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ABSTRACT

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Author(s)	Nguyen Hai Viet Linh	Student number	513729
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Supervisor(s)	Prof. Niina Nummela MSc Techn. Anna Karhu		

Abstract

The population is aging with a considerable shortage of skilled nursing staff in Finland. The healthcare organizations are facing challenges with staying up-to-date in such an uncertain environment. Technology and advanced concepts would be the solution to solve the problem in the near future, and patient involvement has become a significant area of governmental policy administration in healthcare because of its fruitful benefits in recent years. The purpose of this study is to investigate the phenomenon of patient involvement in service innovation in elderly care through a case study in Finland. Previous works on service innovation, customer involvement, and patient-involved approach in elderly care provide preliminary background for this study. Using a qualitative approach with case study strategy, this study analyzed the role of the patient in service innovation in elderly care. Data were collected with interviews, observation, and documents from one Finnish elderly nursing home in 2018. The empirical study shows two primary types of patient involvement: active involvement and passive involvement. The evidence also indicates that the triangle concept (family members, patients, and healthcare professionals) facilitates the patient to take part in the service development process. The case study illustrates the adoption of the patient-involved approach in development activities towards service innovation. Further studies are needed to establish more profound and empirical knowledge on this phenomenon.

Key words	Service innovation, patient-involved approach, elderly care, patient involvement
Further information	

UNIVERSITY OF TURKU
Turku School of Economics

PATIENT-INVOLVED SERVICE INNOVATION IN ELDERLY CARE

A case study of a Finnish elderly care nursing home

Master´s Thesis
in International Business

Author:
Nguyen Hai Viet Linh

Supervisor:
Prof. Niina Nummela
Msc Techn. Anna Karhu

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Turku

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1 INTRODUCTION

1.1 The phenomenon of interest

The healthcare sector is currently going through many significant changes. The healthcare organizations are challenged with staying up-to-date in an uncertain environment. The numbers of patients with more traumas and problems have increased significantly while there is a considerable shortage of skilled nursing staff. (Länsisalmi, Kivimäki, Aalto & Ruoranen 2006, 66.) Besides that, a remarkable growth of the aging population, which is being driven by declines in fertility and improvements in longevity impacts the healthcare organizations enormously. Chronic diseases such as diabetes and dementia create growing demand on long-term healthcare providers as the population is aging (WHO 2011), that makes elderly care becoming more important. Elderly care is increasingly recognized as an ethical obligation of healthcare providers, both clinicians and organizations (Singer, Martin & Kelner 1999). There are numerous governmental and non-governmental organizations, which need striving for ways to control the healthcare spending and responding to a more demanding customer base. In such a constant flux environment, the technological system and innovative ideas have gradually become so intrinsic and all-pervasive that is redefining and restructuring the healthcare sector, from patient treatment and patient management to new products and new services development. As a consequence, service innovation with advanced concepts and new ideas is undeniably playing such a crucial role in elderly care, and the opportunities for service innovation have increased exponentially.

In the case of Finland, senior population (people over 65) in Finland is anticipated to rise from 20% now, to 30% in 2050 (Official Statistics of Finland 2018). The vast majority of elderly people require at least some forms of professional care; however, the growing number of the senior population does not match with a corresponding increase in resources or funding. Besides, the number of staffing level practitioners in Finland is currently in shortage in comparison with other Nordic countries such as Norway, Denmark, and Sweden. As a consequence, more and more elderly patients are

encouraged to stay at home and receive visits from caregivers. The situation is sad because elderly people are then left at home alone. It is projected that the situation is getting worse soon if the Finnish government does not have an appropriate solution for it. How governmental organizations can tackle this issue? Considering building new nursing homes or training new nursing staff require lots of money and resources. Therefore, technology and advanced concepts would be the solution to solve the problem in the near future. (Newsnow Finland 2017.) That is a critical part of the reasons why service innovation in elderly care is an essential field for doing research, especially in the case of Finland.

Patient involvement is one of the elements, which affects service innovation (Magnusson, Matthing, and Kristensson 2003) and patient involvement has become a significant area of governmental policy administration in healthcare because of its fruitful benefits in recent years. Patient involvement concept can assist in improving professional responsibility and decision-making process, increasing secure information for both patients and innovation in the organizations (Crawford, Rutter, Manley, Weaver, Bhui, Fulop, & Tyrer 2012). The utilization of patient-involved approach in the healthcare innovation has increased since studying patient involvement and behavior provides the researchers with the massive amount of useful information. For instance, McNichol (2012) has introduced the value of patient perspective for innovation in healthcare. This enables new approach for diverse thinking besides a traditional one, which adopts healthcare professionals' perspective in all stages of innovation process. MCNichol (2012) work gives a new theoretical framework with an advanced approach. It takes the voices of the patient into consideration from the beginning of the innovation process from which many stakeholders are beneficial.

Although the patient-involved approach has been considered in different aspects of innovation, little empirical research has been done to justify this approach due to some of the reasons. First of all, the representativeness of the patient is a primary concern in patient involvement initiatives. As a result, there are particular groups of the patient, who cannot articulate clearly their opinions and socially excluded or in critical conditions (e.g. dementia patients, mental health patients). Second, healthcare practitioners and managers might have bias over groups of patients who can articulate, and who can show enthusiasm to participate in the decision-making or service development processes. Third, patients can cooperate with healthcare professionals and managers and become insiders. Thus, those patients are representative, and that creates

a hierarchy of patient involvement. (Martin 2008.) That is why there is still room for further research due to the limitations in exploring the scope and range of patient involvement in service innovation. There is always a gap and it is necessary to describe patients' perspective, and their engagement to service innovation. Besides that, the academic research on the science of healthcare service innovation has been still limited. There are only some articles that highlight the relationship between innovation and healthcare sector in the recent decade (e.g., Länsisalmi et al. 2006; Varcay, Horne & Bennet 2008; Omachonu & Einspruch 2010; McNichol 2012; Berwich 2003; Wass & Vimarlund 2016).

Therefore, considering patient involvement in service innovation is a relevant, interesting and crucial topic for not only governmental and non-governmental healthcare organizations but also for practitioners in the sector. The purpose of this study is to discover patient involvement in service innovation in elderly care (the case of memory disorder patients) in Finland. The author would like to investigate in-depth in the context of elderly care in Finland, particularly for elderly patients with memory disorders, and add more critical elements such as patient involvement in different activities of service development process and how they can influence each other towards successful service innovation.

1.2 Context of the study

It is necessary to discover and define the context in which the phenomenon, in this case, patient involvement in service innovation in elderly care, takes place so that it would be able to provide a clear image for the readers. According to Johns (2006), the role of defined context is crucial because it acts as situational opportunity and constraint that affects the true meaning of behavior and investigates the relationship among variables. That is why context should not be overlooked in any research by the researcher. The context is defined as "the surrounding associated with phenomena which help to illuminate that phenomena, typically factors associated with units of analysis above those expressly under investigation" (Cappelli & Sherer 1991, 56). Another definition for context comes from Mowday and Sutton (1993), context is defined as "stimuli and phenomena that surround and thus exist in the environment external to the individual, most often at a different level of analysis." In his research, Johns (2006) also discusses many faces of context such as salience of situational features, situational strength, cross-

level effect, configuration or bundle of stimuli, an event, shaper of meaning, and a constant. In this study, defined context can help to explore the vibrant and deep meaning, and sharp the sense of underlying organizational behavior and attitudes as the investigation is focused on patient involvement through the lenses of healthcare practitioners. Therefore, a context is in need to be drawn to help the readers have a transparent perception of involved stakeholders in the phenomenon.

In this case, the author identifies four critical stakeholders for this specific context, in elderly care: patient, family members and other loved ones, public healthcare organizations, and elderly nursing homes (see fig 1).

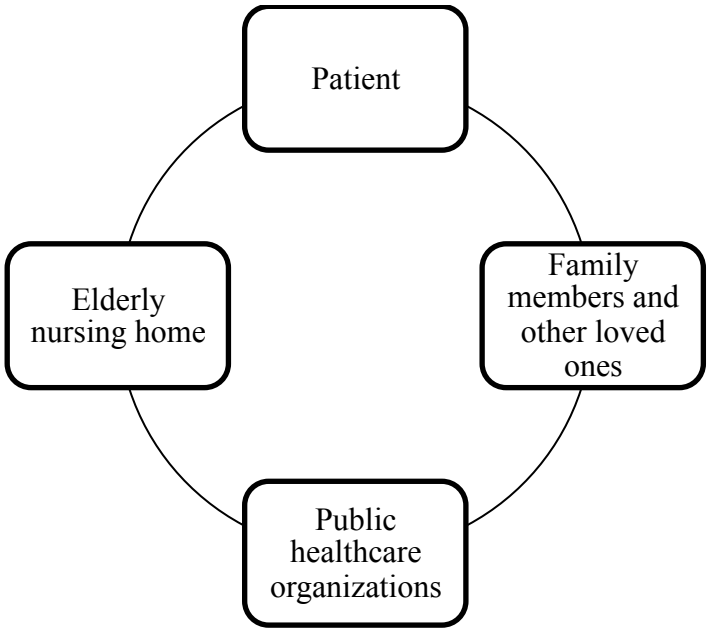

Figure 1 Context of this research

Key stakeholders are defined for this particular research as the following:

- *Patient*: elderly people who need some form of professional care, especially those with a memory disorder. They are receiving care from healthcare professionals and managers.
- *Family members and other loved ones:* they are defined as family members or other loved ones of patients and their roles are prominent important because they also take part in the decision-making process. In this case, the family members or other loved ones help to illustrate patients' opinions on service development.

- *Public healthcare organizations:* public organizations act as policymakers and they are in charge of healthcare legislation.
- *Elderly nursing home*: investigated nursing home, which provides healthcare services towards patients and is closely linked to family members and loved ones. The nursing home includes healthcare practitioners, nurses, managers, and other staff.

Later, the research will investigate the relationships among these stakeholders and how they potentially influence service innovation to get more profound understandings and justify the purpose of this study.

1.3 Purpose of the study

Innovation has been studied widely in different fields (technology, healthcare, services, e.g.) within different industrial contexts. Besides, there are several studies regarding patient such as patient-involved approach, patient's perspective, patient's behavior and so on (e.g. McNichol 2012; Hulka & Wheat 1985; Taylor 1979). However, the relationship and connection between patient and service innovation have not been appropriately studied. Also, there is a growing demand for understanding the mechanism between patient involvement and service innovation in the case of elderly care because of the aging population. Therefore, a question arises here regarding this relationship and this question also acts as the central research question of this study:

What is the role of patient involvement in service innovation in elderly care?

The main research question is followed then by three sub-research questions:

Question 1: What factors constitute patient involvement in an elderly care setting?

First of all, it is needed to understand the concept of patient involvement in elderly care setting. The elements define patient involvement varies and depends on the context. Even in the same field, it can be different from the public and the private sector. In this research, the case study relates to private sector, so it is necessary to constitute an appropriate approach for this sector.

Question 2: How to facilitate patient involvement in different activities of service innovation development?

Which is the element to facilitate the involvement of patients into service innovation? Finding the connection between those elements to perceive whether they have mutual impacts on each other or not is necessary.

Question 3: How would patients affect service innovations in elderly care with the patient-involved approach?

Last but not least, combining with the first three small questions, the final question indirectly finds the answer for the main question by exploring the influences from patients toward service innovation in elderly care.

Hence, the author would like to examine the relationship and connection between patients with service innovation in elderly care with memory disorders by conducting a case study in the context of Finland to explore and understand in-depth the phenomenon. In terms of the relationship between the patient and service innovation, there are several matters needed to be covered; for example, factors constitute the involvement of patient in service innovation, how patient take part in the service development process, and how would they affect service innovation with patient-involved approach. To sum up, the overarching goal of the study is to investigate the involvement of the patient in service innovation within elderly care services.

2 LITERATURE REVIEW

2.1 Service Innovation

2.1.1 Definitions of service innovation

Commonly in vogue as of now, people see tremendous changes in every aspect of life from politics, economics, science, to socio-culture, healthcare, and education. Changes may be defined as the movement away from the present state towards a future state. Have we ever wondered which factor enabled the progress towards the future? In the opening of the 20th century, it has brought out several inventions and new ideas, which leave significant impacts on society with the assistance of technological development. Take an initial example, we saw the appearance of Telehealth technology, Telehealth has become an essential part of patient daily lives and it is expected to be more developed as the internet of things is taking off. It enables a more convenient way for customers to access and increase self-care while potentially reducing hospital and clinics visits and travel time. This new concept is enabling the movement towards the future and at the same time opening the modern era for humankind through what is so-called service innovation.

First and foremost, it is necessary to understand what innovation is in healthcare? According to Länsisalmi et al. (2006, 67), innovation in healthcare organizations is "typically new services, a new way of working and/or new technologies." This definition is widely adopted among researchers in this field, as it includes the most essential nature of innovation: novelty, an application, and intended benefit. Besdies, from pool of literature for the natures of innovation, it is believed to possess these characteristics: multi-dimensionality, newness, improvement, change, and as a process (Cooper 1998; Johannessen, Olsen, & Lumpkin 2001; Baregheh Rowley, & Sambrook 2009). First, it is undeniable that innovation can come in several forms regardless of the definition used (Damanpour 1992; Utterback 1994). That is why giving rise to the question of whether to treat many types of innovation as different phenomena or as distinguished dimensions of a more complicated process. Cooper (1998, 497) proposed a multidimensional concept to solve this issue. The idea was based on the relationship between an organizational structure with the type of innovation. This model suggests a multidimensional framework for considering and evaluating the connection between organizational natures and the adoption of innovation. It additionally gives proof for the

multidimensional nature of innovation. Second, Johannessen et al. (2001) and Baregheh, et al. (2009) work has provided further clues for newness, improvement and change nature of innovation. As an empirical study of Baregheh et al. (2009), which based on key attributes from the pool of innovation definitions and descriptors used by those definitions, showing diagrammatic definition of innovation, 'new, improve, and change' are important components which made up innovation. Lastly, innovation is a process, not a discrete act (Baregheh et al. 2009, 1333). In the study, the term process is used as two distinguished concepts: process as a type of innovation and process as the set of routines or procedures. Throughout the analysis of related literature, the word process has appeared frequently in several previous innovation definitions, and it is believed that widespread usage of this word as an indication of the fact that innovation is a process not a discrete event.

Furthermore, today more and more economies in the world depend on the services sector. As a result, there was greater interest in exploring new service development (NSD) and knowledge of predecessors for successful service innovation. There are different schools of thought concerning definitions of services; however, services are believed to possess those characteristics as intangible, heterogeneous, perishable, and inseparable (Lovelock 1983; Shostack 1977; Thomas 1978). Besides that, according to Lenka, Suar, and Mohapatra (2010), service quality and customer satisfaction are influenced by quality management and this practice is controlled in two different aspects of service: hard and soft services. Differetitating between these two kinds of services give more insight into the understanding of service itself. Hard service relates to the management information system and physical evidence while soft service consists of transformation leadership, workplace spirituality, employees' affective commitment and job satisfaction (Lenka et al. 2010). In this particular study, the main focus would be on the soft aspect of service as service innovation.

Likewise, Berwick DM and Shore MF (1999, 661) have described healthcare as '' the world's largest service industry'' and Länsisalmi et al. (2006, 67) also defined innovation in healthcare organizations as typically new services. It is undeniable that healthcare is mainly a service industry. Therefore, considering healthcare as a service solely is needed to limit the scope of this study. The author wants to concentrate on service perspective of healthcare innovation, thus researching definitions and natures of service innovation is unavoidable.

Research stream on service innovation has been enlarged over the last decade because of the rise in service-dominant logic perspective (Vargo & Lusch 2004), there is more and more extensive literature regarding service management, service marketing, and service innovation. As a consequence, service innovation is believed to be pervasive, and its benefits on economics growth are undeniable. It is "needs to be broadened to adequately capture innovation in services" through empirical studies. (Vang & Zellner 2005, 148.) Service innovation is believed to be a fusion of product innovation, which is, ''the introduction of new product, or a significant qualitative change in an existing product'', and process innovation, as ''the introduction of a new process for making or delivering goods and services'' (Greenhalgh & Rogers 2007, 4). This is in line with the idea of Grönroos (2007), as service innovation is a vague term, it can be considered as either an intangible product or a process.

Later, Durst, Mention, and Poutanen (2015) defined term service innovation as ''innovation taking place in the various context of services, including the introduction of new services or incremental improvements of existing services''. In the study, the process is believed to be one kind of service innovation and service innovation is different from product innovation because of its intangible nature. It can be considered as both intangible product and a process, so service innovation means innovation in service industries. This definition will be embraced for this particular study because of its specific coverage and suitability in this context.

2.1.2 Natures of service innovation

In their work, Den Hertog & Bilderbeek (1999) provides four-dimensional model for conceptualizing service innovation and its patterns. In this model, it includes the four dimensions: the service concept, the client interface, the service delivery system/organization, and technological options. This model helps to understand the construct of service innovation.

