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The “new” doctor-nurse game in decentralization

- A case study in southern Sweden

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During the spring of 2009, I was admitted to the master program of Managing People, Knowledge and Change at Lund University in southern Sweden. It was a great opportunity for me to study abroad, because the Swedish educational system provided me advanced education and I learnt on how to conduct a research. Apart from that, this research and master thesis learnt me something extremely important which I have not learnt in my life so far. In particular I learnt that each professional, in order to succeed in his or her career should apply models during the decision makings in order to become successful.

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This thesis is dedicated to all the members of my family. My parents George and Kathrin, my brother Chris and my sister Iro to whom I would like to thank from this paper for their support all of these years.

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ABSTRACT

Thesis title:	The “new” doctor-nurse game in decentralization –A case study in southern Sweden.
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Key words:	Decision making, decentralization, popular culture, critical thinking communication, teamwork, stress, E.R series, rational-bounded rational-irrational model, ambiguity.
Purpose:	To explore the nursing decision making in a decentralized area, taking into consideration the nurses’ knowledge and clinical practice.
Method:	This research is based on a qualitative approach through interviews. The method which is used on my research is the mix of deductive and inductive approach. Furthermore, it is used the popular culture as an interview technique.
Theoretical framework:	The theoretical framework which I use deals with the nursing recommendation to the doctors which started from the decade of 90’s. Hence, in order to describe this framework I was inspired from the influential historic overview of decision making model
Conclusion:	Nurses influence the doctors’ decision making process with three models. First the rational model (Step-By-Step), second the bounded rational model (Recognition-Primed Decision) and third the irrational model (Garbage Can). A basic precondition is to work the nurses in a decentralized health system.

CONTENTS

CHAPTER 1

INTRODUCTION

1. BACKGROUND

Before I introduce the research of my master thesis, I would like to describe a personal experience that I had in a university hospital in Greece five years ago. This personal experience resulted in me wanting to do my research as a master student in southern Sweden. In particular, during my bachelor studies in health management I had a great opportunity to train my practical administrative skills in health care. An important characteristic was that the health care system in Greece in 2005 was very centralized. Working in a centralized system, I had the opportunity to explore how this type of system operates.

To begin with, I used to work in three different areas (pathologic, orthopedic and oncology area) of a university hospital as an administrative assistant. The administrative staff worked in rooms close to that of the patients and in many instances, I and my partners in the office overheard strong arguments in the corridor between doctors and managers and between doctors and nurses. While I was an assistant working in health care, I wondered to myself: 'What is happening here? Why are they arguing?' I remember that a partner of mine at the office saying that I would be hearing lots of these arguments during my work and administrative workers are used to that situation and it was part of their reality.

In addition, while I was working in the hospital it was sensible that I had contacts with the medical staff and took the chance to explore in depth why doctors and nurses were frequently arguing! Because I had lots of discussions with them I realized that nurses were subordinate to the doctors and at times they were unable to make recommendations to patients. Nurses with a few years of work experience were familiar only with student or entry level doctors because they felt that they were not in a subordinate position between them and therefore their actions were "free". Only the senior nurse who was working in a specific area could recommend something to the doctor, but on occasion the senior nurse had debates with the doctors. Most of the nurses complained that they spent lots of years practicing, studying in nursing school and some of them doing their PhD in nursing without making proposals or recommendations to doctors. Mostly, I will never forget walking in the patient rooms doing "observations" when I had free time from my work. I realized that apart from the debates among doctors and nurses, I rarely heard doctors discussing with nurses in a professional

manner. Correspondingly, nurses expected something better in their role, because the nursing practice is progressing rapidly. Not only that, I too personally felt “subordinated” because the majority of the doctors (except from the student doctors) who came to my office to give them some administrative papers, I realized that their behavior was like a “manager” who has a power. Then I realized how the nursing staff was feeling while they were interacting with the doctors.

2. PROBLEM FORMULATION

Taking into consideration my personal background working in a centralized hospital, nurses were not able to make recommendations to the doctors. Even if nurses had increased their skills their educational background, they were subordinated by the doctors. Although there exists some literature on the relationship among doctors and nurses only a few qualitative studies have explicitly focused upon the doctor–nurse interaction in a decentralized environment. This followed my interest to examine in depth about this relationship.

To begin with, Stein (1967) was the first researcher that explored the interaction among the doctor and the nurse. He considered: Why do nurses interact continuously with the patients without being able giving some advice to the doctor? To quote from Mackay et al. (1998: 260) this assumption influenced Stein to specify this relationship as ‘the doctor-nurse game’. With reference to Coombs (2004: 19), Stein (1967) from his observation study, identified the problematic situation of the doctor-nurse game which has to do with the ‘lack of communication and assertion by nurses’. The lack of this communication according to Stein (1967) was owing to the hierarchical gap among the doctor and the nurse. A few years later in 1978, to note from Freshwater (2002), Stein (1978) observed that doctors were afraid of doing a medical fault towards the patient and there was a need to work along side other professionals such as nurses to avoid medical mistakes!

