A Telementoring Initiative to support Interprofessional Education fro Health Professionals caring for Residents in Nursing Homes

AUTHOR(S)

Siobhán Kennelly

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A Telementoring Initiative to support Interprofessional Education for Health Professionals caring for Residents in Nursing Homes

Siobhán Kennelly

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Abstract

Title: A Telementoring Initiative to support Interprofessional Education for Health Professionals caring for Residents in Nursing Homes.

Aim: Describe a detailed project plan to develop a telementoring system using an interprofessional educational model in three nursing homes.

Rationale: Interprofessional education (IPE) has been shown to have positive impacts on team-working and health outcomes for older patients in nursing homes who have complex needs. The CLAN programme aims to enhance IPE opportunities through the development of a videoconferencing system with expert facilitator supporting an IPE model.

Change Process. This project will use the Senior & Swailes OD model to guide the change process that is required to support the development of collaborative learning. Early recognition of the known barriers and enablers to IPE in health professionals coupled with a distributive leadership model will help sustain the project and embed important principles of team learning. High engagement with influential stakeholders coupled with an in-depth risk analysis is an important part of the planning process for this project.

Evaluation: The project plan evaluates those aspects of team collaboration in the context of their impact on the IPE environment, the experience of learners of telementoring and the impact on discrete outcomes reflective of improved quality of patient care.

Results & Conclusions: The project plan outlines anticipated outcomes with reasons for same, the expected implications of the OD model proposed and the overall expected impact of the CLAN project within the current organisational context.

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Chapter 1 Introduction

1.0 Introduction

Current research shows that older people with complex needs benefit from a collaborative care approach of their assessment and management (WHO, 2010). Residents in Nursing Homes are widely recognised to have complex needs, are increasingly frail and have a diverse range of co-morbidities with significant rates of cognitive impairment (Gordon et al, 2013). Recent high profile Irish health system and NHS failings have reinforced the need for effective team working between all disciplines and services that collectively provide care for patients (Francis, 2013; HIQA, 2013). Challenges have been identified in the interface of ongoing interprofessional education (IPE) initiatives with healthcare professionals (HCPs) managing the needs of frail older people in the nursing home context (Moore et al, 2012). This project will examine some of those issues as they relate to the planned introduction of an IPE initiative that will use a videoconferencing / telementoring tool with expert facilitator model to increase engagement and collaboration between healthcare professionals in nursing homes. This chapter will discuss the organisational context for the project, define the project objectives using SMART criteria, advise on the role of the student and expected organisational outcomes arising from the projectôs implementation.

1.1 Organisational Context

As a Consultant Geriatrician with a fixed sessional commitment to the care of 1500 residents in nursing homes in my hospital catchment area, I have been engaged in a number of education initiatives in recent years with clinicians in these centres, including an annual national interprofessional healthcare conference, specifically

focussed on the needs of nursing home residents (www.inecma.org). However evaluation of these initiatives or their impact on both patient care and interprofessional teamworking are difficult to capture given their nature (one-off events; difficulty in sustaining educational themes or evaluating meaningful local impact). The role construction and boundaries within the interprofessional healthcare team in the nursing home is quite different to that encountered within the acute hospital setting and IPE initiatives within the Nursing Home context are therefore quite novel and merit further evaluation (Ellis et al, 2011; Moore et al, 2012). There is a growing body of evidence that indicates that interprofessional teamwork in healthcare can reduce clinical error, increase staff satisfaction and improve patient outcome and patient safety (Reeves et al, 2009); however there has been limited research on the area of IPE focussed on the care of older adults (Boutcher et al, 2014). Many initiatives undertaken in the sector are limited by time and travel constraints, not just in consultant provision but for other clinical personnel providing care to the patients in this setting including Nursing, General Practitioner and Pharmacist (Goodwin et al, 2015). This educational intervention will seek to address some of these issues through the delivery of case-based interprofessional education modules delivered through a telementoring process. The primary objective will therefore be to enable an interactive, collaborative educational forum for health care clinicians involved in the delivery of care to frail older people, to evaluate its outcomes in terms of acceptability to and engagement from the HCPs involved and examine impact on identified patient outcomes. The proposed model will be tested initially in three nursing home sites with plans to extend it to other nursing homes in the acute hospital catchment based on learning and evaluation from the test sites.

As a consultant geriatrician employed by the HSE I see patients on referral from the

teams in these private (non-HSE) nursing home sites. Although I do not have a direct clinical or corporate governance role within their organisational structures, in providing specialist services through the HSE role I am an important element in supporting the nursing home teamsôservices to residents. The geriatrician role itself embodies key concepts of integration as it is not bound by traditional patient care boundaries within the acute hospital or the nursing home. To that end the support provided is a key element in supporting nursing home teams in maintaining patients in the nursing home where appropriate with the necessary specialist support and preventing avoidable hospital admissions. The project described sets out to extend that role into one which fosters the principles of interprofessional education and learning within the nursing home teams supported by the specialist role as a means of supporting the current model which relies on my input for the direct provision of care. The Senior and Swailes model for organisational change has been selected as the optimum model to guide the changes required to drive and sustain the project (Senior & Swailes, 2010).

1.2 Objectives

The key objectives of this project are as follows:

- Develop a telementoring system using videoconferencing technology appropriate to the learning environment of healthcare professionals in nursing homes within six months
- Develop an agreed collaborative learning model across the three test sites through stakeholder engagement within four months
- Secure Continuous Professional Development (CPD) accreditation for all HCP participants within five months

- ¶ Implement six learning sessions via telementoring on a scheduled basis for the teams in the 3 test sites using a mix of case-based discussion and didactic learning with expert facilitators within eight months
- ¶ Carry out a pre and post evaluation of learning and collaborative team working developed through model implementation across the three sites within 10 months
- ¶ Dissemination of learning through report and publication with a view to securing agreement on extension of the model across other nursing home sites within eighteen months.

This project has a number of prospective technological and logistical challenges in enabling its implementation. With this in mind, realistic timeframes on objectives have been identified ahead of proceeding with same and the project is expected to be implemented and evaluated over 18 months (Jan 2015 ï June 2016). Approval from the Regional Ethics Committee has been applied for and granted (Dec, 2014). Three nursing homes with existing multidisciplinary teams and with sufficient technical and operational infrastructure who are willing to participate in the initiative have also been identified as part of the pre-implementation phase (Dec, 2014). The recruitment of the necessary technical expertise to assist with videoconferencing implementation has been recruited under an external tender process with the HSE (March, 2015). The initiation of externally facilitated videoconferencing on an agreed interval basis; 6 conferences to be held June ï September 2015; 5 of these conferences related to case-based discussion and 1 session for focus group discussion for evaluation. The agreed development of themes (with specific reference to learning outcomes as outlined below) between the external facilitator and nursing home using a pre-agreed framework on how the sessions will run (April, 2015). A pre and post assessment to evaluate HCP attitudes to Interprofessional

learning through project implementation will form a key element of the evaluation through focus group and use of recognised assessment tools (May 2015 & October 2015). A specific longitudinal evaluation is also being carried out on rates of implementation of learning across the three sites to evaluate the introduction of agreed interprofessional care plans that reflect learning in the clinical domains of elderly diabetes care and delirium (April 2015 - April 2016) as these are areas highlighted in the literature that require specific focus in nursing home care where inter-collaborative team working can have significant impact (Brajtman, 2008; Cristi, 2014). Quantitative and qualitative outcomes arising from project implementation will be shared and disseminated (June, 2016).

Given the extended timeframe required for implementation of this project, the author has selected option B for submission of the thesis which is a detailed plan supported by a literature review, project implementation plan and evaluation process.

1.3 Role of student

As the study author and key driver for the project I will have responsibility for all significant elements of its implementation and evaluation. In the planning phase, engagement from the three project sites and teams and ethical approval through the regional ethics committee has been secured. Tender negotiations for the recruitment of necessary technological and infrastructural expertise to support the videoconferencing model of the project has also been the primary author's responsibility. A limited financial resource has been secured to assist with this. In collaboration with the multidisciplinary teams in the identified nursing homes, the author will establish clear guidelines on the use of the videoconferencing model, data protection and submission of cases ahead of discussion. The author will also lead

the evaluation on outcomes and communicate and share same with all stakeholders involved.

1.4 Expected organisational outcomes

It is anticipated that there will be a number of organisational outcomes from this project that will inform the development of the project model. In terms of how health care is delivered nationally the development of models of integrated care for older people which transcend traditional acute and community sector boundaries is a key element of the HSEós health reform programme (HSE, 2013). Therefore the development of a sustainable mentoring relationship similar to that described here has the potential to be a significant support / change agent in the development of interprofessional education that meet the needs of a national integrated care model if successful. A similar programme developed in the US in 2003 (Project ECHO) has shown considerable impact on patient outcomes, interprofessional engagement and learning outcomes across a range of patient care settings (including dementia care and chronic pain programmes) (Arora et al, 2011; Katzman et al, 2014) and has been taken up by a number of national centres in the US. At a local organisational level it is expected that the learning accrued from the implementation of the model will inform and guide its further expansion and development in the area. It will facilitate interprofessional collaboration on the management of residents with complex needs and will inform systems developments in the nursing homes that will have meaningful impact on patient/ resident outcomes in those settings including the development of appropriate care protocols for conditions commonly encountered in the population, improved prescribing practice and appropriate use of acute hospitalisations.

1.5 Potential threats to implementation

At the pre-implementation phase the technical issues related to technology use and videoconferencing technology as it integrates with HSE systems and external providers has been a concern. However it is hoped that the securing of technical assistance will facilitate same. In the pre-implementation phase concerns on data security and protection also merits considerable attention both by the project author and from the regional ethics committee to ensure safe implementation of the project in this regard. Despite the fact that initial agreement has been secured across three nursing home sites the success, or otherwise of the project will hinge on the level of engagement from interprofessional team members with both the project and its evaluation.

Chapter 2 – Literature Review

2.0 Introduction

> *“Interprofessional education is a necessary*
> *practice-ready” health workforce that better local health*
> *needs”* (WHO, 2010, p5)

The chapter will address key emerging themes identified in background reading and knowledge which have significant implications for the project. It will outline the search strategy used to identify the most relevant literature, explore the themes identified and discuss the impact of findings on the project going forward.

2.1 Search Strategy

Databases including PubMed, CINAHL and Embase were included in the search for published literature. Search terms included interprofessional education (MeSH integrated care for older persons) in healthcare, telementoring (MeSH terms including videoconferencing, telehealth) in healthcare with subsequent refinement to those aspects of the literature that focussed on older persons healthcare. The grey literature search is a significant repository of international reports as they relate to the literature and were therefore included in the strategy also through signposting in key review articles and Web of Science and Research Gate database. The title and abstract of thirty five articles was reviewed, eighteen were identified for inclusion in the literature review. The literature identified was largely international in context with a strong body of authorship identified in North America, Canada and the UK. Many of the papers describing interprofessional education initiatives are relatively current (within last five years). However a significant body of educational theory underpinning the development of the IPE model and research was published before

this (referenced here within the last ten years) and is included so that appropriate context can be given to the themes described.

2.2 Themes of Literature Review

The themes for discussion in the literature review are

(2.2.1) Interprofessional Education (IPE) and collaboration in the healthcare of older people

(2.2.2) Interprofessional Education ï examining the typology in the literature

(2.2.3) Developing Competency Frameworks

(2.2.4) Barriers and Enablers in health and education systems to the development of IPE programmes

(2.2.5) Innovating with technology for interprofessional learning in healthcare for older people; experience demonstrated to date

2.2.1 Interprofessional Education (IPE) and collaboration in the healthcare of older people

The challenges posed by the increasing volume and complexity of care presented by older people requiring healthcare has resulted in a sharp focus on how quality care can be delivered to a new generation of this group (Kingôs Fund, 2014). As well as the need for a more sustainable and innovative use of human health resources, the rapidly aging population need access to effective teams of diverse health and social care professionals to manage their needs, regardless of the care setting (BGS, 2014; Kingôs Fund, 2014). In education, interprofessional team work is therefore increasingly recognised as a core competency across healthcare professions, along with person-centred care, evidence-based practice, information technology and quality improvement (WHO, 2010). Boutcher suggests that there is strong evidence that training in interprofessional teamwork for older persons care help increase team functioning, increase understanding of the roles of other health professionals and increase sensitivity to the needs of patients (Boutcher et al, 2014). However it is also clear from systematic reviews that establishing an evidence base that links interprofessional education with increased collaborative practice in healthcare teams with improved healthcare outcomes for older persons remains challenging (Reeves et al, 2009; Young et al, 2011; ACHRU 2014). Despite this there has been a relatively organic movement in the development of healthcare models internationally that are underpinned by principles of collaborative teamwork and learning (CAIPE, 2013; ACHRU, 2014). Therefore the need to identify evaluation systems that can meaningfully capture whole system impact of these programmes becomes more urgent (Cameron, 2011; Young et al, 2011). In one of the most comprehensive studies in the field a US study to evaluate the impact of interprofessional care on nursing home residents showed improved functioning of care teams in nursing

homes which was also positively correlated with better functional outcomes for nursing home residents (Mukamel et al, 2006). However Young reiterates that highly successful, if isolated, initiatives supporting interdisciplinary education, research and practice for older persons care have yet to be translated into widespread, sustainable changes in the way care is delivered. (Young et al, 2011). Indeed the most recent Cochrane review examining IPE effectiveness as it relates to patient outcomes could identify only 6 studies across a variety of populations with insufficient conclusive evidence of effectiveness, particularly for clinical outcomes (Reeves et al, 2009). Nevertheless the World Health Organisation have specifically identified that a healthcare workforce trained to work collaboratively through IPE is a key step in moving health systems from fragmentation to a position of strength (WHO, 2010). The WHO model identifies those elements required to bring about both systemic interprofessional education and collaborative practice (Appendix 1) (WHO, 2010).