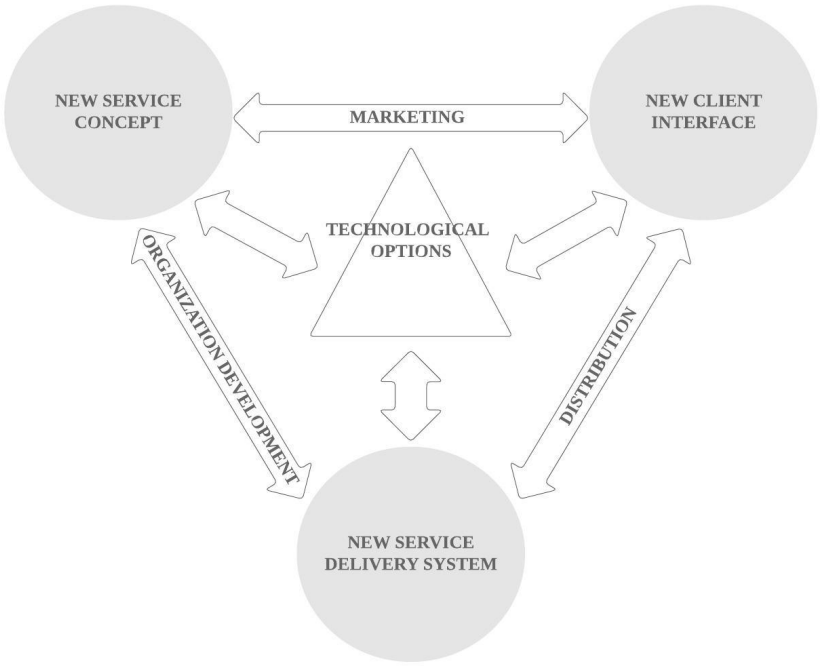

Figure 2 Four-dimensional model of service innovation (Den Hertog & Bilderbeek 1999, 5)

- Dimension 1- *the service concept*: unlike product innovation, service innovations are mostly intangible and not so much physically present. They are usally new idea or concept on how to solve a problem or to organize things. The critical point is the novel application of new service concept into a specific market. For example, technology epiphanies in action - the kid-friendly medical environment concept for taking CT and MRI from Philips.
- Dimension 2 – *the client interface*: it is the interface between firms and their customers, and it enables the communication between them. The communication between the service provider and their clients is an extreme important element for service innovation, and it is usually the focus of a novel service innovation. For instance, it is anticipated that medical treatment over the internet is the future of medical diagnostics.
- Dimension 3 – *the service delivery system/organization*: this dimension involves internal organizational arrangements. Service innovation is believed to incubate by firms' features such as new organizational forms, dynamic capabilities, skills, and employees' capabilities. Therefore, this system exists to assists firm to empower the employees to have better job performance and to contribute to the development of service innovation. The employees can be

trained and encouraged to perform creative and innovative acts, which lead to innovation. This feature usually exists inside the healthcare organization; it helps staff and healthcare professional to perform innovative actions and ideas.

- Dimension 4 – *technological options*: in some cases, technology is not always a dimension; service innovation can take place without technological innovation. However, there is still a stable relationship between technology and service innovation in this twenty-first century because of its pervasion and intrinsic function in all economic activities.

Den Hertog, Van der Aa, and De Jong (2010) have later introduced a new model consisting of six core dimensions to assist the firm in managing service innovation. The paper adds more to the understanding of service innovation by introducing a six-dimensional service innovation model and how to apply dynamic capabilities to service context. However, because of the scoop of this study, the author only examines the six dimensional model of service innovation in this case. Den Hertog et al. (2010, 494) believe that service innovation as a new service experience or service solution that consists of one or several of the following dimensions: new service concept, new customer interaction, new value system/business partners, new revenue model, new organizational or technological service delivery system. The model is presented in the following figure:

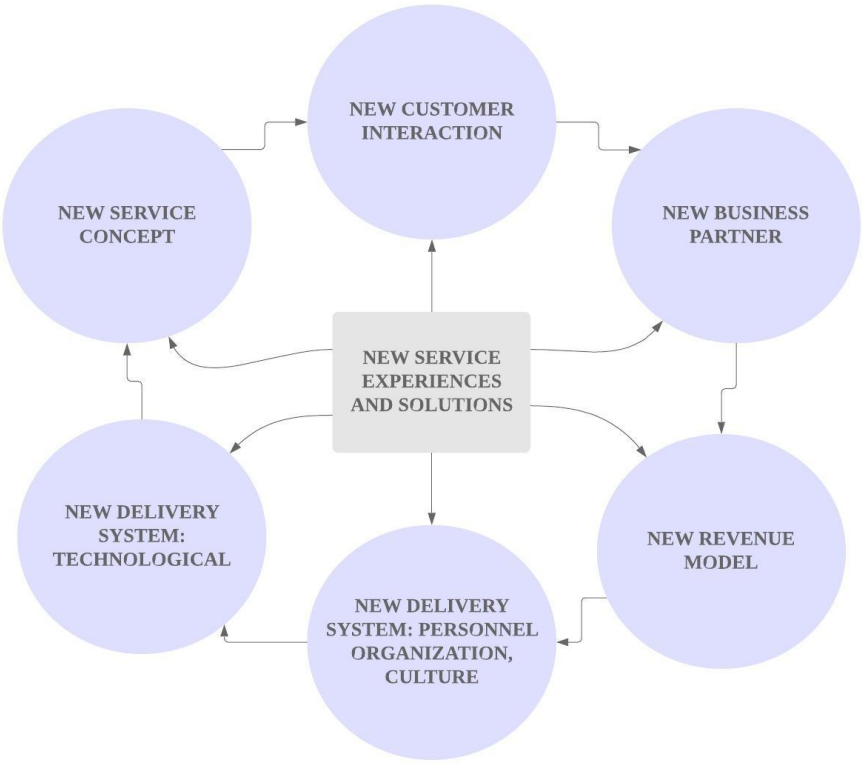

Figure 3 Six-dimensional model of service innovation (Den Hertog, Van der Aa, & De Jong 2010, 493)

It is known that the characteristics of service such as intangibility, less standardized, and more dispersed with a considerable amount of customer interaction and technological bias. That is why Den Hertog et al. (2010) try to cover a wide range of possible angles to understand service innovation with a mapped out six-dimensional model to cover possible dimensions for service innovation, which will be discussed in more details.

- *New service concept:* it describes the value that is created by the service provider in cooperation with the customer.
- *New customer interaction:* it is a new way to which the client is involved in service production and the role customers play in the creation of value.
- *New value system:* it contains new techniques or new value system that actual services are delivered to customers.
- *New revenue models:* successful new service ideas require the match between costs and revenues so finding appropriate models to distribute costs and revenues is necessary.

- *New delivery system – personnel, organization, and culture:* the organizational structure of a firm itself. A suitable and applicable organizational structure helps service employees to perform better and more effective.
- *New delivery system - technology:* which makes sure that the services can be provided efficiently.

This model has some similar elements from Den Hertog and Bilderbeek (1999) but further developed with additional factors to bring dynamic capabilities approach to service firms. Each of six dimensions or a combination of various dimensions can be innovated by service firms. The options and interactions between each dimension differ across individual and firm service innovation.

Later, Agarwal and Selen (2011, 1167) have formed a concept of service innovation as an ''elevated service offering'' which is made up of ''new client interface, new service delivery system, new organizational architecture or marketing proposition; and/or improvements in productivity and performance through human resource management''. This model was adapted from Den Hertog (2000) with the original idea from Den Hertog and Bilderbeek (1999). Nevertheless, in this paper, non-technical service innovation was also taken into account such as new business models/concepts, new customer/delivery interface, and new service-product offerings. That is why instead of technological options, Agarwal and Selen (2011, 1171) changed into organizational forms of innovation in the four-dimensional service innovation model to reflect a more extensive service network.

All of the above models and descriptions give hints for one of the characteristics of service innovation, which is the multidimensional aspect. Service innovation is believed to be a multidimensional and complex subject that has been investigated through diverse approaches and contexts (Giannopoulou, Gryszkiewicz, & Barlatier 2011). Innovation in service is different from the innovation in the product because services are believed to possess these characteristics such as intangibility, heterogeneity, perishability, and inseparability (Lovelock 1983; Shostack 1977; Thomas 1978). As a result, the characteristics of services influence the natures of service innovation. First of all, services are characterized by intangibility so that ''intangibility makes service innovation relatively more difficult to make inimitable through patent protection'' (Trott 2012; Miles 2005) and to measure its performance. Second, innovation activities need to be highly adjusted according to different contexts to arranging the innovation in

innovative organization as the impact from the heterogeneity of services. Lastly, because services are perishable, they are different from tangible products. Therefore, service innovation requires better managing of demand and capacity planning.

2.1.3 Service innovation process

To understand more about service innovation, it is necessary to dig deeper into its components and service innovation process is among one of those, which are relevant to this study. Thus, basic comprehension about service innovation process is needed.

Three-main-stage innovation process was developed by Myers and Marquis (1969) in consistency with the idea of Zaltman, Duncan, and Holbek (1973) that development and adoption of innovation are the processes comprised series of discrete phases. The stages are idea development, problem-solving, and implementation. In the initial stage – idea development, the design concept is generated. Then, if there is any issue regarding technical aspect of proposed ideas, it will be solved in the problem-solving phase. The idea, which gets through will be introduced to the market with pilot production and inter-area coordination at the final stage (Tushman 1977, 588.) Although this approach has emphasized on the significance of obtaining information through diverse external sources such as universities, suppliers, and vendors, it opted out some essential elements. For example, consumer feedbacks or ideas were not taken into consideration throughout three phases, which means that consumer is not critical communication domain in this approach. Therefore, it might be considered as a traditional approach that overlooks the role of the consumer in the process. The reason why the author chose to cite first acient references from the past (the 1970s) is because that it is necessary to examine how the ideas of innovation phases changed over different periods.

In later modern time, Haavisto (2014) has summarized different studies on the innovation process throughout the next three decades (1980s-2000s) (see table 1). The author believes that this summary contains enough information for the glance about innovation process from the last three decades.

Table 1 Phases of innovation process (Haavisto 2014, 17)

State-gate innovation process (Cooper 1990, 46)				
Preliminary Assessment	Definition	Development	Validation	Commercialization
Product innovation process (Rogers 1983, 135-148)				

Recognition of a problem or need	Basic and applied research	Development	Commercialization	Diffusion and adoption	Consequences
Proactive new development process (Urban & Hauser 1993b, 38-47)					
Opportunity identification	Design	Introduction	Life-cycle management		
Virtual product development process (Ernst et al. 2004, 196)					
Idea generation and evaluation	Concept building and project selection	Development	Testing	Market launch	
Product innovation process (Herstatt & Verworm 2003, 9)					
Idea generation and evaluation	Working with the concept, product planning	Development	Building the prototype, pilot use, testing		
Cyclical product innovation process (Wahren 2004, 22-23)					
Preperatory phase	Idea generation	Idea Evaluation	Idea Implementation		

New product development model (Trott 2005, 212)							
Idea generation	Idea screening	Concept testing	Business analysis	Product development	Test marketing	Commercialization	Monitoring and evaluation

Innovation process in phases (Soll 2006, 12)				
Idea generation	Concept development	Development	Product testing	Market launch
Product innovation process (Wecht 2006, 149)				
Idea collection or development phase	Further development and specification of ideas	Shaping and commercialization		

Product innovation process (Soukhoroukova 2007, 3)								
Idea generation	Product concept testing	Product development	Product tests	Product launch				
Product innovation process (Reichwald et al. 2007, 20)								
Idea generation and evaluation	Concept presentation	Development	Building the prototype	Market launch				
Key stages in the innovation process (Prandelli et al. 2008, 3)								
Creating the idea	Selecting ideas	Developing prototypes	Developing the product	Launch				
Consumer integration in innovation process (Daecke 2009, 13; Reichwald & Piller 2006, 44)								
Idea generation	Concept development	Prototype	Product/ market testing	Market launch	Completion	Fitting	Marketing	After sales
Synthesis of innovation process models								
Idea generation			Development			Market launch		

In this summary, most of the models are linear; however, Wahren (2004, 22-23) introuduced cyclical innovation process with the phases following in circle but not separated strictly. To generate fruitful innovation, it requires surprise and creative space. That is why the innovation process should not be too well-planned or precise. Despite the fact that there are several different definitions for concrete stages, the fundamental advancement is very much alike. Almost all of the processes begin with the idea generation stage, then idea development, and market launch stage at the end and the division of steps varies from four to nine different ones. (Haavisto 2014, 16).

Furthermore, the ideas of innovation have changed from time to time; it has developed from a simplier process into a more complicated process. With the new approach, the opinions and feedbacks of customers are taken into consideration through “after sales” or “monitoring and evaluation.” A strong relationship between services and customers is needed because customers tend to be involved in services in their delivery and purchase (Alam 2000). This relationship has made the big difference with the traditional approach, which does not take the voice of the customer into innovation

process. Also, the innovation process, in general, can be well applied in the case of service innovation because of the nature of service innovation as a process.

The synthesis of innovation process models from Haavisto (2014) will be adopted for further analysis in this case study because of its simplification and generalization. This synthesis can miss out some crucial stages in some studies; however, the author believes that it still be able to act as an appropriate tool for investigating patient involvement in service innovation.

After a thorough review of the literature regarding service innovation and its natures, and service innovation process, it is necessary to follow the direction, which has been initially made for this study. As the scope of this paper will focus on NSD in elderly care, finding out what factors constitute customer involvement and how a customer can be involved in the service innovation process are in need to give grounds for further analysis about patient involvement in service innovation.

2.2 Customer involvement in service innovation

First, it is needed to define clearly in this case that patients in this scenario are customers; they receive the services from the elderly nursing home. Therefore, the literature review of customer involvement in service innovation is crucial to have a ground understanding of the phenomena. The general knowledge and concepts regarding customer involvement without a context will act as a base for theoretical points of patient involvement with a specific context. In the later part, patient involvement in service innovation in the healthcare context will be discussed further.

2.2.1 Customer involvement

Customers' role is increasingly important in the NSD process, it is as a mean to tighten the feedback between the cycles of consumption and production. In the past, scholars have defined five roles that customer can play to contribute to firm's value creation: ''resources'', ''co-producers'', ''buyers'', ''users'', and ''products''. The first two roles can be the beginning of the process while others are at the end of the process. (Lundkvist & Yakhlef 2004.) It is believed that involving customers in NSD can make the ideas more authentic than that in involving professional services developers (Magnusson, Matthing, & Kristensson 2003). Besides that, many studies justified that to successfully develop new products, an organization must have a more in-depth

understanding of customer needs (e.g., Brown & Eisenhardt 1995; Craig & Hart 1992; Montoya-Weiss & Calantone 1994). Likewise, some scholars have found out that customer involvement is an essential successful element for new services as well (e.g., de Brentani 1995; de Brentanni & Cooper 1992; Edgett 1994). How customers are involved in different settings has been described in the various pool of literature and policy document from many firms. Nevertheless, there is no existence of such a clear definition of customer involvement. The author believes that it is more vital and necessary to understand the construct and the factors, which facilitate customer involvement than to try to define precisely what is customer involvement by words. Therefore, the question is raised here, so what constitutes customer involvement?

Alam (2002) introduces the concept of customer involvement in NSD. The idea includes four key elements: "objectives, stages, intensity, and modes of involvement" which will be further analyzed.

- *Objective*: the reason for customers to involve in the service innovation process.
- *Stages*: in which stages of the service development process are customers involved?
- *Intensity*: the level and degree to which customers engage in different stages of the service development process.
- *Modes of involvement*: the means to which information and input from customers are obtained.

Alam (2002) investigated mentioned above four elements in twelve service firms in his study. The findings explain in details the content of each essential component. First of all, the motivation of the firm to involve customers is from the need to develop new service successfully. All the participants have all agree on the primary purpose of customer involvement (successful service development); the modes to achieve that goal are varied though. Second, customers are involved in almost ten stages of NSD process from Alam (2002) concept; however, there are three main vital phases including idea generation, service/process system design and service testing/pilot run. Third, the intensity of customer involvement is defined with the continuation with four main levels: passive participation, information, and feedback on specific issues, extensive consultation with customers, and representation. Customers participate passively at the least extreme end of the continuum whereas representation is the harsh end of the continuum. Additionally, the participation of customer is more intense in those initial

stages and later stages because respondents believe that the beginning and the end are crucial in a process. Last, there are six main modes of involvement defined in this study including face-to-face interviews, customer visits and meetings, brainstorming, customers' observation, and feedback, phone calls, faxes and emails, and focus group discussions. It is proven empirically that in-depth interviews and customer visits to service development firm are two most crucial modes of customer involvement in this study because it is easier and cheaper to achieve customer input through these two modes.

Magnusson (2003) shares almost the same idea with Alam (2002) regarding key elements of customer involvement with "*purpose, stages, intensity, and modes.*" Nevertheless he added one more aspect, which is "*type of customer.*" The objective of customer involvement is to help to generate new ideas into the service development process. Then, he summarized the stages into idea generation, idea conceptualization, and idea assessment and they are regarded as "front end of innovation." Customers are encouraged to participate in idea generation either by themselves or in collaboration with the firm. Magnusson (2003, 36) assessed six modes mentioned above by Alam (2002); however, he added more ways for example: providing customers with toolkits for innovation. Especially, when customers are involved in co-development, more modes will come out.

Furthermore, in the perspective of Lundkvist and Yakhlef (2004), customer involvement contains different suggestions, ideas, and feedback, which are exchanged during conversation and interactions between customer and firm's employees, in the case of innovation-related activities. Customers will be regarded as a "legitimate actor" during the innovation processes if the organization desires to emerge their customers into the process. In addition, "collective actor" is another way to involve customers, which emphasizes on granting customer opinions and ideas into the service development process. The customer involvement can be characterized by having the purpose of creating the ideas for new services, and the intensity is at the higher part of the scale. This is widely accepted among academic professionals and researchers; they have focused on customers as a source of new product ideas. Thus, customer involvement is relevant to the conceptualization of new product and service. (Lundkvist & Yakhlef 2004.)

Next, it is necessary to dig deeper into customer involvement in the development process to figure out how a customer can contribute and to what extent the customer involvement is beneficial.

2.2.2 Models and frameworks of customer involvement in service innovation

There are particular articles, which shall be reviewed to build up the theoretical background for this specific study (Martin, Horne, & Schultz 1999; Alam 2002; Alam & Perry 2002; Magnusson et al. 2003; and Ngo & O'Cass 2013). Through the lens of the service innovation process, patients' as customers' or end customers' perspective will be analyzed. Up to date, there are several research streams regarding the significance of customer input to ease marketing objectives. In the past, the focus of scholars was mainly on new tangible product development. Although the findings of prior studies are useful for fostering about the future of customer-producer interactions, there is a need to extend this debate to the new services area. As a result, there is a dearth of literature in NSD and the literature on customer involvement is seemingly disintegrated and deficient because the divergence in scopes and elements which needs of more theoretical frameworks and empirical evidences. (Alam 2002.)