In addition, around a decade later, Stein et al. (1990) observed again Stein’s previous research that took place in 1978 about the doctor-nurse game. From their new research, they found something completely different in comparison with the past years. Nurses were able to participate to the decision making by recommending and giving advice to the doctors. According to Stein (1990) this was owing to the nursing education which has evolved

effectively. Nursing students learn to ‘use the doctor-nurse game and communicate the recommendation without appearing to do so’ (Mackay et al., 1998: 263).

However, with respect to Stein’s et al. (1990) previous statement that nursing has been a competitive profession in health care, in reality as I referred to the background nurses were disappointed with their profession, because they spent years studying and practicing. To make it simple nurses (including and their educational background) working in a centralized area we can understand that they are still subordinated to the doctors. Correspondingly, Aucoin and Bakvis (1998: 10) add that the hierarchical gap that exists in a centralized organization ‘refers to the concentration of authority and power at the centre’. In other words the doctor has power against the nurse.

3. RESEARCH QUESTION

Before I introduce the research question, it is essential to summarize the key points of the problem formulation. Firstly, Stein et al. (1990) reworked the doctor-nurse game theory in which the nursing profession has become more competitive. Second from my personal experience working in a centralized organization even if the nurses have become competent in the health care system, they are still subordinated from the power of the doctor thus they have difficulties giving recommendations about the patients. However, Borkowski (2008) interprets that if we reduce the hierarchy then the involvement of the nurses would be better in the decision making.

In addition to Borkowski’s argument, Huber (2006) adds that the high involvement of the nurses is viewed on the decentralized health care systems. Saltman et al. (2007) argue that the Swedish health care system is decentralized, where I did my research. So, the aim of this study is to *explore the nursing decision making in a decentralized area, taking into consideration their knowledge and clinical practice.* Thus, Huber (2006: 246) makes clear that working in a decentralized organization the lower level of the hierarchy (nurses) can involve to the decision making of the higher level of the hierarchy (doctors), because nurses do not have the medical competence as the doctors have. The reason is that ‘at the individual worker level, people may be empowered-given the authority, responsibility and autonomy to make decisions…With decentralization decision making is diffused down to the lower organizational levels’. Hence, we can understand that according to Jablin and Putnam (2001)

communication (which is the identified problem in a centralized organization) is highlighted to be effective between the organizational members taking risks such as the doctor and the nurse.

Correspondingly, taking into consideration the above reasons, arguments and my personal experience working into a centralized organization this “new” doctor-nurse game (Gordon, 2005) reflected and inspired me to do my research on *how do nurses influence the doctors’ decision making in southern Sweden?*

4. METHOD

This research is based on a qualitative approach through *interviews*. According to Alvesson and Skoldberg (2009), the crucial intention of doing qualitative research is to produce a theory in order to underscore and highlight new findings. Influenced by Bryman and Bell (2007), a technique (the method) which is used in my research is the mix of deductive and inductive approach. Based on the theoretical guidance of Stein et al. (1990) who did observational study (which is based on the nursing recommendations to the doctors), I use their theory in order to “test” it and to apply my research question. The result is that I have the ability to formulate specific questions to pose to the interviewees in order to collect data from my research (deductive approach). In addition, after obtaining data from my research I use the same data to “upgrade” my theory in which my research is “data-driven” (inductive approach).

Finally, I was inspired by the researcher Alf Rehn to use in my research popular culture as an interview technique. Rehn (2008) argues that, apart from that popular culture represents our society, the crucial intention is to make an analysis and to see the difference between the first and the secondary material of my research. Thus, popular culture encourages the interviewees to collect data. In other words the interviewees can challenge the interpretations of the interviewer because popular culture gives a great deal to trigger and to encourage interviewees. Hence, it is easier for the researcher to apply “action” during the analysis of the data.

5. RELEVANCE AND AUDIENCE

According to Viljoen and Uys (1998: 27) ‘members of the nursing profession accept the responsibility of expanding and promoting the theoretical basis of nursing knowledge’. They do not suggest that nurses have to be intimated from this research, but they have the ability to contribute to the decision making process. First, this contribution to the existing research could be identified by the problem definition that nurses face in their work. Hence, the researcher pays attention to these problems. In general, when people face complexities they do not make much effort to “strike” these problems and the nurse should apply his or her critical thinking in order to become effective in decisions. Second, nurses should use the results from this study whether these results are adaptable from their clinical practice and to evaluate these (Viljoen and Uys, 1998).

This research is addressed first to the nursing students for encouragement in their studies. Hedberg (2005: 4) highlights the importance of this profession which ‘gives the students the ability to independently and critically make judgments about as well as follow knowledge developments in their specific area of education. Higher education should also develop the student’s ability to exchange information on a scientific level’. From this argument, two important characteristics are estimated: critical thinking and communication. Empirically from my research these characteristics were identified on my data collection from the majority of the nurses that guarantee their competence section.