2.2.2 Interprofessional Education – examining the typology in the literature

In identifying the ógap-evidenceô highlighted, it becomes clear that some of the complexity in creating an evidence-base for IPE is at least partly accounted for by overlaps in terminology and typology which highlight a lack of clarity in defining the specific entities of óinterprofessional educationô, óinterprofessional collaborationôand óinterprofessionalityô (DôAmour & Oandasan, 2005; ACHRU, 2014). More recently, the proposed term ócollaborative educationô(replacing interprofessional education) has been suggested by some as a reflection of the increasing need to include patients and carers in IPE, and particularly where IPE is being moved out of traditional classroom settings (Macy Foundation, 2013; ACHRU, 2014).

DôAmour has developed a framework which reflects the interdependence between the concepts of IPE and what she calls collaborative practice (DôAmour et al, 2005). In essence this framework serves to make a distinction between ócollaborative learningô(which are those educational initiatives to enhance learner outcomes) and collaborative practice (those initiatives which enhance patient outcomes) while recognising that both concepts feed into each other (Diagram, Appendix 2). The particular usefulness of this framework as it evolves is that it allows for structures and outcomes related to collaborative learning and practice to be identified at macro, meso and micro levels thereby informing government policy through to faculty development and down to local implementation and learning (DôAmour et al, 2005).

The WHO also advise that interprofessional education occurs when students from two or more professions learn about, from and with each other to enable effective collaboration differentiating it from the provision of comprehensive services by multiple health workers which it defines as the key elements of collaborative practice (WHO, 2010). The Centre for the Advancement of Inter-Professional Education (CAIPE) in the UK defines IPE as õ*occasions when two or more professions learn from and about each other to improve collaboration*ö (CAIPE, 2011). However there remains what might be called an ongoing unresolved cognitive dissonance in the literature with regards to the nomenclature around IPE, with authors of a recent major Canadian report highlighting the need for an operational definition of IPE to be brought forward urgently as one of its key recommendations (ACHRU, 2014). Finally 'interprofessional professionalismô(IPP) is a concept related to teamwork which specifically focusses on an individual healthcare professionalôs ability to practice collaboratively with other healthcare professionals (Hammer, 2012). By identifying and measuring professional constructs which measure IPP

(and by implication effective collaborative practice) the hope is that positive patient and healthcare outcomes related to those collaborations can be identified and transferred to other settings (Hammer, 2012).

2.2.3 The development of a competency framework

The evolving definitions and nomenclature around IPE will feed into the development of a competency framework which will enable educators and learners to identify what is being achieved in learning. Common competencies cited in the literature include

- Clinical, technical and problem-solving skills
- Communication
- Understanding of other HCP roles
- Effective team working skills
- Contribute to shared care plans (de Stampa et al, 2009; Suter et al, 2009; Duner, 2013)

Suter identified that there however was no specific competency framework in IPE that would help to define pathways that would allow for attaining of specific capabilities and help practitioners identify their learning needs (Suter et al, 2009). Through a major Canadian study interviewing 60 healthcare providers involved in collaborative practice, the two key themes that emerged as central to perceived core competencies were effective communication and understanding and appreciating professional roles and responsibilities (Suter et al, 2009). Earlier studies have identified the evolution of competency in IPE through the development of the reflective practitioner (Clark & Croft, 1998; DÔAmour et al, 2005). They emphasise the importance of specific training that enables professionals to understand the thoughts and values of those with whom they will seek to collaborate. The role of the

reflective practitioner is to the fore in this model of IPE in that he /she is not only able to bring their own training and clinical understanding to the table but can integrate the knowledge of other professionals into clinical decision making (Clarke & Croft,1998; D'Amour et al, 2005). The Centre of Advanced Interprofessional Education (CAIPE) is a collaboration of experts from the field of IPE, developed specifically to evaluate and promote best practice in the area. Specifically CAIPE has sought to promote the use of validated assessment tools in evaluating team competencies within an IPE framework (Barr & Low, 2013). In the context of defining such competencies, some authors are hopeful that a framework will be found that allows for true academic and faculty engagement with IPE models, which are necessary for ongoing professional intercollaborative learning and practice to become sustainable and mainstreamed entities (Suter et al, 2009; Curran et al, 2010; Barr & Low, 2013). As we will see later in this review, academic faculty engagement in IPE is of specific importance in tackling some of the key barriers and enablers that exist to interprofessional education

2.2.4 Barriers and Enablers to IPE

A key theme in the literature has been the identification of barriers and enablers for interprofessional practice, education and research (Young et al, 2011). A synthesis of the key influencing elements at systems levels in health and education identified in this literature review is presented below (Table 2.1). Many of the issues identified as fostering and hindering both collaborative learning and practice are common to both. What is clear is that many barriers at all levels of this framework can be turned into enablers when identified at project planning and evaluation (Young et al, 2011; ACHRU 2014,). In a further expansion of this Young et al apply Lewin's Force-Field

Analysis Framework to key identified systemic driving forces (older adults and their families, professional organisations, business and policy) and restraining forces (lack of expertise, cultural silos, existing academic infrastructure and reimbursement) emphasising that change will not occur until the driving forces are greater than the restraining forces (Young et al, 2011).

Systems level	**Barriers and Enablers**	**Barriers and Enablers**
	Collaborative Learning (IPE)	Collaborative Practice
Macro	Accreditation Regulation Government Policy Funding Risk Management	Accreditation Regulation Government Policy Funding Risk Management Remuneration Models
Meso	Leadership Institutional Factors Faculty Development Cultural Silos Supportive management practices Workforce Planning	Governance Models Structured Protocols Shared Operating Resources Personnel Policies Cultural Silos Supportive management practices Workforce Planning
Micro	Communication Teamwork Competencies Expertise	Communication Teamwork Competencies Expertise

Table 2.1. Barriers and Enablers to IPE

Barriers and enablers of IPE and collaborative practice at the macro level

A useful starting point is to look at existing boundaries to collaborative learning and practice and examine the macro health and education frameworks that have been developed around same. For example, a stream of research has pointed to the macro influences on role construction by regulatory healthcare agencies in breaking down professional boundaries on healthcare teams to allow them to be more responsive to changing conditions (John Hartford Foundation, 2012). In the US a

number of healthcare foundations have sponsored a number of projects with interprofessional team learning as core themes (many of these specific to the delivery of care to older people) (John Hartford Foundation, 2012; Macy Foundation, 2013). The results have been disseminated in a variety of formats (Macy Foundation, 2010; ACHRU, 2014). What is described as an alignment of Interprofessional Education with ôClinical Practice Re-Designôis now increasingly recognised as the main means of devolving expertise in increasingly resource-constrained services and improving quality care outcomes (Macy Foundation, 2013). However the literature from these groups also highlight the existing chasm and disconnect between the engagement around interprofessional learning at an academic institutional level, at healthcare institutional level (community Vs. acute services) and at the level of the individual between healthcare professionals (Young et al, 2011). Cameron highlights the ôimpermeable boundariesôthat have hindered progress in the development of collaborative learning and practice thus far and references their specific impact on NHS models in this regard (Cameron, 2011). She cites that central to many of the assumptions around interprofessional team initiatives is an underlying belief that the individual professionals involved are willing and able to adapt their professional practice. The tension between collaborative initiatives that since the 1990s sought to improve quality of services and productivity through increased role-sharing and interprofessional collaboration in service reshaping in the NHS has met considerable resistance from clinicians across the board who saw it as financially incentivised (managers attempting to deliver less resource for more care) or encroaching professionally valued territory (Cameron, 2011). There is particular emphasis on the fact that professionals tend to guard their knowledge base as a means to protect their position with respect to other groups (Cameron, 2011). This has led to the

development of significant interest in the NHS on the provision of inter-professional education as a strategy to break down barriers between professions (CAIPE, 2014); however ongoing work is needed to show that these strategies have produced the desired outcomes (Reeves et al, 2009; Cameron, 2011).

Barriers and enablers of IPE and collaborative practice at the meso level

Integration of IPE learning programmes at faculty level in academic institutions in undergraduate and postgraduate training has been identified as a key potential enabler of collaborative learning and practice (Hammer et al, 2012; Pfaff et al, 2014). The outcomes that should be measured as part of faculty programmes that wish to promote IPE initiatives are diverse given its nature (Barr & Low, 2013). Thus IPE faculty programmes struggle with sustainability; this is particularly important as the evidence in interprofessional teamworking points to the fact that initiatives and teams take time to bed down, to agree outcomes of relevance that may be evaluated and overcome challenges encountered in other areas of healthcare education such as workforce turnover (Hall, 2005; Barr & Low, 2013).The literature also demonstrates the ongoing challenge of negotiating cultural silos delivering complex care using a true interprofessional framework (Hall, 2005; Suter et al, 2009). Hall emphasises that it is not only the educational experiences, but also the socialisation process which occurs at the time of the training period that serves to reinforce the professionalôs unique world view (Hall, 2005). There is a suggestion by some that educational theory and the learning methods (linked to cognitive learning theory) used to teach students in each profession, reinforce the walls of the silo. Hall strongly advocates that the resulting cognitive map is a major component of the culture of each profession and that the key activity for proponents of IPE is to provide team

members with the opportunities to understand each other's cognitive maps. (Hall, 2005).

Barriers and enablers of IPE and collaborative practice at the micro level

MacNaughton et al advise that professional role construction can be defined as the creation and negotiation of 'taskwork', where taskwork refers to the functions that individuals must perform to accomplish the team's task (MacNaughton et al, 2013). In describing the elements that contribute to interprofessional collaboration at a micro level, some authors have identified key themes of structural elements (workload and physical space); interpersonal elements (dynamics between team members) including leadership and education and individual attributes (dynamics that individual practitioners bring to the interprofessional team) such as attitudes and values. (De Stampa et al, 2009; MacNaughton et al, 2013). Cameron identifies that more work needs to be done on identifying issues at a micro level that will enhance and promote collaboration and that engagement with team members to obtain their individual accounts and experiences of teamworking to inform the structural changes are required (Cameron, 2011). In a qualitative study of role construction and boundaries in a Canadian primary healthcare team MacNaughton et al categorised roles along two dimensions- as autonomous or collaborative, and as interchangeable or differentiated (MacNaughton et al, 2013). The level of influence of each of the themes (structural, dynamic or individual attributes) and their implications for e.g. autonomous or collaborative working was then examined. At a structural level the physical workspace and opportunities for team members to meet were identified as a key examples of influences on autonomous vs. collaborative working models in a team; interpersonal dynamics around team hierarchy and staff turnover feature prominently and individual attributes around relevant professional knowledge and

trust also take centre-stage within this framework (MacNaughton, 2013). The types of role boundaries can have conflicting implications depending on how they are perceived by other team members. For example, while some interchangeable roles could help to reduce the workloads of team members, they may also increase the potential for power struggles because the roles of various professions become less differentiated. Examples in case studies in the literature that demonstrate these challenges include those based on the introduction of new roles with similar professional backgrounds into teams e.g. introducing case managers or nurse consultants into teams with existing nursing and medical team members (MacNaughton et al, 2013; Giles et al, 2014). DeStampa et al demonstrate a clear transition in thinking specifically in the integration of GPs into older persons integrated primary care teams where initial anxieties that were expressed prior to the engagement around required time commitments to an experience of improved quality of care and improved working conditions as experience with the service evolved reflected in the confidence they had about the care that was being delivered (DeStampa et al, 2009).

As communication has a key impact on team performance in the delivery of interprofessional care, many writers on team performance discuss not only the format of colleague contact, but also the communication itself, i.e. the dynamics and process during different meetings. Communication is a key to service quality. Frequently mentioned in this context also is the lack of time, often identified as a main obstacle to communication and various meetings (Thylefors, 2012). In general the literature is more supportive of the notion of a satisfying communication climate as a prerequisite for interdependent teamwork, not a consequence (Barr & Low, 2013; Duner, 2013). Significant emphasis is placed in many IPE programmes on the

communicative aspects that will enhance team collaboration and a number of validated assessment tools have been developed to measure collaboration such as the Interprofessional Team Performance Scale (Kenaszchuk et al, 2011; Hammer et al, 2012).

2.2.5 *Innovating with technology for interprofessional learning in healthcare for older people*

There has been an extensive increase in the literature in recent years focussing on health information technologies (HIT) as a means to innovate for and improve health outcomes for older adults (Vedel et al, 2013). A recent systematic review of the literature in the area of HIT in geriatrics and gerontology using a theoretical framework called the Diffusion of Innovation Theory (DOI), identified the main outcomes in terms of their relative advantage (for example the use of HIT has a positive benefit mostly on clinical processes). Subset outcomes identifying outcomes such as patientsô health outcomes, productivity, efficiency and costs were also largely positive when measured. However the authors emphasised that there was no ôone size fits allô solution and that healthcare providers needed to be careful in selecting the processes that will best fit their needs (Vedel et al, 2013).

The use of HIT as a learning tool to enhance IPE and team collaboration has been primarily evaluated in rural or resource constrained settings (Gray et al, 2014). The primary focus of many studies has been around engagement with undergraduate students and faculty teams in these settings (Luke et al, 2009; Gray et al, 2014). Some of the more recent literature has focussed on the application of HIT in telementoring clinics such as those described in the Project ECHO® which has been

demonstrated as being effective in optimising patient outcomes through collaborative learning using a telementoring system (Arora et al, 2011; Katzmann et al, 2014). These models have emphasised those aspects of IPE that have produced measurable outcomes in collaboration (including attendance of physician and non-physician health professionals) and focus group analyses detailing specific practice improvements as a result of engagement with the project (Katzmann et al, 2014). Of interest was the fact that many of the HCPs featured in this study were isolated practitioners who found value in the team collaborative experience when meeting together to discuss patient care (Katzmann et al, 2014). Central to the model is the idea of the óexpert facilitatorôfrom an academic institution leading back to previous emphasis on the role of healthcare and medical expertise in the hierarchy of the team (Arora et al, 2011). What has not been identified thus far has been the influence of telementoring programmes on team dynamic or HCP involvement where teams are invited to participate such as that proposed in this project. Indeed the interprofessional team dynamic as it exists in nursing home care varies considerably depending on context and exploration of same has mostly focussed on that which pertains within nursing home relationships between management and staff (Anderson et al, 2014).