Martin et al. (1999) was among pioneers in this specific topic and addressed the role of the customer in service-dominant offerings and risks raised from input uncertainty from customers. One of basic concept about particular roles of the customer is analyzed here to highlight the critical roles of the customer. The customer is not only the consumer but also co-producer of the production process. These complicated roles affect how the customer can participate in the innovation process. (Martin et al. 1999.) Recommendations are also made by Martin et al. (1999) to mitigate risk factors in this process by performing risk assessments, customer training, and education in the techniques. However, innovation process and customer involvement here are placed only in the business-to-business environment, which is not difficult to be further generalized for other contexts like the business-to-customer.

Furthermore, the framework of Alam (2002) is utilized here to generate ideas so that the idea generation stage is the main focus of his whole study. Also, intensity of customer involvement is analyzed using diverse modes of involvement. The contributions of professionals and customers in the task of generating ideas have been compared. The empirical findings show that customer involvement influences idea generation, which tends to be more original whereas the ideas from customers are hard to convert into commercialization. Another finding in case of customers with

consultation from professional services developers is the mutual learning process. Professionals can earn valuable information regarding customer's needs and wants while customers can learn about current technology, its restrictions and what idea can be put into real practice. In technology-based services, it is necessary to involve customers in the development process as soon as opportunities arise. Customers might not control the design process, but their influential role is needed. (Magnusson et al. 2003.) Despite the fact that customer involvement is not inspected throughout the whole innovation process, new insights are given concerning customer input and its influence on outcomes in the idea generation stage. The empirical experiment was placed in technology-based self-service; the results from the study can be generalized and applied in other industries as well. In this particular experiment, the procedure for customer involvement applied in a realistic way of organizing customer involvement. Therefore, the validity of generalizability for future research exists. In the healthcare industry, utilizing new technology in providing services for patients is implemented; thus this research is able to provide useful and insightful information concerning the participation of patients in developing service innovation.

Services firms are facing increasing competitions on the markets because of the turbulent and rapidly changing environment. That leads to a need for interaction with customers and acquiring input from them for firms to survive. (Alam 2002.) That is the reason why Alam (2002) further continued to develop this important topic and provided a theoretical framework with four key elements of customer involvement, namely objectives, stages, intensity, and modes of involvement.

First of all, the study of Alam (2002) has provided six objectives, namely superior and differentiated service; reduced cycle time; customer education; rapid diffusion; improved public relations; and long-term relationships which have not been developed in previous related literature for why the customer would like to contribute to the NSD process. Acknowledgment of these objectives can help the firms and customers obtain a common ground for further actions in the future in the process. This has managerial implications for managers to be proactive in cooperation with the customer from the first stage till the last stage and they are advised to be alert with many benefits that can be obtained thanks to customer involvement in NSD program.

Second, it provides a deeper understanding of the overall process and how the customer can participate in the NSD process. From examining existing literature in combination with exploratory interviews, Alam (2002) adopted two service

development models, one is eight-stage-model of Bowers (1989), and the other one is fifteen-stage-model by Scheuing and Johson (1989) then developed into ten sequential stages of NSD. There are ten main stages of the development process, including strategic planning, idea generation, idea screening, business analysis, the formation of the cross-functional team, service and process design, personnel training, service testing and pilot run, test marketing, and commercialization. Although customers are involved in most of the ten stages, customer input in the stages of idea generation, service design, and service testing and pilot run is seemingly more important than in other stages.

Third, it is found that the intensity of customer is different from stage to stage. In the initial and later stages, customer involvement is more intense.

Last but not least, the findings show that customer can involve in NSD through various modes such as interview; customer visit and team meeting; brainstorming; customer observation and feedback; phone, taxes and emails; focus group and interview; and the interaction with customers in management retreats. The first two modes are considered as the most popular ones of customer involvement. The managers should consider those effective techniques, which have been discussed in the literature to acquire successfully customer input in their NSD programs. (Alam 2002.)

Later all, Alam cooperated with Perry (2002) to extend the existing model of NSD proposed by Alam (2002) into two specific stage models. Using the same method as Alam (2002), they found out that there is a linear model of the development process and parallel model of the development process. Although whether the development stages should be linear or parallel is still in a debate by many scholars. Some researchers (e.g., Scarbough; Lannon 1989) believed that linear sequential model is not suitable for NSD, while other scholars consider the linear model to be one of the success factors for new service (e.g., Cooper & Edgett 1996; Edvardsson & Olsson 1996). The research proposes that managers should adopt a linear system to implement development activities from idea generation to commercialization. Nevertheless, some stages that can be conducted simultaneously if there requires developing the service promptly, precisely three pairs of stages: strategic planning and idea generation; idea screening and business analysis; and personnel training and service testing. Besides, the size of the firm possibly influences the model of the development process. Large firms tend to adopt a sequential model while smaller firms choose the current model. (Alam & Perry 2002.) Although those researches were placed in business-to-business context and Australian financial services organizations were mainly selected for analysis, the

findings from the literature are beneficial for further interpretation and analysis in the customer involvement in service innovation in the healthcare sector.

There are many schools of thoughts on the positive effects of customer involvement in service innovation (e.g. Magnusson et al. 2003, Ngo & O'Cass 2013, Engström 2014). The opposing ideas, which believed that customer involvement could not bring benefits to the firms, were raised by many researchers though (e.g., Bennet & Cooper 1981; Christensen & Bower 1996; Leonard & Rayport 1997). Realizing the need of studies regarding actual benefits of customer involvement, Magnusson et al. (2003) confirmed the positive effect of customer involvement, if probably managed, in service innovation on the quality of created ideas and valuable customer information by an experiment in three dimensions, including originality, customer value, and producibility. New innovative ideas and useful services are developed by the participation of customers.

Another study from Ngo and O'Cass (2013) proposes that customer involvement is enhancing the service firm innovation capabilities on service quality. As a result, service quality affects positively on firm performance. The interrelationships between those elements (customer participation; service innovation, service quality, and firm performance) are investigated in this particular study.

The first finding is that innovation capabilities (both technical and non-technical) affect service quality through customer involvement. Another interpretation is that customer involves positively influences service quality. Innovation capabilities are a necessary but not sufficient condition for improvement of firm performance; thus customer involvement should be considered as a possible variable that firms can adopt to manage innovation activities. This idea is in line with the finding from Magnusson et al. (2003) stating that customer involvement drives neither development process nor firm performance. It just plays an influential role in this scene; the customer is a co-creator of value so that the goal is to mobilize customers to create their value from what the firm can offer for them. ''Service activities are integrated by the customer with their value systems to co-create value-in-use'' (Mustak 2013). A new insight is developed, the relationship between customer involvement and firm performance are mediated by service quality. Not only service quality but also customer knowledge, experience, and motivation might affect the relationship between customer involvement and firm performance.

Although the technical aspect of innovation is undeniably crucial in any industry, non-technical innovation is significant as well and needs more attention from managers. Notably, this case study involves mainly non-technical innovation for service innovation so that this path should be emphasized and analyzed further in more details. Those capabilities influence customer involvement and therefore affect service quality in the firm. (Ngo & O'Cass 2013.) Although the study by Ngo and O'Cass (2013) is limited in the sample of some firms in Australia, the insights this research provides are outperformed. The developed conceptual framework is beneficial for researchers to evolve academic theories concerning customer involvement in service innovation further.

Later, Engström (2014, 24-25) states that the benefits of customer involvement can be divided into four categories: "advantages of obtaining the customer perspective, understanding latent needs, increased innovative capacity, and increased creativity." These four categories will be discussed in more details hereby.

Obtaining the customer perspective: this can be considered as the most common benefit from involving customer into service development. It allows the firms to see themselves through customer's lenses and customer perspective should be included throughout the innovation process. This concept closely links to service-dominant logic in which customers act as a value-creating actor, and they integrate their resources from various sources (Vargo & Lusch 2004).

Understanding customer latent needs: there are some particular needs that customers can be able to express clearly, and there are sometimes they do not even know what they want, and it is hard for them to articulate their needs in reality. It is called latent needs which customers are not aware of. It is significant for the firms to understand these latent needs because it can be the game-changing feature in the market.

Increasing innovative capacity: a customer might already own innovative solutions to their need in some cases, and they are called lead customers. Involving lead customers in the service innovation process is vital for the firms because they can help to provide lead market solutions and innovation with lesser efforts.

Increasing creativity: it is undeniable that customers can bring new solutions and thoughts to the development process beside experts from the firms. Sometimes, the knowledge, which experts possess, might hinder them from searching for the creativity and solutions.

Although there are limitations in each study above, the insights concerning customer involvement in service innovation in those studies are vital, and it would contribute to building up the theoretical background for this particular research. It is needed to extend these academic theories and conceptual frameworks further in the particular healthcare context to examine the role of the patient to answer the ultimate research question of this topic: "What is the role of the patients in service innovation in elderly care?" The following section will discuss in a more specific context of healthcare service innovation and patient involvement.

2.3 Patient involvement in elderly care service innovation

In developed economies, care services for elderly people are a specific dynamic sector, but their activities are not easily defined. The diversity of these elderly services makes it hard to identify them and that causes problems towards innovation in elderly care. The first issue is the difficulty to recognize innovation, and the second one is fundamentally extending its sphere of application. (Djellal & Gallouj 2006.)

Besides, in the research of Djellal and Gallouj (2006), the concept of CSE polygon was introduced as a result of adapting from PCS triangle from Gadrey (1994). From the original idea, the relationship between P (care workers), C (customer, user, recipient, elderly people), and S (service medium) create a triangle towards care services for the elderly person. In the adapted polygon, four determinants were added to create the polygon concept. They are O (provider organization, P' (relatives of the elderly person), I (intermediaries), and R (regulatory institutions).

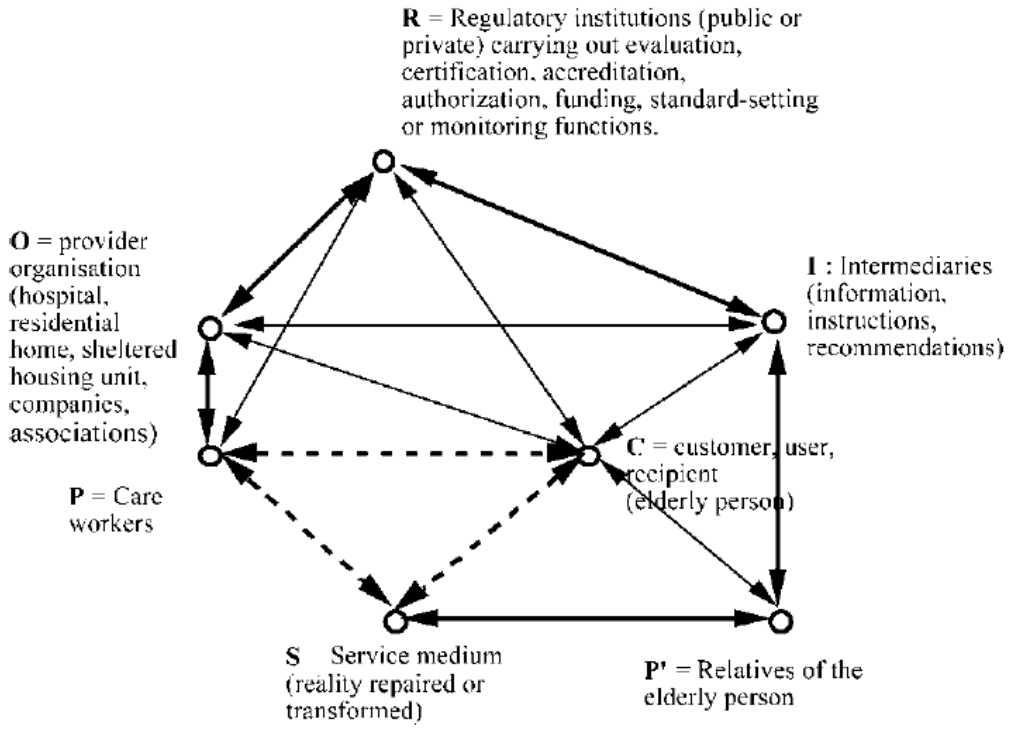

Figure 4 CSE Polygon (Djellal & Gallouj 2006, 305)

In the case of elderly care, the customer, user, or recipient is an elderly person. Also, the medium is physical and intellectual characteristics of the mobility of these elderly people if a medio-social definition of care is adopted. It is useful to add more specific determinants into the original triangle to give a more precise definition and representation of care services for the elderly.

- The regulatory system includes private and public institutions that conduct evaluation, certification, monitoring, and funding.
- The elderly person's family members who can give out instructions and various forms of services.
- The healthcare providers who offer services towards elderly people.
- The intermediates – usually voluntary organizations or other organizations that act as proxies or representatives.

This model will act as the theoretical base for later empirical research regarding factors facilitating service innovation in elderly care with patient involvement.

Besdies, service innovation in healthcare usually happens in microsystems approach and evidence-based medicine. Also, healthcare improvements are typically driven by processing data, following industrial quality management approach, and continuous efforts to enhance the use of evidence practices. (Engström 2014, 29.) These

involvement methods often overlook the role of customer and customer involvement. There are trustful evidence that customer involvement can bring huge benefits and help to improve health outcomes in certain circumstances (Crawford, Rutter, Manley, Weaver, Bhui, Fulop, & Tyrer 2002). However, the variety of involving methods makes it hard to define and give general statements regarding effects that customer involvement leaves in the healthcare sector. Greenhalgh, Humphrey, and Woodard (2010) provide some inputs that customer can contribute to the development process: decisions about their own healthcare; co-designing, redesigning, and developing services, and change management; teaching professionals and developing learning materials; undertaking peer education and support; capacity building; staff recruitment; clinical governance activities and/or the development of clinical guidelines; evaluating service provision; taking part in research; sitting on steering groups and other governance roles.

In the study, Greenhalgh et al. 2010 also reviewed two approaches to customer involvement in the healthcare sector, which are *democratic* and *consumerist*. In the *democratic* model, the aim is to improve effects and control ability to the services we use, and the voices of all customers should be taken into account regardless of their willingness and conditions. There are some critics for this approach as it does not consider different types and settings of involvement. Critics believe that it does not make sense to involve the voice of those customers who do not wish to participate. On the other hand, there also has been an increase in the amount of professional service customers, who obtain special skills and knowledge during the time and are qualified for joining the development process, albeit their representation for the community is still in doubt. The second approach is *consumerist* in which patients, as an economic rational decision maker, can choose between different services and accomplish their choices. Although this approach has become so popular in the field, there are still critics existing in political aspect. They doubt the ability for the patient to choose their healthcare when they are sick and in adverse conditions, which means the government slightly changes responsibility from the state to the individual.

McNihol (2012) introduced patient-involvement approach into healthcare innovation: “an additional approach that can facilitate more divergent thinking. It places patients at the beginning of the innovation process and then at critical decision-making stage gates throughout the development.” The opinions and experience of patients are as important as carers’, although patients provide different type of expertise into development

process. He believes that patient involvement in healthcare innovation has always been that information is gathered through feedbacks and consultation rather than active participation in the innovation process. Nevertheless, as the beginning of the new era and paradigm of healthcare policy, it is now tools and mechanisms where patients can now affect innovation process within service and product development. The empirical research with two projects: “leg ulcer project” and “product information for patients” was conducted to illustrate the benefits this approach can bring. It is believed that patient-involvement approach to innovation can help the company to recognize new market share and new methods to enhance existing products and services. Besides, McNihol (2012) believes that for the voices of the patient can effectively influence the development of a service or product; the patient should be able to articulate themselves and willing to listen to new antagonistic perspective. The principle of co-creation between healthcare professionals and patients also plays a vital role in NSD process.

It is necessary to discuss co-creation in healthcare here to make clear about roles of patients. There is an increase in the pool of literature review regarding patient co-creation and the part of patients, which has changed from passive to more active roles. In healthcare, patients can be both as “productive resource” and as “contributor” to quality, satisfaction, and value of their care (Bitner, Faranda, Hubbert, & Zeithaml 1997). These roles can be considered as active roles as further discussion. With *productive resource*, patients are encouraged to provide inputs, which can influence the effectiveness through both quality and quantity. As a result, patients are part of the service production process in the healthcare organization. However, some researchers think that patient involvement in service production can cause a number of problems, and it is believed that delivery system should be separated from patient input as much as possible to tackle those problems.

On the other hand, increasing productivity of organization is not what patients as *contributor* care about but their fulfilment. In the case of healthcare services, the outcome is much dependent on how patients take part in because they are an internal part of the services. In sum, the co-creation for use in healthcare leave positive impacts on clinical outcomes and lower costs as an increase in quality of patient’s treatment (Martin, Williams, Haskard, & DiMatteo 2005). Thus, healthcare organization should take this into consideration and design service systems that can involve patients as resources in value co-creation.

Elg, Engström, Witell, and Poksinska (2012) have introduced a model for patient co-creation and learning as a clear example of patient co-creation and learning. It is significant for healthcare professionals to have a strategic plan for service development and this model assists them to perform that job more manageable. Also, the healthcare organization would be able to concentrate on the right area through the model according to their values and goals.