Second, this research is addressed to the students who finish high school before entering nursing university. Williams and Wilkins (2002) argue that being a nurse in health care is very demanding. These researchers want to communicate to future nurses that nursing is not just a job, emphasizing to them that it needs personal capabilities. According to Hedberg (2005) these personal capabilities such as empathy and compassion play important role in the treatment of patients. Nowadays, nursing has become a profession and this creates greater responsibility and authority to the individuals (nurses). Furthermore, as my thesis is concentrated on nursing decision making, Oermann and Gaberson (2006) argue that because knowledge is continuously changing in our technical-competing society individuals should learn to make important decisions in order to be effective, skillful and to become experts in their new role. This “new role” is connected with the “new” doctor-nurse game as I noted in the research question paragraph, because Stein et al. (1990) argue that nurses play important role by giving advice to the doctor during the hospitalization of the patient.

Finally, this research is addressed to the doctors and in particular to the doctors who work in a hospital based on a *centralized area.* From my experience, referring on the background paragraph, well-skilled nurses were unable to give advice to the doctor because the doctor had the power. Taking into consideration the previous arguments that nursing practice has strongly evolved I would agree with Stein's statement that doctors should appreciate the nurses' advice (even if they work in a centralized hospital or not) (Mackay et al, 1998).

6. STRUCTURE OF THE THESIS

To conclude the introduction chapter, I will present very briefly the context of the following chapters of this thesis:

In *chapter 2* I explain the procedure that I conducted my qualitative research and the analysis of my data by using two techniques: First the use of deductive and inductive approach and second the use of popular culture as an interview technique. Furthermore, I explain the limitations of my study.

In *chapter 3* I indicate the theoretical framework which supports my research. Because of my research is based on decision making I describe an influential historic context of decision making models including the difference between the centralized and the decentralized organization. Furthermore I discuss practical issues on nursing decision making models.

In *chapter 4* I present a case study based on my research question. This case study presents in total ten nurses beliefs and dialogues. Thus, I summarized the collected data into five categories: critical thinking, communication, teamwork, stress and the ideal model of nursing decision making.

In *chapter 5* I make a discussion between the nursing decision making models (which are applied in the clinical practice) with the findings from the interviews (which answer my research question).

In *chapter 6* I respond to the research question of my thesis that nurses influence the doctors' decision making into three models. These include the step by step model (rational decision), the Recognition-Primed Decision model (less rational decision) and the Garbage Can Model (irrational decision). Furthermore, I indicate the "new" findings from the nursing decision making models that applied in my interview study (which support the "new" doctor-nurse

game in decentralization) in comparison with the findings of Stein's et al. (1990) observation study. Finally, ending my thesis I make a proposal for future research.

CHAPTER 2

METHOD

1. INTRODUCTION

As my research is based on a social interaction among doctors and nurses, Flick (2006: 11, 12) argues that the most suitable research to explore this relationship is qualitative research. He suggests that in the last decades the qualitative approach has become a dominant element for researchers to understand in depth social interactions. This is owing to the 'pluralization of life worlds'. However, this pluralization is highly demanding because empirical reality requires narrative and sensitive issues. Hence, the variation of life worlds reinforces researchers to develop knowledge in order to produce good descriptions and imposing truths on how we understand different phenomena. These phenomena are new for researchers in that researchers' deductive methodologies are tested against their empirical studies and these 'are failing due to the differentiation of objects'. Hence, researchers are influenced by previous knowledge and emerged to follow inductive methods by "testing" the existing theories and afterwards "building" newer concepts (Alveson and Skoldberg, 2009; Flick, 2006).

The chapter is structured as follows: In the first section I describe the use of deductive and inductive approaches in my research and I represent the procedure that I conducted my interviews presenting all the nursing students and registered nurses. In addition I explain and the use of the popular culture as an interview technique. Finally in the last section I explain the limitations of my research.

2. THE PRAGMATIC DATA

2.1 BACKGROUND

Doing my master thesis, first I was interested in doing my research in a public hospital in southern Sweden. However it was not easy to be accepted from the managers, because managers showed me that they have doubts about a student's study which could be a negative study. Not from the student, but for the employees who work in the hospital and for the patients. Managers believe that the employees' and patients' interpretations sometimes could be at "fault" and they are afraid of the publication of possible "negative" results from the

student's study. Hence, I decided to do a broad research in Sweden. However it could have been interesting doing my research in the whole country, but because of the short time to finish my master thesis and the lack of funds I did my research in limited area in southern Sweden.