2.3 Implications of the literature review for this project

The literature review has highlighted many important elements that need to be incorporated into the study design, methodology and evaluation as it moves forward. Firstly it places the objectives of the study in addressing the needs of frail older people in nursing homes through interprofessional education, mentoring and team-based care on a sound evidence base. Secondly it identifies the key competencies which participants should acquire as part of that process. It has identified the barriers

and enablers that are likely to be encountered which will form the basis for selecting the organisational change model which will drive and give structure to the projectôs implementation. Finally there is reassurance arising from the literature reviewed that some of this has been tried and tested in terms of the use of technology and the engagement with learners in older persons care.

Chapter 3 ς Methodology

3.1 Introduction

Hayes advises that those leading a change need to plan how they will move from the pre-change state to the state that will exist after the change (Hayes, 2014). The main change here involves the introduction of a collaborative learning initiative between health professionals in nursing homes. The chapter includes a critical review of approaches to organisational development, followed by a discussion on the rationale for the OD model chosen (Senior & Swailes, 2010). The detailed stakeholder analysis and the methodology of the project described through a detailed project plan as it relates to these steps is then discussed. Finally anticipated opportunities and challenges for change that may arise within the model are outlined.

3.2 Critical Review of approaches to OD

Organization development (OD) strategies focus on creating the capabilities required to sustain high performance (Hayes, 2014). Beer and others identify some of these capabilities such as coordination and teamwork, commitment and trust, capacity for constructive conflict and learning (Beer, 2000). OD strategies emphasise the importance of shared purpose, a strong culture, bottom-up change and involvement rather than financial incentives as the motivator for change (Hayes, 2014). Hayes argues that whatever the overall strategy those leading the change decide to adopt, they might want to consider the best starting point for the change (Hayes, 2014). Balogun and Hailey (2008) discuss the benefit of restricting a change to a pilot / test site as its being introduced. Once a change initiative has been proven on the pilot site, other parts of the organisation might find it more difficult to resist the change. This is in-keeping with the decision to introduce the telementoring project across the

three sites for the initial project. Developing a change plan involves thinking through what needs to happen if a change target (work group, department or organisation) is to be moved towards a desired end state (Hayes, 2014). Sometimes it may be difficult to define the desired end state in advance; blueprint planning may not be possible and the plan for change will have to be more tentative and flexible (Hayes, 2014). Senior and Swailes advise that the management of soft change situations is important if organisations are going to manage change successfully (Senior and Swailes, 2010). The chosen OD model used to guide the change therefore needs to reflect these elements. In this project an iterative process that builds on collaborative learning between health professionals as a way to influence and build on the potential for collaborative practice to improve health outcomes for older persons with complex needs is the primary objective. As the end-state is unknown, review of the impact of each stage in its progress towards takes on increasing significance if the impact is to be captured (Senior & Swailes, 2010).

The literature review has highlighted the many positive aspects that better collaborative teamwork has for health outcomes in older persons. Therefore the essence of this project is a) to implement the collaborative learning (IPE) initiative as described in Chapter 1 and b) to evaluate impact of this learning on a constant basis on elements of teamwork such as communication and defined healthcare outcomes in patients. The OD model chosen, Senior & Swailes, allows for the transition in the separate elements of this project while taking account of the need to constantly evaluate the separate elements of the change process taking place (Senior & Swailes, 2010). The cyclical nature of the model in Figure 1 below, as opposed to more linear models such as Kotter, allows for reflection on the elements of the project as they evolve that are having most impact (Kotter, 1995). This is an

important advantage in this project, as the change and its evaluation moving forward will guide next steps and ôvisionô as it rolls out.

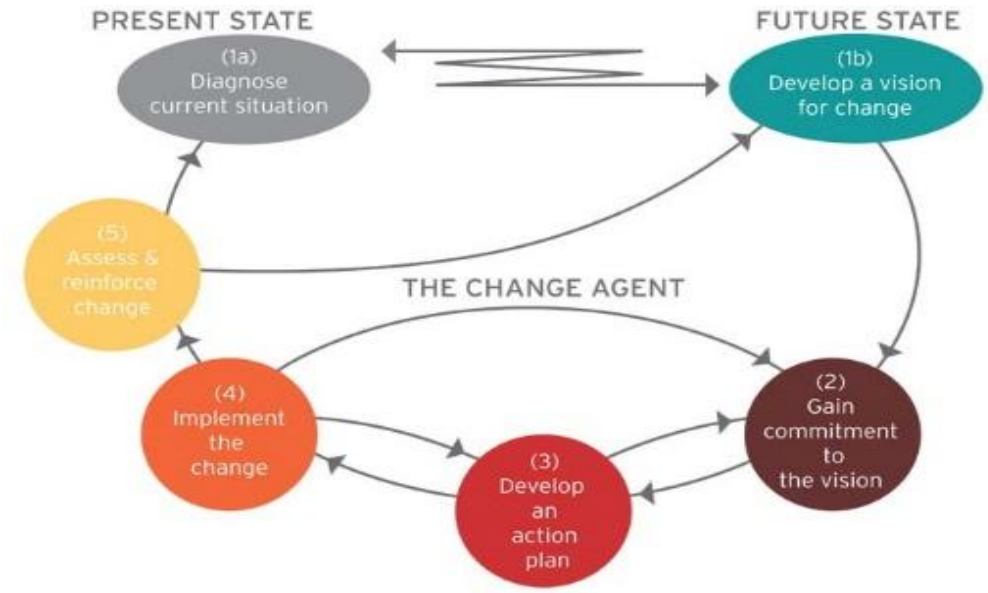

Fig 3.1 The OD model for change (taken from Senior & Swailes, 2010)

3.3.0 Stakeholder Analysis

Identified stakeholders for the project are shown in Fig 3.2:

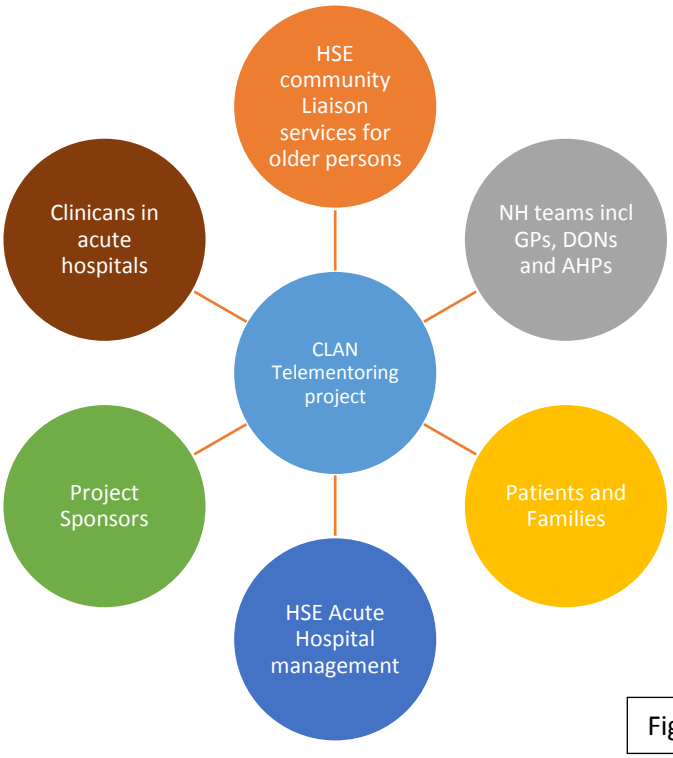

Fig 3.2 Project Stakeholders

In closely linking 1a ódiagnose current situationôwith 1b ódevelop vision for changeô as in Fig 3.1, Senior and Swailes advise that these two elements are closely intertwined with each process with each feeding into the other until a sense of the future direction is achieved (Senior & Swailes, 2010). A key part of the planning for this project has been a significant emphasis and investment in stakeholder engagement at its earliest inception. Previous project experience with this group of stakeholders has informed much of my own learning in this regard. Defining the project scope, and identifying the functional and operational requirements of the project through a detailed stakeholder analysis and engagement has created the necessary structure and momentum for the project plan to move forward (Fig 3.3 Stakeholder Requirements).

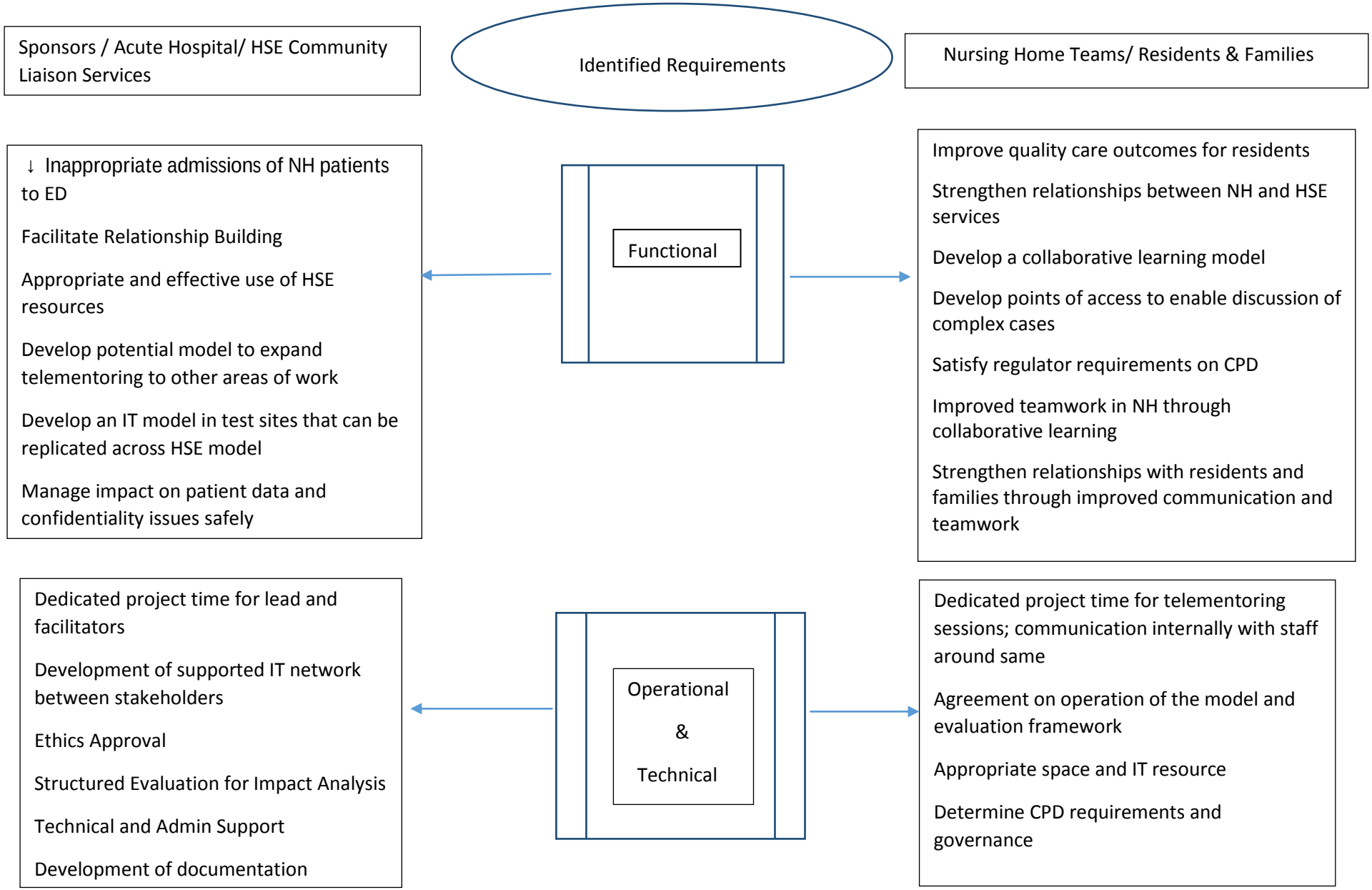

Fig 3.3 Stakeholder Requirements

The literature review has highlighted the potential for cultural and hierarchical conflict to emerge as a barrier to the implementation of an interprofessional education project (Young et al, 2011). Robbins (2005) uses the terms functional and dysfunctional and constructive and destructive conflict to distinguish these elements. Lehman and Linsky (2008) advise that those leading change should see conflict as a healthy sign that a journey is underway. A power audit identifies those stakeholders who have sufficient power to assist change, or alternatively, to work against it if their interest in the project is ignored (Senior & Swailes 2010). The Power Matrix in Fig 3.4 examines the competing roles and interests of the stakeholders.

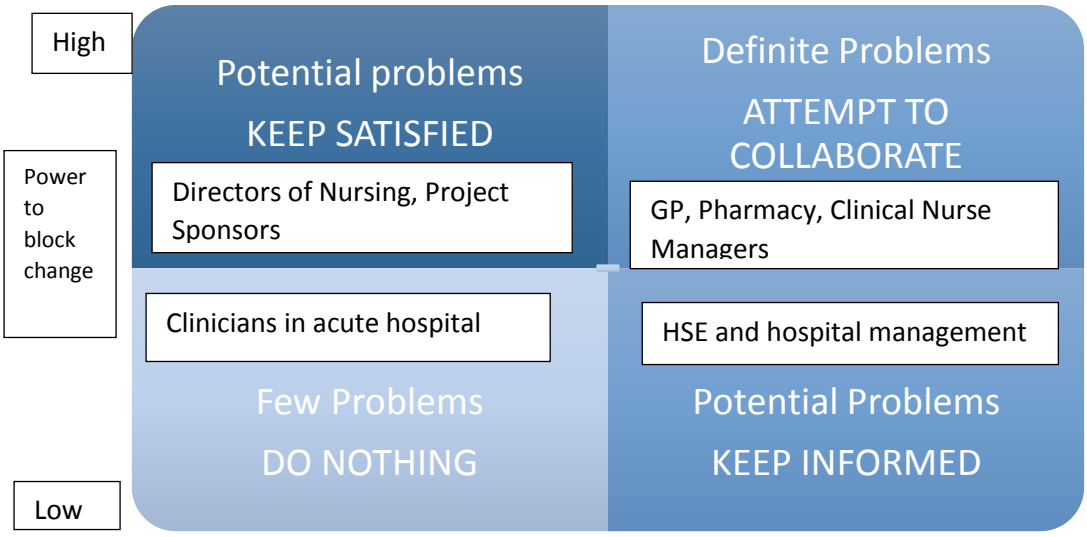

Fig 3.4, Stakeholder Power Matrix, adapted from Senior & Swailes, 2010

In this instance the power audit identifies that different types of engagement relative to stakeholders level of influence and motivation will be necessary. Senior and Swailes advise that managers who can reasonably assess power in times of change, understand its distribution and the consequences for potential and actual conflict have a good chance of implementing the change they seek (Senior& Swailes, 2010). Therefore, following receipt of ethical approval to progress the project, the following

stakeholder engagement pre full project implementation was planned and implemented.