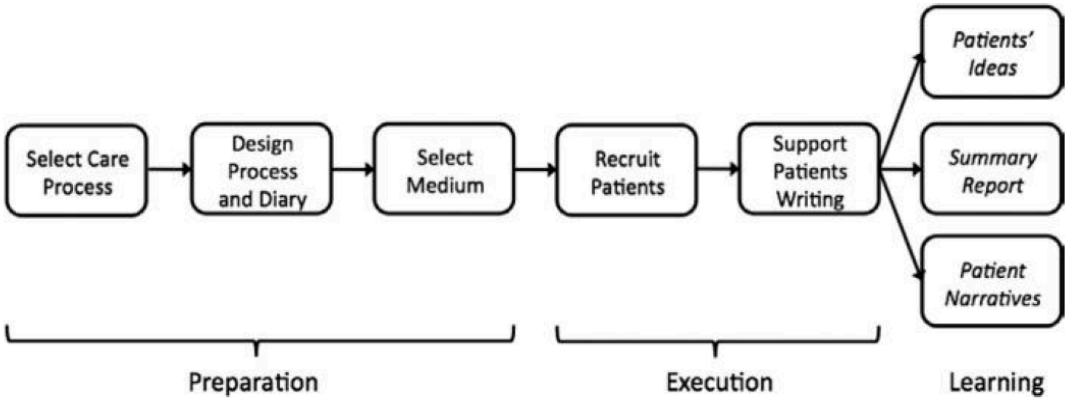

Figure 5 Main steps in model for patient co-creation and learning (Elg et al. 2012, 333)

This model consists of three main parts, which are preparation, execution, and learning to enable co-creation in healthcare service development. It helps to establish supporting processes, methods, and tools to attain knowledge from patient experiences in reality so that inside out perspective can be included in healthcare service development. Every single part is as crucial as other part, and they should not be taken for granted.

First of all, preparation can be conducted through the selected care process, design process and diary, and selected medium. Depending on the care process, the contribution of patients is different towards service development and the model has the greater impact on care processess with a higher level of co-creation for use. The decision about design process, and diary is vital in terms of both ethical and practical senses and it should be defined during the early stage. Additionally, it is necessary to structure the diary to allow relevant information and ideas to be collected and support healthcare service development. From Elg et al. (2012) research, the diary covers demographic data and reasons for involvement with healthcare service. The selection of medium relates to how the diary can be used and illustrated, the study defined in three different channels, namely paper and pen, blog, and telephone.

Furthermore, the execution was conducted via recruiting patients and supporting patients writing. The recruitment in the study was performed randomly, but it is up to the goals of the organization so that they can choose the alternative strategy of patient selection. The writing is ensured by anonymity so that the patient indentification and their family members' are opted out.

Last but not least, there are three main ways indicated from the research for the patient learning process, which are patient ideas, summary report, and patient narratives. The insights gained from patients are mainly incremental improvements to healthcare services so they are appropriate input for operational usage. The summary report gives general information and statistics used in regional and national levels; this method helps healthcare organization to identify their strong and weak areas. The stories behind selective diary are worth investigation because it enhances the procedure for better understanding of the difference between giving information and patients taking it in, and at the same time develop patient informing procedure.

3 RESEARCH DESIGN

This chapter will elaborate on methodology, which is used for this specific study and this research design will be concentrated on the empirical research about the patient involvement in service innovation in elderly care. The structure of this chapter consists of six main parts. First, the justified reasons for the chosen research approach and strategy are introduced. Second, the case study strategy of this study is justified. After that, a case description section, it includes information about A case study. Fourth, data collection describes how participants are chosen, and the process will be explained in details. Fifth, the coding phase and analyzing process will be discussed in the data analysis section. Last but not least, the trustworthiness of the research will be evaluated.

3.1 Research approach

Researchers, investigators, and inquirers have many alternatives for research approaches. Selecting an appropriate approach is beneficial, and it guides all facets of the study (Creswell 2003, 3). Creswell (2003, 4) described two main streams of research approaches regarding different philosophical stances about the nature of reality, epistemology, values, and rhetoric of research, and methodology. They are classified as qualitative and quantitative approach, and these two approaches are not strange to the researchers even beginners. Either type contributes significantly to the scientific body of knowledge, and these two approaches can be used as complementary. According to Creswell (2003, 6) alternative knowledge claim positions, the quantitative research approach is connected with postpositive philosophical assumptions while social constructivism is, on the other hand, linked to the qualitative research approach. Keele (2012) shares the same school of thought with Creswell (2003) over research approach. Qualitative deals with naturalistic paradigm whereas quantitative aligns itself with the positivist paradigm (Keele 2012, 35). To be more specific, qualitative descriptive designs draw from the principles of naturalistic inquiry that is embedded in the constructivist paradigm (Lincoln & Guba, 1989). The difference between these two paradigms will be explained. Numbers of determining effects or outcomes are caused by the philosophy reflected by postpositivism. By carefully observe and measure the object existing in reality, knowledge is developed through a postpositivist perspective. In another way, social constructivism reflects knowledge through an alternative process

and set of assumptions. The meanings of the world, in which individual lives and works, are studied by his interpretation and the process of data collection is mainly inductive. (Creswell 2003, 8-9.)

There are numbers of reasons to choose one approach over another, but it depends mainly on the construction of research questions, and research purpose (Keele 2012, 35). Looking back into the main research question of this study: "What is the role of patient involvement in service innovation in elderly care?'', the question requires basic of knowing – meaning and discovery and it involves multiple realities that are continually changing with individual interpretation. In his book, Creswell (2013, 47-48) defines some of the characteristics when it is appropriate for the researchers to use qualitative research such as: explore, need a complex, empower individual, understanding the contexts, explain the mechanisms, and develop theories. The mentioned above fundamental characteristics derived from this study and the research questions are given by Creswell (2013) idea, and they are closely linked with qualitative research. Besides, the goal of this study is to investigate the involvement of the patient in service innovation across elderly care, demanded an intensive and deep understanding of the phenomenon. The existing literature of patient-involved approach and patient involvement in innovation build up a basic theoretical framework for this research. However, patient involvement in context-specific that is elderly care and service innovation is still blank and leave a gap for researchers. There are no clear-cut theories and guidance for the study of patient involvement in service innovation; this study has explorative and fundamental elements. Thus, to entail a new explorative approach, it is needed to have empirical research of collecting and analyzing the data. Additionally, by taking into consideration environmental characteristics, resource constraints, and cultural traits, it provides in-depth contextual insights (Thomas 1996, 497). Other traits of this study justify the selection of the qualitative approach. First, the human is at the center of data collection; the issue is approached from their point of view (observation and discussion rather than other measurement tools or techniques). The empirical data is collected through in-depth interviews with members of the nursing home, observations, and documents. Second, the data need to be observed and analyzed in a detailed and flexible manner to further develop the framework, not just testing the validity of the existed framework. This idea is closely linked with the inductive approach where finding emergence from empirical data is necessary. Third, the data is collected using a qualitative method that allows the voice of participants to be heard and

taken into account because in-depth interviews are chosen as the primary data collection method in this study. Last but not least, patient involvement in service innovation is a rare and undiscovered topic, the generalizations of one single case study can be interpreted with greater meanings thanks to qualitative research and lead to desired cumulative knowledge (Yin 2013, 327). The generalization is undeniable important for some researches; however; it is not the main purpose of this research though, the researcher desires to emphasize and make clear on this point again.

3.2 Conducting a case study

Within a qualitative approach, there are plenty of classifications of the strategies across fields/disciplines. However, Creswell (2013, 11) have summarized and based on his own experience, personal interests, and reflections to provide five different strategies that the researcher can adopt to gather and analyze empirical materials. Creswell (2013) describes and differentiates between narrative, phenomenological, grounded, ethnographic, and case study research. Choosing one strategy over the other is recommended to base on the outcome of the study – what the researcher attempt to achieve in a particular study (Creswell 2013, 123).

In this research, qualitative approach with a case study strategy is an appropriate option because "case study generates casual explanations and how it incorporates contexts" (Welch, Piekkari, Plakoyiannaki, & Paavilainen-Mäntymäki 2011). Furthermore, Yin (2013) states that case study allowing an in-depth inquiry into the phenomenon within the real-life context thanks to its ability to focus on the complexity and contextual conditions. This point of view is in line with Stake (2005), the case study assists the researchers to understand significant events and activities of the investigating phenomenon concerning particularity and complexity. Siggelkow (2007, 21) thinks that the usage of the case study is beneficial in the context of employing conceptual contribution as illustration. Additionally, research might more usefully present a case after the theoretical choices when using a case as illustration instead of inspiration.

Therefore, a more convincing argument about casual forces and a closer look to theoretical constructs are given thanks to associating the research with case data regardless of how cases are used (Siggelkow 2007, 22-23). That makes case study a viable choice among other strategies (Yin 2013, 322). The interesting phenomenon in this study is to discover and explain the patient involvement in service innovation

process within the elderly care setting. A case study of Organization Alpha is introduced only after the theory, and this is in linked to the argument of Siggelkow (2007). Furthermore, elderly patient involvement in service innovation framework is illustrated in the previous chapter before the investigation of the case study. The understanding is obtained through describing and investigating a case study - Organization Alpha for elderly healthcare services.

The ability to generalize has always been considered as a shortcoming of the case study method among the researchers. Nevertheless, Yin (1994, 1212) believes that the focus on case study design as a useful tool for overcoming this issue. To be more specific, the solution is to consider the case study as a particular unit. As a unit, it can be equivalent to an experiment so that the problem of generalizing from the trial is the same with generalizing from the case study. Also, an appropriate unit of analysis aids the data collection process and keeps it within the right path (Patton 1990, 166). How do we choose the proper unit of analysis when research can involve one or more units? According to Yin (1994, 22), it should be based mainly on how the researchers form the research questions, and the numbers of units of analysis will define the type of research. In this study, the main research question is "What is the role of the patients in service innovation process in elderly care?" This research aims at understanding the involvement of patients in service innovation, especially elderly care in Finland. Therefore, service development system in Organization Alpha is adopted as the unit of analysis in this case.

Questions might arouse in readers' mind at this point regarding "Why Organization Alpha case study?" Yin (1989) believes that a single case study is possible if an unique event or revelatory by nature, and well-formulated theory are presented in the case. Furthermore, there is the number of reasons to justify the chosen case study, and the fundamental basis of this case study fulfills specific criteria for generating competent data to answer the main research question.

First, this nursing home is operated in Finland within elderly care service, and they are still in the process of developing service innovation on a daily basis. Second, it allows the researcher to investigate a phenomenon within real-life context (elderly care) and provide insights and resonance for the readers from the perspective of experts. The interviews with caregivers and nurses from nursing home provide rich information about the investigated phenomenon. Third, there are great opportunities to get access to the research object – nursing home in this case with the assistance of Organization

Alpha's management board. Although the author is not part of the organization, the management board aids to arrange the interviews and provide suitable resources as they are capable of to assist the research process. The case organization is committed to the research project because it is also their interest. Last, the choice of informants helps for the data collection process, especially with the support from high-level managers of the nursing home for interviews and observations. Thus, the application of a single case study is a suitable choice to aid the research process in understanding and theorizing through presenting experimentally resonated data (Eriksson & Kovalainen 2015). The description of the case study Organization Alpha will be given in the next section to provide more insights and details for the readers.

3.3 Case description

Organization Alpha is a private nursing organization in South West Finland for elderly people with dementia who need 24/7 care and support. The case was chosen after reviewing existing theories, and research questions are formed. Therefore, it is guaranteed that the selection will satisfy specific criteria and it can provide an appropriate source of information to explore the research phenomenon. The criteria are the location of the nursing home (in Finland), the suitability with the scope of the study (healthcare setting), new concept and ideas, and the willingness to cooperate. Hereby, a detailed description of Organization Alpha will be provided to help the readers understand more about the case study and the concept.

The idea of Organization Alpha village is originated from Dutch memory village while the owners were on the trip to Holland. However, the concept of Organization Alpha is expanded, and it is innovative in different ways from the initial idea. The idea of self-determination is an essential theme in the village of Organization Alpha. Organization Alpha was established in 1977 in the South West region of Finland, and it's vision is to create a new operating model that builds a stronger foundation for local community and above all develops the quality of care for patients with memory disorder in a home-like environment. The main focus of Organization Alpha village is to provide inhabitants everyday life in a wider urban community. The village is located in a large suburb with versatile public services such as schools, shops, libraries, and social and health centers. Also, the village is surrounded by beautiful forest with nice paths for people to walk and enjoy nature. The transport is well connected to the city center and

many other places for activities of elderly people, for example a concert, an excursion or to the market. On the other hand, a resident can also stay in the safe environment of his small community, enjoying the nature and accompany from other residents and caregivers.

In this premise, service customers will receive full packet of home-stay environment with the access to infrastructure of the village such as their home-like room with private toilet, public areas (meeting room, living room, sauna, gym, garden, common kitchen, e.g.). The cultural activities are an essential service here as well and they happen regularly according to the seasons and festivals. There is a team helping to plan and organize those events; of course, any idea from customers or personnel is well collected. In addition, 24/7 care from skillful assistant nurses and nurse who help and serve service customers with every day life's matters. Also, the nursing home provides geriatrics/general doctor twice a month or when needed and the doctor is included in the basic service packet. Besides, there are additional services that serve customers can request from the service provider, for example barber, pedicure, beauty products, reflexologist, physiotherapist, e.g. depending on the situation and the will of each. As mentioned above, it is crucial for customers to have self-determination in the village. Service customers have the right to decide their things as long as they are capable of doing so. Also, dementia patients have rights to make decisions regarding their properties. When they are not able to make rightful/lawful decisions anymore, they can get legal protection via guardian for example.

3.4 Data collection

According to (Yin 1999, 1218), there are six sources of data collection methods of case studies in health service research namely documentation, archival records, interviews, direct observations, participation observation, and physical artifacts. Each of the methods has it's own merits and demerits towards the research. In this study, to understand the key mechanism between patient involvement and service innovation process requires rich information and a high level of meaning interpretations from the respondents. In addition for that, the data need to provide different angles to the investigating phenomenon. Yin (1994, 285; 1999, 1217) believes that using multiple sources of evidence, not just one single technique, is an important standard in case study research for healthcare service. He also promotes the idea of triangulation in the data

collection process, which means addressing the research problem by collecting and triangulating various sources of data. The author would like to adopt this concept into this specific case study.

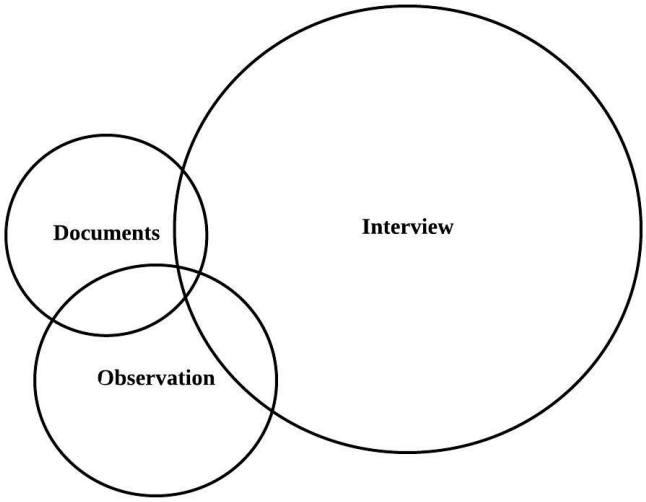

Figure 6 Data sources

In this study, by combining interview, documentation, and direct observations, the object is to accumulate and gather reliable evidence over the investigating phenomenon. The main source of information is derived from the interviews, then observation and documents with a smaller portion (see fig 5). To be more specific, the interview is believed to provide data with insight to causal inferences and to target directly to the topic of the case study (Yin 1999, 1218). In this way, it helps the researcher to understand from respondents' point of view and focus on the meaning of experience to scientific clarifications (Brinkmann & Kvale 2015). Therefore, the interview is adopted as the primary method for collecting data in this particular study. In addition, direct observations can cover events in real time and a real context while documentation is described as stable, unobtrusive, exact, and broad coverage. (Yin 1999.) With those additional sources of data, the disadvantages of mentioned sources can be mutually exclusive.

In general, there are two types of data for research depending on the generation of the data. Primary data is generated by the researchers who want to use the data directly for themselves for a specific research purpose while secondary data is generated by some other sources than the researchers for various and different goals. (Hox & Boeije 2005, 593.) By combining these two types of data, the research is beneficial from the

advantages of two of them. In this study, interview and observation methods provide primary data in which the focus of the study is directly examined while documentation generates secondary data.

The data collection process has seven phases: criteria, selection, and contact, data collection, transcription, coding, analysis, and conclusions. In the criteria phase, the requirements are set after forming research questions and theory assessment. The first criterion is that the organization is operating in elderly care service. After that, the location of the institution is Finland needed to be fulfilled. The third requirement, which is a vital one, is an innovative aspect of services by the provider. To elaborate on this, the organization focuses on service development frequently with the patient-involved approach. Last, the organization is willing to participate in the research and voluntarily cooperate with the researcher for data collection phase. After contacting potential organizations, the narrowed down case study Organization Alpha fulfilled all of the criteria.

3.4.1 Observation

This technique allows natural activities or the footprint they leave behind be observed without disturbing the research subject (Hox & Boeije 2005, 595). The author spent around five hours sitting quietly observing the subject of research in different premises of Organization Alpha (common living room, kitchen, private rooms, e.g.). A diary is written to keep track of the activities and interactions of the subjects, also the reactions of the author to those events. Ethical matters were taking into account; that is why no video or audio recording was taken during the observation. The researcher wanted to make the observed subjects feel comfortable and act in regards to their natural behaviors. According to Fisher (2010, 177), this method is usually underused in research; however, this unstructured observation is considered as a very open approach.

3.4.2 Interview

There are different types of interviews in a qualitative method in business research such as open-ended, focused, structured and semi-structured interviews (Eriksson & Kovalainen 2008). Semi-structured interview is adopted in this specific study because of its appropriateness. With this data collection strategy, the series of predetermined questions with unrestricted answers from respondents will be asked by the researcher. It will encourage informants to express their viewpoints with a little guidance without too much authority from the researcher. Set of questions and the specific topic is well-

developed in advance by the researcher, questions can be asked so that the interviewer can go back and forth through the prepared topic lists depending on interviewees' answers. Semi-structured interview strategy is justified in this study because the concepts and relationships in research questions are well described and understood. (Ayres 2008.)

