study

One criticism of AR as a methodology was the applicability of the research findings outwith the specific context studied. However Coghlan and Brannick (2014) don't agree saying that AR was being judged against a set of criteria that were not suitable for the method. A strength of AR was in enabling the design, implementation and improvement of an intervention in a complex situation whilst at the same time filling in gaps in knowledge, evidence and theory (Kemmis et al 2014; Stern et al 2012). In this robust study the AR methodology enabled an interactive, iterative and flexible inquiry and the variety of data collection methods used maximised the credibility and generalisability of the findings (Wang and Hannafin 2005). Given that a positive TA correlated with improved clinical outcomes across a broad range of clinical settings and specialities (Arnow et al 2013; Safran 2010) although the new knowledge from this study was generated in palliative care the strategies about how to enhance the TA when using VoIP could be generalised to

other patient cohorts.

6.2.2 Professional skills, attitudes and behaviours

The professionals involved in this current study identified a reliable IT infrastructure and technical support as necessary for the success of the VoIP consultation, and this is supported by Collier et al (2016) in a telehealth pilot study involving SPC. It was recommended from this current study that training including theoretical and practical aspects of using VoIP should be mandatory. The training objectives should be related to use of technology and the skills, attitudes and behaviours that enhanced the TA when using VoIP (section 5.4). There was a consensus by patients and professionals in this study that effective communication skills were transferable and no additional communication skills training was needed. However, the professionals' self-awareness about the strength of the TA during a consultation can have an effect on treatment outcomes (section 2.6) and as such organisations should be cognisant about the professional's knowledge about correlation between the strength of the TA and treatment outcomes (Duncan and Miller 2008; Canning et al 2007).

6.2.3 VoIP as the preferred mode of consultation

This study provided evidence that VoIP was user friendly for patients and for some VoIP was the preferred mode of consultation. Convenience and cost effectiveness were cited by patients as being reasons for the preference for VoIP as opposed to face to face consultations (Cook and Doyle 2002). In a cost analysis comparing face to face and VoIP consultations with oncology patients where the patients were at a telehealth location nearest to their own home, the cost in terms of distance, time and expenses were lower when using VoIP (Watanabe et al 2013). During the interviews conducted in this current study both patients and professionals agreed that offering eligible patients VoIP

consultations as an alternative to face to face consultations would not only save the organisation time and money but also free up the professionals to consult with a greater number of patients. Whereas it was the professionals involved with telehealth initiatives in Scotland who commented on the convenience of video consultations (Johnston et al 2012), in this current study it was the patients who raised the issue of convenience. It was recommended by the Department of Health (DH) (2016) that SPC services should be accessible 24hrs each day. And there was a consensus of opinion, from this current study and others, that telehealth could enable this level of access (DH 2016; Collier et al 2016; National Partnership and End of Life Care Partnership 2015). Additionally, for patients too debilitated to make a journey to an out-patient appointment using telehealth circumvents the physical and/or emotional impact of travelling when unwell (Johnston et al 2012).

The potential negative impact of using VoIP was raised during the interviews and focus groups. Some professionals were concerned about patients thinking that using VoIP for consultations was quicker, easier and more cost effective for the Organisation as opposed to being an appropriate mode of communication for an individual patient. But in contrast to the professionals the patients raised the issues of improved time management for professionals and better use of the limited resources. In an Australian study SPC professionals reported that VoIP was a viable alternative if a clinical assessment was needed but the professional unable to home visit due to long distances (Collier et al 2016); and patients identified convenience and saving time and money were benefits for the patients. These observations by patients highlighted the importance of stakeholder involvement in any planned telehealth initiative to circumvent any negative clinical or Organisational impact of changes to Service provision (Brereton et al 2017).

6.2.4 Effectively using VoIP in palliative care.

In this current study during the VoIP consultations patients were alone in the room and speaking with the professional via the computer. However, it is worth considering that in future VoIP consultations patients should be advised to bring family/friend to the appointment. When interviewing palliative care patients about their experience of using telehealth Johnston et al (2012) reported that patients valued the presence of a family member/friend especially if being given 'bad news'. This advice was supported when using VoIP for symptom assessment consultations with oncology patients, where the patients were advised to bring a family member/friend to the consultation (Watanabe et al 2013). But there was evidence that during consultations with lung cancer patients the presence of a third party could have impacted on the information exchange (Smith 2017). Therefore negotiation with individual patients and further research may be needed into the effect of accompanying companions on the conversation during consultations.

The findings from this study in no way suggest that VoIP consultations should replace face-to-face palliative care consultations. Rather that VoIP can be used to complement existing Service provision for some, not all patients. The majority of palliative care patients would like the option to be cared for and to die at home (Department of Health 2008) and access to SPC in the home has been shown to improve clinical outcomes (Tanuseputro et al 2017). Using VoIP when appropriate offered an opportunity to facilitate timely and acceptable access to SPC services for some community-based patients (Beresford 2017); neither professionals nor patients would be bound to particular places and times which would make it easier to establish long-term client-professional commitments (Van Gorp et al 2013). Telehealth and specifically VoIP offer an opportunity to redesign models of care (Pope et al 2013).

6.2.5 The impact of action research as a methodology in palliative care

Any change that informs practice and policy needs to be underpinned by a robust evidence base. But because of the heterogeneity of the palliative care population and their complex clinical presentations research hierarchies and methodologies from other care settings do not easily translate to the palliative care setting (Aoun and Nekolaichuk 2014). As long ago as 1978 Susman and Evered purported that the regular research methods and techniques were becoming less useful for the purpose of organisational problem-solving. The AR approach used in this study impacted on both patients and professionals by empowering them to influence the Organisation's future Service provision and showed that a well-designed AR study was not overly burdensome to patients nearing the end of life.

Action research (AR) allowed both myself and the professionals to theorise, that is describe and explain, the process of improving our practice. The critical participatory AR approach enabled a model of learning where the clinicians were challenged and helped to find new ways of doing things with an emphasis on practice and community rather than subject knowledge (Kemmis et al 2014) This approach facilitated a journey of personal inquiry for each professional enabling the opportunity to stand back and comment on the process of their own and also colleagues learning (Kemmis et al 2014; McNiff and Whitehead 2011). The professionals valued the opportunity to revisit and try to improve on their first VoIP experience; in cycle two they felt more confident and in control of their environment when compared to their experience in cycle one. In my field notes I commented on the change in the perceptions of some professionals who initially offered to become involved with the research 'to help out a colleague' as opposed to having any real interest in the topic under investigation. But as the research progressed, I noticed the

professionals becoming genuinely interested in how we as palliative care nurses and doctors could utilise Skype. For me it was exciting to see how tired and over-worked colleagues embraced the opportunity to influence the Organisation's approach to Telehealth. I do not believe that a different methodology would have had this same impact. The professionals knew that they, and not me as the researcher, were driving the direction of the research. It was thrilling for me to witness. The AR methodology contributed to the interest in telehealth being generated among the clinicians, both those who participated in this study and other clinicians who, initially sceptical about using VoIP, were volunteering to be participants in the Organisation's planned telehealth initiatives. As a methodology AR engaged clinicians in rigorous research and empowered them to be change facilitators whilst employing a variety of learning mechanisms (section 3.5) (Marshall et al 2010).

6.3 Strengths and Weaknesses of the study

6.3.1 Choice of methodology

A strength of this current study was the Action Research (AR) methodology. Action Research (section 3.5) assisted the professionals, in collaboration with myself, to both implement the intervention (VoIP), create knowledge and theorise about that intervention (Kemmis et al 2014). The flexibility of the AR cycles (Elsay and Lathlean 2006) allowed investigation about a specific area of professional practice, the therapeutic alliance (TA), and enabled changes in practice by facilitating inquiry into what strategies could be used to enhance the TA when using VoIP. Action research was appropriate for the population of interest and to answer the research questions (Creswell 2007). The critical reflection and progressive problem-solving was facilitated by myself but led by the professionals. Action Research allowed the professionals to research *with* rather than *on* patients and emphasised that participants were involved in research decisions as co-researchers

(Heron and Reason 2001). The critical participatory AR approach gave the professionals a sense of ownership of the process and an opportunity to review the Service they were currently offering and change their working environment for the better (Kemmis et al 2014; Eley and Lathlean 2006). All participants recommended the inclusion of VoIP in the Organisation's service provision and a Telehealth Coordinator has recently been appointed to lead telehealth initiatives.

The simultaneous data collection and analysis (Teddlie and Tashakkori 2009) allowed me to merge the quantitative and qualitative data. This merging provided a comprehensive understanding about using VoIP in palliative care and enabled comparison across subjects and a depth of understanding about the topic under investigation (Creswell 2009). For each of the two cycles each professional was invited to recruit one patient and data were collected from both patients and professionals to give different perspectives on using VoIP for a consultation. Both the variety of data collection methods and the thematic analysis enabled by the AR methodology allowed for some conclusions and recommendations for practice (section 6.2).

A sequence of inquiry among four different types of knowledge (section 3.5) emerged from the analysis of data from the consultations, questionnaires, interviews and focus groups:

- *Experiential knowing* was enabled by the VoIP consultation and achieved through direct engagement between the patients, professionals and myself
- *Presentational knowing* evolved from experiential knowing and was a process that allowed the professionals to examine their skills, attitudes and behaviours
- *Propositional knowing* drew on concepts and ideas enabled by both the professionals self-assessment of the TA during the consultation and by the focus group discussions

- *Practical knowing* was demonstrated by the professionals consolidating the other forms of knowing and provided the opportunity for change in their own skills, attitudes and behaviours in relation to using VoIP (Reason 2002).

In this study the AR methodology enabled the professionals to incorporate the four types of knowing within each of the two cycles, this process encouraged the formulation of new ideas about using VoIP in practice. The professionals did identify strategies that contributed to the enhancement of the TA thus adding to the body of knowledge about using VoIP with palliative care patients.

Critical participatory AR helped to close the gap between theorists and practitioners (Kemmis et al 2014). However, I found the idea of being not only a clinician but also a nurse who engaged with and helped to contribute to existing theory challenging. The process of investigating practice with my colleagues, being part of critical engagement with the data and generating some new knowledge about using VoIP with palliative care patients enabled my colleagues and I to jointly contribute to new thinking about the topic. This process led to a new form of practice and as such contributed to theory. In this study the theory production could be described as the construction of local theory for testing (Argyris and Schon 1991). The term local theory referred to the research being contextually bound, that is the findings are contextualised by the social situation in which it was created (Kemmis et al 2014). In this current study that was a Hospice in one Health Authority in England and professionals and patients involved with that Organisation. Although it is not the aim of action research to make general assumptions, the findings can add to the knowledge generated from previous empirical studies (Koshy 2005).

6.3.2 The sample size

Although the sample size, patients $n=9$ and professionals $n=6$, could be interpreted as a weakness in this study the sample was adequate to answer the research questions. Researchers can be focussed on the number 'n'. However, in recent years, rather than being pre-occupied with 'n' there has been a move towards readers looking beyond the sample size and examining the context of the study in relation to choice of methodology and the research questions (Emmel 2013). In this study using AR and a variety of data collection methods enabled a more inclusive and robust investigation (Gorard and Taylor, 2004) of factors that affected the TA when using VoIP professionally. Added to this, using a variety of data collection methods supported the belief that different epistemological perspectives can be a helpful premise when planning studies.

Thematic analysis, as used in this study, was a means for finding a collection of themes and patterned responses or meaning (Braun and Clarke 2006). Thematic analysis is commonly used in psychology, healthcare and social research. As such the topics under investigation are diverse and because of this diversity, in some studies guidelines for thematic analysis cannot be applied prospectively (Fugard and Potts 2015). Current guidelines for sample size in thematic analysis are inconsistent. In thematic analysis, sample size calculations are context-dependent and part of a subjective process (Schulz and Grimes, 2005). Intuitively a larger sample is sensible if wanting to detect less commonly expressed themes. Given that the aim of this current study was to give professionals an opportunity to identify and implement strategies that could contribute to the enhancement of the therapeutic alliance when using VoIP, identification of less common themes would not have added any weight to the findings. As such, the sample size allowed adequate inquiry and depth of analysis to answer the research questions.

6.3.3 The burden of participation in the research

Due to the duration of AR studies it is not uncommon for participants to lose interest or commitment to the project (Crow et al 2009; Waterman et al 2001). To circumvent this challenge in this current study the Organisation fostered a culture of research by allocating time for professionals to participate. Continuous support, frequent dialogues, and feedback from myself also helped to nurture interest (Hansson et al 2016). Patient involvement in the study was kept to a minimum; their single VoIP consultation replaced a planned face-to-face consultation and data collection methods were designed to be convenient and timely.