The pre-implementation stakeholder analysis has consisted of

1) Individual Stakeholder Interviews with management teams and sponsors
2) Postal Questionnaire to all healthcare professionals participating across the three nursing home sites
3) A Pre-Implementation Focus Group Interview with clinical nursing staff and Directors of Nursing

3.3.1 Stakeholder Analysis – Individual Interviews with management team and sponsors

As part of the preparation for the project individual interviews were conducted with the Director of Clinical Services in the acute hospital, the Manager of Services for Older Persons in the community and the Programme Manager for the Project Sponsors. The purpose of the interviews was to advise these stakeholders of the discussions that were taking place around the project, the planning and infrastructural requirements around same, to secure agreement on its implementation and secure the necessary time and financial resource required to enable its development. The interviews also allowed the opportunity to engage with these specific stakeholders as to their own expectations around what the project deliverables might be. Chief amongst these for all management team stakeholders was the ambition that the project would be a cost-effective quality initiative that would reduce inappropriate use of the emergency department by frail older people from nursing homes. There was keen interest expressed by the senior management team in the project roll-out with support confirmed for project funding from a national social

philanthropic funding body as part of a larger dementia project that was being supported within the acute hospital.

3.3.2 Stakeholder Analysis – Confidential Postal Questionnaire

The confidential questionnaire is a preliminary method in encouraging individual openness amongst the stakeholders to the project, identifying who is readily on board, previous experience of interprofessional team and learning and creating a metaphorical ócontainerô where individuals can speak out freely with their views on IPE (Lehman & Linsky,2008). In the course of the project implementation the author hopes that this container will eventually be reflected in a physical space where the health professionals will feel able to engage freely and safely with each other in reflecting their views on IPE learning and collaboration. The questionnaire specifically sought to identify previous experience with interprofessional team working amongst the participants and their views on same through use of Likert scale. Overall there was general agreement or strong agreement across the professional groups on the perceived benefits of interprofessional learning and collaboration (Appendix 4). However there was less agreement on whether learning with other healthcare professionals was preferable to focussed learning relevant to their own HCP background (Fig 3.5). A more detailed assessment and evaluation of baseline attitudes, knowledge and beliefs around team dynamics and communication will form key elements of the project evaluation as it moves forward (Kenaszchuk et al, 2011).

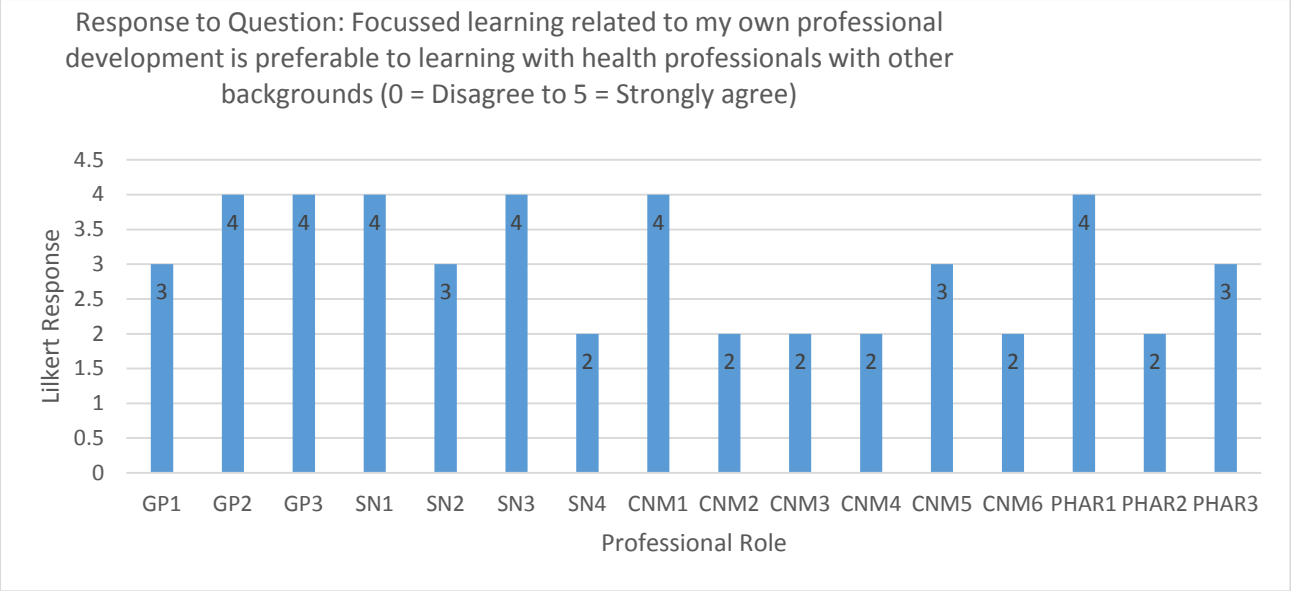

Fig 3.5, Analysis of response to Q4, Questionnaire, Appendix 4

3.3.3 Stakeholder Analysis- Focus group with Directors of Nursing

A Focus group interview with six Directors of Nursing in the three pilot sites was conducted in Feb 2015. As these are key stakeholders and influencers in the success of the project, ascertaining their views on the role of collaborative learning in their workplace was felt to be key in managing the change process and they form an important element of the guiding coalition that the project will need as it moves forward (Kotter,1995). There is broad enthusiasm for the project amongst this group. Many highlighted areas of impact in technology and changing professional roles that were already occurring in their workplace. There was general agreement that the project would allow for incorporation of defined outcomes of the collaborative learning project into practice (examples included agreement on the identification of cases suitable for discussion and agreed between teams internally before submission to facilitator). The focus group also advised on the feasibility of the development of interprofessional care plans to reflect impact on care outcomes for residents as a result of the project. An incremental approach was felt by the

Directors of Nursing in these nursing homes to be a high priority if collaborative learning was to become sustainable and accepted by all. Satisfying the necessary regulatory requirements from the point of view of both the nursing home environment (HIQA) and professional education requirements also emerged as a theme in this focus group. These elements combined and the significant level of engagement that has been facilitated, has allowed for the development of a órich pictureôof how those in the project think and feel about their engagement with the project itself, as it sets out, but also has allowed for reflection around internal dynamics of teamwork and communication (Senior & Swailes, 2010).

3.3.4 Develop a vision for the change

Feedback from the initial diagnostic exercise carried out above has been extremely useful, not only in informing the vision but also informing different team members órinterpretationôof the vision as it evolves. It was these discussions that gave rise to the acronym CLAN (Collaborative Learning Action-Plan for Nursing homes) for the project. The acronym describes key elements of the project while emphasising the emotional context of togetherness needed to move (action) from collaborative learning to collaborative practice (Hayes, 2014). This exercise has also enhanced the sense of urgency needed to drive the impetus for change (Kotter, 1995). The brain-storming exercise teasing out the separate functional and operational requirements for project implementation (Fig.3.3) have concentrated all minds on the intended vision and outcomes and will hopefully mitigate against the risk of scope creep in the project (Hayes, 2014).

3.3.5 Gain commitment to the vision

The data-collection exercise described above has also been a useful informant in advising of the general level of buy-in to the project itself. There is excitement expressed around the innovative use of technology in the project. There have, on the other hand, been understandable concerns expressed by some around the time commitment that may be required in the projectôs roll-out for the sessions involved. It has been necessary therefore to recognise the strength and influence of both formal and informal group leaders such as Clinical Nurse Managers (key frontline nursing staff in their organisations) and GP assistants (who frequently manage the care of nursing home patients for the principal GPs in the practice). The essence of change management is the use of strategies such as those used in the questionnaire and focus group to focus on the soft change that must be enabled for the project to be implemented (Senior & Swailes, 2010). Ford and Ford (2009) argue that rather than regarding questions and complaints as resistance, change managers might benefit from viewing this feedback as a resource. The Force-Field Analysis (Fig 3.6) highlights the key driving and restraining forces. In accordance with Lewinôs model, then the equilibrium will need to be shifted so that the driving forces are stronger than the opposing forces (Lewin, 1947).

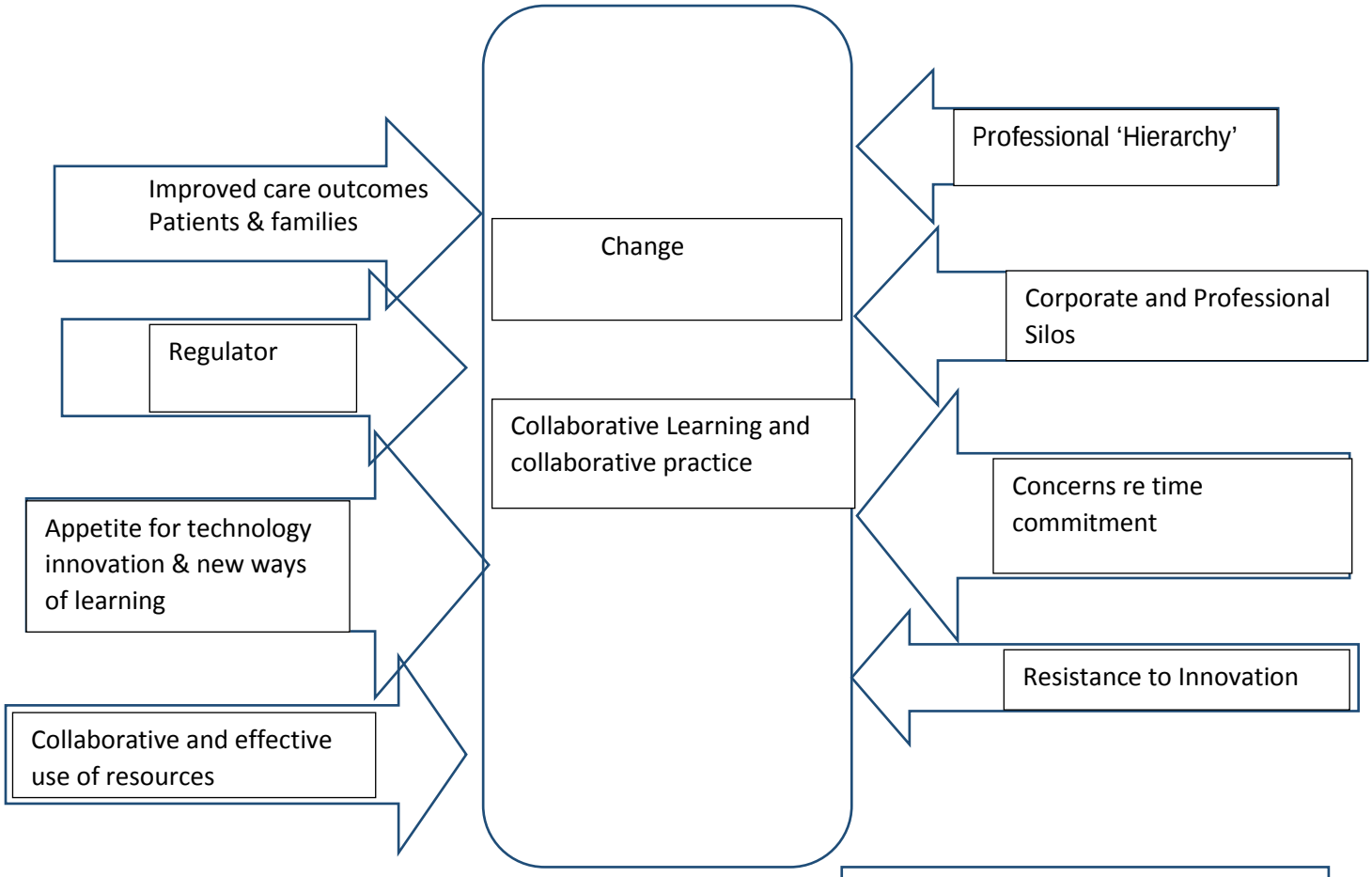

Fig 3.6. Force Field Analysis

It will therefore be important to look towards models of leadership in the project that emphasise concepts of teamwork such as distributive leadership (Robbins, 2005). Creating a framework for shared leadership roles, individual and mutual accountability and decisions by consensus will be key elements that will enable followersô to become leaders themselves. If the broader visions of the project are to become possible then the move towards this leadership model in the project itself becomes key. The assembly of the project coalition therefore reflects key influencers in this regards and takes into account the work of Dunphy and Stace on the necessary environmental realignments required for consultative and collaborative change ï or what they term participative evolution. (Dunphy & Stace, 2005). The Force Field Analysis has identified resistance amongst the GP group whose

feedback on the questionnaires specifically highlight challenges in terms of scheduling and a reluctance around a video-conferencing model based on prior poor experience of ówebinarôevents in different professional learning formats. A GP champion has therefore been identified and has agreed to participate on the project team leading out on the project. This specific person has been identified as they have been a voice of constructive resistance on previous projects but have also been pivotal change agents in that their engagement with these projects provide an important political message to other colleagues around their participation and will a key element of what is required to bring about change through persuasion (Garvin and Roberto, 2005).

3.4 Develop an action plan

The challenge moving forward is to translate high level intentions into detailed plans (Hayes, 2014). PRINCE2 (Projects IN Controlled Environments) is the process-based approach for project management that will be applied to this project as it is considered the standard tool for projects of this type (OGC, 2009).

As well as managing the project governance, planning, initiation, execution and closure, the principles of the process are underpinned by the considered management of risk throughout the lifetime of the project. At this stage agreement on the business case for the project has been secured between stakeholders and the project team. The next phase therefore involves agreement on the project plan, milestones and execution. A number of tools have been incorporated into a project plan to assist with this aspect underlined by the principles of PRINCE2 methodology including a Work Based Structure (WBS) (Appendix 5) with milestones established on Gantt chart.