The author follows interview instructions from Fisher (2010, 183) with a little adjustment to conduct the semi-structured interview:

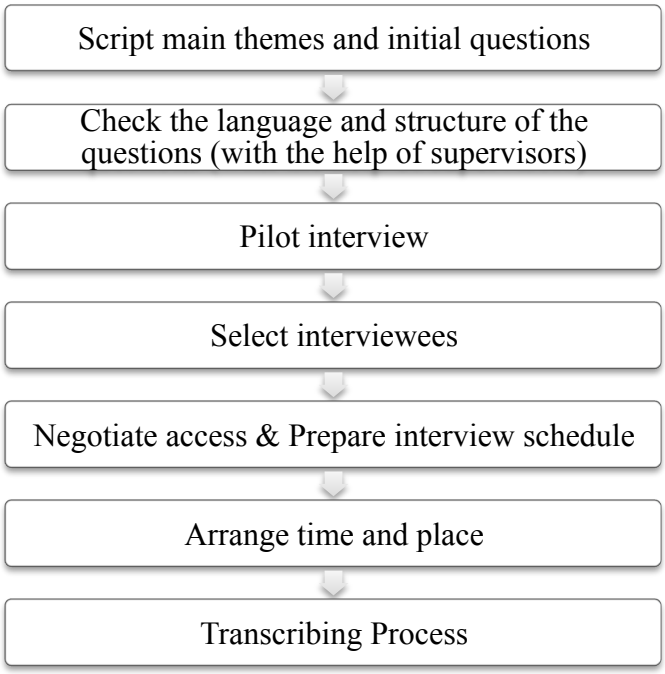

Figure 7 Interview process

In this study, there are eight conducted interviews in total: one pilot interview with administrative manager and owner with notes but without recording, and seven semi-structured interviews with the nurse and assistant nurses with recording. The pilot interview was carried out quite sooner than other interviews to get to know the concept of service and the case study. It acts as a pioneer for later interviews with the ability to test and adjust the prepared interview guideline to be more suitable with the study in accordance with the trial. During the pilot interview, the interviewer asked follow-up questions about the nursing home and took notes. Also, a pilot interview can act as a base for further interviews in the future with given knowledge from top tier manager. After this pilot interview, the administrative manager helped to pick the volunteered interviewees from the nursing home. The general information (date, length, form,

language, number of transcribing pages) of those interviews is presented in the table below.

Table 2 Interviews and their characteristics

Code	Date	Length (hour)	Form	Language	No. Of Transcribed pages
ITV1	19.12.2017	1:30	Face-to-face	English	0
ITV2	27.02.2018	1:06	Face-to-face	English	10
ITV3	27.02.2018	1:03	Face-to-face	English	11
ITV4	28.02.2018	1:15	Face-to-face	English	12
ITV5	28.02.2018	1:14	Face-to-face	Finnish	16
ITV6	07.03.2018	1:03	Face-to-face	English	13
ITV7	07.03.2018	1:24	Face-to-face	Finnish	21
ITV8	08.03.2018	1:18	Face-to-face	Finnish	16

All the interviewees were well informed about the schedule of upcoming interviews by the administrative manager in advance. The questions; however, were not given before to all of the participants because the author would like to keep the neutral perspective without preparation from the respondents. In this way, it allowed the answers from their natural practice and what research subject usually works daily. The interview process took place in three-month time span, and it was combined with the observation process. The average time of the interviews was approximately one hour and fifteen minutes. Additionally, the interviews were conducted in the meeting room at the premise of a nursing home. This helps participants to feel relaxed and comfortable at their place but at the same time meeting room is designed in a way that provides private and silent ambience without external disturbances. The interviews were recorded (except pilot interview) with the consent from all of the participants. When designing the research, the author saw the necessity for transcribing texts because this helps later coding phase. That is the reason why the recording was essential; it also helps the research to fully concentrate on the conversations and the flow of the interviews without worrying about taking notes or jot down important points at the same time. Two tape recorders were used in the interviews to avoid any technical problems that might happen during interview process. Besides that, the number of interviewed transcribing pages is ninety-nine; it would not hinder or pose obstacles for the coding process.

The pilot interview and four other interviews were conducted in English. The other three interviews were conducted in Finish with translation from Finnish native speaker.

Although Finnish is not the mother tongue of the researcher, the communication problems are mitigated with the help from a skillful translator. All the interviews regardless of Finnish or English involved the translator to tackle with communication failures. The translator, who is familiar with conducting research especially interviews, is also a skillful researcher with an academic background in international business and service research. She can communicate efficiently and fluently in English and Finnish. The interview guideline and the research plan was introduced to the translator in advance so that she can understand in-depth the concept of this study. During the interview process, the translator goes back and forth between interviewer and interviewees to make sure the conversations were a well-implemented and mutual understanding between two parties.

An interview guideline was developed in advance so that all important issues can be covered from the interviews. In interview guideline (Appendix 1) probing questions were built up from general to more specific topics so that it is easy for both researcher and interviewee to follow. Also, follow-up and clarified questions, which are not from interview guideline were also asked to elaborate on certain relevant specific matters during the interview process. They have adjusted accordingly to the background of the interviewees because each can provide different views and input into the study. The operationalization table (see table 3) assists in presenting the connection between theory and real-life context. The operationalization of the research question is done to guarantee that empirical research is implemented based on relevant theoretical contributions from the literature review.

Table 3 Operationalization of the research question

Research questions	Sub research questions	Main themes	Theoretical background
What is the role of patients in service innovation in elderly care?	What factors identify patient involvement in an elderly care setting?	Customer involvement, patient involvement	2.2, 2.3
	How to facilitate patient involvement in	Innovation, service innovation, service	2.1,2.3

	different activities of service innovation development?	innovation process and patient involvement	
	How would patients affect service innovations in healthcare with patient-involved approach?	Patient-involved approach in service innovation	Synthesis of the mentioned above concepts

After finishing the interview process, transcribing phase was followed. The transcribing process was conducted by the author and one translator, who is a native Finnish, with the assistance from "Transcribe Wreally Online Software." The software received plenty of good reviews from the researcher community, and it is well-trusted among journalists, students, lawyers, and professionals. In total, ninety-nine pages of information were transcribed from seven different interviews.

3.4.3 Documents

Although documentation is the secondary data source, it is believed that documentation is a stable method. The researcher can review the research material repeatedly. In addition, documents can provide information with exact details and broad coverage. (Yin 1994.) Creswell (2003, 186) also described some useful features of documentation method: enabling the researcher to obtain the language of participants, unobtrusive source of information, and the helping researcher to save time and expense for transcribing. In this research, the author takes advantage of documentation from the public sources such as website and Facebook of Organization Alpha and private source like internal documents given by administrative manager. Those sources provide rich information on the concept of Organization Alpha, core values, services, and activities. The information sources helps the researcher to have a closer look into their service development process and how the customer can involve in this process.

3.5 Data analysis

After collecting usable material from three different sources (observations, interviews, and documents), it is necessary to organize and divide research material into themes, categories, and units and make sense of them. This process is called coding. (Fisher 2010.) Coding is the fifth phase in this research's data collection process. With this coding process, an overview of textual material from empirical research in social sciences is provided. Coding is vital for qualitative research; it enables the researcher to provide legitimation for their research method with specific strategies in the form of codified data. Additionally, coding of the transcript assist the researcher to pay attention to little small details, and in case of a large collection of raw material, coding will give an overview of them which is beneficial. (Brinkmann & Kvale 2015, 227-228.) According to Gibbs (2007), coding can be either concept driven or data-driven. In concept driven coding, the research has already developed the codes by consulting from some material or existing literature review in the field. While data-driven means that the researcher begins without determined codes and establish them along the way of reading through the collected material. In this study, there are already some developed important codes, which are based on literature review and the theories. Those codes are vital for build up a conceptual framework of this research. However, this study also has explorative features rather than testing existing theories that is the reason why the combination between concept driven and data-driven coding is the best option in this case.

This coding process is done manually by the author and with the help of one translator who is a native Finnish. This phase was time-consuming and required tedious and meticulous actions to pay attention to empirical data. Although there were already translations during the interview process, the researcher would like to make sure getting understanding of underlying meanings of the Finnish interviews. That is why there is a need to employ the translator in this process. The translator has a great linguistic ability of both Finnish and English, and he was guided about the structure of research, the primary purpose of the research, and the theoretical basis before starting the coding process. The author is responsible for the transcriptions of English materials (interviews and observation notes) while the translator deals with Finnish materials (interviews, public documents, and private documents). Later the author also needs to synthesize the work from the translator with in-depth explanations.

There are four main stages in the coding process: reading the transcript, labeling relevant information, creating categories, label categories, and defining how they are connected. First of all, the transcriptions were read carefully multiple times as a whole to get the general ideas of the transcriptions. Notes about first impressions were made for each interview. Second, words or phrases are labeled and those labels are from already developed codes and new establish codes. The labels can be actions, activities, concepts, opinions, processes, e.g. whichever the research find relevant to the research. In the third stage, the author decides to keep vital codes and organize applicable codes together by developing categories. Finally, categories are labeled, and the connections of them are described. The table of codes can be found in the Apendix section.

3.6 Trustworthiness of the study

It is necessary to evaluate the trustworthiness of every single study and research in many disciplines. Trustworthiness is the measurement of success and quality, and how reliable and convincing the study shows to the readers and relevant agents. Many researchers in research methods have written about this issue and have developed different criteria for qualitative research. Also, naturalistic investigators differentiate from positivist investigators by developing specific terminology (Shenton 2004, 63). From research approach mentioned above, this research applies naturalistic paradigm that is why the criteria should also come from naturalistic investigators. Guba (1981) is among such researchers, and his work has been illustrated in different disciplines by different researchers because of its benefit. Guba (1981) proposed four critical criteria corresponding to the naturalistic inquiry for evaluating the trustworthiness of the research: *credibility, transferbility, dependability,* and *confirmability*. The author would like to employ these criteria for assessing this particular research.

Credibility is one of the most important aspects of developing trustworthiness (Lincoln & Guba 1985) and it deals with the question “How can one establish confidence in the "truth" of the findings of a particular inquiry for the subjects (respondents) with which and the context in which the inquiry was carried out?” This criterion is closely linked to *truth value,* which can be developed through many techniques (Shenton 2004, 64-69), of the research. Testing the findings and interpretations with different resources is the most concerned technique, and it is also known as member checks (Guba 2981). This study utilized various data resource such

as interview, observation, and documentation (triangulation) to prove the credibility for the findings. There were only eight interviews in this study; however, the data collected from those interviews are consistent, understandable, and sufficient with various aspects to the research problem. The interviewees were motivated to participate in the research and openly discussed the topic without prejudice. The participants were given the chances to decline to join in the research so that only those who are willing to take part in involved. During the interview process, the independent role of researcher was emphasized so that the informants can be the courage to provide ideas and talk of their own experiences. Also, the data was recorded and transcribed with careful processing to avoid any misinterpretations. That is why the double check was implemented from researcher and translator to guarantee the consistency and preciseness of the collected data.

Furthermore, the research method is well established in this study; it is showed by "correct operational measures for the concepts being studied" (Yin 1994). In this study, interviews with personals within the organization were conducted to gain the knowledge mechanism of the service innovation process, it is supplemented by information from observations and internal and external documents. Besides that, operationalization of the research questions (see. Table 1) was introduced to illustration the relationship between investigated theory, research questions, and empirical data. The preliminary framework is developed from different approaches and theories choosing from various sources of literature, triangulation of reference is indicated in this case to increase the integrity of the study.

The following criterion is *transferability,* this criterion links to the question "How can one determine the degree to which the findings of a particular inquiry may have applicability in other contexts or with other subjects (respondents)?" In the rationalistic paradigm, it is called *applicability,* which means that the research findings are generalization. Generalization requires that the statements would be unchanging of time, context-free, and can be applied in any context. While naturalists believe that this claim is not possible because the interpretation of each phenomenon is attached to the specific time and the context in which it is involved. (Guba 1981.) In this research, generalization is not the main purpose but to gain more a profound meaning of the case study. The study tries to give information and create frameworks based on empirical data in a particular context, which is service innovation in elderly care in Finland. As matter of the fact that other researchers should pay attention to elderly care in Finland is

context specific. The field of service innovation is assorted and heterogeneous because this reduces the ability to transfer findings into other industry contexts (banking, retails, entertainment, e.g.) However, according to (Shenton 2004, 70), there are certain criteria to ensure that the boundaries of the study are marked:

- The number of the organization participate in the study.
- The type of people who contribute to the data.
- The number of participants involve in the fieldwork.
- The data collection methods.
- The number and length of data collection.
- The time of the data collection process.

After reviewing all of these points and compare to this research, the author can see that research method section has covered all of these criteria. It conveys the reader the boundary of this study, and this is closely linked with transferability of any topic.

Dependability answers to the question "How can one determine whether the findings of an inquiry would be consistency repeated if the inquiry were replicated with the same (or similar) subjects (respondents) in the same (or similar) context?" This criterion allows future research to use this study as protocol, therefore enabling the public to repeat and utilize the work with similar results guaranteed. Shenton (2004, 71) lists out some sections, which need to be covered by any research, to be opened to the public with enough and sufficient information:

- The research design and its implementation.
- The operational detail of data gathering.
- Reflective appraisal of the project.

The research believes that this study has provided enough information on mentioned above points. Therefore, the future researcher can trust this study when they apply in the same context, with the same methods, and with the same participants, the similar results should be maintained.

The final criterion from Guba (1981) is *conformability*. This requirement should answer to the question "How can one establish the degree to which the findings of an inquiry are a function solely of subjects (respondents) and conditions of the inquiry and not of the biases, motivations, interests, perspectives, and so on of the inquirer?" There can be multiple values or realities to one phenomenon Guba (1981, 81) and the research should show their work without biases to increase the reliability of their study. That means hard work for the researchers to ensure real objectivity of the study with findings

coming from unbiased empirical data, opinions, and perspectives of informants (Shenton 2004, 72). In this study, at first, the researcher tries to connect results to theoretical frameworks from previous works. Then, the analysis process was carefully implemented with the involvement of another party, which is translator to maintain the conformability of the study. Also, the translator was employed during the interviewing process to prevent the bias and own topic preferences from the researcher. Last but not least, triangulation of data collection to ensure variety and valuable information from different sources.

4 PATIENT-INVOLVED SERVICE INNOVATION IN THE CASE STUDY

In this chapter, empirical research and the findings will be discussed. The purpose of this chapter is to answer mentioned above three sub-research questions: 1) What factors constitute patient involvement in elderly care setting? 2) How to facilitate patient involvement in different activities of service innovation development? 3) How would patients affect service innovations in healthcare with patient-involved approach? As a result, this study is able to explain the phenomenon, which is the patient involvement in service innovation in healthcare (the case of elderly people) in Finland. In this chapter, residents are mentioned several times because in this nursing home, the concept of the patient is merged with the resident. That is why the author uses these two words interchangeably.

4.1 The factors constitute patient involvement

This section will answer for the first research question: What factors constitute patient involvement in elderly care setting? It shed light on the factors constituting to patient involvement in the service development process in the elderly care setting, especially in the case of the elderly patient with memory disorders. First, it is needed to have an overall view about the patient involvement in this context so that later it would be able to link the empirical results with theoretical backgrounds. There are two primary types in this case which are active involvement and passive involvement. In each of the main type, some sub-factors identify patient involvement in this case, and they are presented in this following figure:

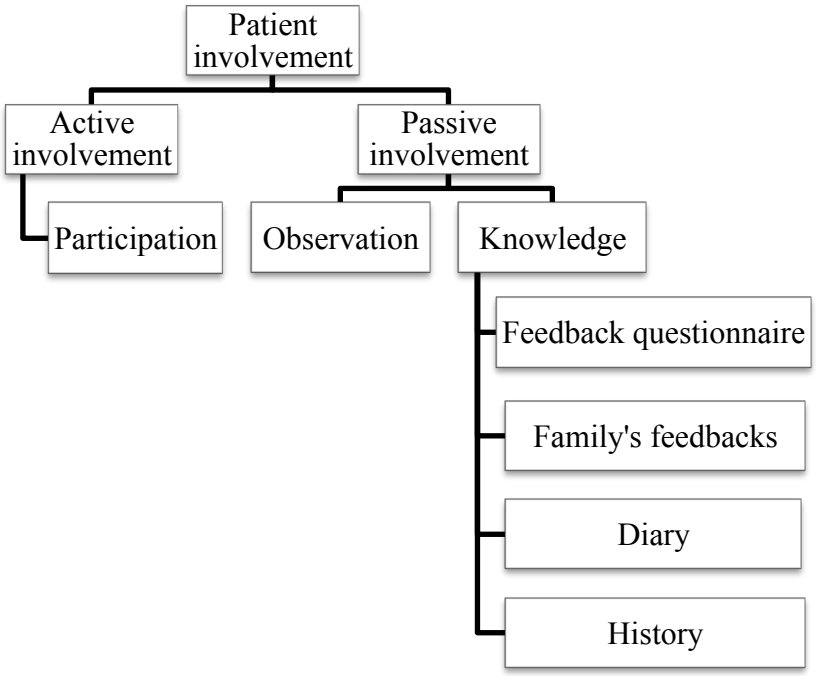

Figure 8 Patient involvement

4.1.1 Active involvement

Active involvement in this sense refers to activities which patients initiate and contribute their input actively to the process. In this case study, the researcher has been able to identify the main method for active involvement, namely participation. It is necessary to elaborate on the method in details, so that the general view of active involvement is built up.

When the residents have some opinions or ideas that they would like to contribute to professional carers, they will express themselves and participate in the service development process. Besides, during interactions between caregivers and patients, casual consultation is conducted to find the mutual understandings and patient's needs.