2.2 DEDUCTIVE AND INDUCTIVE APPROACH

I was inspired by Bryman and Bell (2007: 11) that argue that 'deductive theory represents the commonest view of the nature of the relationship between theory and research'. Hence, the researcher 'deduces a hypothesis (or hypotheses) that must then be subjected to empirical scrutiny'. For example, as my research is focused on doctor-nurse interaction, I was influenced from Stein's et al. (1990) theory which deals with the nursing recommendation to the physicians.

However, I have to note that Stein et al. (1990) did an observation research which means that their intention was to comprehend unknown domains into the clinical practice. Hence, nursing activities were identified from observations (Hedberg, 2005). Taking into consideration Stein's et al. (1990) research, I decided to do the same study but with another approach, an interview guide. The purpose of this approach and in particular of semi-structured interviews was to produce knowledge from the nurses on how do they contribute to clinical decision making, including their knowledge, education, attitudes and clinical experience. Hence, this enabled me to formulate specific research questions and obtain data from the field. In this occasion I conducted deductive research to find the proper data following the theoretical guidance of Stein's et al. (1990) research and to "test" what they found to their research. In particular they found that nurses had increased communication abilities and that they were equal partners with the physicians, configuring teamwork among them. Furthermore, they argue that this interaction was owing to the advanced nursing education which played a dominant role and that nursing could be established as a profession. Hence, Stein's et al. (1990) theory is my theoretical guidance for my research.

In addition, Bryman and Bell (2007: 12) argue that the last step from deduction encompasses 'induction as the researcher infers the implications of his or her findings for the theory that prompted the whole exercise'. Hence, Stein's et al. (1990) theory is still hold and after receiving the data from my research, I am using the same data which include the nurses'

quotes from the audio recordings to “upgrade” my theory (inductive approach). Hence, my research is also “data-driven” (Bryman and Bell, 2007).

2.3 GATHERING DATA AND INTERVIEWS

The following two tables represent the way that I gathered my data. The first table shows six different registered nurses in the public sector who participated in my research. This table indicates five characteristics which include: pseudonymous, work experience, specialization, date of interview and time. The second table represents nursing students and their academic year who participated into my research.

Registered Nurse	Work Experience (years)	Specialization	Date of Interview	Time
Melinda	less than 30	Emergency Room	07/04/2010	17:54-18:23
Kathrin	25	Emergency Room	06/03/2010	12:15-14:22
Kathrin	25	Emergency Room	07/04/2010	08:30-08:50
Anna	15	Oncology/PhD Student	29/03/2010	11:40-11:54
Anna	15	Oncology/PhD Student	06/04/2010	21:10-21:27
Sonia	14	Surgical	02/04/2010	10:30-10:55
Christine	less than 10	Emergency Room	06/03/2010	12:15-14:22
Natassa	5	Cardiac	29/03/2010	17:32-17:40

Figure 1: List of interviews from registered nurses.

Student	Academic Year	Date of Interview	Time
Angela	2	01/04/2010	14:40-15:04
Marcela	1	06/03/2010	12:15-14:22
Nicky	1	02/04/2010	19:00-19:16
Vanessa	1	28/03/2010	08:20-08:45
Vanessa	1	01/04/2010	11:30-11:54

Figure 2: List of interviews from nursing students.

To begin my description of the interviews, before I started doing my research my priority was to find as many registered nurses I could in order to have empirical material from their work experience. However, I have to note that it was difficult to find free and voluntary registered nurses doing my research. I remember that while I approached nurses to propose conducting an interview, the majority of them declined because they explained me that they work under difficult circumstances, they do not like talking about the clinical environment where they work and they prefer spending their time going for excursions. The reason is that their profession is very stressful and as I understood they need to relax in their free time. Additionally, I completely understand their situation because in the following chapters I explain that nursing the contribution to the doctors' decision making process is very demanding. Hence, I decided to "extend" my interviews with nursing students who do not have such responsibilities in health care yet and were more willing to provide some information about their future profession.

Moreover, all the interviews were conducted at the nurses' preferable place and time and we arranged appointments through mobile phone. Both registered nurses and nursing students were aware that I was a master student of managing people knowledge and change, my bachelor degree in health management and my personal interest in health care. According to Hedberg (2005: 38), 'someone who has limited knowledge about a specific subject tends to be more probing compared with someone who knows and has heard the correct answer before'.

Hence, I conducted semi-structured interviews in order not to influence the responses of the nurses (Hedberg, 2005).

However, I have to state that my first interview was a group discussion among two registered nurses and one nursing student. The reason is that they knew each other and they proposed me to do group interview. Hence I accepted to do this. However, from this group one nurse who works in health care did not want to be recorded her voice, because she was feeling uncomfortably. I solved this problem by accepting and respecting her recommendation and we started the interview. However, during the interview I was keeping some notes from our discussion. I have to note that this group discussion was an experience for me as a start point because I had never conducted any interview before. Hence, this gave me a chance to "control" and to guide the next interviews better. Hopefully the other interviews were therefore conducted with fewer problems; they were also individually audio recorded. Furthermore, I have to note that I recalled in total three nurses in order to clarify some questions which I had and to make sure that my data was reliable.