3.4.1 Risk management

Throughout project planning and implementation, risks must be identified and managed. The detailed stakeholder analysis has been a very worthwhile aspect of learning in this regards. Fundamentally it has informed the key ótriple constraintsô of scope, time and cost management of the project which will need to be balanced to ensure quality outcomes (Dobson, 2004) (Fig 3.7).

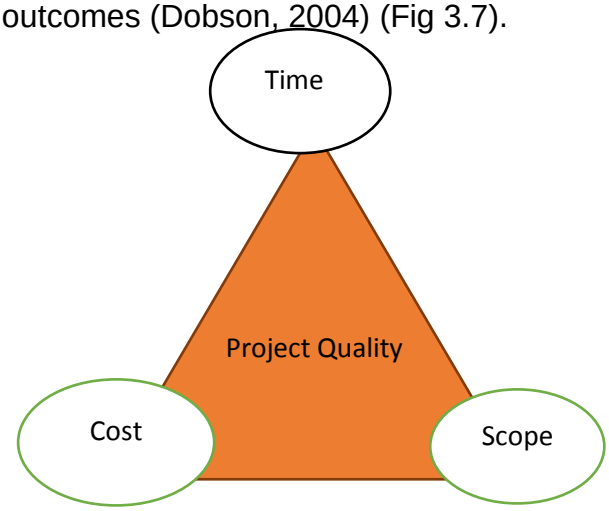

Fig3. 7 'Triple Constraints of Project Management' From Dobson, 2004

3.4.2 Scope Management

The discussions with stakeholders on functional and operational requirements of the project identifies a number of areas that will fall outside the immediate remit of the project. Decisions have had to be made around what is feasible, measurable and will have most impact in terms of learning. Therefore in the list of functional and operational requirements derived from stakeholders (Fig 3), only those outputs and outcomes that are selected as feasible project deliverables using these criteria are included (Dobson, 2004).

3.4.2 Time Management

In a chronically time-stressed system and healthcare work force, the identification of protected time both for the project group and the sessions themselves will prove most challenging. Again it has been flagged early in the stakeholder analysis with particular challenges for some of the professional groups to be engaged. The postal questionnaire and stakeholder interviews requested that the participants nominate preferred times for the conferences to try and mitigate some of this risk at the outset by achieving consensus on when the case meetings might be optimally scheduled. Extra team supports have been included in the tender to the IT company so that aspects such as identification of and assistance with IT capabilities across the sites can be handled by same. Protected time for the project team has been negotiated in the context of another broader dementia research project, the outcomes of which the project will also feed into.

3.4.3 Cost Management

A detailed cost plan has been developed. Agreement has also been secured from directors of nursing to cover part-funding of the project over its lifetime to ensure sustainability should previously unforeseen costs be encountered over the projectõs lifetime. Costs have also been reduced by agreement to use existing seminar / educational facilities within the nursing homes and HSE themselves. Factoring in cost savings achieved over the lifetime of the project as a result of HSE staff and costs time saved in off-site working and travelling will form part of the evaluation.

Early agreement has been secured around the scope of the defined project outputs. This has in turn enabled risks to the project to be identified and managed at an earlier stage and identified the risks in a risk log (Table 3.1).

Project Output	Risk(s)	Prob / 10	Impact /10
Development of collaborative learning model	1. Organisational: Model requires that teams proactively collaborate on case identification and participation in videoconferencing discussions. What happens if the teams don't collaborate?	3	9
	2. PM Risk: Case meetings don't happen on schedule and project milestones not achieved	4	8
	3. Organisational: Confidential patient data inadvertently disclosed.	2	10
	4. Organisational: Failure to capture learning from model due to lack of appropriate competency frameworks for evaluation	5 6	5 8
	5. PM Risk: Project runs out of time	4	8
	6. PM Risk Project runs out of money		
	7. External: Professional bodies approached fail to recognise the interprofessional learning context for their members and CPD points not awarded	3	3
	8. PM Risk: Scope creep- learning model encroaches into other areas not related to core outputs e.g. patient care issues outside scope of practice for some HPs	6 7	4 7
	9. PM Risk: Scope creep on evaluation also a risk		
Develop IT model in test sites that can be replicated in other HSE sites	10. Technical: Lack of compatible IT capabilities at HSE sites	6	7
	11. Technical: Lack of IT capabilities at the NH sites	4	8
	12. Technical: Unforeseen change/ disruption in technical provider	5	5

Table 3.1 Risk Log for Project

The risk log will need to be monitored over the lifetime of the project and new risks added as needed. Using a Risk Profile Graph (Fig 3.8) based on the template above those risks that pose highest threat to the sustainability of CLAN have been identified and a series of risk controls put in place (Table 3.2). An example of the controls identified for the three highest risks is shown below. Similar plans have also been developed for other risks identified as having impact above the threshold highlighted.

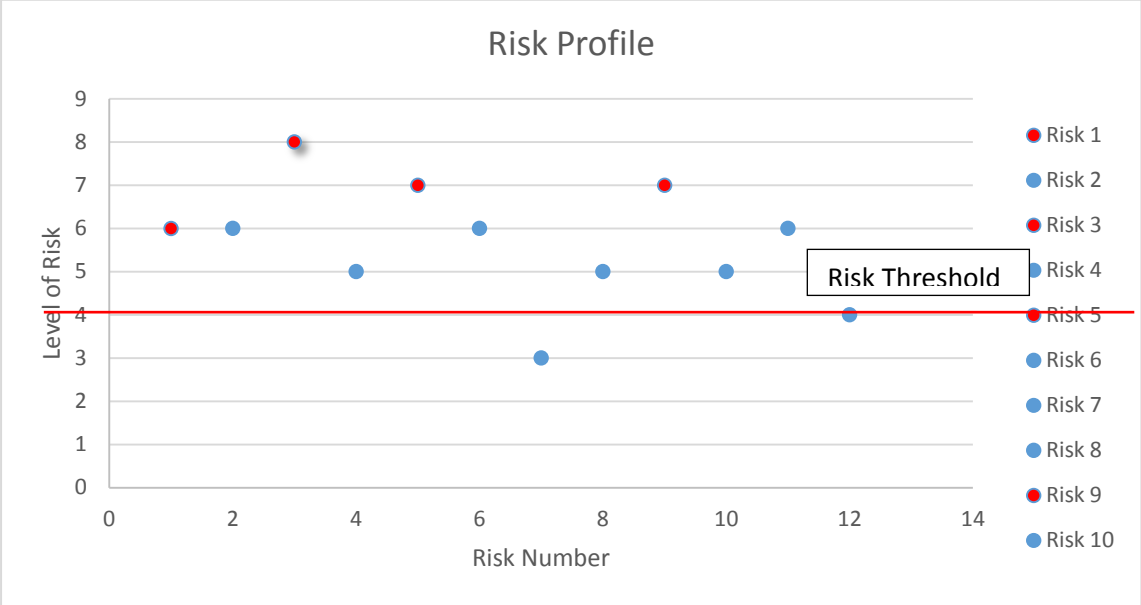

Fig 3.8 Risk Profile Graph

Risk Identified	Risk control
Inadvertent Disclosure of Confidential Patient Data	Prevent- Documentation developed to ensure that only de-identified information can be discussed. All cases required to be submitted to facilitator 1 week before case conference
Project Runs out of time	Reduce- Protected time allocated for both sessions and project team to assist with progression and implementation
Scope creep on evaluation	Reduce- Detailed Evaluation Plan; Agreed parameters with key stakeholders on same
Poor team dynamics leading to reduced / no collaboration	Contingency-Monitor feedback to identify early, use Pugh OD matrix (see below)

Table 3.2 Risk Control table

3.5 How the project will run

- Cases will be selected by Nursing Home teams for discussion and sent to the external facilitator using a de-identified format one week beforehand
- There will be five telementoring sessions of 1.5 hours duration held over a 12 week period
- The sessions will be semi-structured using a mix of case-based and didactic teaching methods
- Each nursing home site will be asked to ôhostôthe telementoring session on a rotational basis
- Evaluations will be conducted through completion of a brief on-line survey after each event with detailed focus group interview conducted at the end of the project period

3.6 Implement the change

There are a number of techniques suggested for change initiation and implementation (Senior & Swailes, 2010). The Pugh OD matrix considers the impact of the change as it is being implemented whether at the level of the individualôs behaviour, the organisationôs structure and systems and /or the context of the setting for change (Pugh, 1986). Although this is a change yet to be implemented, some of the challenges can be foreseen as highlighted in the risk analysis and the range of actions described in the Pugh matrix in guiding the implementation will allow for early identification and monitoring of same as well as guiding appropriate responses. Applying the Pugh OD matrix to the CLAN project, the author can already identify responses to progress and challenges that should be included at the planning stage (Table 2.3). Using the example of poor collaborative behaviour being identified during project implementation, it will be necessary to have mechanisms that readily identify those problems and can deal with them (Pugh, 1986).

	Behaviour *(What is happening now?)*
Organisational level	As project is implemented cases not submitted for discussion. Nursing Homes fail to adhere to agreed conference schedule. Major organisational issues identified Use survey to assess attitude and morale at baseline and at regular project intervals so that this can be identified early and issues resolved as it gets underway.
Inter-group level	Poor cross-sectional representation of NHs; clear that some units more ó*invested*ô in CLAN than others Role negotiation by facilitator to determine what the group participants need to ó*contract*ô to change on an agreed basis
Group level	Specific issues identified with team relationships in a nursing home which are hampering engagement Possible team building exercise required depending on level of perceived risk at an operational level and also impact on same for project. May need to suggest external facilitator to team leader in NH for this exercise.
Individual level	Specific health professionals within the NHs who refuse to engage with CLAN One-to-one meeting with project facilitator to identify issues causing resistance and develop a pathway around same

Table 3.3 Pugh OD matrix to deal with behavioural issues (Pugh, 1986)

Other issues identified at structural and contextual levels will need specific strategies that can deal with issues that arise throughout the project implementation. It is increasingly clear that the process of change that guides participants in the CLAN project from the initial collaborative learning through to improved teamwork through to impact on collaborative practice with improved outcomes for residents is part of a long term change process. The role of short-term wins in this situation therefore

becomes increasingly important (Kotter, 1995). These need to be deliberately planned, visible, unambiguous and clearly related to the change effort (Kotter, 1990). In many respects the ability to host the videoconferencing events across the sites will constitute a significant win in this project when implemented. Through the stakeholder analysis it is clear that participants see the innovation around the telementoring project as opening another door to specialist opinion for complex patients in their care setting. Therefore a specific launch for the project with key senior management linked in across their respective care settings interacting with each other through the IT platform will give the project a significant boost- identifying that significant technological hurdles have been overcome, that partnerships have been agreed and developed and that the scene is set for positive engagement and change.

3.7 Assess and reinforce the change

A detailed plan for evaluation has been drawn up which focusses on capturing change in attitudes to teamwork and collaboration using validated instruments. The focus group exercise will also be repeated at the end of the project to allow for more qualitative, in-depth information around these aspects. Many authors highlight the difficulties with consolidating change once implemented. Senior emphasises that change must be accepted at the level of middle management of the organisation if it is to be sustained (Senior & Swailes, 2010). In the CLAN project the middle management are represented by Directors of Nursing and GPs. Therefore the continuation of collaborative learning over time to give sufficient space for the long-term objective and evaluation of increased collaborative practice and improved patient outcomes will need to be encouraged and facilitated as CLAN continues to

hopefully embed. Should the distributive leadership model described earlier take hold, this should be easier to sustain (Robbins, 2005)

3.8 Summary and Conclusions

This chapter has focussed on the change process that must occur across many levels for the CLAN project to achieve success. The detailed stakeholder engagement pre-implementation has been helpful in identifying the key barriers and enablers that are likely to arise during the course of project planning. The development of the project plan has hopefully averted the scenario of ñfail to plané .plan to failò However the risk assessment shows that there will be a number of issues that will need ongoing monitoring over the project implementation if is to be successfully implemented.

Chapter 4 Evaluation

4.1 Introduction

I will outline the proposed evaluation for the CLAN project and attempt to justify this on the basis of the identified theories that give rise to the evaluation frameworks. In particular as my research project concerns the use of technology (tele-health) in an interprofessional education (IPE) domain, I am keen that the evaluation examines the process by which stakeholders engage with the intervention as much as the outcomes achieved and need to take this into account when justifying the framework used. I will then explore options for data collection within that framework and the use of interviews and focus groups in exploring qualitative outcomes. I will conclude by examining lessons learned in the course of the literature I have reviewed for this chapter and outline the planned next steps in terms of planning the evaluation of my project.