This study was designed to minimise the effort required from participating patients and to streamline the recruitment process for the professionals (Newington and Metcalfe 2014). Professionals cited lack of skill in patient recruitment to research as one reason for low recruitment (Department of Health 2009b). Professionals can also perceive an imbalance between patient burden and benefit (Adams et al 2015). In a systematic review of 11 studies exploring the challenges for palliative care professionals recruiting patients to research (Preston et al 2016), where all studies were at medium or high risk of bias, one recommendation to improve recruitment was to have a designated person in the recruitment role. So, in this current study the professionals identified and provided information to their next eligible patient (section 4.2.2) and asked the patient if they agreed to be contacted by myself to discuss the study in more detail. At this point the professional's role in recruitment was completed. It was myself as opposed to the clinician who was responsible for enrolling the patients in the study.

In palliative care research the burden for potentially vulnerable terminally ill patients can be cited as a weakness in studies (Alexander 2010; Berry 2004). This premise is not

supported by the findings from this study. All patients whom the researcher met to explain the study and request consent agreed to participate and reported a positive TA, feelings of empowerment and a positive VoIP experience. All patients recommended that VoIP be included as an adjunct to the existing Hospice Service. Whilst patients reported that participation caused minimal inconvenience or physical/emotional burden the potential emotional impact and the ethics of involving this patient cohort in research were explored in section 4.8.1.

On completion of cycle one, 2 of the 6 professionals withdrew from the study. One nurse (UIN6) retired and one doctor (UIN4) cited lack of time due to the burden of clinical workload as the reason for withdrawing. There was a risk that the depletion in the professional cohort particularly in the second focus group could have compromised the findings by not being truly representative of all possible strategies to enhance the TA when using VoIP in palliative care. But the remaining four professionals were engaged and included nurses and doctor, both genders and with a variety of pre-research experience and confidence in using VoIP.

For each professional the average time committed was 81 minutes in cycle one and 87 minutes in cycle two. However, the tension between clinical and research workloads was identified as a barrier to clinicians recruiting patients for research in the NHS (Adams et al 2015). This pressure between different aspects of the job was articulated by the professionals and also documented in my field notes. For example in cycle one some professionals had reservations about the value of allocating their time to participate in the interviews but in cycle two they seemed to appreciate that the interview questions were generated from the iterative analysis of the VoIP experiences (section 4.5.5) and as such this engendered a sense of ownership and relevance to practice (Hart and Bond 1995). At

the beginning of any AR study participants may feel anxiety or detachment or see themselves as an outsider expected to contribute to a colleague's research, however in the course of this study attitudes changed with participants feeling that they are being taken seriously as co-researchers encouraged to generate their own opinions and ideas that influenced the direction of the study (Gotsch et al 2011). Additionally participants felt empowered, more self-assured and confident, feeling that they had some ownership of the study (Roth et al 2003). This sense of confidence and ownership was demonstrated in the focus groups which were lively and informative with discussions about contrasting viewpoints whilst acknowledging the similarities of their VoIP experience.

6.3.4 Patient Involvement

I was very keen to involve patients in this study as I wanted the opinions and experiences of the patients to have an impact on any Organisational decisions to utilise VoIP in future service provision. Both quantitative and qualitative patient data were collected and helped to shape the direction of the research. The National Institute for Health and Care Excellence (NICE 2016) encouraged public involvement at all stages of research projects. NICE (2016) recommended that this involvement should include appraising how health technology should be used in the NHS and emphasised the importance of embracing the patients insights and perspectives in the development of innovative technologies.

In compliance with NHS England guidelines prior to commencing this study was subject to an ethical review by a Regional Ethics Committee. Because public involvement has an impact on both the ethical design and conduct of research consideration was given to: how participating patients helped define what was acceptable practice; the process of informed consent; practical arrangements to facilitate efficient use of patient's time/effort and the relevance and dissemination of the findings (Health Research Authority/INVOLVE

2016; National Palliative and End of Life Care Partnership 2015). I feel that the patient involvement not only strengthened the findings from this study by giving a consumer perspective on use of VoIP but also gave the patients an opportunity to influence the development of the Service.

6.3.5 Challenges for the clinician-researcher

More of a challenge as opposed to a weakness of this study was my experience of the dual role of clinician-researcher. As a novice researcher, identified as a Hospice Nurse by the patients and Lead Nurse by the professionals, it was a challenge to avoid lapsing into the role of clinician/educator. I was concerned that such a lapse would have impinged upon the credibility of the findings. Seymour and Ingleton (2005) discussed the conflict between the role of nurse and researcher, and Newbury (2011) explored this conflict when collecting qualitative data from carers of palliative care patients and identified similar challenges as identified in this study. In my field notes I documented one lapse when I responded to a request by a patient and agreed to examine his chest when we finished the interview. With hindsight I am glad that this incident happened near the beginning of the data collection as it was a stark reminder of just how easy it was for me to think as a clinician as opposed to a researcher. And I did find this difficult at several times throughout the research process when I was tempted to offer a clinical solution to an issue as opposed to listen, collect data, analyse and then share the findings with my colleagues. It is not uncommon for patients to expect a clinical response or follow up that is not part of the research and as a clinician, not providing this clinical input can result in a sense of frustration and unfinished business (Hay-Smith et al 2016). But I realised what was important was that I learned from the experience without compromising patient care.

As preliminary analysis progressed the AR methodology provided an opportunity for the

professionals to engage, reflect and change practice. Evidence that the *new knowledge* about using VoIP, as *interpreted* by the professionals, placed in the *context* of palliative care and *acted upon* in the second cycle (Quinlan 2009) it became easier for me to embrace the role of researcher. Because I came to the research with not only my own perspective and background but also a professional relationship with the nurses/doctors, the activity of personal reflexivity helped keep stay focussed on my role as researcher. Being focussed also increased my awareness of the need for empathy and reciprocity in the researcher-participant relationship (Newbury 2011). Revisiting data in the light of field notes (section 4.5.6) helped facilitate an openness and awareness of interactions (Lambert et al 2010). Additionally, I found the review of interview audio-recordings by academic supervisors helped protect both my own and the participants' integrity.

6.4 Unanswered questions

6.4.1 Clinical Governance

Within the Organisation and in health care generally there remains some controversy about use of Skype in relation to information governance (NHS Digital 2017; Health and Social Care Information Centre 2015). However Skype is just one example of Voice over Internet Protocol (VoIP) and is currently widely used in patient-professional consultations (Greenhalgh et al 2016; Australian Government 2014). Also, the principles of using Skype effectively and efficiently to improve clinical outcomes are transferrable to alternative VoIP systems.

Using a mixed methods approach, research with social workers investigating their use of technology acknowledged that technology was an enabler of good care. Whilst Skype, when used appropriately, offered flexibility in work practice and increased the opportunity for client contact it was acknowledged that guidance to inform practice in the best use of

Skype was needed (NHS Digital 2017).

There is a need for the NHS and other health care providers to investigate trial and agree on a robust VoIP system of hardware and software that meets the stringent clinical governance regulations.

6.4.2 Cost implications

Although the study did not include a cost analysis it is envisioned that in future VoIP initiatives consideration should be given to the financial ramifications for both patients and the Organisation. Costs include consultation and travel time, parking, travel expenses, convenience, IT hardware and software and professional training.

My Organisation is now planning telehealth initiatives and a Telehealth Coordinator has been newly appointed. Although influencing the inclusion of Telehealth initiatives in the Organisation's service provision this current study was a beginning and not an end in itself. Having established that the professional's skills, attitudes and behaviours can enhance the TA when using VoIP, the next step would be to explore how best VoIP can support patients/family members in accessing SPC services from a location of their choice (National Palliative and End of Life Care Partnership 2015). And also how to improve the delivery of palliative care on a background of increasing patient demand, a compromised workforce and staff recruitment and retention challenges (Department of Health 2016; Scottish Government 2015).

6.5 Final Summary

Using action research this current study investigated the strategies that could be used by health care professionals to enhance the therapeutic alliance with patients when using Voice over Internet protocol (VoIP). Patients and professionals working in palliative care participated in two cycles of research. Using Action Research, a variety of data collection

methods and thematic analysis the findings from the first action cycle were presented to the professionals in a focus group. The findings were then discussed and the professionals had the opportunity to use the strategies they identified to enhance the therapeutic alliance when using VoIP in the second action cycle. The findings from the second action cycle were presented to the professionals. In the second focus group the professionals had an opportunity to identify strategies that could further enhance the therapeutic alliance when using VoIP in palliative care.

It was found that a strong therapeutic alliance between patients and palliative care professionals can be established when using VoIP. Both patients and professionals also reported a positive VoIP experience. Patients identified professional skills, attitudes and behaviours that enhanced the therapeutic alliance when using VoIP (section 5.4). And from the discussion in the focus groups the professionals identified strategies that could be used in practice to strengthen the therapeutic alliance when using VoIP (Appendices 14/15). The findings allowed the professionals to link theory and practice enabling changes to both the individuals own practice and also the collective practice of the professional community (Kemmis et al 2014). It was recommended that professionals should complete a mandatory VoIP training package before using VoIP for consultations. Because some professionals showed a lack of awareness about the strength of the therapeutic alliance with individual patients, some further education about the importance of the TA in relation to clinical outcomes may be warranted.

In palliative care VoIP consultations could complement the current service provision for selected patients. The findings from this study can be generalised to other health care contexts. Although both patients and professionals valued the VoIP option for consultations there is a need to address the issues related to clinical governance.

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Appendix 1 – Invitation to participate (Professional)

Noreen Reid



Date:

Dear Sir/Madam

Study Title: An action research study to investigate the strategies that can be used by health care professionals, during video consultations with palliative care patients to enhance the therapeutic alliance.

I am a student enrolled in the Clinical Doctorate Programme at the University of Stirling and also work as a Specialist Nurse in the Hospice Service in [REDACTED]. As part of the requirement for this Programme of study I need to complete research related to my area of clinical practice.

I would be grateful if you would take the time to read the enclosed Study Information Sheet and consider participating in this study; if you think you fit the inclusion criteria and may like to participate in the study please contact me by email: n.reid@weld-hospice.org.uk, or telephone: [REDACTED], within one week of receiving this letter.

Once you make contact with me, we will discuss the study and if you are still willing to participate we will arrange to meet at a time of your convenience. During this meeting you will have an opportunity to ask any questions about the study or what is expected of you should you agree to participate.

Yours sincerely

Noreen Reid
Doctoral Student

n.reid@[REDACTED]



Appendix 2 – Study Information Sheet (professional)

Study Title: An action research study to investigate the strategies that can be used by health care professionals, during video consultations with palliative care patients to enhance the therapeutic alliance.

You are being invited to take part in a research study. Before you decide to participate it is important that you understand both why the research is being done, and also what it will involve for you. Please take the time to read the following information carefully. Take time to consider whether or not you wish to take part in the study. If it would be helpful to you, please feel free to talk to your colleagues or others about the study.

What is the purpose of the study?

Telephone, text messages, email, internet and video are being increasingly used for communication between health care professionals and patients. There is some thought that using video will be useful for patients who are too unwell to attend an outpatient clinic appointment, or for patients who live in remote and rural locations where travel to out-patient clinics can be both difficult and costly.

The study has two aims. The first aim is to explore the skills, attitudes and behaviours, used by nurses and doctors, to influence the therapeutic alliance during video (VoIP) consultations in palliative care. The second aim is to use an action research approach to work with the professionals to identify strategies that can contribute to the enhancement of the therapeutic alliance.

The study design is action research. An action research approach will give the project team an opportunity to plan interventions aimed at increasing the efficiency and effectiveness of video conferencing, then take action on these interventions, observe the results of these actions, evaluate the results, reflect on whether the interventions were successful in terms of efficiency and effectiveness and consider what other actions could further increase efficiency and effectiveness.

In healthcare action research is participatory, requiring cooperation between the researcher and participants, and is cyclic in nature. Each cycle includes planning, action, self-evaluation and reflection, sharing of ideas and identification of change interventions. This study will include two cycles of research over a sixteen month period.

This study is a student research project which is part of the requirements of a Clinical Doctorate Programme in Nursing at the University of Stirling. It is hoped that finding out about the therapeutic alliance during video consultations will contribute to improving access to health care services for patients who live in remote and rural locations.

Why have I been invited?

You have been invited because you and all other participants use the Hospice out-patient service. It is hoped that a total of 6 professionals and 12 patients will be recruited.



Do I have to take part?