Finally, another characteristic from my interviews is that only experienced nurses who had up to fifteen years experience gave me reflective and innovative responses. In particular, these innovative responses were identified from specialist nurses working in the Emergency Department and to the Oncology Department. These areas deal with complex, ambiguous situations and the nurses use their intuitive skills in order to make quick decisions and to manage these. To make it clear the more experienced is a nurse, the more judgments can apply on his or her work (Jones and Beck, 1996). That is the reason why they participate mostly in the dialogues in chapter 4. Hence, I transcribed almost everything from these registered nurses, because I was aware of the quality of data and was able to repeat the tapes from the beginning.

2.4 REFERING TO POPULAR CULTURE AS AN INTERVIEW TECHNIQUE

I was influenced by Alf Rehn (2008: 781) in using the popular culture as an interview technique in my research who argues: 'popular culture is powerful specifically because it is popular, and the way in which it constructs realities must be taken seriously'. From Rehn's (2008) argument, Lynch (2005: 90) adds that popular culture is a combination of ideas of entertainment and satisfaction. In particular 'television may also offer immediate pleasures of

the emotional response from watching an amusing comedy, a well-constructed drama, or a tightly fought sports contest'. For this reason popular culture gave me a great deal to trigger and to encourage nurses in their responses. Hence, nurses were encouraged to talk about their real contribution to the decision making process. In particular, I presented three popular drama T.V series: House, E.R and Grey's Anatomy. Consequently, I realized that nurses were more "voluntary" to talk about their interaction with the doctor, because almost all of them liked E.R series. Hence, the audience becomes a relevance function being critical, making judgments and not to be "entrapped" only to amusement. For example nurses were quite critical and had negative opinion about the series House and Grey's Anatomy, because these series did not portray the nursing role in a true way. Correspondingly, popular culture represents and mirrors our society because E.R series is a "well-constructed" drama and this influenced nurses to become more "willing" to give me responses (Lynch, 2005; Rehn, 2008).

3. VALIDITY AND RELIABILITY

Ending this chapter, according to Bryman and Bell (2007: 410) validity and reliability are dominant characteristics to be secure and trusted in my qualitative research. They argue that validity and credibility 'are different kinds of measures of the quality, rigor and wider potential of research, which are achieved according to certain methodological and disciplinary conventions and principles'. So, let's explore these characteristics in practice:

According to Bryman and Bell (2007: 410), validity is reported whether 'you are observing, identifying, or "measuring" what you say you are'. Taking into consideration this argument, my claim for this study was to identify the influential context of nursing decision making in clinical practice. In addition, I have to state that there exist potential validity problems from this research because I conducted interviews and in general interviewees might still likely give impression from their beliefs (Ruhe and Zumbo, 2009). The main reason that I did not do observation study is that I did my research in a non English country, Sweden and I do not know the Swedish language. However, I considered that an interview study was the best qualitative research to collect my data, taking into consideration my ability to conduct interviews in English language.

Finally, Bryman and Bell (2007) argue that apart from validity we need and solid (reliable) data. They notice that reliability deals on how coherent the data is, while measuring these.

Conducting my interviews I realized that registered nurses identified more findings which are applicable to nursing practice than the nursing students. Hence, because I was aware of my data by repeating my audio recordings I decided to recall two nurses from public health care to clarify some questions in order to ensure that my data was still reliable. These two interviews were the last of my research (which is shown in the previous table). I chose these two nurses because they were very experienced and reflective in their responses, when I conducted interviews with them for the first time.

CHAPTER 3

THEORY

1. INTRODUCTION

According to Pennings (1986) the decision making process has become a dominant element in order to achieve organizational effectiveness. The reason is that the role of ambiguity and uncertainty that exist in organizations create problems and strategy indicates important decisions need to be taken in order to solve the problems. Rabin (2003: 317) adds that the decision making process ‘is both an objective and subjective process’. The objective procedure deals with the determination of the goals and achieving these goals (rational decision making). The subjective procedure has to do with the values of the managers which may result in a ‘satisfactory rather than an optimum solution’ (bounded rationality). These different kinds of decision making enable us to explore the way that decisions are taken from the managers and what standards are used in each decision.

Thus in this chapter, first I discuss an influential historic context of decision making models. This includes three different aspects on decision making: rational, bounded rational and non rational. Secondly because my research is based on a nursing decision making study, I was inspired from these three models to write about issues of the nurses’ decision making models. These include: the rational, the intuitive and the diagnostic model which are applied in nursing practice.

2. HISTORIC OVERVIEW OF DECISION MAKING MODELS

According to Nelson and Quick (2008: 223) the effectiveness of the organization is based on the suitable decisions. Three decision making models are presented: ‘the rational model, the bounded rationality model, and the garbage can model’, because the data from my research which will be presented on the next chapter, prove that the area of my expertise is focused on these models.