> *[…] they can say they can hear that they are listening to. They can say today something, and they can say something else tomorrow, the day after tomorrow they can say another thing, but it is the most important thing that they are heard.* (Interviewee 4)

During empirical observations, the researcher and the translator heard lots of conversations between nurses and residents in Finnish. There is always something that they can talk about and to express their opinions on something. This perspective is in

line with the idea of the democratic approach from Greenhalgh et al. (2010). In democratic approach, the voices of all customers should be taken into account regardless their willingness and conditions and the voices of all residents in this nursing home are listened equally to contribute to the service development process. Even though there are some critics over this approach, the author believes that it is good to take the voice of all customers into consideration. Not all residents are interested in being part of this process; however, it is necessary to look at the problem through all possible lenses and from different angles.

On the other hand, there is a board of residents, who are elected to give the general voice for all of the resident towards professional caregivers. The board of the residents will have an annual meeting with the board of nursing home to discuss how they can contribute to the service development process here. Residents are considered as ”collective actor” in this sense when the organization would like to grant customer ideas and opinions into service development process (Lundkvist & Yakhlef 2004).

> *[...] we just have meeting and we plan that board of residents and sit there and talk with our residents and we were talking in a nice place*. (Interviewee 4)

4.1.2 Passive involvement

Passive involvement refers to activities that residents are passively involved in the service innovation development. It is shown from the empirical study that there are two primary sources of passive involvement which are observation and knowledge. The details about these two souces will be analyzed and elaborated on the hereafter.

- *Observation*

In this empirical research, this source can be considered as one of the essential sources of patient involvement. The observation happens daily and at every single moment in the nursing home. In this case study, the residents have the troubles of articulating themselves regarding opinions on services because of their critical conditions (memory disorders). Nevertheless, the patient should be able to articulate themselves and willing to listen to new antagonistic perspective to contribute to the service development process (McNihol 2012). That is the reason why observation has helped this feedback process going smoothly and efficiently. The facial expressions and body language act as feedback channels when they are not able to conversate normally. All of the interviewees agree on the point that observation is the most common and fastest mean for getting to know residents’ needs.

> *Patient data will be documented most important observations about patients state three times per day: morning, evening- and night shift. Documenting should be clear and efficient.* (Self-monitoring Plan, Organization Alpha)

For the observation to make fruitful results, it also requires the life span questionnaire from the nurses. This idea means they can analyze and interpret better residents' behaviors and needs based on experience and support the decision-making process.

> *About involving the patient, it is very difficult to, in a way, involve that they would say what they need or want but it is more about observing how they are and how they feel so that state of emotion or the state of feeling give the feedback of how things are succeeding or how things are in that sense developing towards the direction of what makes them feel good. […] it is more on a random basis and even unconsciously the observation of how things are going and it is also on trial basis that you maybe can try somethings and then you can see whether it works or not.* (Interviewee 7)

It is shown that from empirical research that the observation is still quite random and not systematic yet. The application of these feedbacks from observations is mainly based on a trial-and-error basis. The author believes that most of the innovative ideas and inventions are the results of random and unorganized acts. Also, trial-and-error is an effective mean for introducing new services or concept. Nevertheless, these casual and unorganized acts should be based on longitudinal systematic education and guidelines, and the application of the trial-and-error method should be anticipated with supports from cost calculations and the discrepancy between inputs and expected outcomes.

Furthermore, during the researcher's observation process, there are plenty of conducted actions which were based merely on observation from the nurses. For example the in-site kitchen was the result of long-time observation from Organization Alpha's supervisory board. From the first time the author came to the nursing home, there was no kitchen there, but it had appeared when the author visited later in March 2018. The board of manager from nursing home has been observed about the necessity of in-site kitchen. It can bring fresh, and hot served food for the residents on the one hand, and bring the experience of home-made food rather than industrially prepared food if they need to outsource that from somewhere else on the other hand. In addition,

they are also planned to use vegetables directly from their garden for food-making process, that is just something that makes people feel like home. These little things contribute to a more complete and innovative service where patients' needs are at the center.

- *Knowledge*

Knowledge is always a significant element in any process; service innovation development, in this case, is no exception. First of all, knowledge is gained through official feedback questionnaire, which is conducted once in a year to collect the ideas, opinions, perspectives of residents on services at Organization Alpha. The closet nurses to them would be the ones who conduct the questionnaire. Because the residents are already familiar with their personal caretakers so that it generates an easier and more relaxing environment for them to answer and express their thoughts. Although it is challenging to conduct such a questionnaire with dementia patients, it is most important that they are heard. That shows some sort of human aspect from the residents, the nature of human being is to express their thoughts and is listened. Despite the fact that this source of information is worthy of attention, it is quite challenging to collect feedback from residents. Thus, this source of knowledge requires an ability to correctly interpret the information from organization with the assistance, and the dependence on other sources of information as well.

> *[…] it is quite complicated to ask the residents for their opinions. […] I ask how they feel about the nurses and service here and what they want more and some of them can answer quite well. But there are some just cannot so for those who can ask and request something, we try to have those activities according to request if they are able to request something.* (Interviewee 6)

Other source of knowledge would come from family feedback. The feedback is quite an important source to obtain knowledge of customer indirectly. Because of the customer's critical condition, it is vital to collaborate with family's members to understand and get insight into customer's needs and expectations. The triangle connection between nursing home personnel, residents, and family's members, which will be further analyzed in details in the later section, is a mean to promote service development process and service innovation. Therefore, the family's feedback should not be overlooked and taken for granted.

> *[…] so it is very interactive - the cooperation or the communication with the family's members. It gives mutual benefit for both parties, the nurses and the family's members and the communication is open and reciprocal.* (Interviewee 7)

The third source is from a systematic diary. The staff here need to track down and note down the activities and any remarkable points from the residents. In this way, the information is transferable from person to person. Even if one nurse is not mainly responsible for that one resident, he or she can still know about the resident's conditions, sickness, diet, e.g. so that the services can be performed in a better manner. The diary is now mainly recorded on paper; however, the organization is hoping to create a technological platform to make the tracking and writing diary become more accessible and more effective. One important characteristic of information is that it should be transferable, both explicit and tacit knowledge in any organization so that the mechanism can function well towards success.

Last but not least, history is undeniable a vital source of information regarding residents. The history gives useful pieces of advices for tackling particular customer and their needs. That is the reason why every new coming resident will have discussion between family's members and the nursing home to attain background information of residents (e.g. their hobbies, past jobs, diet, and sickness history) from the very beginning. In this way, tailored-made service is initially designed to suit to each customer's needs.

Knowledge is a critical way of patient passive involvement besides observation. It is also proven in this case the approach from McNihol (2012) regarding patient involvement in healthcare innovation. He believes that it has always been that information is gathered through feedbacks and consultation rather than participation in the innovation process and this idea is right in this case study. There are more performed passive involvement rather than active involvement shown in empirical research.

In addition, the researcher figures out that passive involvement has more or less some similarities from the model of patient co-creation and learning from Elg et al. (2012, 333). Also, this passive involvement can be considered as a learning phase from the model with some adjustments. For example, the observation is something different from mentioned above research. In Elg et al. (2012), three main methods were employed, namely patient idea, summary report, and patient narratives. This research

basically employs those methods as well, yet in different names. Nevertheless, the main purpose of both research is to collect information from patients to structure the healthcare service to gain better results for both organization and patients. Besides, reviewing the model of co-creation and learning assists the researcher in structuring research design and implementing empirical research in reality, and it is justified to see similar results.

4.2 Triangle concept and how to facilitate patient involvement

After exloring the patient involvement in the service innovation process, it is necessary to figure out how to effectively enable the interactions between them. The empirical research shows such an important concept connecting three relevant actors in the organization, which is triangle-concept. This concept acts as a facilitator for the process of involving the patient in service innovation development in this specific case study. In this concept, there are three important actors, who are patients, family members, and health professionals. Each actor plays a significant role to promote patient-involved approach in the service development process and therefore service innovation is performed. There is a strong relationship between those three actors: patients, family members, and health professionals and they affect each other simultaneously. It is not possible for the service development process to go on without one of those three actors in this case study. The figure below illustrates the idea of the triangle concept and the connection between this triangle toward patient-involved approach and service innovation. It is necessary to investigate each edge of the triangle to have a more in-depth understanding of the facilitator and how it functions.

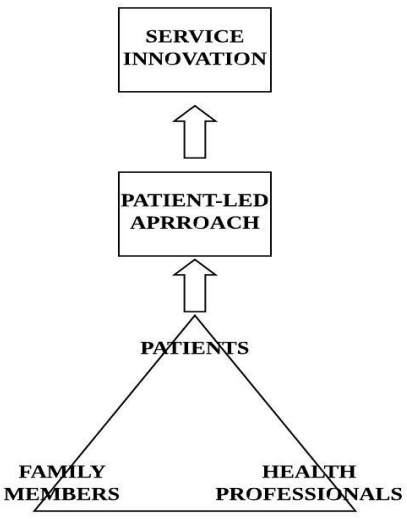

Figure 9 Triangle-concept as the facilitator

From the literature review, it is shown that innovation process synthetically goes through three main phases, which are idea generation, development, and market launch (Haavisto 2014, 17) and it is a continuous process, not discrete acts.

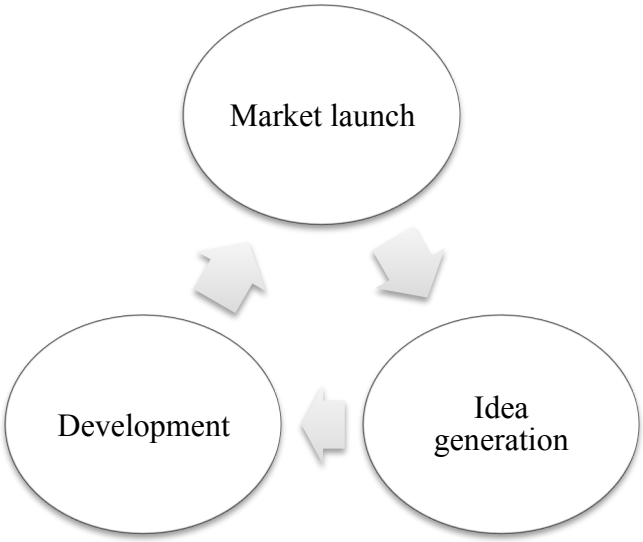

Figure 10 Innovation process adopted from Haavisto (2014, 17)

In this case study, it has shown that three stages were perfomed with evidences; however, the boundary between them is remained unclear. The main purpose of this study is to investigate patient involvement during service innovation development process. It is not necessary to separate each stage obviously and they do not have to happen sequentially. Also, the triangle concept will be analyzed in accordance to three simplified main phases of innovation process in order to show the relevance and how these actors influence each other and facilitate towards service innovation. It is necessary to note that patients are greatly involved throughout the innovation process from idea generation to market-launch in this case study. There are clear evidences for stating that the voice of patients is taken into consideration for the decision-making process in each stage. Nevertheless, the author will analyze each dimension with emphasized actor shown from empirical study in accordance to service development process at Organization Alpha nursing home.

First of all, the first corner where healthcare professionals are at the center and they play such an important role in idea generation stage, for example, there are teams to

take care of idea generations for services in this nursing home in every unit. They plan new activities for the residents every month and every season, it is necessary to make sure that the residents enjoy the activities and feel lively. In this nursing home, it is believed that recreational activities can be better than medicines in some ways, especially for dementia patients. The activities are designed based on some factors for example: patient needs', seasons, and resources. Most importantly, the ideas for services are inspired in collaboration with both patients and family members with the aim at patient satisfaction and better services. This in turn gives back motivation for healthcare professionals with what they are developing and it is a mutual learning process for both service provider and customers (Alan 2002). Service provider can learn more about customer latent needs when involving customer into service development process and customers can gain insight into the organization's services in return.

> *Creativity and challenges are the things that inspires and motivates because you need to be alert all the time. You might come up with something that works with a memory illness person now, after ten minutes it does not work and you need to come up with a different way.* (Interviewee 8)

The second dimension would placed family members at the center; they are a significant factor for the development stage. Family members, in this case, act as a mediator between patients' need and services performed by healthcare professionals. Because of memory disorder, patients cannot articulate fully and need to rely on family members to help them on that task. In these situations, a new perspective on customer ecosystems, which has been developed by Leino (2017) should be adopted to assist customers' dynamic activities. In her study, the results show that family members are vulnerable and need support for their well-being as well as patients, they should also be recognized as customers – secondary customer (Leino 2017, 760). That is why it is crucial for family members as secondary customers to illustrate and articulate the patient needs to service provider to get the assistance and need-fulfillment.

On the other hand, the organization also encourages secondary customers to participate in the service development process by various means such as feedbacks, consultation, support group, meeting, and report. The role of family members in assisting the progress of patient involvement, is fundamental as they are close others of the patients and it is easier to put themselves in the shoes of patients rather than caretakers. From document retrieval, the organization has not yet developed concrete

stages for service development process; however, there are developed guidance and values towards this process. The author believes that those elements can contribute to the development process in a way and they can further evolve the process in the future with more details instructions.

> *[…] it would be good for family members to participate in the development work and get maybe some ideas from their thinking also […]* (Interviewee 5)

Last but not least, the patient is at the center of the third dimension, which contributes to market launch process. In this case study, market launch process is applying services in reality for residents, and this act is conducted mostly via trial-and-error. This particular method has been mentioned in the previous section regarding passive involvement. The patients have opportunities to try out the services and evaluate the experience according to their expectations; the process is more laborious in this case for memory illness patients.

Nevertheless, the patient-involved approach is adopted with the assistance from the other two actors family members and professionals to make sure customer satisfaction. The role of patients is undeniably significant in co-creation process, they can either be a "productive resource" or as a "contributor" to create values to a contribute into the service development process (Bitner et al. 1997). In this particular case study, the patients play more as contributor because it is complicated in this case for the patient to be a productive resource when they are required to provide input to development process. As a contributor, it is more about fulfilling the patient needs for service provider through mostly passive patient involvement.

All in all, the above analysis when each actor is at a center of each dimension to show the fundamental and additional angles to the process, it does not mean absolutely that the analyzed actor is the most important pillar in that dimension. However, it can be concluded that the patient-involved approach is well applied in all these three dimensions when the patient needs are always the main purpose of other actor's activities. Also, the co-creation process is performed to produce value for not only customers (both primary and secondary customer) but also the organization itself. How patient-involved approach is an effective way to create service innovation, in this case, will be further analyzed in the following section after considering the service innovation in this case study.

4.3 Service innovation in A case study

4.3.1 Service innovation with home-like concept

It is necessary to sum up the findings regarding how different interviewee thinks about the concept of service innovation in this nursing home. The author summarizes the ideas through the following table:

Table 4 Definitions about service innovation

Interviewee	Definition about innovation
Interviewee 2	*I hope it is helping us, I think it should be developed those innovations with the person who is using them to help. But I have discovered that if there is too technical something, people are afraid and it has to be really small. […] I am thinking of the generations to come, they are more open to those innovations.*
Interviewee 3	*Change my habit, so it is cooler ideas. That is what we need to do that you do not do or to be in such narrow ways. They do not go the same way – the routines.*
Interviewee 4	*If in think in this word, you have to be innovative. […] Creating new things and be there into little future. Thinking ahead to the future.*
Interviewee 5	*It is a positive thing and a chance to seize the moment.*
Interviewee 6	*Innovative to me, it is something like to try to have something new or better way to do the same work.*
Interviewee 7	*It is in a way a fancy world that gives positive associations, so everyone or someone comes up with something that has good results and good consequences.*
Interviewee 8	*Innovation means something that inspires*

	to do things differently. The task can be old, and the thing can also be old but there is always way to do it and when you maybe do things in a different order some days or come up with some new ways to do it.

In general, it is demonstrated from the summary table that service innovation ”*is something new, better ways, or new ways to do things differently that give good results and consequences. It is positive and seizure of moment from the process.*” This general definition is closely linked to incremental innovation, most people think that service innovation does not need to be something ”big” but something ”better” at this nursing home. In addition, these characteristics are concluded ”multi-dimensionality, newness, improvement, change and as a process” (e.g. Giannopoulou et al. 2011; Johannessen et al. 2001; Durst et at. 2015) from the literature review regarding definitions of service innovation from different researchers. It can be seen that, most of the characteristics are covered in the definition from empirical research but multi-dimensionality. It is comprehensible because there are limitations in perceptions from the interviewees as they do not have full knowledge of innovation and such. The interviewees just try to express what they really understand of service innovation from daily life and from media. Nevertheless, these perceptions contribute greatly to the understanding of service innovation and act as the base for the understanding of service innovation at A nursing home, which will be futhered analyzed in later section.

The home-like service concept is quite new in Finnish healthcare sector. There are existing traditional nursing homes and municipal health centers in Finland; however, the home-like environment is still missing in those places. After going through empirical research, it appears clearer to the researcher the concept of developed home-like environment at Organization Alpha. This is the result of patient-oriented approach and let the patients’ need at the center of services developement process, including the introduction of new type of services with incremental improvements of existing services. The home like concept in this case is a service innovation, which has been defined as ‘’innovation taking place in the various context of services, including the introduction of new services or incremental improvements of existing services’’ (Durst *et at.* 2015). It will be further elaborated on with details and the author can envision that home-like service concept in nursing houses will take off in the near future.

There are two main sub-categories in this home-like concept: physical aspects and mental aspects. In physical aspects, individualized room, open kitchen, share space (e.g. living room, entertainment room, and hallway), and surroundings (garden, markets, forests, barber shops, e.g.) are included. While with mental aspects, there are three main factors: closeness, family members' presence, and self-determination.