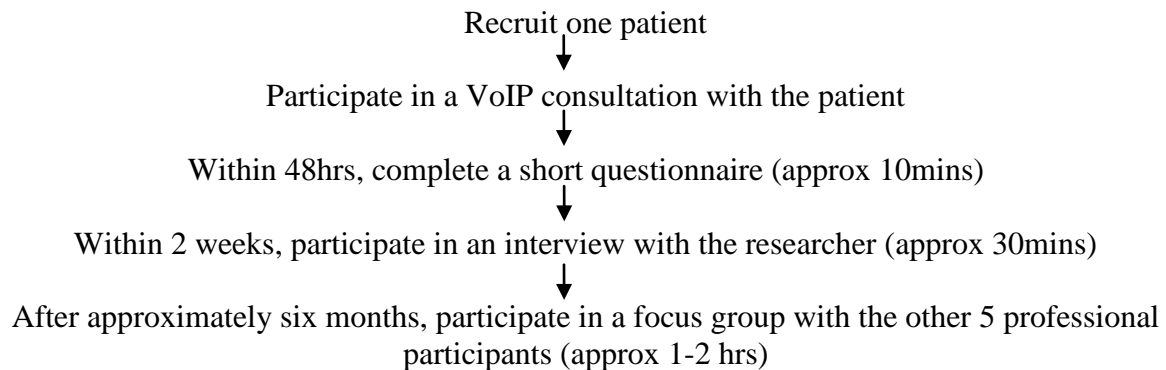
No. It is entirely up to you if you want to take part in the study. Your line manager will not be told if you have been approached and asked to participate in the study.

If you decide to take part, you can change your mind and withdraw at any time without giving a reason. If you decide that you do not want to take part in the study, or after commencing decide to withdraw from the study, these decisions will not affect your standing in the Organisation. You will continue to be part of the standard Hospice out-patient service.

What will happen to me if I agree to take part?

You will first need to contact the researcher by email or telephone. Please use the contact details provided in the enclosed letter. If you do not make contact the researcher will contact you, within one week of you receiving this information, to confirm that you do not want to participate.

If you do make contact, the researcher will phone you to discuss the study and arrange a convenient time to meet with you. During this meeting the study will be explained to you in more detail, and you will have an opportunity to ask questions. If you still want to be involved with the study, and fit the inclusion criteria, you will be asked to sign a consent form. You will be contacted by phone two days before the VoIP consultation is due to take place to make sure that you still want to participate. You will be asked to participate in 2 cycles of research, for each cycle you will be asked to:



Your total time commitment will be less than 3hrs over an eight month period.

During the recruitment process you will be asked to assess the patient against the patient inclusion criteria, in addition you will be asked to provide a brief description of the study to the patient that will include the information itemised at the end of this document.



During the focus group, which will be 1-2 hours duration, you will be asked to discuss the data that are presented and identify strategies that may contribute to the enhancement of the therapeutic alliance during VoIP consultations. You will also be asked to test the strategies in your next VoIP consultation. With your permission the consultation, interview and focus group will be audio-recorded and transcribed.

The diagram on page 6 of this document summarises your involvement in the study should you agree to take part.

What if I have any concerns?

If you have concerns about any aspect of the study or would like more information, please contact me directly by phoning [REDACTED] or email: n.reid@weld-hospice.org.uk. Or, you can contact Carol Bugge, the research supervisor by calling 01786 466109 or email: carol.bugge@stir.ac.uk. If you remain unhappy and wish to complain formally, you can do this by contacting The Independent Complaints Advisory Service (ICAS) on Ph: 08451203782 or emailing www.adviceguide.org.uk.

Will my involvement in the study be confidential?

Procedures for handling, processing, storage and destruction of the data will be compliant with the Data Protection Act (1998). As soon as you agree to participate in the study you will be given a unique identification number. If you are asked to participate in the study and decline the researcher will not share this information with anyone. Your line manager will not be told if you are approached and asked to participate in the study.

By participating in the focus groups your anonymity will be breached as the other participating nurses and doctors will be aware of your involvement. However, when the focus group members meet for the first time they will be asked to agree on the guidelines for participation, or ground rules. It is envisaged that confidentiality will be included in these ground rules.

If you agree to participate, all of the information collected relating to you will be referenced by your unique identification number and not your name. Only the researcher will have full access to all of the information. Any information that can identify you will be excluded from the typed copy of the audio recorded consultations, interviews and focus groups.

The digital audio recordings, transcripts from the audio-recordings and all documents related to analysis of the information collected will be stored on a password protected computer; the secure password will be known only to the researcher. Any paper documents relating to the study will be stored in a locked filing cabinet in a locked room. Data presented from this study will not identify the participants.



Contact Details

If you have any concerns or would like further information please contact me: Noreen Reid, n.reid@weld-hospice.org.uk or the research supervisor: Carol Bugge, phone 01786 466109 email: carol.bugge@stir.ac.uk.

What will happen to the results of the study?

During the focus groups data, related to all previous VoIP consultations, will be presented. However, no individual participant will be identified; collated data will be presented and when necessary, supported by anonymous examples from the data that demonstrate the point being made.

You will be asked if you would like a copy of the results of the study. The results will be available on completion of study and review of the information collected. The results of the study will be submitted as a thesis, as a requirement of the Clinical Doctorate in Nursing Programme at the University of Stirling. Although the results will also be presented at conferences or published in academic journals, there will be no information which will allow individual nurses or doctors to be identified. Participation in the focus groups is the only point in the study where participants' anonymity is breached.

Who is organising and funding the research?

I am organising the research but will be supported by the research supervisors from the University of Stirling; the Hospice supports the research proposal. There is no funding for this study; neither the researcher, the Hospice nor the University of Stirling will receive any money for their participation in this research.

Who has reviewed the study?

This study was approved by the Stirling University School of Nursing Midwifery and Health Ethics Committee, the NRES Committee East Midlands – Nottingham 2 and the NHS Dorset Primary Care Trust Research and Development Committee.

Thank you for taking the time to read this information sheet and considering taking part in the research study.

If you would like more general information about research please contact william.lauder@stir.ac.uk

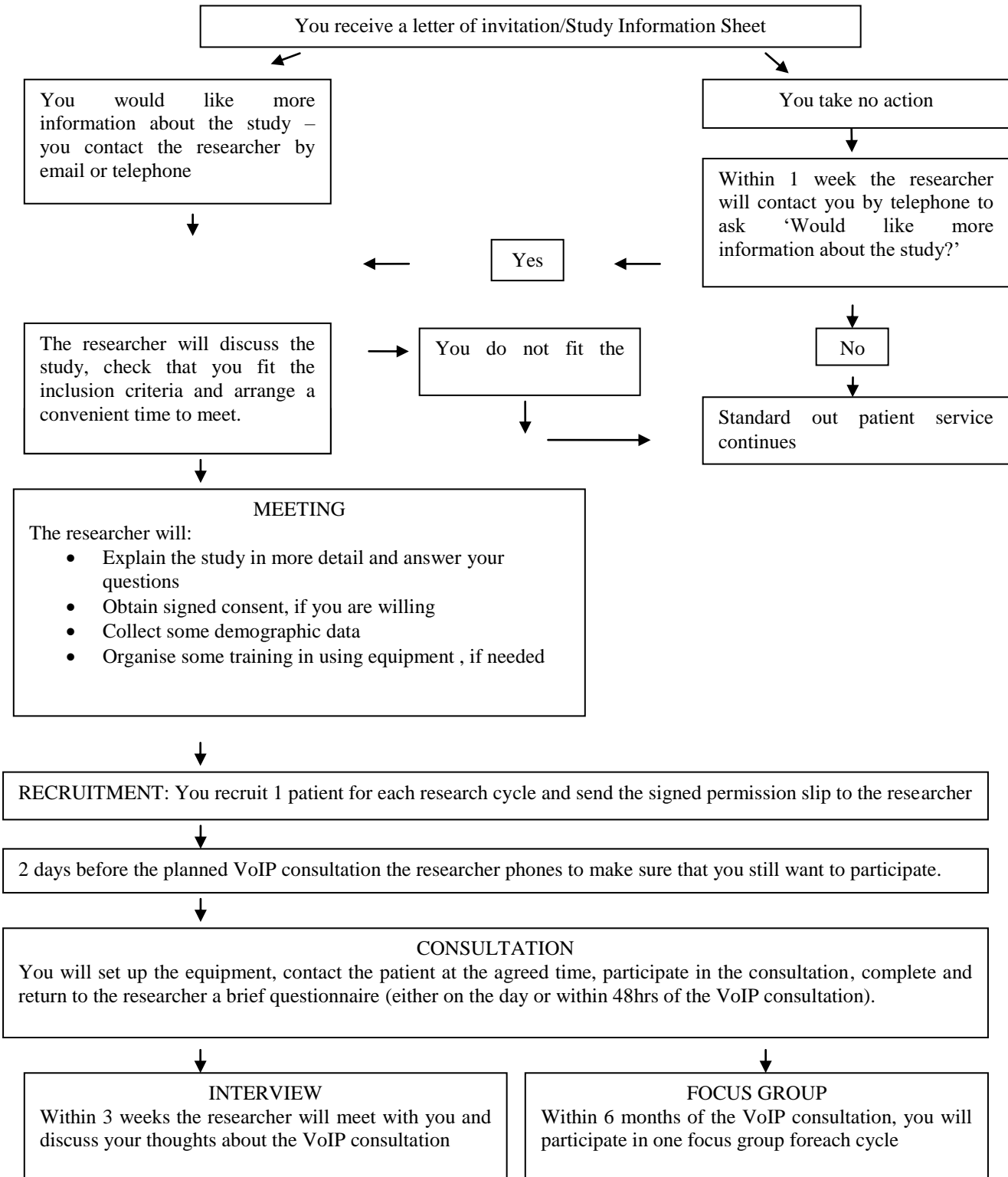


Brief explanation of the study to the patient (at time of recruitment)

- If you do not want to participate in the research then your relationship with both me and the Hospice will not change.
- To participate in the study you do not need any computer knowledge or skills.
- You will be asked to participate in only one video consultation. Once you complete the video consultation you will resume the routine face-to face consultations.
- The video consultation will take place in your nearest Hospice consultation room using a Hospice computer.
- The researcher will set up the equipment and then leave the room during the consultation.
- The researcher will ask permission to audio-record the consultation.
- You will be asked to complete a short questionnaire (approx 10mins) and then, or at a later date, participate in a short interview with the researcher (approx 30mins).



What will happen if you take part in the study?





Appendix 3 – Invitation to participate (patient)

Noreen Reid



Date:

Dear Sir/Madam

I am undertaking a Clinical Doctorate in Nursing at the University of Stirling and am also employed as a nurse by [redacted]. As part of my study I need to complete research related to a specific area of interest.

The nurse/doctor has given you a brief explanation of the study and if you think you may like to take part, they will ask you to sign the tear off section at the bottom of this letter and this section will then be returned to me.

Once I receive your contact details, within 48hrs I will telephone you to arrange a convenient time to visit you in your home. During this visit I will give you a full explanation about the study and will give you an opportunity to ask any questions.

Whilst awaiting this phone call, I would be grateful if you would take the time to read the enclosed Study Information Sheet and consider being part of this study.

Yours sincerely

Noreen Reid



Full Name: _____

Address: _____

Telephone number(s): _____

I agree to the researcher contacting me to discuss the study further and allow me to ask any questions that I may have related to the study.

Please sign here: _____



Appendix 4 - Study Information Sheet (patient)

Study Title: An action research study to investigate the strategies that can be used by health care professionals, during video consultations with palliative care patients to enhance the therapeutic alliance.

You are being invited to take part in a research study. Before you decide to participate it is important that you understand why the research is being done, and what it will involve for you. Please take the time to read the following information carefully. If it would be helpful to you, please feel free to talk to your family or others about the study. It is important that you take time to consider whether or not you wish to take part.

What is the purpose of the study?

There is some thought that using video, instead of face-to-face consultations will be useful for some patients. Perhaps those who are too unwell to attend an outpatient clinic appointment, or for patients who live in remote and rural locations where travel to out-patient clinics can be both difficult and costly.

The aim of the study is help nurses and doctors to identify what skills they need to build a rapport with patients during video consultations.

This study is a student research project which is part of a doctoral study programme at the University of Stirling. I hope that finding out about how nurses and doctors interact with patients during video consultations will contribute to the training programmes offered to nurses and doctors working in palliative care.

Why have I been invited?

You have been invited because you already attend the Hospice out-patient clinic or have been visited in your own home by a member of the palliative care team. You have been identified by the Hospice nurse/doctor as being appropriate to be included in the study. It is hoped that in total twelve patients and six professionals will be involved with the study. Each patient will take part in only one video consultation and then the normal face to face service will resume.