2.1 RATIONAL DECISION MAKING MODEL

According to Stroh et al (2008) the steps that a rational decision making model includes are:

1. *Problem recognition:* In order to become effective the decision making process, it is needed from the manager to recognize the problem precisely.
2. *Acknowledgement of criteria:* It is crucial for the manager to acknowledge the appropriate criteria in order to establish an effective decision, taking into consideration the values of every criterion.
3. *Investigation of information:* The manager should come to light with all the available information that exists in the problem or unconformities and possible channels of coming up with a solution.
4. *Production of alternatives:* In this aspect, the manager identifies the strategic actions that should be done, taking into consideration the available information which relates to the problem.
5. *Estimation of the most adaptable decision*: In this phase, the manager makes a selection of the decision, after producing the alternatives.
6. *Implementation of the decision:* The last phase includes the accomplishment of the decision after choosing the optimum choice.

According to Holzer and Lee (2004) the rationalistic aspect of view is identified with the *centralized organization.* Hill and Jones (2010: 386) respond that tall structures which are alike with centralization, allow the strategic actions to be expanded to all the levels of the organization ensuring its 'corporate strategy'. Hence, the organization gains control because if the decisions were resolved from the managers by themselves, then the total procedure of the decision making process of the organization would have failed. In contrast, Agarwal (2007) supports that the hierarchy cannot accomplish the training activity of the employees in a successful way and Hamilton (2008) adds that tall organizations do not satisfy the employees and by providing only simple tasks.

In addition, Nelson and Quick (2008) argue that the rational decision making model has its limitations and Stroh et al. (2008) explain a number of reasons: To begin with, a successful rational decision making process depends on a total knowledge but knowledge is developing continuously and never is perfect. In the second place, the rationalistic decision making involves a lot of alternatives and resulting from this the manager does not have the time to

consider all of these alternatives. In the third place a human can not control and memorize all the information that exists in the organization thus making it difficult to mentally retain all the information. Finally, the interests and the goals of the individuals are not constant and resulting from this, conflict will exist between them.

2.2 BOUNDED RATIONALITY DECISION MAKING MODEL

Taking into consideration the previous paragraph that exist limitations on the rational decision making process, quoting from Pennings (1986: 198), Hebert Simon (1982) argues that 'when examining alternatives, a manager might stick to a solution that is satisfactory or "good enough" and refrain from further research'. According to Nelson and Quick (2008), Simon's (1982) bounded rationality decision making model confirms the requirements:

1. Managers feel it's convenient when they do not have to deal with lots of alternatives.
2. Managers follow a bypass on their decisions.
3. Managers feel that their brainwork becomes easier.
4. Managers make the first choice which is manageable for them.

In addition, according to Earl (2001: 503) these four assumptions create a 'bounds to individuals' and deal with the *decentralized organization***.** In order to achieve effective results the organization needs organizational members who have competitive advantages in order to empower the managers these people with validity. The effectiveness of the decision making process depends on the extent of the organization. Broadly, if the organization is big, such as hospitals, then automatically this means that the organization faces complex decisions. In order to reduce these complex decisions the idea is to reduce these by micro decentralized groups which provide considerable space to managers to act taking into consideration each difficult situation they face. Agarwal (2007: 129) adds that 'flat structures' which have to do with the decentralization have plenty of advantages. According to Hill and Jones (2010: 386) there is a precise supervision to the employees and managers who have the right to inspect the activities of the organizational members and the organization becomes 'flatter'. Correspondingly, the middle managers are authorized from the senior managers to implement the decision making process in their area of responsibility and senior managers can schedule their responsibilities more flexibly (Agarwal, 2007). To make it simple, Prety et al. (2007) argue that the power is transmitted from the top to the lower levels of the hierarchy. Agarwal

(2007: 129) argues that this gives a chance to the organizational members to act dependently where trustfulness exists between them. This consolidates the employees to perform their capabilities and provides considerable space for them to act within their own responsibility.

Furthermore this flat structure facilitates the flow of communication between the members because it minimizes 'the channels of communication' and gives the probability to practice and to develop on their own skills and capabilities. Furthermore, according to Marriner-Tomey (2004: 277) decentralization increases the motivation of the people and creates a bond between them. In particular, when people feel that they act independently then they increase their autonomy and they become more productive, authorizing them to be more obliging and helpful with the other organizational members. The result is that the organization becomes more innovative promoting the flexibility of decision making process. This flexibility is due to when the organizational member makes the decision then he or she reduces the time otherwise required to implement the decision. In simpler terms, the time consumption is decreased and in general decentralization is centered on people who 'learn by doing' and this gives plenty advantage to managers to deal flexibly with issues of their section.