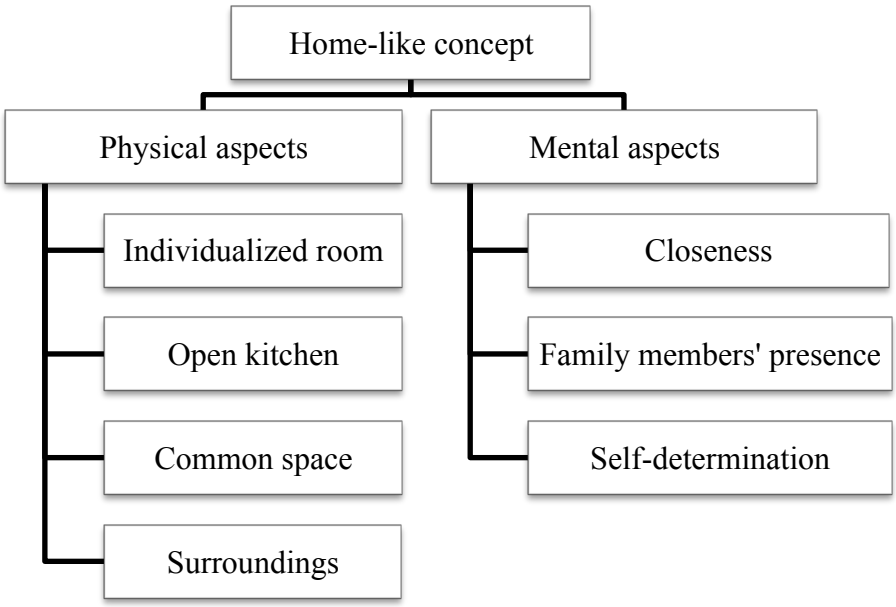

Figure 11 Home-like concept as service innovation

- Physical aspects

In this home-like environment concept, Organization Alpha try to make the patients feel like they are at their homes and patients are considered mainly as residents here, not as patients.

> *[…]residents. Their home is here. That is a really big issue in here: "home" and we are only here for visiting and helping so we do not have any uniforms or anything. This is home.* (Interviewee 2)

> *[…] Customers and residents. Something between that. Not as patients.* (Interviewee 6)

- *Individualized room*

In this concept, rooms are designed to make patients feel familiar with their own rooms at their own places. The patients are encouraged to bring their own furniture, decorations, memory things to their rooms at Organization Alpha. In this way, the patients feel like they are one resident at Organization Alpha and they now have their

own place full of familiar things and memory. In one of the observation notes, the author was invited in one of resident's room and she was proudly introducing her family members through the pictures placed on the shelf. Also, the room gives the strong impression of Finnish culture with lots of old, antique, and hand-made decorations. It means the visitor can feel right away this is a room of a elderly Finnish woman with personal touches.

- *Open kitchen*

In addition for that, A has designed new open kitchen so that residents can together with nurses have coffee or tea; bake or cook something together. It is brilliant idea for the residents to smell freshly baked pastry or cakes so that makes them feel like home. Additionally, family members are encouraged to visit the residents and maybe stay over if they are able to do so. The presence of family members is part of the pillar in this home-like concept and this aspect will be analyzed in more details in later section.

> *[...] so the values include the idea of every person and their emotional feeling are being valuable. Even though there are memory deficits and the illness but [...] normal life should be remained and to support the life continuously until the end. It includes doing in a way normal everyday life things so that is what they want to be supported very much.* (Interviewee 7)

- *Common space*

At Organization Alpha, the common space are always spacious with neat and warm decorations. The living rooms are where residents usually watch TV or just simply relax together. Also, it means a lot for Finnish elderly residents when they also have in-house sauna because Finnish people love and enjoy sauna very much. There are also meeting room where many events took place such as: story telling on Kalevala day, back to 50's, pet day, e.g. Those activities are meaningful for dementia elderly people. One of staff here share the story:

> *[..] one nurse said that why we need to organize those events because they do not remember anyway [...] but they are human and have human value despite the fact that they have this disease [...] music, dancing, singing are very important for them*. (Interviewee 4)

Furthermore, the researcher noticed many encouraging notes along the hallway and the themes are various according to the seasons or holidays during the process of

observation. Some of the notes are from residents and it is believed that this, in a way, will help them to express themselves freely and easier.

- *Surroundings*

The surroundings are one of important factors for home-like environment. The place is located near residence area with shops, market, bus stops, forest, and other things nearby. Also, the garden was built up to serve the residents here, they can also take care of the garden together in the summertime. The nursing home is just like one trivial house, which is a little bit bigger, with neighbors and own garden. Residents can feel that they are at their home with similar and familiar objects.

> *One of the innovation would be the garden, and little yard […] that was the nurse at A wished to have for Organization Alpha's residents. Now, it is over there, and residents can freely go there under possible surveillance and assistance.* (Interviewee 7)

- Mental aspects

Besides physical aspects, the mental aspect is also considered as a vital element for the home-like concept. Through empirical research, the researcher realized that there are three mains components in the mental aspect, namely closeness, family's presence, and self-determination.

- *Closeness*

The sense of community is vital here, and this creates atmosphere of the home where members have connections with each other. The relations are based on openness, honesty, and trust between residents and nurses. Because in fact, the home-like environment does not always mean a gentle and nice atmosphere, there can be discrepanceis and bad days too. The residents and nurses are humans, and they own their emotions, and this makes the concept of home-like environment real. The closeness is the thing that differentiates this nursing home to other health centers; the connections are well established and remained in this place. One assistant nurse is responsible for six residents, so he or she knows well about the residents, their characteristics, diseases, history, and behaviors. On the other hand, it works in the way that circulation takes place so that other nurses also know about other nurse's residents. In this way, the atmosphere of a big family and everyone knows about each other, some are closers than others, but it is normal for a family to be like that. In addition, residents

can share their stories, feelings with each other and also to the nurses. They can ask for help when needed, and vice versa, not only the nurses assist the residents but also the residents can sometimes help the practitioners with their daily lives or small tasks which are suitable to their health conditions. Here is one clear illustration of the closeness in this nursing home:

[…] hug, be close and to touch them. Tell them how wonderful they are. […] when someone is upset, I just try to hug them and be close to them. Then they forget thing and maybe go to sleep. (Interviewee 2)

- *Family's presence*

A home is not a home without family members; the presence of them here is extremely important. Family members and close others are encouraged to visit their family and relatives at any time. The nursing home tries to make the best condition for them and warmly welcome them as a big family. The family's members also play significant roles in the service development process, which are already mentioned in the previous part.

> *[…] it is just normal that they are here and we are happy to have them*. (Interviewee 4)

> *[…] they belong here.* (Interviewee 6)

There are some close others, and family members usually visit the nursing home so that they gradually become part of this place. They immerse themselves and become part of the community.

> *[…] it would be good for family members to participate in the development work and get maybe some ideas from their thinking also.* (Interviewee 5)

- *Self-determination*

The right and freedom to decide your own life are what makes us human. This value is highly promoted here at Organization Alpha because residents are human. They are encouraged to decide their things if they are still capable of. In that sense, that makes the life of those residents, they do not have to depend on someone else to make decisions for them. In one of the official document from Organization Alpha organization, they mention about customer self-determination:

> *[…]Customers have the right to decide their own things as long as they are capable of. Also, dementia patients have rights to make decisions considering their property. When they are not able to make rightful/lawful decisions anymore, they will get legal protection via guardian or authorities, e.g.* (Self-monitoring Plan, Organization Alpha)

The personnel at Organization Alpha treasure this value and they respect residents' will, and they try their best to satisfy those needs within the safety limit. The main components of this home-like service concept are equality and individuality. It is important to offer equal basic healthcare for any resident at the place without discrimination, and this is in line with Organization Alpha's organizational values. Nevertheless, the services are tailored individually depending on customer's need and health status.

> *[…] it is also about everyday things like you normally comb the resident's hair and brush the teeth but if they do not like it some days and do not want you to do that. Then you respect that and do it another time. There are things that they can decide, although the basic hygiene things are taken care of, but we respect the authority in that sense.* (Interviewee 8)

This home-like concept has adopted mainly one important dimension from the four-dimensional model for conceptualizing service innovation and its pattern (Den Hertog & Bilderbeek 1999), which is the service concept. This case study has given a whole new service concept within elderly care with memory illness sector, it defines in the future how service should be designed with the home-like environment with mentioned aspects, and this is such an incremental innovation. The other dimensions: the client interface, the service delivery system/organization, and technological options are still existing in some manners in this case; however, their influences are not well embarked in this case study. Nevertheless, with the extended six-dimensional model from Den Hertog et al. (2010) with more detailed dimensions which are: new service concept, new customer interaction, new value system, new revenue models, new delivery system (personnel, organization, and culture), and new delivery system (technology), it is shown that other dimensions are included in the services offered from Organization Alpha nursing home.

Besides, the patient-involved approach is applied in this case study through the investigation, patients' needs are always at the center of the service innovation process. First of all, patients are seen as a key factor in the service development process with different types of engagement through examining factors constituting patient involvement. Second, the triangle concept as facilitator shows that service innovation process is functioning with the great influence of patients' latent and existing needs (see fig 7). The healthcare professionals, family members, and patients per se assist with exposing these needs into the process to fulfill patients' satisfaction. Lastly, the service innovation (home-like concept) as the result of patient-involved approach is another clear evidence.

4.3.2 Service perspective of the home-like concept

It is significant to mention the service perspective of this home-like concept so that the knowledge of main drivers for this kind of service becomes clearer. The empirical results have shown that services in this nursing home are basically based on three factors: equality, individuality, and cooperation.

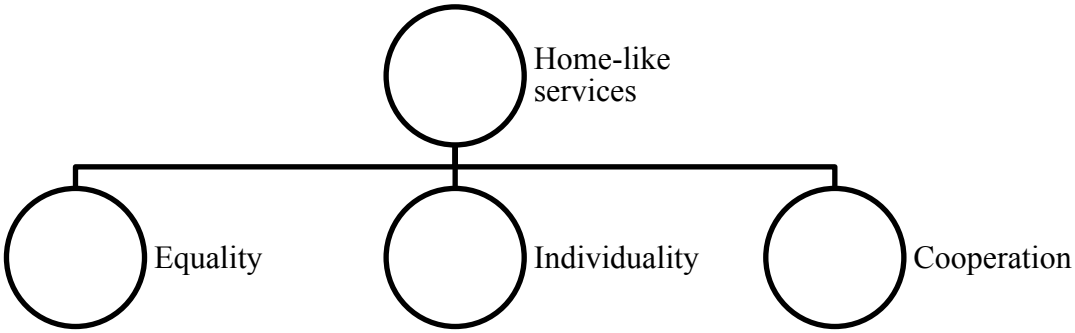

Figure 12 Service perspective of the home-like concept

- *Equality*

On the one hand, everyone is treated based on equality with no discrimination in this nursing home, every single patient is equal regardless of status, right, and opportunities. There exists no bias in this environment, and that is important for every person to understand this point. This idea also is one of this nursing home's values, and it acts like the central pillar to direct the acts of the whole organization. The equality aspect in service is rarely mentioned in the pool of literature review. However, because of the

uniqueness of this healthcare service, it is necessary to provide and ensure the equality aspect.

> *[…] equality is the most important thing, and everyone can in a way get equality of care.* (Interviewee 4, Service Supervisor)

- *Individuality*

On the other hand, services should be tailor-made to fit with a particular customer. This perspective follows service-dominant logic where customers' needs are put at the center. This aspect is also crucial for the service provider because they need to understand the mechanism of tailor-made services so that they can offer a suitable package. In this nursing home, the individuality is also highly appreciated and considered because every resident is unique and so do their needs. The management board and the staff try to offer things, which make the residents feel comfortable and pleased. The information for individualized services will come from observation and knowledge, mostly knowledge.

> *What is very important is the life span thinking that the life history is taken into account, the individual history, and the family members are interviewed to get this information and aslo the residents, or the elderly people to the extent that it is possible to interview them and then the individualized process.* (Interviewee 5)

- *Cooperation*

It is shown that the staff here are well development-oriented, good spirit, and positive towards the development of ideas. These characteristics are outstanding traits for service development process with highly skilled staff and innovative atitude. Besides, management board is also a pioneer in the service development process, the top of the organization is always open to new ideas, and they do not have setting down thinking. From the pilot interview, it is shown that members of the management board are also really innovative and future oriented, they try to think ahead of the future and not lag behind. In addition, the management board acts as an actor with efficient tools to encourage the employees to innovate and develop the services. It is needless to say that the cooperation between members within organizations (management boards and nurses) are incredibly vital in order for the service to function well. Thanks to the low hierarchy in this nursing home, information is transferred both top-down and bottom-up without errors. Also, the staff have more autonomy within an amount of appropriate

disciplines, they can decide on simple things without advising their supervisors. There are transparency and not too strict working patterns, so the employees have chance to be themselves and express what they think honestly. That is something they find useful and effective on the decision-making process, and it is one of the important elements for innovative to take place.

> *[…] this is versatile work that it can be interesting in that sense and it is not like something from conveyor belt production which is very routine way but it is different everyday here.* (Interviewee 5)

Furthermore, the cooperation among employees is also significant because if they cannot work well forward together, the whole mechanism will be delayed. In this case study, it is described that the connection and cooperation between nurses are very good; they are understanding, have empathy and respect for each other despite their differences in characteristics. The author believes that human resources are also a very critical factor for innovation to take place.

> *[…] good thoughts about colleagues. There are different personalities and the team is now full with six people. I think that is good when there are different types of people but they are well knit tightly, knit together.* (Interviewee 8)

Last, the cooperation between healthcare professionals and customers (both primary and secondary) is undeniably significant in this service concept too. In this way, it enables the employees to explore the needs both existing and latent needs so that they could offer appropriate types of service. This idea has been mentioned in details in the previous section within the triangle concept because of its importance.

4.4 Patient-involved service innovation in the case study

To investigate the patient involvement in service innovation in elderly care, eight interviews were conducted in addition to observations and documentations. The first objective of the study, the elements constitute patient involvement were discussed in two different types of involvements. According to the second objective, the facilitator of patient involvement in service innovation development was examined with the focus on the triangle concept. The home-like concept as service innovation with service

perspectives and patient-involved approach answers for the third objective of this research. The figure below illustrates the synthesis of the whole study with simple-to-understand diagram so that the reader can understand easily without required advance knowledge in the field.

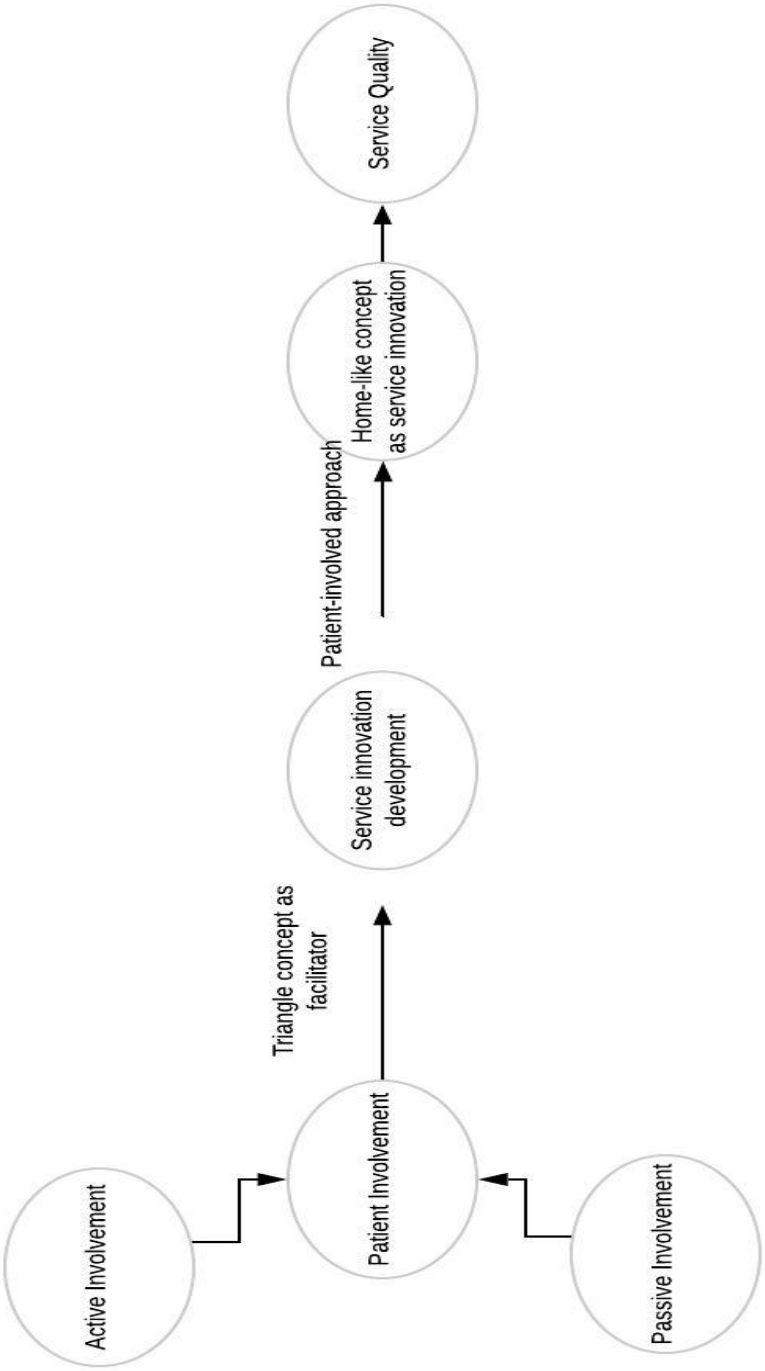

Figure 13 Patient-involved service innovation in the case study

It is clearly shown from the empirical research that patient-involved approach is well adopted throughout all the activities and values of Organization Alpha nursing home

(from patient involvement, triangle concept, to home-like concept). Patient-involved in this sense means that every aspect or activity from top-down to bottom-up takes the voices of the patient at the center and as the guidance for subsequent acts. ”The patients are placed at the beginning of the innovation process, and then at critical decision-making stage gates throughout the development” (McNihol 2012), it holds true in this case study within triangle concept analysis. The organization well-adopted patients into service development process from the idea generation stage to market launch in general. In this case study, patients act as a “legitimate actor” during the innovation processes because the nursing home wants to emerge their patients into the process. In addition for that, patient act also as a “collective actor” when the nursing home emphasizes on granting customer opinions and ideas into the service development process. (Lundkvist & Yakhlef 2004.)