4.2 Proposed Evaluation Framework

As highlighted earlier, one of the key issues identified is the complexity of the environments within which educational research projects operate. The environments and contexts are more fluid, dynamic and open. Much of the theory that previously therefore underpinned evaluation in ócloseddô programmes of ólinearityô (reductionist theory) may no longer pertain in educational research with a resultant shift in emphasis in evaluation of open systems as described by Bertalanffy in General Systems Theory (Stufflebeam & Shinkfield, 2007; Cohen & Manion, 2011; Frye & Hemmer, 2012). Complexity theory develops this further by accommodating óambiguity and uncertaintyôas being part of the natural system of medical education programmes (Frye & Hemmer, 2012). In examining potential models of evaluation I

examined the potential of some key models currently described in the medical and adult education literature and their potential relevance or lack thereof to the project (McNamara, 2010; Frye & Hemmer, 2012). The Experimental and Quasi-experimental models of evaluation take what can be called an almost ólogicalô approach to education research evaluation that present a number of study design challenges (Frye & Hemmer, 2012). As an example the ócontact group designôof this model which randomly assigns learners to Group A / B acts on the assumption that each member of the group replicates the ógroup stateô In an interprofessional learning context this would have little external validity as it would assume that all learners are starting from the same level. Even within individual professions, great disparity exists depending on the educational background and experience of individuals. As Miller explains, it is the selection of the educational process that has to be tailored to the students involved. It needs to take into account their educational background, their professional experience and development and their mind-set, but it is mostly determined by the content and intended outcome of the learning experience (Miller, 2001). Such matters will also automatically impact on the qualitative evaluation methods chosen to evaluate stakeholder response. Kirkpatrickôs four level education model provides a clarity of focus on programme and learner outcomes that can be useful in examining aspects such as learner satisfaction and changes in learner behaviour in the context for which they are being trained (McNamara, 2010). However it doesnôt allow for any emphasis on process or on why a programme may or may not be successful which will usefully signpost any further or ongoing development of the education programme as part of a continuous process (Dubrowski & Morin, 2011). The Logic Model does take into account inputs, activities, outputs and outcomes which allows for detailed planning at the outset

amongst a team and can additionally be supplemented with the programmeôs context and impact (Frye & Hemmer, 2012). Within that context more óappliedô and integrated models of evaluation such as the CIPP model proposed by Stufflebeam gain prominence within the literature have been widely adapted in many health education research settings (Stufflebeam & Shinkfield 2007, Dubrowski & Morin 2011). Based in principles of professional standards of evaluation CIPP intends not only to provide sound evaluation of the merit and worth of a program but goes beyond, and aims at gaining a better understanding of how the program functions. Applying and adapting the CIPP model framework suggested by Stufflebeam to the CLAN project allows the evaluator to broadly discuss the key concepts that must be taken on board and questions to be asked if I am to use this particular method of evaluation (Stufflebeam, 2007). An example of how this will be applied in the project I have described is given in Table 4.1 below with key elements of the data collection required that will be used to reflect the evaluation. Building on this framework, table 4.1 collates key elements of the evaluation using the CIPP model with the data collection required. Dubrowski and Morin (2011) suggest the integration of the CIPP model into the outcomes-based evaluation framework and Millerôs assessment framework shown in Fig 4.1. The CIPP is a process-based model in which outcomes or products are only part of the programme evaluation. Kirkpatrickôs model outcomes can help evaluators in reaching decisions about what outcomes to measure and where to measure them. Finally, Millerôs framework can be helpful in deciding on the choice of assessments to address the specific outcomes (Dubrowski & Morin, 2011). As I reflect on the model shown above, it is clear that both óprocessôand óoutcomesô merit strong consideration in the development of any evaluation for this project; however it is also clear that the assessment of those outcomes will merit further

thought as the project planning moves forward in line with Millerôs model of assessment of learning outcomes (Stufflebeam and Shinkfield, 2007; Dubrowski & Morin, 2011)

CIPP	Evaluation	Activity / Data Collection related to evaluation
Context	¶ Who are the beneficiaries of this intended programme and what are their needs ¶ Have I identified the specific educational needs of the learners involved ¶ Have I thought about the IPE model of education ¶ Are there other learning opportunities that may arise from this project that I need to factor in at this stage ¶ Plan and schedule the evaluation of the programme- e.g. when should I look for feedback from individual participants at the end of individual sessions	¶ Interviews with key stakeholders and proposed learners as a pre-evaluation piece ¶ Identify barriers and issues specific to the programme evaluation itself ¶ Identify key perceived learning needs amongst the inter professional groups ¶ Identify attitudes to concept of interprofessional learning in this specific setting ¶ Identify attitudes to concepts of learning around tele-health in the nursing home setting
Input	¶ Focus on the feasibility and effectiveness of the proposed study ¶ Establish timelines ¶ Identify key examples of published good practice e.g. Project ECHO as quoted above ¶ Consult with experts specifically on the introduction and implementation of the tele-health model ¶ Develop a budget- is the method proposed cost-effective when compared to other measures currently in use	¶ Engage with other programme developers in ECHO and similar models of education to allow for in-programme mentoring and a community of practice for the facilitator ¶ Identify other 'supports' e.g. technical and administrative that might be required to aid with implementation
Process	¶ What's happening as the programme is actually being implemented, compared to the plan at outlay ¶ Are participants engaging? ¶ What are the implementation problems being encountered e.g. time resource for participants, technology issues, failure to submit cases for discussion, general lack of interest?	¶ Brief questionnaires/ evaluation forms to be given to participants at end of sessions ¶ Identify what if any CME credits are being applied for ¶ Does participation change over the course of the study period ¶ Are there recurrent / frequent attendees? ¶ Establish the key elements of the cases being submitted
Product	¶ Identify intended and unintended outcomes ¶ Identify positive outcomes ¶ Identify negative outcomes ¶ Any impacts related to patient care that can be observed? ¶ Any change in attitude related to tele-health ¶ Any change in attitude related to IPE	¶ Post programme interview with key stakeholders ¶ Focus group interview with individual professional groups (nursing, GP, Pharmacy) to identify key issues in project implementation ¶ Compare with outcomes in similar projects in an international context

Table 4.1 CIPP model as applied to project, adapted from Stufflebeam & Shinkfield, 2007

Specifically in the realm of collaborative learning using e-health models such as CLAN, Oandasan and Reeves advise on the use of an IPE pedagogical model in a tripartite structure which can be aligned with evaluation using the Kirkpatrick framework (Oandasan & Reeves, 2005). These are reflective of learning in the cognitive, psychomotor and affective domains. Therefore the evaluation will need to reflect knowledge acquired as a result of case studies, behaviours that reflect increased collaborative learning such as the introduction of interprofessional care plans and attitudes that reflect the development of communities of practice within interprofessional teams. The Centre of Advanced Interprofessional Education (CAIPE) have suggested a number of validated tools which have been incorporated into the evaluation and whose use has been agreed with stakeholders from the outset. The tools and the domains that they reflect in the Kirkpatrick model are set out in Table 4.2. Evaluation will therefore incorporate those elements that examine team dynamics and teamwork using validated tools while also examining the individual learner experience of the telementoring system (Kenaszchuk, 2011; Gray, 2014). These tools will be incorporated into a Clinician Module Feedback Form which will be completed at the end of the CLAN test period using a format similar to that described by Luke et al (2009).

Learner Outcomes	Competencies	Assessment
General	Ability to integrate collaborative learning with existing professional development activities and provide an opportunity to practice skills learned	*Attitudes Towards Healthcare Teams scores* *Key Informant Interviews* *Post IPE Activity Evaluation Survey* *Interprofessional Team Performance Scale*
Knowledge	Knowledge of learning outcomes on defined patient issues- e.g. delirium	*Delirium Pre-Post Test*
Behaviour / Skills	Use of communication strategies that support collaborative learning and practice Collaborative Problem Solving Awareness of behaviours that influence collaborative behaviours	*Team Skills Scales* *Attitudes Towards Healthcare Teams Scale* *Interprofessional Team Performance Scale*
Attitudes	Positive attitudes to IPE Relating / Agreeing in the healthcare team	*Attitudes Towards Healthcare Teams Scale*

Table 4. 2, Kirkpatrick Model applied to evaluation

4.3 Evaluation in the collaborative learning context

Essentially clinicians from a range of backgrounds involved in the care of frail older patients in nursing homes will be invited to part-take in clinical sessions facilitated by the consultant geriatrician during the project period. A fixed clinic will be hosted for two hours on a fortnightly basis by the consultant facilitator from the consultantôs office with tele-link access to staff which allows collaborative video-conferencing. The clinical staff in the nursing homes will be asked to forward anonymised cases (with a case-sheet using fixed baseline data) from the group of 3 Nursing Homes beforehand to the consultant (expert facilitator) hosting the session. HCPs will be

invited to participate at the assigned time to have their cases discussed. All participating HCPs will be invited to participate in the session regardless of whether or not they have cases to discuss (to enhance learning and knowledge transfer). The sessions will qualify for CME for all participants. Evaluation methods will therefore need to focus on participant engagement, participant evaluation and examine an understanding of clinician perspectives about the project. In order to evaluate the intended and unintended changes associated with same a robust evaluation method will need to be selected underpinned by theories of same as described by a number of authors (Frye and Hemmer, 2012). The framework outlined in its totality fits with the framework proposed by Dubrowski and Morin (fig.4.1)

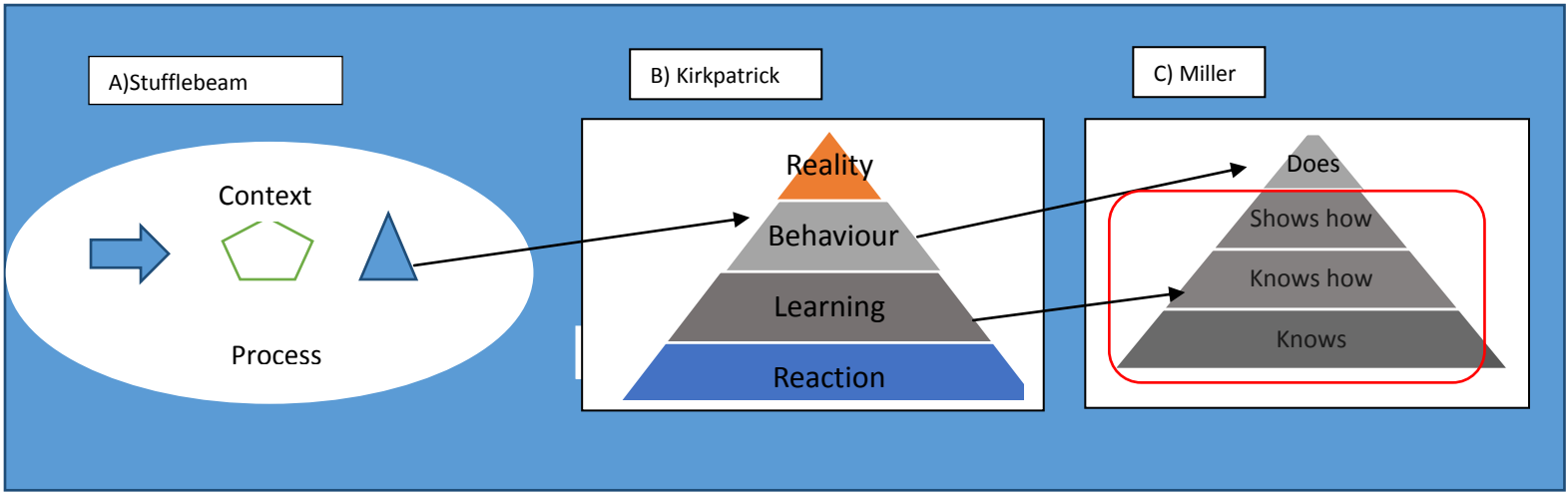

Fig 4.1. *Integrated program evaluation model as proposed by Dubrowski and Morin (2011). Panels A to C are the pictorial representations of (A) Stufflebeam et al's CIPP (context, inputs, processes and products) model, (B) Kirkpatrick's Learning Evaluation Model and (C) Miller's Clinical Assessment Framework.*

4.4 Building on the evaluation- the role of key informant interviews and focus groups

While I have referred to the objective of the data collection in the activities listed as part of the CIPP model and Kirkpatrick, further consideration is merited of that aspect of the evaluation which will involve identifying the correct tool for interview use for selected face to face interviews with key HCP roles identified for the project (Liamputtong 2013). Significant factors to consider include identifying appropriate evaluation questionnaires and interview techniques (Cohen & Manion, 2011). The semi-structured interview provides a balance between the approaches of informal conversational interview and the standardised open-ended interview and is commonly used in qualitative research in health and social sciences (Liamputtong, 2013). Given the time constraints for all participants in carrying out the programme it will be necessary to ensure that the data collection is built in as close as practically possible to many of the tele-mentoring sessions and that careful consideration is given to the timing of data-capturing before, during and after the intervention (Miller,

2001). A focus group interview at the end of the intervention will also be included. Liamputtong advises that ideally these groups should consist of 5-15 participants (Liamputtong, 2013) .They should, also, where possible, consist of a homogenous group with similar characteristics, such as social standing, professional and education level but not be so homogenous that it doesn't allow for some variation in viewpoints (Acocella, 2012). In an IPE scenario such as the one described it may be that as the planned primary facilitator for the actual telementoring sessions themselves (and given that I have a longstanding professional relationship with many of the proposed participants) the evaluation should give consideration to a colleague stepping in as moderator for the focus group at the final evaluation of the programme to allow for openness amongst participants. Indeed the literature reflects the possible 'conflict of interest' that arises in the educators own evaluation of their programmes and the issues that can arise around same (McNamara, 2010). However, as many authors have highlighted this role as crucial in generating data from the focus group and navigating the discussion to derive meaningful information, this will require further consideration as the project evolves (Liamputtong, 2013).

4.6 Conclusion

"Coming together is a beginning. Keeping together is progress. Working together is success." Henry Ford

In line with the statement above, I have identified that a key part of the evaluation for the project I have described is that outcome pertaining to actual stakeholder engagement in the CLAN project. However the process by which stakeholders choose to engage with each other in these sessions and decide whether or not they wish to continue to engage will be of significant interest as the project continues. The

literature I have reviewed in relation to the potential evaluation models that could be used have highlighted key elements that should be taken into consideration; the importance of identifying the 'how' the project worked (process) as much as the 'what it achieved' (outcomes) will be a key aspect in identifying its sustainability and viability into the future. Key consideration and further development of the data collection tools being used in relation to a qualitative framework will also need further investigation as the project develops. The use of both the CIPP and Kirkpatrick frameworks will allow for simultaneous evaluation of the experience of stakeholders as they participate in the project with particular reference to their experience of collaborative learning while also allowing for overall evaluation of the success or otherwise of the CLAN project in meeting its overall objectives.