Do I have to take part?

No. It is entirely up to you if you want to take part in the study. If you decide to take part, you can change your mind and withdraw at any time without giving a reason. If you decide that you do not want to take part in the study, or decide to withdraw from the study, these decisions will not affect the standard of care that you receive. You will continue to be part of the standard Hospice Service.



What will happen to me if I agree to take part?

You have already given permission for your nurse or doctor to give me your contact details. I will wait for 48hrs before contacting you by phone. This time lapse will give to time to discuss the study with your family and others. If when we talk you would like to know more then I will arrange a convenient time to visit you at home.

During the home visit I will explain the study in more detail and you will have an opportunity to ask questions. If you still want to be involved with the study, you will be asked to sign a consent form. A date, time and location will be arranged for the video consultation between you and your Hospice nurse/doctor; if needed, transport to and from the consultation will also be organised. You will be contacted by phone 2 days before the video consultation is due to take place to make sure that you still want to participate.

On the day of the video consultation, I will set up the computer in the clinic room. At the designated time the nurse/doctor will make contact with you via the computer. I will then leave the room.

With your permission, the consultation between you and your nurse/doctor will be audio-recorded. The audio recording will be typed up by an administration assistant. At the end of the consultation I will disconnect the equipment. You will then be asked to complete a questionnaire. The questionnaire should take 10-15mins to complete. If you don't feel well enough to complete the questionnaire at this time, you will be asked to complete the questionnaire within 48hrs and then return it to me in a stamped addressed envelope.

At the end of the video consultation or within three weeks, with your permission, I will arrange to visit you at home to discuss your thoughts about using the video. This interview will be audio recorded and will take approximately 30 minutes to complete. Any information that you share about the consultation will not be shared with your nurse/doctor. The diagram on page 4 of this document summarises your involvement in the study should you agree to take part.

What if I have any concerns?

If you have concerns about any aspect of the study or would like more information, please contact me directly by phoning [REDACTED] or email: n.reid@weld-hospice.org.uk. Or, you can contact Carol Bugge, the research supervisor by calling 01786 466109 or email: carol.bugge@stir.ac.uk. If you remain unhappy and wish to complain formally, you can do this by contacting The Independent Complaints Advisory Service (ICAS), this organisation can be contacted by phoning 08451203782 or emailing www.adviceguide.org.uk.

Will my involvement in the study be confidential?

As part of the study the six nurses/doctors will meet to discuss their experience of the video consultation. During this meeting the researcher will present some of the information collected during the video consultations, however, no individual patient or nurse/doctor will be identified.



Procedures for handling, processing, storage and destruction of the data will be compliant with the Data Protection Act (1998). If you are asked to participate in the study and decline your nurse/doctor will not share this information with anyone. At the end of the study, the nurses/doctors will be asked to tell the researcher the total number of patients who declined to participate in the study; no individual patients will be identified.

If you agree to participate, all of the information collected relating to you will be referenced by a unique identification number and not your name. Only the researcher will have full access to all of the information. Any information that can identify you will be excluded from the typed copy of the audio recorded consultation, and interview.

The digital audio recordings, transcripts from the audio-recordings and all documents related to analysis of the information collected will be stored on a computer in the Hospice. Only the researcher and the research supervisors will have access to the secure password to access the computer files. Any paper documents relating to the study will be stored in a locked filing cabinet in a locked office in the Hospice. Any data presented from this study will not identify the participants.

Contact Details

If you have any concerns or would like further information please contact the researcher:

n.reid@weld-hospice.org.uk or the research supervisor: Carol Bugge, phone 01786 466109 or email: carol.bugge@stir.ac.uk.

What will happen to the results of the study?

The results will be available on completion of study and review of the information collected. Although the results will be presented at conferences or published in nursing and medical journals, there will be no information which will allow individual patients to be identified.

Who is organising and funding the research?

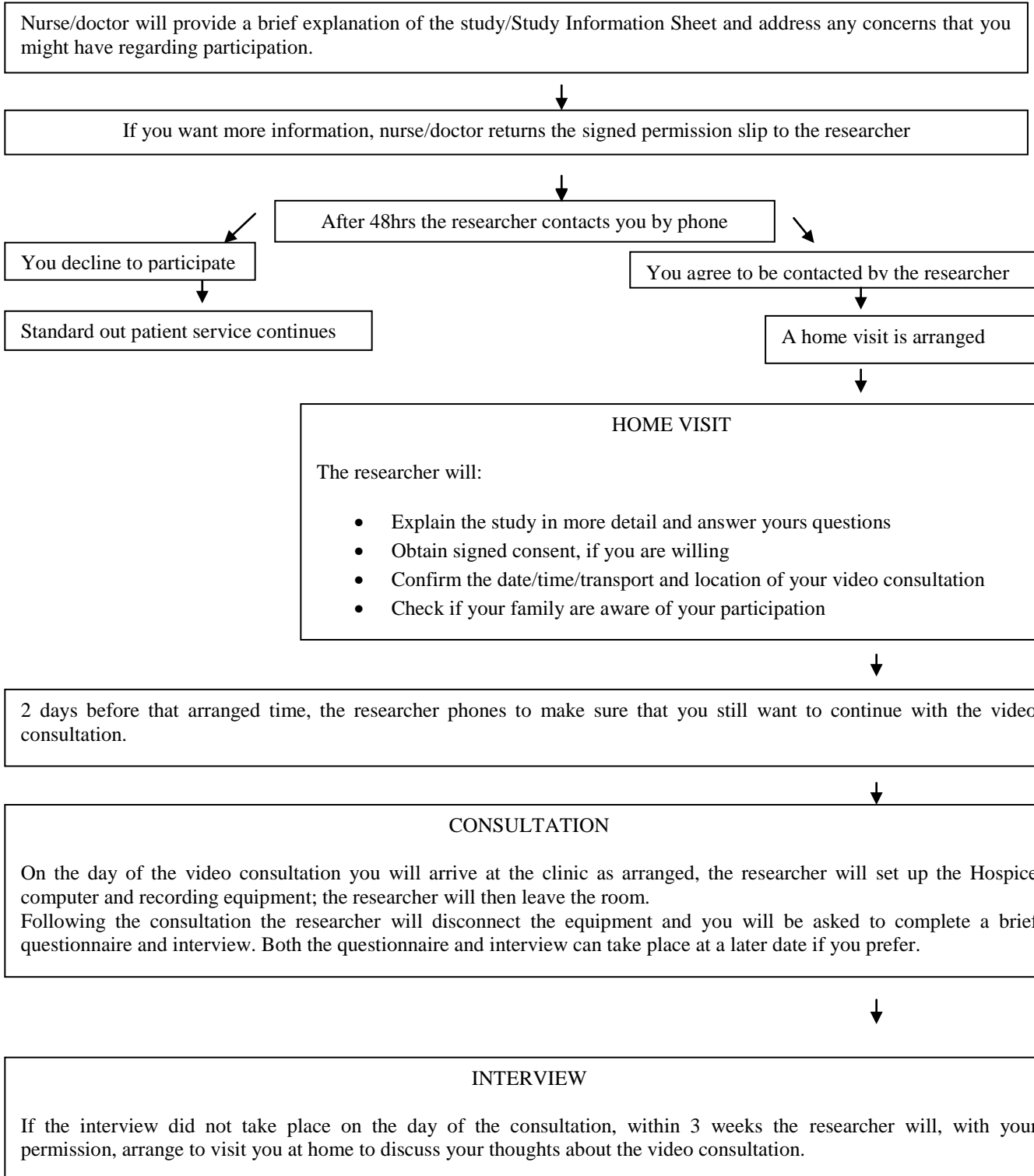
I am organising the research and am supported by the research supervisors from the University of Stirling; the Hospice supports the research proposal. There is no funding for this study; neither the researcher, the Hospice nor the University will receive any money for their participation in this research.

Who has reviewed the study?

This study was approved by the Stirling University School of Nursing Midwifery and Health Ethics Committee the NRES Committee East Midlands – Nottingham 2 and the NHS Dorset Primary Care Trust Research and Development Committee. **Thank you for taking the time to read this information sheet and considering taking part in the research study. If you would like more general information about research please contact william.lauder@stir.ac.uk**



What will happen if you take part in the study?





Appendix 5 - Consent Form (Health Care Professional)

Unique Health Care Professional Identification Number:

Study Title: An action research study to investigate the strategies that can be used by health care professionals, during video consultations with palliative care patients to enhance the therapeutic alliance.

Name of the Researcher: Noreen Reid

Please initial the boxes below

- 1. I confirm that I have read and understood the Participant Information Sheet for the above study (Version 1; April 2013). []
2. I have been given the opportunity to consider the information, ask questions and I have had these questions answered satisfactorily. []
3. I understand that my participation is voluntary and that I am free to withdraw from the study at any time, without giving any reason, without my employment rights being affected. []
4. I understand that data collected during the study will be analysed by the researcher. []
5. I understand that the VoIP consultation, interview and focus groups will be audio recorded. []
6. I understand that only the researcher will be able to identify the individual participants, but I give my permission for anonymous data to be shared with other health care professionals involved with this study. []
7. I agree to keep confidential any information related to the patients I approach to be involved with this study. []
8. I agree to take part in the above study. []

Name of health care professional Date Signature

Name of researcher Date Signature

When completed: original copy in research records; one copy for the health care professional.



Appendix 6 - Consent Form (Patient)

Unique Patient Identification Number:

Study Title: An action research study to investigate the strategies that can be used by health care professionals, during video consultations with palliative care patients to enhance the therapeutic alliance.

Name of the Researcher: Noreen Reid

Please initial the boxes below

- 1. I confirm that I have read and understood the Participant Information Sheet for the above study. (Version 1; April 2013). []
2. I have been given the opportunity to consider the information, ask questions and I have had these questions answered satisfactorily. []
3. I understand that my participation is voluntary and that I am free to withdraw from the study at any time, without giving any reason, without my medical care or legal rights being affected. []
4. I understand that an audio recording will be made of my video consultation. []
5. I understand that an audio recording will be made of my interview. []
6. I understand that only the researcher will be able to identify the individual participant, but I give permission for anonymous data to be shared with other health care professionals involved with this study. []
7. I agree to take part in the above study. []

Name of patient Date Signature

Name of researcher Date Signature

When completed: original copy in medical notes; one copy for the patient; one copy for the researcher records.



Appendix 7a – Demographic Data Sheet (professional)

Data to be collected by the researcher during the first meeting with the nurse/doctor to explain the study and ask consent:

Date of data collection	
Unique Identification Number	
Age	20-30yrs 31-40yrs 41-50yrs 51-60yrs 61-70yrs 71-80yrs Over 80yrs
Gender	Male Female
Job Title	
Date and Provider of most recent communication skills training	
Previous experience with VoIP	Personal Professional Description:

Data to be collected by the researcher after the VoIP consultation:

Post code of locations during VoIP	
Number of previous consultations with the same patient	



Appendix 7b – Demographic Data Sheet (patient)

Data to be collected by the researcher during the first meeting with the patient to explain the study and ask for consent:

Unique Identification Number	
Age	18-20yrs 21-30yrs 31-40yrs 41-50yrs 51-60yrs 61-70yrs 71-80yrs Over 80yrs
Post code of proposed location during VoIP consultation	
Previous experience with VoIP	Personal Professional Description:



**Appendix 8a - Working Alliance Inventory Short Form (Client)
Instructions**

On the following pages there are sentences that describe some of the different ways a person might think or feel about his or her therapist (counsellor). As you read the sentences mentally insert the name of your therapist (counsellor) in place of _____ in the text.

Below each statement inside there is a seven point scale:

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

If the statement describes the way you always feel (or think) circle the number 7; if it never applies to you circle the number 1. Use the numbers in between to describe the variations between these extremes.

This questionnaire is CONFIDENTIAL; neither your therapist nor the agency will see your answers.

Work fast, your first impressions are the ones we would like to see. (PLEASE DON'T FORGET TO RESPOND TO EVERY ITEM.)

Thank you for your cooperation.

© A. O. Horvath, 1981, 1982; Revision Tracey &Kokotowitc 1989.