The correlation between customer involvement, service innovation, and service quality are also examined in this case study, mostly in non-technical innovation capability aspect. As mentioned above, the application of patient-involved approach leads to service innovation and this is in agreement with Ngo and O’Cass (2013) ideas. It is shown that service qualities keep increasing after the process of customer participation in development process through customer feedbacks (both primary and secondary customers) in the nursing home. Also, the business performance is developing with better reputation and better revenue-cost structure (Pilot interview).

Furthermore, the investigation shows the similarities and relevances with the six-dimensional model of service innovation from Den Hertog et al. (2010). In this study, it shows that new service concept, further customer interaction, new value system, new revenue models, new delivery system (personnel, organization, culture) and new delivery system (technology) are all existed in the services and different levels. To be more specific:

- *New service concept:* the generation of home-like environment concept with the patient-involved approach. This is the main aspect of service innovation in this case study.
- *New customer interaction:* The patient is involved in the service development process, and they also play certain roles in the creation of value and cooperate to create new values. They interact in different ways to influence the service innovation development.

- *New value system:* services create new kinds of values, and they are delivered to patients.
- *New revenue models:* the organization is able to find the good structure for the revenue model.
- *New delivery system – personnel, organization, culture:* Organization Alpha nursing home develop its own culture with sets of values to guide the employees to perform better and more effective.
- *New delivery system - technology:* services can be provided efficiently with the help of technological platforms for feedbacks, management activities, and information retrieval. However, this aspect is not mentioned so much in this case study, and it is not the locus of this study.

5 SUMMARY AND CONCLUSIONS

5.1 Theoretical contributions

The study investigated patient involvement in the service innovation process in elderly care in Finland with a case study from organization Organization Alpha. A synthesis for empirical results has been provided in section 4.4 in cooperation with prior knowledge from previous research. There are links and common connections between prior knowledge in literature review with empirical results. With this study, the author would like to fill the knowledge gap regarding the merits of patient involvement in service innovation in elderly care, especially the case of memory disorders patient. Hence, this study will benefit researchers and healthcare specialists by providing extended theoretical frameworks and examining different schools of thoughts on this particular topic for further development of service innovations in elderly care. This research will also provide a better understanding of what is the role of patient involvement and how they influence healthcare service innovation and contribute to the current understanding on the role of customers in innovation development in general and service innovation development in particular. It will help to determine how to interpret patients' role in the future to improve innovation development. All in all, it is worth studying the role of the patient in service innovation because it assists the researchers to explore an interesting phenomenon and it provides the readers with an extraordinary number of valuable information, knowledge, and experience for further research.

The first objective of the study is to examine elements constituting patient involvement in the case study. From the literature review, the intensity of customer involvement is with four main levels: passive participation, information, and feedback on specific issues, extensive consultation with customers, and representation (Alam 2002). The similarity is shown from an empirical study with all four main levels, and they are grouped in passive involvement type. There are two types of involvements, which are active and passive involvement as described in the case study. In active involvement, the democratic approach from Greenhalgh et al. (2010) is proven in this case. It is necessary to take the voices of all patients into consideration regardless of their conditions or status quo, and this is what Organization Alpha nursing home is doing according to their values. Besides that, it is clearly shown that passive involvement dominates and is more beneficial and this is in line with the idea from

McNihol (2012). Within passive involvement, knowledge is an important source for service innovation development, the feedbacks from both primary and secondary customers play an important role in the process rather than active participation. Also, patient involvement has similarities to the model of patient co-creation and learning from Elg et al. (2012, 333). The patient involvement can be considered as a learning phase from that model so that the organization can collect information for further actions and activities. It is also highlighted that the co-creation between patients and organization is significant for service innovation to take place. The patients can be both as "productive resource" and as "contributor" to quality, satisfaction, and value of their own care (Bitner et al. 1997). That is the reason why patient involvement is relevant and need to be taken into consideration in the service development process.

The second objective of the study investigated how to facilitate patient involvement in the service innovation process. The result shows that the triangle concept with three main actors: patients, family members, and healthcare professionals help to promote patient involvement in the service development process. The triangle concept in this study has some similarity with the service CSE polygon (Djellal & Gallouj 2006), especially the existence of all three determinants (elderly people, elderly people's family member, and care workers) and how they interact. The other elements from CSE polygon also exist in this study; however, the empirical research shows the focus on three main factors, which contribute the triangle concept in this study. Besdies, the influence of each actor alone towards service innovation process has been researched; however, this study gives new insight into the concept of triangle actors in the service innovation process. The analysis of the influence is base on a simplified model of the service innovation process from Haavisto (2014) with three main stages: idea generation, development, and market launch. Every stage is not a discrete act, equally important, and they happen simultaneously. Different angles are analyzed with the emphasized actor to show their functions to promote patient involvement in the service innovation process. Also, it is shown that patient-involved approach (McNihol 2012) is well adopted in this case study, especially within the triangle concept because patients' needs act as guidance for other actors' behaviors.

Last but not least, the third objective to figure out how the patient would affect service innovation in an elderly care setting with the patient-involved approach. The definition of service innovation and its characteristics are examined by empirical research. In this case study, the definition of service innovation is closely linked to

incremental innovation and the newness and improvement are emphasized, not multi-dimensional aspect. In addition, the idea of service innovation from Durst et al. (2015) is applied in this case study with the home-like concept, because the concept is the introduction of incremental improvements of existing services at Organization Alpha nursing home. The results also illustrate the significance to involve patients as input into the service development process to get service innovation as output. Additionally, the home-like concept is the result of that process, and it brings extra values towards the patients and organization via co-creation process. The home-like concept as service innovation performs greatly six dimensions of service innovation from Den Hertog et al. (2010) and this is the linkage between empirical research with the theoretical background. Besides, a synthesis of all empirical results is given to connect all the theoretical points and provide an extended framework to the framework of the service innovation process of (Haavisto 2014), customer involvement (Ngo & O'Cass 2013), and patient-involved approach (McNihol 2012). This synthesis contributes to the literature of customer involvement in general and patient involvement in service innovation in elderly care in particular. In addition, the triangle concept and the co-creation of the three main actors are something new added to the body of literature.

5.2 Managerial implications

This research is also beneficial to healthcare organization both in the private and public sector. It provides some insights into the phenomenon, and they are useful for healthcare practitioners to consider and apply in reality:

1. Balance between democratic approach and consumerist approach.
2. Pay attention to both primary and secondary customers within service development process.
3. Establish clear guidance and system for employees supporting patient involvement.
4. Develop an assessment mechanism for new services.
5. Maintain the home-like concept and provide clear steps for scaling up.

First of all, as discussed above regarding patient involvement, there are two basic approaches: democratic and consumerist. The management board is recommended to have the balance in adopting these two approaches in the process so that the voices of patients are not overly interpreted. Some research are showing negative impacts of

relying too much on customer participation or not taking customer's perspectives at all, that is why balanced adoption would help to mitigate these drawbacks and work towards better results of involving customers. Otherwise, the organization is doing a great job in taking the voices of all patients and patient representatives into consideration.

Second, the role of the customer is undeniably vital in the service development process. The nursing organization with similar service offerings for elderly people or illness people should pay more attention to the patients and their family members. In that way, the triangle concept, which facilitates service innovation is established. The most important element is that customer-involved approach should be adopted during service innovation process too so that customer's existing and latent needs can be fully understood. The co-creation process creates new values for not only patients but also the organization itself. To be more precise, the patients can get extra value from developed services according to their needs while the organization gets insights into patient's perspectives and behaviors supporting later service development activities.

The third managerial implication is that supporting guidance and system for employees to involve patients into development process needs to be established by the management board of the organization, the more explicit guidance system, the better for the employees. Especially, the observation still happens quite randomly so it could be better with more structured and systematic approach besides random observations. It is also significant that every employee in the organization understands the structure and guidance fully so they can act accordingly to them. The cooperation between individual autonomy with guidance system would work best for a low hierarchical organization like Organization Alpha because it promotes creativity with supports towards service innovation. The organization should pay attention and create an appropriate environment for that activity.

Fourth, the assessment mechanism for new services should be developed. Because the introduction of new services at Organization Alpha nursing home is trial-and-error, it is advisable to have a clear assessment for promoted services to know whether if it is a success or failure. The assessment process can help the organization to realize where did they do wrong so they can improve and do better with the next project. Also, feedback are a great source for assessing the successful application of new services; it is advisable that the organization should develop the feedback process more frequently with both patients and their family members.

Last but not least, the nursing home in case would like to scale up the business in the future. It is recommended that the organization should first maintain what they are having, not losing their original motivation for developing the home-like concept. The centralization around the patient's need is appropriate with patient-led approach and it leads to better service offerings for the patients. Besides, if the organization would like to expand their businesses, it is necessary to have the explicit plans and steps to achieve the goals in the future. A systematic plan should work in this situation.

The author hopes that these managerial implications would contribute new and extended useful knowledge for healthcare organizations, especially small-size firms. Because healthcare is an important sector in any country, it is needed to pay attention to healthcare management to increase the quality as well as the effectiveness of healthcare services towards customers. Especially, healthcare in Finland is facing great challenges because of the aging population; the government is struggling to figure out suitable policies to tackle this problem. Therefore, involving patients is an important and relevant activity to do to understand more about them and to develop adequate and appropirate policies with the cost-wise element. In this way, the burden for government can be reduced, and they can work toward a successful healthcare system.

5.3 Limitations and suggestions for future research

It is unavoidable that this study has some limitations in scope and depth. First of all, the problem of generalization is one of the big problems for the case study, and it holds true in this case. This study focuses on one particular organization, which offers elderly services for patients with memory disorders in Finland, so it is difficult to generalize the results for other sectors or groups in healthcare worldwide. Also, the research might give different results if it had been conducted in different regions because the institutional framework and some of the factors could be greatly different. However, this study provides good insight and starting point for further research in patient involvement in the service innovation process. It acts as a base for similar research topics by changing research methodology, expanding the scope, or the geographical sector. This topic is raising its popularity among healthcare industry because there are still lacking research in similar scopes and topics. Therefore, it is necessary to conduct further related researches to fill in the gap and make a contribution to the field both theoretically and managerially.

Second, the chosen perspective of this study is also a limitation. Examining the influence of patient involvement in service innovation in this study through the organization's perspective might hinder other angles from being seen from patients themselves. Because of the critical conditions of patients in this case study, it is difficult to obtain data collection directly from the patients. Thus, the perspectives of employees and managers are employed to shape the insights, and they could be biased toward the organization. Because the interviewees are human with emotions, it is difficult to be objective and rational in giving opinions. Nevertheless, as mentioned above in research methodology section, the researcher try to mitigate this problem by not providing the questions in advance so that the interviewees can keep neutral stance and answer with their natural reactions to what is happening daily at the nursing home.

Last, there is lacking comparison with usual healthcare organization without patient involvement to see the real impact of it into the service innovation process. In this way, it can show to readers more convincing and reliable evidence of patient involvement's impact on service innovation. Therefore, a comparative study regarding elderly care should be conducted in the future to prove more explicit influences and the role of patients in the service innovation process.

Thus, it is recommended for researchers to continue with this research path because patient involvement is a crucial and interesting topic. It can be expanded within the healthcare field for example to the child, adult, or young care and different geographical locations. In addition, it is necessary to have comparative case studies as mentioned above so that the impact of patient involvement is substantially exposed. It would be useful to take the patient's perspective in future researchs which due to time constraint and resource that this study cannot cover. Moreover, the innovation process for analysis is the simplification, so it is necessary to explore the phenomenon in more profound and more details analysis regarding service innovation. Besides, although patient involvement is quite abstract and hard to be quantified, the results can be checked with quantitative approach by survey or other kinds of a quantitative technique to assess the influences.

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APPENDICES

INTERVIEW GUIDE

Background questions

1. Could you please introduce a little bit about yourself?
   Voisitko esitellä meille itsesi (nimi, työnimike yms.)?
2. How long have you been working here?
   Kauanko olet työskennellyt täällä (Assä)?
3. Could you please tell us about your work and responsibilities here?
   Kertoisitko työnkuvastasi ja vastuualueistasi?
4. Do you consider the elderly people here as residents, patients, customers or something else?
   Pidätkö täällä asuvia ikäihmisiä asukkaina, potilaina, asiakkaina vai jonakin muuna?
   What about their close others – how do you call them?
   Entä heidän läheisiään – millä yhteisnimityksellä kutsuisit heitä (ja pidätkö heitä asiakkaina, vierailijoina vai jonain muuna)?

Services and service development

5. Could you please tell me about what type of services you provide? Are they standard or per patient? Do they differ from more generally offered services within elderly care? How?
   Voisitko kertoa tarkemmin tämän hoivakodin palvelu-/hoitotyöstä? Onko palvelu/hoito vakiomuotoista eli kaikille samanlaista vai räätälöidysti asukaskohtaista? Poikkeaako se mielestäsi tavanomaisesta hoitotyöstä (vanhainkoteihin verrattuna) ja jos kyllä niin miten?
6. How do you understand the vision of this nursing home?
   Millainen visio (eli tavoite tai pääpyrkimys) tällä hoivakodilla mielestäsi on?
7. How do you feel about this work place?
   Millaiseksi koet tämän paikan työpaikkana?
8. - How do you feel about the services here? Why?
   Millaisena pidät tämän hoivakodin palveluja? Miksi?
   - How do you feel about the atmosphere here? Why?
   Millainen ilmapiiri täällä mielestäsi on? Miksi?
   - How do you feel about the room (facility) here? Why?

Millaisena koet täällä olevat asukashuoneet ja muut tilat? Miksi?

- How do you feel about the other employees here? Why?

Millaisia ajatuksia sinulla on työtovereistasi? Miksi?

- How do you feel about the management here? Why?

Mitä ajattelet tämän hoivakodin johtamisesta? Miksi?

- Can you give me concrete example when something is working well?

Voitko antaa konkreettisia esimerkkejä hyvin toimivista asioista?

- Can you give me an example where there is room for improvement?

(services, atmosphere, room, employees, e.g.)

Voitko mainita esimerkkejä asioista, joissa olisi vielä kehittämisen varaa (esim. koskien palveluja, ilmapiiriä, tiloja, työntekijöitä…)?

Service Innovation

9. -What kind of thoughts does the word innovation arouse in you?

   Mitä ajatuksia sinulle tulee sanasta innovaatio?

   - In your opinion, is there any innovation in this case? Which are service innovations in this case?

   Onko mielestäsi tässä hoivakodissa toteutettu innovaatioita tai innovatiivisia palveluja?

Patient Involvement & Service Innovation Process

10. Does nursing home ask for feedback from patient and their family for service innovation development? How and when? (Do you consider these developments innovative?)

    Pyytääkö A palautetta asukkailta ja/tai heidän läheisiltään palvelun kehittämiseksi? Miten ja milloin? (Pidätkö tällaista palvelun kehittämistä innovatiivisena?)

11. How does the feedback process about services take place here?

    Millainen palauteprosessi täällä on?))

12. How do you involve patient and their family members in the feedback process (-> service development process/activities)? What is their role in the service? How and in which situations you usually communicate with them? Do they contact you? In which situations? Would you wish you to have more contact with them? Which type of contact should be suitable? (When? Who should be active?)

    Miten osallistatte asukkaiden läheisiä palvelun kehittämistyöhön? Mikä on heidän roolinsa palvelujen toteuttamisessa? Miten ja missä tilanteissa

yleensä kommunikoitte heidän kanssaan? Ottavatko he teihin yhteyttä? Missä tilanteissa? Toivoisitteko enemmän tai tiiviimpää yhteyttä läheisiin? Minkälaista yhteyttä/yhteydenpitoa pidätte sopivimpana/parhaimpana? (Milloin? Kenen kaikkien tulisi mielestäsi olla aktiivisia?)

13. -How are patients involved in activities of service development?

- Which activities can patient participate?
- In what condition that the patient can join activities?
- How would patients facilitate new service development?)

Miten asukkaat ovat osallisina palvelun kehittämisessä?

- (Millaiseen kehittämistyöhön asukkaat voivat osallistua?
- Missä tilanteissa / milloin asukkaat voivat osallistua palvelun kehittämiseen?
- Miten asukkaat edesauttavat palvelujen kehittämistä/kehittymistä?)

Experience and comparison to other nursing homes

14. Do you have experience in another nursing homes? If yes, how long had you been working there?

    Onko sinulla kokemusta muissa hoivakodeissa työskentelystä? Jos kyllä niin miten pitkään olet työskennellyt muissa hoivakodeissa?

15. How do you think this nursing home differ from other nursing homes? What makes the difference between Runoskyla and other nursing homes?

    Miten tämä hoivakoti mielestäsi eroaa muista hoivakodeista?

CODES LIST

Table 5 Codes list

Code	Meaning of the code
AI	Active involvement
AK	Asking
CP	Cooperation/ Co-creation
EQ	Equality
FA	Family members/ Close others / Relatives
HC	Home-like environment/ Home-like concept
HP	Healthcare professionals/ Nurses/ Practitioners/ Care takers
ID	Individuality
KL	Knowledge

OB	Observation
PL	Patient-involved approach/ User-involved approach/ Customer-oriented approach
PA	Patients/ Residents/ Customers / Service users
PP	Patient involvement/ Patinet Participation/ Customer involvement/ Customer participation
PI	Passive involvement
SI	Service innovation
SP	Innovation process/ Service innovation process
TG	Triangle concept