In addition, flat structures have their disadvantages. Because of this strategy gives the chance to act with self-governance or self-regulation which gives great responsibility to the organizational members which results in their work being under pressure with a fear that if they do a fault then they might feel unsuccessful in the team. Furthermore when people working in a 'flat' area of expertise, it is sensible that when they face some problems during their work sometimes they have difficulty to have access to their superior's recommendation and afterwards they have to solve the problem on their own. Moreover, the more members exist in a team then the more difficult it is to coordinate between them (Huber, 2006).

2.3 GARBAGE CAN MODEL – NON RATIONAL DECISION MAKING MODEL

According to Nelson and Quick (2008: 225) the Garbage Can Model occurs when the process of decision making is "messy" and unexpected. In other words when ambiguity exists in a high level this means that 'the right participants must find the right solution to the right problem at the right time'. Hence this kind of "messy" decision making occurs only when four key elements in an organization such as 'problems, solutions, participants and choice opportunities are floating around randomly'. Resulting from this, it is crucial for the

organizational members to participate to this procedure and to apply their critical thinking because the information in this case is insufficient.

Moreover, Pennings (1986: 285) who was inspired from March, Cohen and Olson (1972), in his book talks about 'organized anarchies' that take place in the organizations from the Garbage Can Model. First, these 'anarchies' impose difficulties for people to make coherent and consistent decisions because of uncertainties that exist in the organization. Secondly, many times these 'anarchies' deal with 'unclear technology' because the organizational members do not have a clear understanding of the intention of the organization and third is the 'fluid participation', because the 'participants vary in the amount of time and effort they devote to different domains'. These three considerations are the fundamental elements for exploring the influential context of the decision making and to modulate the scheme of this 'anarchy'. To make it simple, this 'anarchy' has two dimensions. The first is that organizations happen to make decisions, in which there is no consistency in terms of shared governance and second it deals with on how the organizational members are energized when they receive the message of the decision.

However, taking into consideration these 'anarchies' that take place in the organization, Mintzberg et al. (1998: 189) argue that the rational model should be substituted from the 'emergent' strategy, a model of strategy which deals with a rational action. In particular they add that this 'emergent' strategy is identified with the 'deliberate' (rational) strategy considering new esteems to emerge strategies 'because it acknowledges the organization's capacity to experiment'. Mintzberg et al. (1998) add that this rational strategy makes sure that the management issues are achieved in action planning. This action planning was identified a few decades before by Mintzberg (1979: 154) who argued that 'action planning emerges as the means by which the nonroutine decisions and actions of an entire organization, typically structured on a functional basis, can be designed as an integrated system'. With reference to Bennett et al. (1992), Mintzberg (1979) argues that the cornerstone of decision making includes a mix of data, intuition and imagination of the individuals. Hence, he adds that specific capabilities are required in order to achieve effectively the chaos of ambiguity by the organizational members. To note from Watson et al. (2005: 34) Mintzberg (1979) argues that these capabilities are dealing with three dimensions of management. First is the 'interpersonal' dimension: The crucial intention is to create a strong-social relationship between the organizational members enabling them to help each other and increase their motivation in their workplace. Second is the 'informational' dimension where the information

through communication is shared and to the subordinates pursuing the goals of the organization by effective results. Third, is the 'decisional' dimension where the organizational members are prompted to collaborate against intangible circumstances and to take greater responsibility. In addition, with reference to Bennett et al. (1992) Mintzberg (1979) adds that these three dimensions must be coherent to strengthen their manpower planning and should not be cut off because of the risk of taking the organizational members out of circumstances that they should be engaged in.

3. ISSUES ON NURSING CLINICAL DECISION MAKING PROCESS

According to Jones and Beck (1996), the clinical decisions must be combined with the nursing assistance by means of interaction with the patients. Three nursing decision making models are presented: the rational, the intuitive and the diagnostic model.

3.1 NURSING RATIONAL DECISION MAKING MODEL

The following issue is dealing with the rational-ordinary decision making procedure. According to Jones and Beck (1996: 4), the steps for the classic nursing clinical decision making issue are:

In the first place, this procedure includes the acknowledgement of the problem: Nurses have to recognize this and together questioning themselves for the patients the following:

- 'How long has the problem existed?
- What is the history of the problem?
- What is wrong?
- What improvement is needed?'

However, the identification of the problem includes all the necessary information and analysis from the patient's problem such as:

- 'What is the desirable solution?
- What are the presenting symptoms of the problem?
- What are the discrepancies?'

Furthermore, the problem identification enables nurses to take into consideration the scope of their decision making and questioning about:

- The importance of each decision.
- The angle of each decision that a nurse should make up in his or her mind.

In the second place, nurses should investigate possible alternatives and choose the most adaptable alternatives in line with the scope of their decision making. In addition, nurses should pick the alternative, which is the most suitable and to facilitate the process of decision making. Finally, nurses accomplish their decision and afterwards they have to evaluate how effectively made their decision was towards the patient (Jones and Beck, 1996).