Chapter 5 -Discussion and Conclusions

5.1 Introduction

This chapter will focus on the expected outcomes of the project and in doing so will also examine the potential for ó unintended consequencesô and their impact. The stakeholder analysis referred to in Chapter 3 has established much that can be gleaned from the initial learning around the project in terms of stakeholder engagement and the appetite for this change project within their existing community. The proposed evaluation in Chapter 4 outlines the methods that will be used to capture the envisaged outcomes and the process of change within the nursing home teams as it relates to developing competencies in collaborative working. This will be built on throughout the discussion in this chapter as well as an examination of existing literature as it pertains to the project in terms of what might be expected as it is implemented

5.2 Expected Project Impact

The expected project impact will effect stakeholders and practice in the realm of Interprofessional Education

5.2.1 Stakeholders

The fundamental objective of the CLAN project is to promote and develop a collaborative learning model for health professional teams caring for frail, older people in a nursing home environment. The importance of Interprofessional Education in improving patient safety and quality has been widely documented in the last decade. There were a number of high profile cases in both the Irish and UK public health systems; these inquiries all reported failings across interprofessional teams in communication and lack of collaborative practice which resulted in a lack of

continuity and safe care for patients (Francis, 2013; HIQA, 2013). There is a significant evidence base to show that collaborative working can improve team dynamics, strengthen shared leadership and improve processes which will ultimately lead to improved clinical outcomes patients and health systems (Reeves, 2009). The evidence in the most recent literature using the Project ECHO model has pointed to considerable success in this regard suggesting that robust evaluation outcomes being incorporated into the project plan from the start are key elements in determining the success of the project (Arora, 2011; Katzmann, 2014). A number of demonstrator projects on Interprofessional Education in the UK healthcare setting have been collated in a reported published by the Centre of Advanced Inter-Professional Education (CAIPE) in the UK (CAIPE, 2014). The findings of some of the projects run across these demonstrator sites in the north-west UK (some in situ since 2007) underpinned by robust academic evaluation have informed much learning around the area and experience that is now being adopted into UK national healthcare education policy. Although the impact of telementoring specifically has not been available to these projects, several of them highlight the significant logistical challenges posed by costs incurred for the release of staff and travel costs (CAIPE, 2014). It is hoped therefore that the maintenance of stakeholder engagement in the project would not be limited by these factors as they are inherently addressed within the model itself. Notwithstanding same all the demonstrator projects in the report highlight the need for adequate preparation and organisation of activities.

The inclusion of stakeholders from the pre-implementation phase should be a driver for continued engagement and sustainability. Maintaining learner engagement by linking learning to practice will enhance this. Outside of the telementoring sessions

themselves specific aspects of the project have been devised to promote collaborative learning and practice. This includes the opportunities for shared discussion internally in the teams around the choice of topics and cases to be selected for the sessions, the implementation of learning outcomes from the sessions in the form of the development of interprofessional care plans and the internal technical and scheduling arrangements that need to be made to maximise team engagement. Although the concepts of collaborative learning and working may be intuitively appealing to many who are involved in the CLAN project, participants could come unprepared for the reality of teamwork because team skills are rarely taught in medicine, nursing or other disciplines. Therefore the potential for unintended outcomes among stakeholders involved in the project may be the disruption of current working relationships with entrenchment of attitudes that promote cultural silos and hierarchical engagement could be quite high is there is insufficient attention to and investment in the development of interpersonal and team skill training. This has been highlighted as a problem in previous projects that look to enhance integration and teamwork in older persons care in other community settings (MacNaughton, 2012). However some of this can be mitigated by appropriate stewardship and facilitation as the processes become embedded and the change management processes that need to be implemented (Senior & Swailes, 2010).

5.2.2 Practice

Dedicated time and a space for learning are key essential ingredients of the CLAN project. A willingness to innovate in this regards has been demonstrated in the stakeholder engagement pre-implementation. Following implementation of the project on the test sites with incorporation of learning from the test, it is hoped that it will be extended to other nursing homes in the acute hospital catchment area. The

community of practice established through the three test sites will play a pivotal role in supporting the modelôs development as it expands. Key tangible benefits in patient outcomes and team-building are being sought through the evaluation to include the development of interprofessional care plans in key clinical areas that commonly affect frail older people in these care settings such as delirium and diabetes care (Cristi, 2014). These areas have been specifically identified by staff within the nursing homes themselves as areas where greater collaboration and teamwork are required to optimise patient outcomes. Building on the dissemination of the success of these elements will be important in promoting the projectôs uptake in other sites.

The project design specifically incorporates those key elements required to evaluate the attitude of stakeholders towards Interprofessional Educational (IPE) in practice and its impact on learner understanding of collaborative practice. These qualitative aspects are fundamental in identifying whether CLAN is truly contributing to learning and an increased capacity for self-reflection in learners on the process that is taking place. To understand more easily that learning has taken place, the findings will be broken down into four domains: - learner realisation, seeing the learning, self-awareness and group dynamics. The validated questionnaires and semi-structured interviews are specifically selected to identify these aspects. Therefore at the end of the project these evaluations should reflect key outcomes such as

- Participants have learnt that communication (networking and asking questions) were key to improving patient care.

- Participants have gained a greater awareness of their own role within the wider team and the importance of team working.

- Participants feel more confident in questioning the role of others and the services they provide

-Participants feel sufficiently empowered to become leaders in their own community developing a community of practice within the CLAN project reflective of collaborative learning and practice.

5.3 Strengths of the Project

Reeves et al (2009) clearly recognise and acknowledge the extent to which healthcare professionals working together can have a profound impact on the healthcare they provide. The CLAN project is an inherently practical model that seeks to address those logistical issues that can hinder engagement of health professionals in participating with interprofessional learning. Fundamentally it seeks to address a need identified by teams themselves in the nursing homes to ópen doorsôto facilitated access to expert opinion on the management of patients with complex needs. As such they are key drivers for the projectôs success and are invested in it from the outset. This has been clearly demonstrated in the pre-implementation stakeholder engagement. This is in line with theories of organisational development which underline the bottom-up nature of change and the required participative evolution necessary to bring about success in such projects.

The significant lead-in time to the project has been useful in allowing for detailed project planning, the engagement of all stakeholders and the harnessing of good-will towards its implementation. The evaluation in CLAN has the potential to show the process of change occurring within the nursing home teams, to link whether this process has a tangible link with a move from collaborative learning to true collaborative practice, and in the final analysis to identify if this collaborative practice

is impacting on positive outcomes for nursing home residents and their families. If the evaluation can link the elements of improved clinical outcomes with the drive towards collaborative learning this will be a significant advantage in moving CLAN to a sustainable space within the healthcare system (Temkin-Greener, 2004).

5.4 Limitations of the Project

While the attributes of competent collaborators are multifaceted, two core competencies for collaborative practice, communication and role understanding have been clearly confirmed in a number of studies (Suter et al, 2009; Young et al, 2011; CAIPE, 2014). This evidence suggests that significant gains in quality of patient care and healthcare provider outcomes can be achieved by focussing education efforts on enhancing health providersô communication skills and role understanding (Suter et al, 2009). Educational writers have pointed to the need for éexternalô facilitators with specific skills in building on these areas (Suter et al, 2009; Young et al, 2011). In the setting of the time and financial constraints of the project there will not be an opportunity to deploy personnel with these specific skills to the participants during the project period. While the discussion of issues around team communication in the nursing home setting will form part of the case content, éexpertô facilitators are experts specifically in managing clinical care. The lack of external expertise to build on essential team competencies, particularly where specific issues arise in teams along the way may therefore pose a challenge. This may limit some participantsô capacity for reflection on the process of interprofessional learning which is a key part of the evaluation. At this point one could also see the valuable role an external moderator would play in the project, particularly with a view to how the participants are receiving the video-conferencing sessions, how well the sessions are being

moderated and developing recommendations on how the sessions can be enhanced as they are being rolled out in the test sites.

Secondly the project is very focussed on the participation of healthcare professionals, their interactions with each other and the generation of a teamwork ethos in their care settings in their professional roles. This is reflective of many projects that have deployed similar learning models (Katzman et al, 2014). However emerging literature especially in the arena of older persons care stresses the importance of the involvement of para-professionals e.g. healthcare attendants and the participation of patients and families in the arena of interprofessional learning (Temkin-Greener, 2004; ACHRU, 2014). Families and patients can be key informants on the lived experience of care, which should be central to all initiatives if outcomes are to be assessed as having improved. While receiving care in a fragmented and reactive health delivery system, older people and their family caregivers are often the only common thread in an episode of care. Preparing them to assert his role has been the focus of a recent working group supported by the John Hartford Foundation (John Hartford Foundation, 2012). In the long-term care setting team building among the paraprofessionals and with older patients and their families could be important in improving the overall team process (Temkin-Greener, 2004).

Finally, the CLAN programmeôs ability to sustain changes over time will be challenged as it extends to other nursing homes if additional resources are not secured in managing the ósetup-ôperiod that has been described in this paper. While much of the process may be transferable to other sites, the focus on the more qualitative aspects of the project such as engagement with GPs and Directors of

Nursing takes considerable time and effort and may face difficulties being replicated as the model extends where no further resource is put in place to enable it.

5.5 Learning about Organisational Development

The CLAN model is essentially about recognising that external forces have far greater potential to encourage cross-discipline or cross-setting collaboration than promoting team care for the sake of team care or professional identity. Thus, an appropriate modification of the well-recognised expression ñ*If you build it, they will come*ò might be ñ*If you build the right environment and incentives, professionals will work out how to*ò The environment in this case is the telementoring model, specifically developed to enhance engagement by reducing need for travel and optimising staff release. The incentives are the access to the clinical experts, the CPD points and the self-directed learning in terms of their own decisions around topics / cases to be covered. However, fundamental to the project, and beyond these external forces is the organisational change that must occur within and across the teams in order for the desired outcomes to occur. The change model can guide these changes and inform developments as they occur as outlined in Chapter 3. However leadership for the project will be key in motivating and inspiring teams and participants (Kotter, 1995). As Kotter says ñ*Motivation and inspiration energise people not by pushing them in the right direction but by satisfying basic needs for achievement, a sense of belonging, recognition, self-esteem, and the ability to live up to one's potential*ò (Kotter, 1995). Ultimately the organisational change required of the teams in the nursing homes is quite profound, requires a shared vision of integrated teamworking built on an interprofessional learning model and requires the ñfollowersò to become ñleadersò Luke et al emphasise the importance of my own role as ñexpert facilitatorò in the interprofessional learning

environment. While I might be personally invested in the success of CLAN, its ultimate success will depend on the continued engagement of the stakeholders themselves and their ability to ground new practices within the local systems in which work practices are articulated (Luke et al, 2009). Therefore allowing a space which fosters attitudes of mutual trust and openness and willingness to collaborate will be a key role of the facilitator in managing both the process and the sessions themselves (Oandasan & Reeves, 2005). Essentially the change required is within the internal team dynamics of the nursing home teams in terms of collaborative learning and practice. As such in my daily interactions with these teams I am an external clinical expert that assists with management of patient care in their organisations on a daily basis. In terms of this project therefore I have a primary external change agent role in its development and implementation. However as the effective working of the teams has a clear impact on the patient care that can be delivered (as well as how that care is communicated to team members, patients and their families) I am also an internal change agent, heavily invested and committed to the vision for the project itself and with an ongoing relationship with those teams. Coghlan and Brannick have emphasised how change agents with such dual roles need to actively reflect on the changes that take place internally within themselves and within their relationships with others in terms of thoughts and emotions as well as actions proposed during the cycle (Coghlan, Brannick, 2010)

5.7 Summary and Conclusions

The journey for this project holds lots of promise. Although its remit is necessarily narrow and focussed in its initial scope, if successfully implemented across the demonstrator sites the potential dividend for all stakeholders is considerable.

Significant possible challenges and risks to the project have been identified and these will require ongoing monitoring. The OD model selected has proven itself to be robust and appropriate to the change envisaged even in the pre-implementation phase that has been described (Senior and Swailes, 2010). In my capacity as project lead I feel that I am now equipped with the necessary tools and strategies to meet some of the challenges that have been identified through the planning process through the learning identified so far and to bring the project to successful implementation.

ñ *Making this important linkage between inter*
practice will create an environment within which all participants learn, all teach, all care, and all collaborate (Macy Foundation, 2013, p 8)