1. _____ and I agree about the things I will need to do in therapy to help improve my situation.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

2. What I am doing in therapy gives me new ways of looking at my problem.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

3. I believe _____ likes me.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

4. _____ does not understand what I am trying to accomplish in therapy.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

5. I am confident in _____'s ability to help me.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

6. _____ and I are working towards mutually agreed upon goals.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

7. I feel that _____ appreciates me.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

8. We agree on what is important for me to work on.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

9. _____ and I trust one another.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

10. _____ and I have different ideas on what my problems are.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

11. We have established a good understanding of the kind of changes that would be good for me.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

12. I believe the way we are working with my problem is correct.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always



Appendix 8b - Working Alliance Inventory Short Form (Therapist)

Instructions

On the following pages there are sentences that describe some of the different ways a person might think or feel about his or her client. As you read the sentences mentally insert the name of your client in place of _____ in the text.

Below each statement inside there is a seven point scale:

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

If the statement describes the way you *always* feel (or think) circle the number 7; if it *never* applies to you circle the number 1.

Use the numbers in between to describe the variations between these extremes.

This questionnaire is **CONFIDENTIAL**; neither your therapist nor the agency will see your answers.

Work fast, your first impressions are the ones we would like to see.
(PLEASE DON'T FORGET TO RESPOND TO *EVERY ITEM*.)

Thank you for your cooperation.



1. _____ and I agree about the steps to be taken to improve his/her situation.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	
2. My client and I both feel confident about the usefulness of our current activity in therapy.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	
3. I believe _____ likes me.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	
4. I have doubts about what we are trying to accomplish in therapy.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	
5. I am confident in my ability to help _____.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	
6. We are working towards mutually agreed upon goals.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	
7. I appreciate _____ as a person.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	
8. We agree on what is important for _____ to work on.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	
9. _____ and I have built a mutual trust.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	
10. _____ and I have different ideas on what his/her real problems are.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	
11. We have established a good understanding between us of the kind of changes that would be good for _____.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	
12. _____ believes the way we are working with her/his problem is correct.							
1	2	3	4	5	6	7	
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always	



Appendix 8c -Scoring key for the WAI Short form (C)

Task scale items:	1,	2,	8,	12.
Direction* of scoring:	+	+	+	+

Bond scale items:	3,	5,	7,	9.
Direction* of scoring:	+	+	+	+

Goal scale items:	4,	6,	10,	11.
Direction* of scoring:	-	+	-	+

* High values are positive (+); otherwise (-) reverse scoring.



Appendix 9 – Interview Protocol (professional)

Introduction: Thank you for agreeing to participate in this interview. The interview should take about 30minutes to complete and with your permission, the interview will be audio-recorded. I am going to ask you questions about your therapeutic alliance with the patient during the SKYPE consultation. I just want to remind you that you can stop the interview at any time without giving a reason. Ice-breaker: Have you ever taken part in a recorded interview before? (for first interview)

1. During the video consultation is there anything that you think:

Went well?

Went badly?

2. How did you feel about using the video equipment?

Prompt: Was there any specific issues with the equipment that hindered the interaction with the patient?

3. How did you feel about communicating with the patient using video?

4. How did you think the patient felt about using video?

Prompt: Tell me anything that you said or did to help relax the patient?

5. How do you feel about the way the patient interacted with you during the consultation?

Prompts: How did that show the patient that you genuinely cared about how they were feeling?

Can you tell me anything that you said or did to show empathy to the patient?

6. Did the patient do or say anything that made you think that they believed that you understood what they were saying about their illness experience?

Prompt: Can you give me any examples of when you used the skills of reflection or clarification?

7. How did you bring the consultation to an end?

Prompt: How did you ascertain that the patient agreed with the outcomes of the consultation?

8. Did the patient do or say anything that made you think that they bonded with you during the consultation?

Probe: Can you tell me any words spoken by the patient or any behaviours demonstrated by the patient that made you think there was a good rapport between you both?

9. How would you feel about using video instead of face to face consultations in the future?

Conclusion: I have now finished asking the interview questions. Is there anything that you would like to ask me?

Thank you for taking the time to answer my questions.



Appendix 10a – Interview Protocol (patient)

Introduction: Thank you for agreeing to participate in this interview. The interview should take about 30 minutes to complete and with your permission, the interview will be audio-recorded. The purpose of this interview is to gather your thoughts and feelings about using the SKYPE to communicate with your nurse/doctor. I just want to remind you that you can stop the interview at any time without giving a reason.

Ice-breaker: Have you ever taken part in a recorded interview before?

1. How did you feel about talking with the nurse/doctor during the video consultation?

Prompt: Was there anything that you particularly liked about using video?

Was there anything about video that made the consultation difficult for you?

2. How did you feel about the way the nurse/doctor treated you during the consultation?

Prompt: Did the nurse/doctor:

Do or say anything to relax you?

Do or say anything that made you feel uneasy?

3. What do you think about the nurse/doctor's communication skills when using video?

Prompt: Can you think of anything the nurse/doctor said or did that made you feel

that they were really listening to you?

Prompt: Was there any point when you thought that the nurse/doctor was not really listening to you?

4. How would you feel about using video instead of face to face consultations in the future?

Conclusion: I have now finished asking the interview questions. Is there anything that you would like to ask me?

Thank you for taking the time to answer my questions.



Appendix 10b – Interview Protocol (patient 2nd cycle)

Introduction: Thank you for agreeing to participate in this interview. The interview should take about 30 minutes to complete and with your permission, the interview will be audio-recorded. The purpose of this interview is to gather your thoughts and feelings about using the SKYPE to communicate with your nurse/doctor. I just want to remind you that you can stop the interview at any time without giving a reason.

Ice-breaker: Have you ever taken part in a recorded interview before?

How did you feel about talking with the nurse/doctor during the video consultation?

Or

Was this experience different in any way from your first SKYPE consultation?

Prompt: Was there anything that you particularly liked about using video?

Was there anything about video that made the consultation difficult for you?

Do you have any comment to make about how the nurse/doctor made you feel during the consultation?

Prompt: Did the nurse/doctor:

Do or say anything to relax you?

Do or say anything that made you feel uneasy?

What do you think about the nurse/doctor's communication skills when using video?

Prompt: Can you think of anything the nurse/doctor said or did that made you feel that they were really listening to you?

Prompt: Was there any point when you thought that the nurse/doctor was not really listening to you?

Do you have any thoughts about the preparation about your case that the nurse/doctor had done prior to the consultation?

Prompt: Did the nurse/doctor seem to know about your case?

Do you think that the nurse/doctor read your casenotes before coming into the consultation?

How did you feel about the timing of the conversation?

Prompt: Did it seem too fast?too slow?

Prompt: Did the timing feel any different from when you have a face to face consultation?

Given that the computer has a webcam and screen, do you have any thoughts about the way the nurse/doctor was looking at you during the consultation?

Prompt: Did the nurse/doctor appear to be looking directly at you?

Prompt: Did seem that the nurse/doctor had any eye contact with you during the consultation?

How would you feel about using video instead of face to face consultations in the future?

Conclusion: I have now finished asking the interview questions. Is there anything that you would like to ask me?

Thank you for taking the time to answer my questions.



Appendix 11 - Focus Group Format

At the start of the first meeting the participants will be reminded that they can withdraw from the focus group or the research project at any time without giving a reason. In addition, the participants will be encouraged to define and agree to abide by a set of ground rules for the group; the group will be encouraged to include group etiquette and confidentiality.

At the start of every meeting the ground rules will be revisited and the participants will be reminded that the purpose of the meeting is two-fold:

- To engage in critical reflection about the groups' skills/attitudes /behaviours that affected the therapeutic alliance during the VoIP consultations as evidenced by the analysis.
- To discuss their collective experience of the consultations and generate change interventions, strategies that can be carried forward and tested in subsequent VoIP consultations.

The role of the researcher in facilitating each focus group is as follows:

Data presentation

The researcher will:

- Use overheads or a powerpoint presentation and handouts to present the analysis of the data.
- Whilst maintaining anonymity, will cite specific examples from the analysis that demonstrate skills/attitudes/behaviours that potentially effected the therapeutic alliance, as evidenced by the analysis.

Generation of new ideas

By using open ended questions, reflection, clarification, paraphrasing and attentive listening the researcher will encourage the participants to engage in discussion about the evidence presented. During the discussion the participants will have an opportunity to add depth to their understanding of the skills/attitudes/behaviours that could potentially contribute to the enhancement of the therapeutic alliance.

By exploring their own individual experience of the consultation and listening to their colleagues' experiences, the group will be encouraged to generate ideas and strategies that contribute to the enhancement of the alliance in relation to the professionals' use of skills, attitudes and behaviours. The researcher will encourage the group members to take forward and test the strategies in their second VoIP consultation.

Closure of Meeting

The researcher will:

- Thank the professionals for their attendance and participation at the focus group. And confirm the date and time of the next meeting.
- Tell the participants that within 1 week they will receive a summary of the agreed strategies.
- Remind the participants of the association between positive therapeutic alliance and positive treatment outcomes, and also, their commitment to test the strategies during their next VoIP consultation.



Appendix 12a – Interaction Analysis Proforma (1 of 2)

Communication Behaviour	Example
<p>Biomedical topics Information on medical condition Information on treatment and procedures Counseling re condition and therapeutic regimen</p>	<p>It's important for you to know and think about where you are physically and exactly what would be done for you to keep you going if you couldn't make a decision</p>
<p>Psychosocial topics Lifestyle issues Problems with daily living Social relations Feelings and emotions Responds to discomfort</p>	<p>This is a good time to think about the future. It's often easier to talk through tough decisions when there isn't a crisis</p>
<p>Data gathering Open-ended questions <ul style="list-style-type: none"> • Medical condition • Therapeutic regimen • Psychosocial and lifestyle Close-ended questions <ul style="list-style-type: none"> • Medical condition • Therapeutic regimen • Psychosocial and lifestyle </p>	<p>What do you know about your medical condition? Why wouldn't you want to be on a ventilator? How did you feel when your mother died? If your cancer was at a terminal stage would you want to receive nutrition? Did your husband have a living will? When would the document take effect? (patient question)</p>
<p>Orientation Directions/instructions re medical care process</p>	<p>I'd like to spend some time today talking about making a plan for yourself, for what you would like.</p>
<p>Social talk Nonmedical chat</p>	<p>It is so nice that the weather is finally getting better, nice to see the sunshine after all that rain.</p>
<p>Positive talk Agreements, approvals, compliments, jokes, laughter Be non-judgemental and supportive rather than disapproving</p>	<p>Yes, I think you're right. You're doing a great job on getting things organised. 'I'm not quite sure that I understand what you are saying can you just explain that to me again?</p>
<p>Negative talk Disagreements, disapprovals, criticisms, corrections</p>	<p>No, you wouldn't want that. I didn't say always, I said most of the time.</p>
<p>Responding to emotions Concern, reassurance, empathy, legitimisation, partnering</p>	<p>I am worried about how you would manage I want you to know that I will try to make sure that you have no pain. You sound like you are feeling overwhelmed Anyone would feel confused in these circumstances We'll work through this together</p>



Appendix 12a – Interaction Analysis Proforma (2 of 2)

<p>Partnership building Asking the patient’s opinion, patient understanding and paraphrase, reflection, clarification. Demonstrates friendliness, sincerity, interest, patience. Adopts a patient centred approach as opposed to disease focused. Do not assume a dominant role</p>	<p>What do you think is going on? Let me make sure that I’ve got this right – you said as long as the pain is not too bad Can you tell me if there is anything I can help you with today?</p>
--	---

Discussion Task	Specific Items
Opens the discussion	
Probes and elicits patient’s plan	Physician asks for patient’s preferences using general scenario Physician asks for patient’s preferences using specific scenario Patients gives general assessment of wishes Patient gives a specific plan
Probes for and elicits patient’s values and experiences.	Physician asks explicitly for values, beliefs, emotions related to end-of life Probes for quality of life conditions, preferred place of care Probes for patient’s experiences Patient discloses values, beliefs, emotions related to end-of life Patient discloses quality of life conditions Patient discloses own experiences Patient expresses concerns/worries about family, financial and related considerations
Provides support for the decision-making process	Physician addresses patient autonomy issues Physician depicts the planning process as helpful
Ends the discussion	Clarifies and summarises discussion; arranges follow up Checks patient’s understanding Elicits additional questions, concerns or related issues

Adapted from: Roter D. Larson S. Fischer G. Arnold R. Tulsy J. (2000) Experts Practice What They Preach. A Descriptive Study of Best and Normative Practices in End-of-Life Discussions *Archives of Internal Medicine*. 160(22): 3477-3485.

Additional references: Dunphy 2011; Kissane 2010; Smith et al 2009; Schmid et al 2008; Wakefield et al 2008; Laidlaw et al 2007; Ferguson 2006; Demiris et al 2005; Preston 2005; Wakefield et al 2004; Richardson 2002; Roter 2000; Little et al 2001; Roter et al 1995; Faulkner and Macguire 1994; Maguire et al 1986; Mishler 1984.



Appendix 12b – Technical Categories Sheet

Modified Categories	Examples
Empathy-TECH	‘You seem comfortable meeting over video’
Shows concern or worry-TECH	‘I’m a little self-conscious using the video’ ‘I know it’s not easy speaking about something so distressing over the video’
Reassures, encourages, shows optimism – TECH Legitimises-TECH	‘Don’t worry no one else can see you over the video’ ‘Just take your time’ ‘ It’s natural to be uncomfortable the first time you see a (professional) this way’
Asks for reassurance-TECH	‘Will they be able to see me on the video monitor’
Partnership building-TECH	‘Let’s try to schedule another time when we can meet again over video’
Gives orientation instructions-TECH Paraphrasing-TECH	‘Look toward the camera please’ ‘I think (the professional) meant for you to sit in front of the computer screen’
Bid for repetition-TECH	‘Say it again I couldn’t hear over the computer microphone’
Asks questions(closed)-TECH	‘How far away should I stand from the camera?’
Asks questions (open)-TECH	‘Are you having trouble seeing me on the computer screen?’
Gives information-TECH	‘I’ve had three video consultations before this one’
Counsels or directs-TECH	‘I would like to check in once a month using video’
Response to and management of interruptions	

Adapted from: Nelson E. Miller E. Larson K. (2010) Reliability associated with the Roter Interaction Analysis System (RIAS) adapted for the telemedicine context. *Patient Education and Counseling*. 78(1); 72-78. Additional Reference: Ferguson 2006.



Appendix 13 - Letter to Bereaved Relatives

Noreen Reid



Date:

Dear

I would like to start by offering my condolences on the death of...recipient's relationship to the deceased..... As you know....patient's name....had kindly agreed to take part in a research project that I am organising as part of the requirements of the Clinical Doctorate Programme at the University of Stirling, Department of Nursing and Midwifery.

I only metpatient's name.....on....number of contacts.....but I was.....personalised comment about the patient eg 'interesting man; so keen to help with the research; full of fun.....As nurses and doctors working in palliative care it is so important to us that we give the very best of treatment to the patients we meet, and research helps us to achieve that goal. By agreeing to participate in this research project.....name of patient.....has helped us gain information that will hopefully enable us to improve our practice.

I would be grateful if you would receive my thanks on behalf of recipient's relationship to the deceased.....

Kind Regards

Noreen Reid
Lead Clinical Nurse Specialist



n.reid@weld-hospice.org.uk

**TIMELINE FOR THE
FIRST CYCLE OF
RESEARCH**

Staff recruitment

- * Oct - Dec 2013

Patient recruitment and consultations

- * Nov 2013 - July 2014

Transcribing and preliminary analysis

- * Nov 2013 - July 2014

Focusgroup

- * October 2014

Feedback to staff

- * December 2014

**FOCUS GROUP
PARTICIPANTS**

- * Six staff members recruited to the research
- * One person completed the consultation but retired before the date of the focus group
- * Five staff members expected to attend the group
- * Due to unforeseen circumstances, 4 staff members attended

The Collective Experience

F O C U S G R O U P O C T O B E R 2 0 1 4

It is with thanks.....

The first cycle of research is now completed and I would like to take this opportunity to thank you all for your contribution. Recruitment of subjects normally presents a big challenge for any researcher but because of your enthusiasm for the subject matter, for this project, recruitment was not an onerous task. However, as with any research involving clinicians, I appreciate that finding the time and opportunity to interrupt your clinical workload has been problematic for some of you. So again, just to say I am grateful for your efforts.



This action research project has provided you with an opportunity for self-reflection and growth. Your input throughout the consultations, interviews with the researcher and the focus group has been fundamental to the research process; with action research the project takes shape as new knowledge emerges, and you are playing a key role in contributing to the generation of new knowledge.

The focus group

The focus group provided a forum for discussion about the analysis and facilitated the generation of new ideas. Several strategies emerged from the discussion about your collective experience of the SKYPE consultations. The strategies can be separated into three categories: practical, behavioural and contextual. Each of you can decide which strategies would be appropriate to include in your next SKYPE consultation in an attempt to make the consultation a more positive experience for both you and the patient.



Strategies

Practical

Computers should be equipped with built in audio - no headphones. Separate private rooms for staff and patients. Read patient's notes

prior to the consultation. Do not minimise the image of the patient on the screen during the consultation.

Look at the patient's image on the screen rather than the webcam.

To share a document, the patient can be asked to email the document to the staff member in advance, provide the website reference, or hold the document up to the screen for the staff member to see.

Behavioural

Use the same communication skills that you would

use during a face to face consultation.

Try to be your usual spontaneous self, ignore the webcam.

As with face to face consultations, respond to cues from the patient to engage in 'sensitive' conversations.

Do not rush the consultation, take as much time as you need to explore the needs of the individual

patient.

Contextual

Some patient's may feel less 'vulnerable' when compared to face to face consultations, and as such the patient may feel more able to explore 'sensitive' subject matters.

Try to 'normalise' the consultation, transfer the skills you would use when using SKYPE socially.

Do not exclude patients because of a

specific symptom/diagnosis (with the exception of significant cognitive impairment).

Respond to a patient's distress as you would in a face to face consultation.

If appropriate, and using your clinical judgment in regard to the vulnerability of the individual patient, carry out the components of a physical examination feasible on SKYPE eg ask the patient to: point to an area of pain; reposition themselves to enable you to see a rash/pressure sore.

The second cycle....

Proposed timeline

Patient recruitment and consultations

- January-March 2015

Transcribing and preliminary analysis

- January - April 2015

Focus group

- * May 2015

Feedback to staff

- June 2015

Your input to the research is almost finished, the end is within sight.

The plan is for you to recruit your second and final patient as soon as possible. As we know from the first cycle patients were more than happy to consent to participate, so hopefully the same will be true for the second cycle.

As soon as you identify a patient who lives at home, fits the eligibility criteria and agrees to participate just let Noreen know and she will contact the patient to discuss the research and ask for written consent.

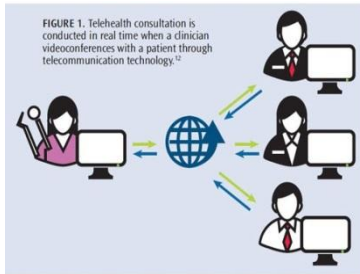
Remember that patients can attend any Weldmar office for their SKYPE consultation, located in North, Central or South areas.

Thank you for your time and effort.

Appendix 15 – Newsletter 2

Focus Group May 2015

The transcript of the second and final focus group is now completed and analysis continues. Thank you all for persevering and contributing to the research. We appreciate that it has been difficult to find time away from your clinical work. However, your input and the outcomes of this research will help shape the Organisation's strategic plans for the use of telemedicine.



In total 6 staff members and 11 patients participated in the research. All 6 patients reported a positive SKYPE experience and would be more than happy to engage in future consultations using SKYPE.

Some staff members are keen to have the opportunity to use SKYPE for future consultations, whilst other staff members, although acknowledging the usefulness of SKYPE, are a little less enthusiastic about using SKYPE routinely in their practice.

In all SKYPE consultations there was a positive therapeutic alliance. Some of the strategies to enhance the therapeutic alliance were incorporated into the second cycle of consultations.

Strategies from the final focus group

There are Information Governance issues with the use of SKYPE; SKYPE is just one example of a Voice over Internet Protocol (VoIP); alternative VoIP that will meet the requirements of Information Governance are available.

Practice with VoIP will increase the confidence of staff members.

VoIP would be a useful addition to our current practice. eg to triage patients who live some distance away to ascertain if a home visit is necessary or to replace home visits for routine contact with stable community patients or carers.

The use of VoIP should be promoted within the organisation.

With the exception of patients with cognitive impairment or those requiring a physical examination, patients should be given the opportunity to use VoIP.

Looking to the future...

The Directors have agreed that Telemedicine initiatives should be included in the Trust's strategic plan.

The researcher to design a VoIP self-directed learning package for staff members and carers.

The Doctorate thesis should be submitted before September 2016.

Appendix 16 – WAI Correspondence



SIMON FRASER UNIVERSITY
THINKING OF THE WORLD

Ms Noreen Reid
University of Stirling/Weldmar Hospice Care Trust
Nursing and Midwifery
Joseph Weld Hospice
Dorchester
Dorset
DT12SL
England

June 1, 2016

LIMITED COPYRIGHT LICENSE (ELECTRONIC) #201616.224

Dear Ms Reid

You have permission to use the Working Alliance Inventory (WAI) for the investigation:

“An exploration of the strategies that can be used by participants, during video consultations with palliative care patients, to contribute to the enhancement of the therapeutic alliance.”

This limited copyright release extends to all forms of the WAI for which I hold copyright privileges, but limited to use of the inventory for not-for-profit research, and does not include the right to publish or distribute the instrument(s) in any form.

I would appreciate if you shared the results of your research with me when your work is completed so I may share this information with other researchers who might wish to use the WAI. If I can be of further help, do not hesitate to contact

A handwritten signature in black ink, appearing to read "Adam O. Horvath".

Dr. Adam O. Horvath
Professor
Faculty of Education and
Department of Psychology
e-mail: horvath@sfu.ca

Internet: <http://wai.proforvath.com>

Appendix 17a – Ethics Approval



Health Research Authority

**ANNUAL PROGRESS REPORT TO MAIN RESEARCH ETHICS COMMITTEE
(For all studies except clinical trials of investigational medicinal products)**

*To be completed in typescript and submitted to the main REG by the Chief Investigator.
For questions with Yes/No options please indicate answer in bold type.*

1. Details of Chief Investigator

Name:	Noreen Reid
Address:	Weldmar 9 Greenhill, Weymouth [Redacted] [Redacted]
Telephone:	01305 767527
E-mail:	n.reid@weld-hospice.org.uk
Fax:	

2. Details of study

Full title of study:	An exploration of the strategies that can be used by health care professionals, during video consultations with palliative care patients, to enhance the therapeutic alliance.
Name of main REC:	NRES Committee East Midlands - Nottingham 2
REC reference number:	13/EM/0220
Date of favourable ethical opinion:	21 st May 2013
Sponsor:	Not applicable

3. Commencement and termination dates

Has the study started?	Yes
If yes, what was the actual start date?	June 2013 (recruitment)
If no, what are the reasons for the study not commencing? What is the expected start date?	
Has the study finished? <i>If yes, complete and submit "Declaration of end of study" form, available at http://www.nres.nesa.nhs.uk/declarations/after-ethical-review/endofstudy/</i>	No

Annual progress report (non-CTIMP), version 4.2, dated January 2012

If no, what is the expected completion date? <i>If you expect the study to overrun the planned completion date this should be notified to the main REG for information.</i>	Sept 2016
If you do not expect the study to be completed, give reason(s)	

4. Site information

Do you plan to increase the total number of sites proposed for the study?	No
---	----

5. Recruitment of participants

In this section, "participants" includes those who will not be approached but whose samples/data will be studied.

Number of participants recruited: 12	<i>Proposed in original application: 18 Actual number recruited to date: 12</i>
Number of participants completing trial: 18	<i>Actual number completed to date: 6</i>

<p>Number of withdrawals from study to date due to:</p> <p>(a) withdrawal of consent: none (b) lost to follow-up: one participant due to retirement from organisation. (c) death (where not the primary outcome): one participant consented but died prior to intervention commencing.</p> <p>Total study withdrawals: two</p>	
<p>*Number of treatment failures to date (prior to reaching primary outcome) due to:</p> <p>(a) adverse events (b) lack of efficacy</p> <p>Total treatment failures: Not applicable</p> <p><i>* Applies to studies involving clinical treatment only</i></p>	
Have there been any serious difficulties in recruiting participants?	No
If Yes, give details:	
<p>Do you plan to increase the planned recruitment of participants into the study?</p> <p><i>Any increase in planned recruitments should be notified to the main REG as a substantial amendment for ethical review.</i></p>	No

6. Safety of participants

Annual progress report (non-CTIMP), version 4.2, dated January 2012

Have there been any related and unexpected serious adverse events (SAEs) in this study?	No
<p>Have these SAEs been notified to the Committee?</p> <p><i>If no, please submit details with this report and give reasons for late notification.</i></p>	Not applicable
<p>Have any concerns arisen about the safety of participants in this study?</p> <p><i>If yes, give details and say how the concerns have been addressed.</i></p>	No

7. Amendments

Have any substantial amendments been made to the trial during the year?	No
If yes, please give the date and amendment number for each substantial amendment made.	