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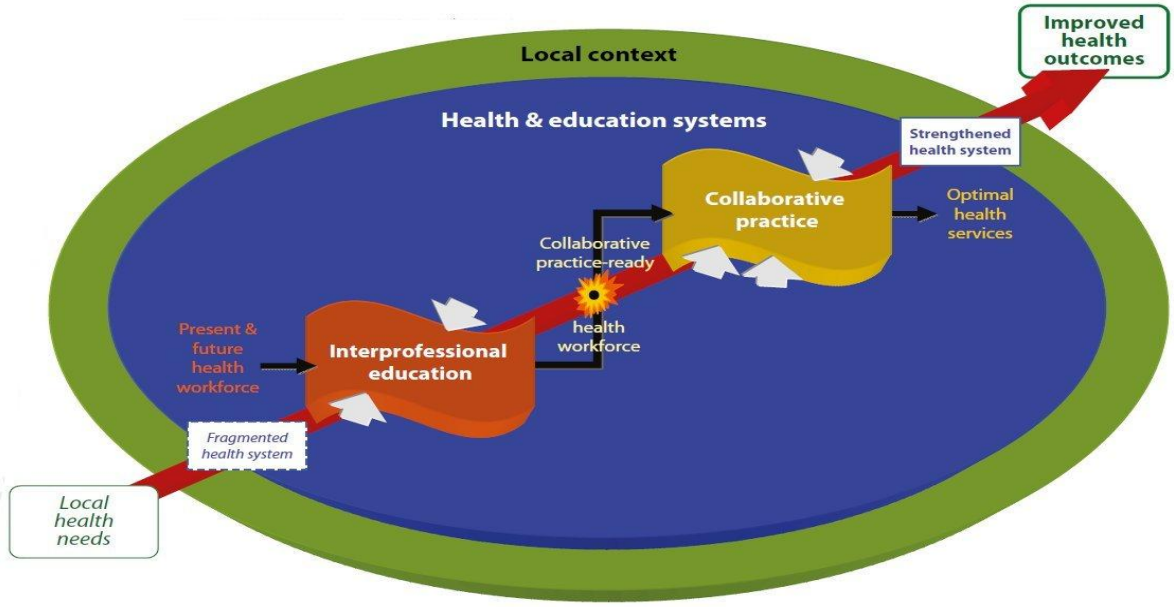
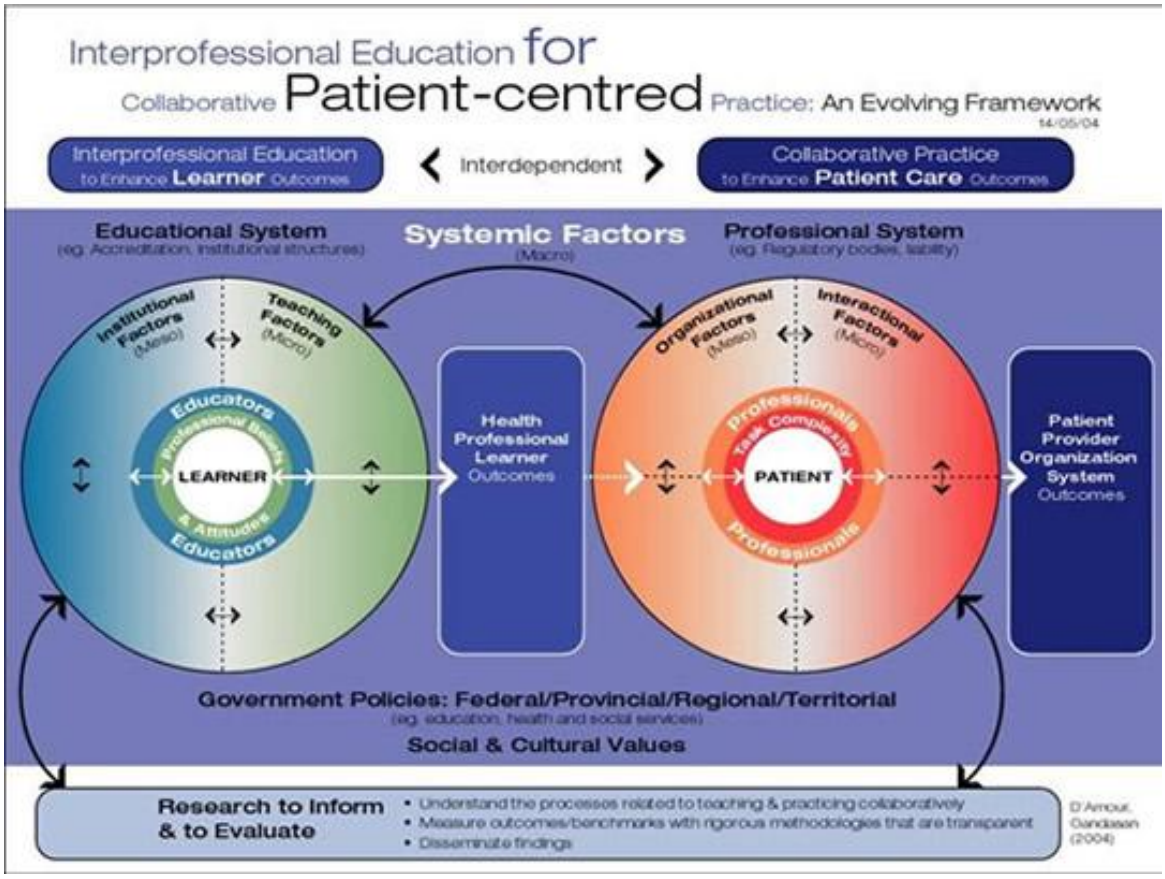
Appendix 1 WHO Model of IPE and Collaborative Practice



WHO, Health and education systems, Framework for Action on Interprofessional Education and Collaborative Practice, 2010, p8

Appendix 2 Framework for IPE, 5Ω!Y2dzNΣ Oandasan & Reeves, 2005



Evolving framework for learner outcomes and patient outcomes in interprofessional education. Taken from Oandasan & Reeves, 2005

Appendix 3 ς Questionnaire

Questions from Stakeholder Questionnaire March 2015

Questionnaire

Mark boxes as appropriate; comments are welcome

Please advise of your professional role in the Nursing Home setting

☐ GP

☐ Staff Nurse

☐ Clinical Nurse Manager

☐ Director of Nursing

☐ Pharmacist

☐ Other (specify) _____

Please advise how long you have

1. Been a healthcare professional
   - ☐ < 5 years
   - ☐ < 10 years
   - ☐ <20 years
   - ☐ Other (specify) _____
2. Been working with residents in a long-term care setting
   - ☐ < 5 years
   - ☐ < 10 years
   - ☐ <20 years
   - ☐ Other (specify) _____

I have previous experience of participating in learning events that included healthcare professionals from disciplines other than my own

☐ Yes

☐ No

I have previous experience of participating in learning events using a video-conferencing format

☐ Yes

☐ No

Please advise of the day and time of the week that would be most convenient for you in enabling participation in the conference _____

Please advise of a '2nd best' day and time for participating _____

Indicate your agreement / disagreement with the following statements where 1 indicates strong disagreement and 5 indicates strong agreement with the statements below.

1. Case-conferencing is a useful way of exploring complex issues in older persons care

□ 1 □2 □3 □4 □5

Strongly Disagree Strongly Agree

2. I find learning with healthcare professionals from other disciplines helpful overall

□ 1 □2 □3 □4 □5

Strongly Disagree Strongly Agree

3. I find learning with healthcare professionals from other disciplines improves the care I can give to patients in the Nursing Home setting

□ 1 □2 □3 □4 □5

Strongly Disagree Strongly Agree

4. Focussed learning specific to my own professional development in relation to older persons care would be preferable for me than learning with health professionals from other backgrounds

□ 1 □2 □3 □4 □5

Strongly Disagree Strongly Agree

5. As a rule I find web-based learning events useful where I am given the opportunity to participate

□ 1 □2 □3 □4 □5

Strongly Disagree Strongly Agree

6. I am happy to participate in the proposed telementoring model / videoconferencing initiative as described

□ 1 □2 □3 □4 □5

Strongly Disagree Strongly Agree

Comments:_____

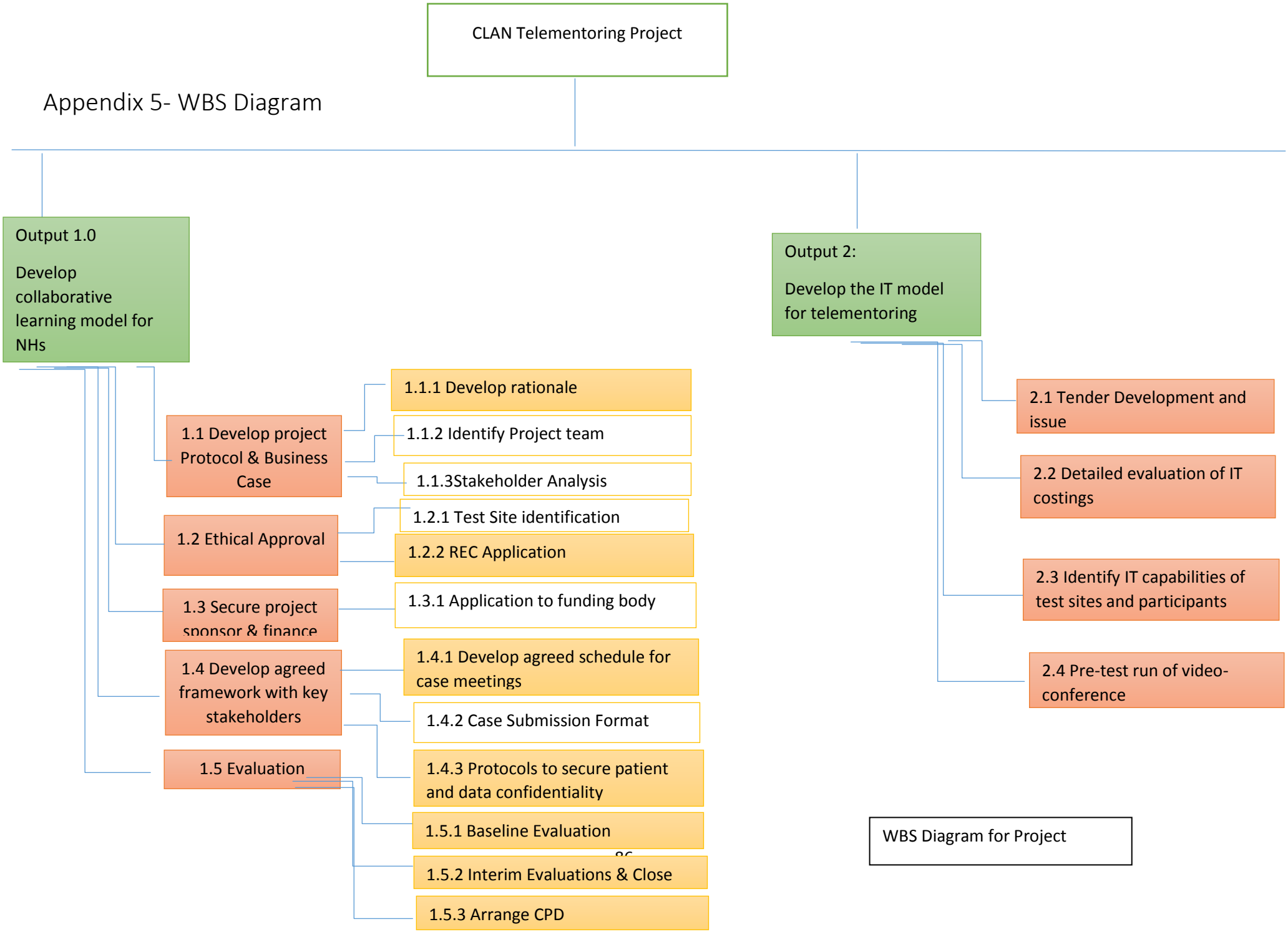
_____

Appendix 4 ςResponses to Questionnaire

Responses to Questions 1-6 above

HCP	Q1	Q2	Q3	Q4	Q5	Q6
GP1	5	5	5	3	3	5
GP2	5	4	5	4	3	5
GP3	5	4	5	4	4	5
SN1	5	5	5	4	5	3
SN2	4	5	4	3	3	2
SN3	5	4	5	4	3	3
SN4	4	5	5	2	3	4
CNM1	3	4	5	4	4	4
CNM2	5	5	5	2	5	5
CNM3	5	5	5	2	5	5
CNM4	5	5	5	2	3	5
CNM5	5	5	5	3	5	5
CNM6	5	5	5	2	5	5
PHAR1	5	5	5	4	4	4
PHAR2	5	5	5	2	4	5
PHAR3	5	5	5	3	3	5

Appendix 5- WBS Diagram



WBS Diagram for Project

Appendix 6 GANTT Chart

Project Steps (Change Model)	Jan/ Feb 2015	March/April	May	June/ July	Aug/ Sept	Nov/ Dec	Jan/Feb 2016	March/ April	May/ June
Initiate discussions with potential nursing homes and their MDT to engage with telementoring project									
Identify infrastructural potential to support IT videoconferencing technology in workplace									
Approach line managers and organizational leaders									
Application to Regional Ethics Committee Connolly Hospital & formalise Project Proposal									
Literature review on key themes									

Arrange meeting with Directors of Nursing and key MDT staff to advise of formal project protocol and agree medication review tool									
Baseline Interviews with MDTs and focus group									
Formal videoconference telementoring sessions in place									
Post Sessional Evaluation with Participants									
Focus group interview at end of telementoring project for overall feedback									
Write up study									

Appendix 7 Case Presentation Form

Case Presentation Form

Project CLAN telementoring clinic- Dementia session

General Information

Date:_____ Presenter:_____ Clinical Site:_____

Patient CLAN ID:_____

Age:_____ DOB:_____ Gender: □ Male or □ Female

□ New Case or □ Follow Up

Occupation: _____ Educational Level:_____

WHAT IS YOUR MAIN QUESTION ABOUT THIS PATIENT?

_____
_____
_____
_____

Mark all that apply (or relate to your main question) and fill in specifics:

□ Specific symptom management (insomnia, wandering, paranoia, hallucinations, etc.)

□ Dementia specific treatment options_____

□ Issues of Activities of Daily Living

□ Issues around Personal Care activities

□ Determining the patient's diagnosis _____

□ Agitation and/or aggression _____

□ Advance Care Planning _____

□ Inappropriate Behaviour _____

□ Other (s)_____

Brief History of Present Illness (may attach a recent clinic progress note): _____

Current and Past Medical History (may attach a list): _____

Current meds and therapies (may attach a list) : _____

Meds and therapies that have been tried previously: _____

Social History: _____

REVIEW OF SYSTEMS

Please check all that apply:

☐ Insomnia ☐ Wandering ☐ Constipation ☐Incontinence ☐ Anxiety

☐ Agitation ☐ Depression ☐ Drowsiness ☐ Weight loss ☐ Other____

PHYSICAL EXAM : Pertinent Findings

_____

_____

Cognitive Screening Exam: Please attach findings

☐ MMSE

☐ CMAI

Relevant Labs and Imaging: Please attach

Patient's Decision Making Capacity: ☐ Decisional ☐Ward of Court / Registered EPOA

☐ Not Sure ☐ Other:_____

Goals of Care: (What is important to the patient / family?)

_____

_____

_____

Any other information that you think is important: _____

_____

_____

_____

When do you want to present the case? Date and approximate time? _____

Contact details of person completing form: Name_____

Email_____ Healthcare Role_____

Appendix 8 Clinician Module Feedback Form

Questionnaire for participants

Evaluation of the telementoring system

1. What is your age?

2. What is your sex? ☐ Male ☐ Female

3. Participant type?
   ☐ Staff Nurse
   ☐ Nurse Manager
   ☐ Director of Nursing
   ☐ GP
   ☐ Pharmacist
   ☐ Allied Health- Physiotherapy/ OT
   /Other_____

4. Overall, how satisfied are you with the following aspects of Telementoring

	Not at all satisfied			Completely satisfied		
Ease of use of the technology	1	2	3	4	5	6
Visual quality	1	2	3	4	5	6
Audio quality	1	2	3	4	5	6
Physical space	1	2	3	4	5	6

5. Overall, how valuable did you find the Telementoring system in the following:

	Not at all valuable			Completely Valuable		
Discussion of Patient Care Issues	1	2	3	4	5	6
As a way of helping your learning	1	2	3	4	5	6