8. Serious breaches of the protocol

Have any serious breaches of the protocol occurred during the year? <i>If Yes, please enclose a report of any serious breaches not already notified to the REC.</i>	No
--	----

9. Other issues

Are there any other developments in the study that you wish to report to the Committee?	No
Are there any ethical issues on which further advice is required? <i>If yes to either, please attach separate statement with details.</i>	No

10. Declaration

Signature of Chief Investigator:	
Print name:	NOREEN REID
Date of submission:	<i>It's not it.t,</i>

Appendix 17b –Favourable Opinion Conditions Met



Health Research Authority

NRES Committee East Midlands - Nottingham 2

The
Old
Chapel Royal
Standard
Place
Nottingham
NG16FS

Telephone: 01158839697

03 July 2013

Ms Noreen Reid
Lead Clinical Nurse Specialist
Weldmar Hospicecare Trust Trimar
9 Greenhill,
Weymouth Dorset
DT4 7SW

Dear Ms Reid,

Study title:	An exploration of the strategies that can be used by health care professionals, during video consultations with palliative care patients, to enhance the therapeutic alliance.
REC reference:	13/EM/0220
IRAS project ID:	126708

Thank you for your letter of 01 July 2013. I can confirm the REC has received the documents listed below and that these comply with the approval conditions detailed in our letter dated 21 May 2013.

Documents received

The documents received were as follows:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Covering Letter		01 July 2013
Participant Information Sheet: Study Information Sheet (Professional)	2	01 June 2013
Participant Information Sheet: Study Information Sheet (Patient)	2	01 June 2013
Protocol	2	01 June 2013

Approved documents

The final list of approved documentation for the study is therefore as follows:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Covering Letter		01 July 2013
Interview Schedules/Topic Guides	Appendix 9 - Interview Protocol(Professional) V1	30 April 2013
Interview Schedules/Topic Guides	Appendix 10 - Interview Protocol (Patient) V1	30 April 2013
Investigator CV		12 December 2012
Letter of invitation to participant	Appendix 1, V1	30 April 2013
Letter of invitation to participant	Appendix 3 - Invitation letter to participate (Patient) V1	30 April 2013
Other: CV for Carol Bugge		
Other: Appendix 11 - Focus Group Format	1	30 April 2013
Other: Appendix 12a - Interaction Analysis Proforma (1 of 2)	1	30 April 2013
Other: Appendix 12b - Technical Categories Sheet	1	30 April 2013
Other: Appendix 13 - Letter to Bereaved Relatives	1	30 April 2013
Other: Letter from Sponsor - Carol Johnstone		11 April 2013
Other: Registration		08 October 2012
Other: Letter from Alison Ryan		05 April 2013
Other: NHS Research Governance Framework Requirements (Form1)		
Other: Peer Review		11 November 2011
Participant Consent Form: Appendix 5 - Consent Form (Health Care Professional)	1	30 April 2013
Participant Consent Form: Appendix 6 - Consent Form (Patient)	1	30 April 2013
Participant Information Sheet: Study Information Sheet (Professional)	2	01 June 2013
Participant Information Sheet: Study Information Sheet (Patient)	2	01 June 2013
Protocol	2	01 June 2013
Questionnaire: Appendix 7a - Demographic Data Sheet (Professional)	1	30 April 2013
Questionnaire: Appendix 7b - Demographic Data Sheet (Patient)	1	30 April 2013
Questionnaire: Appendix 8a - Working Alliance Inventory Short Form (client) Instructions	1	30 April 2013
Questionnaire: Appendix 8b - Working Alliance Inventory Short Form (therapist) Instructions	1	30 April 2013
Questionnaire: Appendix 8c - Scoring key for the WAI Short Form (C)	1	30 April 2013
REC application		24 April 2013

You should ensure that the sponsor has a copy of the final documentation for the study. It is the sponsor's responsibility to ensure that the documentation is made available to R&D offices at all participating sites.

13/EM/0220

Please quote this number on all
correspondence

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Rachel Nelson', enclosed in a thin black rectangular border.

Rachel Nelson
Assistant Committee Co-ordinator

E-mail: NRESCommittee.EastMidlands-Nottingham2@nhs.net

Copy to: *Carol Johnstone, University of
Stirling*

Appendix 18 – Letter of Thanks (prof)



UNIVERSITY OF
STIRLING

SCHOOL OF
NURSING, MIDWIFERY
AND HEALTH

Noreen Reid



Date: 30 11 13

Dear [REDACTED]

Study Title: An action research study to investigate the strategies that can be used by health care professionals, during video consultations with palliative care patients to enhance the therapeutic alliance.

I would like to thank you for taking the time to read the Study Information Sheet and consent to take part in this study. Several staff members, and more than the required number, were keen to participate in the research and as such I have followed a protocol to select six staff members from the interested parties.

Unfortunately, you have not been selected to participate in the study. However, I am grateful that you considered the opportunity and you will have access to the results of the research when it is completed.

Yours sincerely

Noreen Reid
Doctoral Student

n.reid@weld-hospice.org.uk

Appendix 19 – Hospice Approval

1stOctober 2013

Ms Noreen Reid
Lead Clinical Nurse Specialist

[REDACTED]

Dear Ms Reid,

In my role of Director of Education I would like to confirm that [REDACTED] has endorsed the proposed research 'Strategies to enhance the alliance during video consultations' as proposed by the chief investigator Noreen Reid. The project, as documented on the Site Specific Information form, will be managed and monitored by [REDACTED]; this form was signed electronically by myself, as a representative of the organisation on 30/0913.

Yours sincerely

Carole Walford Director of
Education

[REDACTED]

Appendix 20

Draft submission to Palliative Medicine (V1)

An action research study to investigate the strategies that can be used by health care professionals, during video-consultations with palliative care patients, to enhance the therapeutic alliance.

Noreen Reid

Dr Carol Bugge

DrAnnetta Smith

Abstract

Background: A positive Therapeutic Alliance (TA) between patients and health professionals correlates with positive treatment outcomes. There is no research exploring the skills, attitudes and behaviours that enhance the TA during video- consultations in palliative care.

Aim: This study identified the skills, attitudes and behaviours that affected the TA between palliative care patients and health care professionals during Skype consultations and identified strategies that enhanced the TA.

Design: Action research facilitated participants engagement in a SKYPE consultation and through 2 cycles of critical self-reflective inquiry whereby health professionals identified strategies that could enhance the TA and improve the SKYPE experience. Each cycle consisted of patient and professional consultations: skills, attitudes and behaviours were explored using the Interaction Analysis Proforma and Technical Categories Sheet; measurement of the TA was conducted using the Working the Alliance Inventory (Short); interviews were conducted with each patient and professional; focus groups with health

professionals.

Participants: Six health professionals and nine patients

Results: It is possible to establish a positive TA between health professionals and palliative care patients when using SKYPE. There was a shift in perception for those professionals who had reservations about their ability to establish a TA using SKYPE.

Conclusions: Although a small sample size, this study establishes that there are specific skills, attitudes and behaviours that health professionals can use during video-consultations with palliative care patients to enhance the TA. The findings add to the body of knowledge about using SKYPE to facilitate consultations within the palliative care population and the findings may be transferable to different populations and healthcare context.

Key words: Therapeutic Alliance, video consultations, palliative care, SKYPE.

Background

Palliative care

Palliative care is an approach that aims to improve the quality of life for patients with a progressive, life threatening illness and their families (National Palliative and EofLC Partnership 2015). A palliative care service offers a support system to help patients live as actively as possible until death and helps the family cope during the patient's illness and in their own bereavement. Palliative care integrates the physical, psychological, social and spiritual aspects of care and in recent years the emphasis has shifted from the management of physical symptoms to the psychosocial aspects of care (Larkin 2010; Richardson 2002). The EoLC Strategy (DH 2008) facilitated access to palliative care services on the basis of need taking into account patient preferences, regardless of their individual circumstances. More recently there has been an emphasis on initiatives to meet

the palliative care needs of non-cancer and frail elderly patients to facilitate timely access to SPC (DH 2012).

Palliative care service delivery

Palliative care is delivered in a variety of care settings by health care professionals working alongside multi-professional SPC (NHS England 2016; Scottish Government 2011). Evidence suggests that referral to SPC has a positive impact on the quality of life of both patients and carers (National Advisory Group for Palliative & End of Life Care 2015; Gomes et al 2013). Additionally, community based SPC services are effective at reducing acute care use at the end of life and hospital deaths (Seow et al 2014). As a result of the positive impact of palliative care on treatment outcomes, internationally there are initiatives in place to begin to remedy the issue of late/non-referral to SPC (National Advisory Group for Palliative & EofLC 2015; Scottish Government 2011; Department of Health and Ageing 2008).

Measuring the impact of palliative care

The challenge of measuring outcomes in healthcare is compounded by the fact that in recent years an increasing number of patients are choosing technology to engage with healthcare providers (Kidd et al 2010; Scottish Government 2008a). This change in the mode of service delivery raises additional challenges about how we measure the impact of healthcare and what skills the professionals need to facilitate discussions which will affect the treatment outcomes. Although over the last decade there have been initiatives to improve outcome measurement in palliative care, a uniform approach to measuring outcomes remains elusive (Bausewein et al 2015; Harding and Higginson 2010). Traditional disease specific outcomes focus primarily on prevention and survival. Whilst these outcome measures may be helpful for use in relatively healthy individuals

they are of less use for patients with multiple co-morbidities and ineffective for palliative care patients (Bausewein et al 2011). An alternative to the traditional approach to measuring health outcomes is goal- orientated outcomes which are better facilitated if the professional has a positive TA with the patient(Greenhalghand Heath 2010; Mack et al 2009). Focusing on goal-orientated outcomes enables the patients to articulate which aspects of their physical and mental well-being are important to them and their relative priority (Reuben and Tinetti 2012). This approach is particularly useful in palliative care as the clinicians can discuss and agree with the patients on the achievable goals which will enable the patients to have some sense of control over for example, treatment options and preferred place of care/death.

The therapeutic alliance in palliative care

Evidence suggests that in palliative care the TA is highly valued by both patients and professionals and is integral to the delivery of palliative care services (Scott 2010; Canning et al 2007; Richardson 2002). Originating in psychotherapy, the term therapeutic alliance (TA) has been adopted across many healthcare specialties and has emerged as an important factor in exploring the adult psychosocial process (Strada and Sourkes 2009; Le May and Wilson 2008).Effective management of psychosocial aspects of care is dependent to a large extent upon the TA between the patient and the professional (Cipolletta 2015; Back et al 2005) and in health care a positive TA correlates with positive treatment outcomes (Safran 2010).

Methods

An action research (AR) design combining both quantitative and qualitative approaches best answered the research questions.

The multiple data collection methods enabled a more comprehensive analysis of the

SKYPE consultation by providing both qualitative and quantitative data from both patients and professionals. The character of AR further enhanced the multiple data collection methods by emphasising participation, dialogue and action (Kemmis et al 2014; Reason 1994).

Recruitment and sample

In one Health Authority in England, purposive sampling was used to recruit six health professionals from a pool of 22 who used the Hospice out-patient service. The sample included: both genders, a range of ages, nurses and doctors, a range of previous experience with SKYPE (Visser et al 2009) and a range of length of time since most recent communication skills training (Larkin 2010). Each professional was asked to participate in two action research cycles and to recruit one patient for each cycle. Each patient was asked to participate in one or two video-consultations using SKYPE. On completion of the video-consultation the nine patients resumed standard face-to-face consultations. Table 1 summarises the patient selection criteria.

Table 1: Insert Thesis Section 4.1.5

Data collection

The video-consultation was enabled using SKYPE. SKYPE has a complex method of encrypting both voice and image and is encrypted to a level that complied with the national data protection guidelines for the security of medical data (SKYPE Website cited in Brecher 2013; QIPP Digital Technology 2012; Scottish Government 2008b). An Olympus DM-550 digital voice recorder was used to record the consultations, interviews and focus groups.

Quantitative data

Using the Interaction Analysis Proforma (IAP) and Technical Categories Sheet (TCS) data

from the audio-recordings of the consultation were explored to identify the skills/attitudes/behaviours used by the patients and professionals during the consultation. Data from the (IAP) and the (TCS) were investigated in the context of the data from the Working Alliance Inventory (Short) (WAI-S). Patients and professionals used the WAI-S to measure their perception of the TA during the consultation. Looking for correlations between IAP/TCS items regularly used and strong or weak perceptions of the TA helped identify what skills, attitudes and behaviours that affected the TA.

Quantitative data collection tools

- The IAP combined the validated Roter Interaction Analysis System with some additional items identified in the palliative care literature as needed to facilitate an effective consultation. The Roter Interaction Analysis System (RIAS) is a method of process analysis applied to audio/video recordings of medical encounters, is reliable and valid (Roter et al 2000/1998/1997) and has been widely adopted by researchers internationally including services in both oncology (Eide et al 2003; Ishikawa 2002a/2002b) and palliative care (Roter et al 2000; Timmermans et al 2007/2006/2005).
- The TCS allowed coding of the technological aspects of the exchange allowing collection of information directly related to the video-consultation hardware and software. The RIAS was modified for use in telemedicine by adding technology-specific subcategories (Nelson et al 2010; Miller and Nelson 2005) and the TCS itemised these subcategories with the addition of 'response to and management of interruptions'.

- The 12 item WAI-S (Horvath and Greenberg 1989; Tracey and Kokotovic 1989) measures the participant's perception of the TA and has three sub-scales: measurement of agreement on goals, agreement on tasks and bonding. Using the scoring key the researcher scored the patient and professional's WAI-S. There were no 'right' scores, however, the higher the score for each item the stronger the therapeutic alliance.

Qualitative data

Qualitative data was collected during separate interviews with each patient and professional. The interview schedules were adapted to represent the emerging analysis and gave the participants an opportunity to reflect on their individual SKYPE experience. At the end of each action cycle, there was an audio-recorded focus group attended by the professionals. The first focus group gave the professionals an opportunity to discuss the findings from the first action cycle and explore their collective experience of using SKYPE. The professionals identified strategies that could enhance the TA in the second action cycle. The second focus group allowed an exploration of the findings from the complete data set and an opportunity to identify strategies that could further enhance the TA when using SKYPE. The professionals also had the opportunity to use the emergent knowledge about using SKYPE to inform their practice.

All data sources were revisited and cross-referenced which allowed the participants and the researcher to build a comprehensive understanding of the skills/attitudes/behaviours that professionals could use to enhance the TA when using SKYPE. In Figure 1 the white boxes represent the conditions that enabled the different sources of data collection and the blue boxes itemise the data sources.

Figure 1: Insert Thesis Figure 4

Data Analysis

The analysis ran in parallel with the data collection and started after the first SKYPE consultation. For each consultation data from the IAP, TCS, and WAI-S were managed quantitatively. This analysis was revisited in the context of both the data from all previous and subsequent SKYPE consultations and the qualitative data. Thematic analysis was used to sequentially code the qualitative data to help identify, examine and record communication skills/attitudes/behaviours within the data set (Braun and Clarke 2006). Analyses of the complete dataset were presented to the health professionals in the focus groups. The focus groups also enabled member-checking which allowed the professionals to review and reflect on the findings to circumvent any misinterpretations (Meyer 2001). Six phases of thematic analysis were used: becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the report Braun and Clarke (2006). The AR methodology required that the first five phases of the thematic analysis be applied to each source of data within each SKYPE consultation. Then the same phases applied across all ten consultations in the both action cycles and the data from the focus groups. Both action cycles facilitated critical reflection, self-evaluation and the generation of strategies which could potentially enhance the therapeutic alliance when using VoIP. Table 2 summarises the phases of coding and analysis:

Table 2: Insert Thesis Table 1

Thematic analysis was used to code and organise the qualitative data from the interviews and focus groups. The themes identified prior to each focus group were founded on evidence from the analysis of the quantitative and qualitative data. Presentation of the analysis in the focus groups gave the professionals an opportunity to challenge what they

perceived as misinterpretations or errors

Results

The professional sample, aged 35-59yrs, included four nurses and two doctors of whom one was male and five female. Previous experience of using VoIP ranged from none to regular social use and the time since the most recent communications skills training ranged 6mths-13yrs. The time in years since professional registration ranged from 14yrs-41yrs. Two staff withdrew from the study citing lack of time due to clinical commitments and retirement respectively as reasons for withdrawing.

Therapeutic Alliance

Analysis of the WAI-S data from both action cycles established that a positive TA, evidenced by higher as opposed to lower WAI-S scores, can be facilitated during SKYPE palliative care consultations. Significantly, the majority of professionals in both cycles scored their TA lower that is less positive, than the patients scored. Table 3 represents a comparison between the WAI-S scores from both action cycles with the scores from the first cycle in brackets.

Table 3: Insert Thesis Table 8

Although it is suggested that previous consultations with the same professional/patient can influence the strength of the TA (Lingely-Pottie and McGrath 2006) this is not supported by the findings. Of the four consultations, 3b is the only consultation where the patient and professional had previous contact and when looking at the final total, the bottom row of numbers, the scores from consultation 3b were similar to the other three consultations.

Skills/attitudes/behaviours were demonstrated to enhance the TA when using SKYPE. The professionals agree that they had been on a learning curve enabled by their first use SKYPE followed by the opportunity to engage in discussion and exploration about using

SKYPE before the second action cycle. Professionals concur that their experience throughout both cycles, facilitated by action research, changed their perceptions about using SKYPE.

Professional UIN5 *'Yes that's right it shows that we can have a therapeutic alliance (using SKYPE) we can connect with our patients. Doesn't matter if it's face to face or not you don't need to be in their home'.*

SKYPE is also user friendly even for participants with limited IT skills.

Professional UIN1 *'Well I didn't think I would be able to do it – I'm a technophobe – but it (SKYPE) went well and I enjoyed the experience'.*

Although not reflected by the strength of the TA, prior to using the SKYPE some patients raised concerns about being able to communicate via a computer. But regardless if this was the first meeting between the two parties, the WAI-S scores provided quantitative evidence that a positive TA was attainable when using SKYPE. Although the sample size was small the WAI-S scores were more positive (higher) in cycle 2 when compared to cycle 1.

Some professional's displayed a lack of awareness about the strength of their TA with individual patients. The inconsistency in the patient and professional's perception of the TA was demonstrated by the difference in the WAI-S scores. However, because there was a strong TA, a high score, in all consultations the professionals thought the disparity between patient and professional perception of the TA was of no significance.

Findings demonstrate that the context of and use of technology within the conversation can affect the TA. Both inexperienced and experienced SKYPE users were apprehensive about their ability to use the technology effectively and with confidence. Participants also identified that the practicalities of using the technology and troubleshooting any simple

problems with the technology could be detrimental to the SKYPE experience. Those experienced in using SKYPE socially had concerns about transferring the skills used for social SKYPE contact to a medical consultation and have an impact on the therapeutic alliance.

Professional UIN3 *'It's (SKYPE for professional use) completely different you know your family members signals from their voice and you have got different ways of conversation (with family), the conversation that you are familiar with'*

Competent, experienced specialist palliative care professionals do not need additional communication skills training to successfully facilitate a TA using SKYPE. All patients and professionals agreed that communication skills were transferable across different modes of interaction for example face-to-face/telephone/SKYPE:

Patient UIN2a *'...this (professional) could communicate so it (SKYPE) didn't make any difference'*

Patients identified specific professional behaviours that could enhance the therapeutic alliance. Behaviours included: evidence that the professional had read the patient file prior to the consultation; some preamble and social talk at the start of the consultation as was usual in face to face consultations; evidence that the professional was working with the patient as opposed to the professional's agenda; a feeling that the professional was listening but more importantly actively offering solutions to the issues raised by the patient. Although an absence of these behaviours did not adversely affect the WAI-S scoring when the professionals included these behaviours the patients reported during interviews that there these behaviours did enhance the TA.

Strategies were identified by the professionals to enhance the therapeutic alliance when using SKYPE. The professionals identified a definite role for VoIP to complement and

enhance the existing Service and potentially allow the Organisation to expand the Service within an existing budget. This sentiment was expressed by the professionals in FG2:

Professional UIN2 *'It (VoIP) can and should be used...it has a place'*

Regardless of previous experience using SKYPE it was agreed that staff should complete a mandatory SKYPE training package before starting SKYPE consultations. The professionals agreed that patients with cognitive impairment, those who are physically unable to use the equipment or patients needing a full physical examination should not be offered SKYPE to replace a face-to-face consultation.

Both patients and professionals described a sense of empowerment and satisfaction generated by their involvement with the study. Patients spoke about being glad of the opportunity to give an opinion about a new initiative that would help the Organisation. Whilst acknowledging their own poor prognosis, patients hoped that their contribution would be of benefit to future patients. These feelings of self-worth and empowerment could be attributed to the participatory nature of the AR methodology.

Discussion

In palliative care recent telehealth research explores attitudes of stakeholders, feasibility, acceptability, symptom monitoring and practical aspects of using telehealth (Collier et al 2016; Johnston 2014; Tieman et al 2014; Watanabe et al 2013), but the strength of the TA when using SKYPE is not investigated. A strong TA can be established when using SKYPE in palliative care and in addition there are professional skills/attitudes/behaviours that enhance the TA when using SKYPE. The findings from this study add to the evidence base and can be generalised to other health care contexts. In palliative care video consultations can complement the current service provision (Johnston et al 2012) for selected patients. Action research impacted on both patients and professionals by

empowering them to influence the Organisation's future service provision and showed that a well designed AR study was not overly burdensome to patients nearing end of life.

Professional qualities that impacted on the TA and the quality of SKYPE experience including honesty, being respectful, friendly, alert, reflective, supportive, warm and being open were identified. Ackerman and Hilsenroth (2003) concur with these findings in an investigation into the professional attributes and techniques identified as strengthening the TA in face-to-face consultations. Despite Department of Health (DH) recommendations that all SPC staff have annual advanced communication skills training (End of Life Care Team, DH 2009), but the strength of the TA when using SKYPE did not seem to correlate with the length of time since professionals attended advanced communication skills training. However, it is recommended that professionals complete a mandatory SKYPE training package also because some professionals showed a lack of awareness about the strength of the TA some further education about the importance of the TA may be warranted. Professional insight into the TA is important because there is evidence across several healthcare settings that there is a correlation between a positive TA and positive treatment outcomes (Safran 2010) including palliative care (Richardson 2002; Canning et al 2007).

Professionals raised concerns about the feasibility and/or appropriateness of clinical assessments with no *hands on* examination although patients were less concerned and thought that some aspects of physical assessment could be undertaken using video consultations, Australian clinicians raised similar concerns (Collier et al 2016). Therefore further research may be needed into the components of physical assessment and legal ramifications of such when using video consultations. This study and others (Tieman et al

2016) challenge concerns raised by Collier et al (2016) and provides evidence that older patients should be treated the same as other adult age groups when being offered video consultations as a mode of consultation.

Although the professionals would have preferred to use SKYPE with a patient already known to them, SKYPE consultations with an unknown patient had no detrimental effect on the strength of the TA. Other studies reported that the professionals preferred a degree of familiarity with the patient prior to a VoIP consultation (Johnston et al 2012) and using VoIP for an initial consultation was less than ideal (Collier et al 2016; Johnston et al 2012). Therefore when possible it is better to use SYKPE for follow up consultations as opposed to initial assessments.

Despite some professionals having concerns about discussing sensitive topics and/or comforting distressed patients when using SKYPE, emotive subjects were explored and comfort provided with no adverse effect on the TA. This outcome is not surprising given that SKYPE enables synchronous virtual encounters allowing for verbal and non-verbal cues and accommodating the majority of the determinants of the routine patient-professional communication with the exception of touch and physical closeness (Toh et al 2016). Professionals agreed that when using SKYPE responding to patient cues to discuss emotive topics should be the same as in face-to face consultations.

Limitations

Although the sample size could be interpreted as a weakness in this study the sample, patients n=9 and professionals n=6, was adequate to answer the research questions and representative of the UK demographic for people working in and accessing specialist palliative care. No cost analysis was included in this study and there is a need for the NHS and other health care providers to investigate, trial and agree on a robust system of

hardware and software that meets the stringent clinical governance regulations NHS Digital 2017; Health and Social Care Information Centre 2015).

Conclusion

The findings demonstrate that a strong therapeutic alliance can be established between palliative care patients and health professionals using SKYPE. There are skills, attitudes and behaviours that enhance the therapeutic alliance when using VoIP. The potential for using action research to engage nurses and doctors in critical self-reflective inquiry and to empower them to be change facilitators is demonstrated (Kemmis et al 2014). The findings are significant because they add to the body of knowledge about using VoIP to facilitate consultations within the palliative care population and the findings may be transferable to different populations and healthcare contexts.

Acknowledgements

This article was written as one component of a Clinical Doctorate at the University of Stirling. I would like to thank the participating patients and professionals and acknowledge the help and support from my academic supervisors who are co-authors.