3.2 NURSING INTUITIVE DECISION MAKING MODEL

With reference to Jones and Beck (1996), Benner and Taner (1987) have another aspect on nursing decision making process without taking rationalistic actions. For example, according to Marquis and Huston (2009: 8), 'Gary Klein, Dr. Klein and his colleagues developed the Recognition-Primed Decision (RPD) model for intuitive decision making'. This model was generated during the 1980's. The crucial intention of this model was to show how the nursing members could afford stress and to manage ambiguities in order to make successful decisions. These researchers want to show that sometimes the individuals must take the decision very quickly more specifically when 'rational decision making is not possible'. Jones and Beck (1996) add that this depends on how their competences aligned with their work experience. Quoting from Jones and Beck (1996: 10), 'nurse competences are described for the novice, advanced beginner, competent nurse, proficient nurse and expert nurse'. Jones and Beck (1996: 11) argue that this categorization of nurses is very important because only the novice and the beginner nurses follow the rationalistic approach as described previously. The competent, proficient and the expert nurse use more their 'intuitive judgment' than the novice and beginner nurses. To make it clear the more experienced is a nurse, the more judgments can apply to his or her work. In addition, Davies et al. (2005: 77) propose five judgments. These intuitive judgments include: 'pattern recognition, similarity recognition, common sense understanding, skilled know-how, and deliberate rationality'.

Pattern recognition is the ability for the nurse to diagnose and to understand different variables that dominate and affect the patient's health condition. *Similarity recognition* is that a nurse has to acknowledge the patient's problem taking into consideration the historic overview of the illness. *Common sense understanding* is the referral to how nurses combine their knowledge about the patient's illness with their own experience that they face in their ordinary clinical decisions. *Skilled know-how* 'involves juggling many considerations during the decision making process' (Jones and Beck, 1996: 12) and finally *deliberate rationality* is referred to nurses that have gained deliberate experiences through past clinical circumstances (Jones and Beck, 1996).

3.3 NURSING DIAGNOSTIC DECISION MAKING MODEL

The figure on page 28 presents the nursing diagnostic decision making model that nurses apply in their clinical practice. This model is crucial for discussing my data because the individual nurse influences the decision making into three actions: rationally, less rationally and irrationally. In the first section the following discussion describes that when the nurse exercises his or her cognitive skills (critical thinking and communication) then depending on the patient's situation the nurse becomes rational or less rational. In the second section, when the individual nurse mixes his or her competences with the doctors then the nurse becomes irrational in decision making. In particular:

In the first section, according to Smeltzer et al. (2009) when a nurse can legally apply his or her critical thinking to participate to the decision making then the nurse can affect the decision making. From this respect, Hedberg (2005) adds that nurses participate in the patient's medical treatment individually by applying their competences, including critical thinking and communication (Sullivan and Decker, 2005). So, what is the impact on the decision making when nurses act individually?

Smeltzer et al. (2009) argue that before a nurse is going to diagnose the patient his or her first action is to be critical. They add that critical thinking is the ability for the nurse to make judgments by taking into consideration all the available choices. Chitty (2005: 387) presents some problematic issues with nurses applying critical thinking in interaction with patients: 'What assumptions have I made about this patient? How do I know my assumptions are accurate? Do I need any additional information?...How might I look at this situation

differently?' Hence, Smeltzer et al. (2009) argue that critical thinking deals with nursing rational thinking, considering the available alternatives that nurses have to choose. In addition, Jones and Beck (1996) agree with Smeltzer et al. (2009), because critical thinking is the basis for the nurses and to strengthen their recommendation to the doctors. Jones and Beck (1996) argue that after critical thinking, the next step for the nurse is to diagnose the patient. They argue that the nursing diagnosis is related with the intuitive judgment of the nurses, ensuring their competences through diagnosis. In this occasion, nurses act without being rational, because they have to manage ambiguities and to accelerate the process on decision making (bounded rationality). Finally, Mengel et al. (2002) add that nurses are able to analyze and to reason which has to do with their communication abilities. After diagnosis the next step for the nurse is to notify the doctor (Sullivan and Decker, 2005). Thus, communication is a fundamental issue during the hospitalization of the patient in order to implement doctor's decision (Sullivan and Decker, 2005; Mengel et al., 2002).

In the second section, Smeltzer et al. (2009: 47) argue that when a nurse can not legally apply his or her critical thinking to participate to the decision making then the nurse has to collaborate with the doctors, in order to solve 'collaborative problems'. So, what is the impact on the decision making when nurses mix their competences with the doctors?

Hedberg (2005: 14) agrees with Smeltzer's et al. statement and she argues that this occasion leads to 'collaborative competence'. These 'collaborative problems' and 'collaborative competences' occur when ambiguity is increased to a very high level and that 'the right participants must find the right solution to the right problem at the right time' (Nelson and Quick, 2008: 225). Hence, this happens and to the Garbage Can Model and the decision making becomes non rational (Nelson and Quick, 2008).

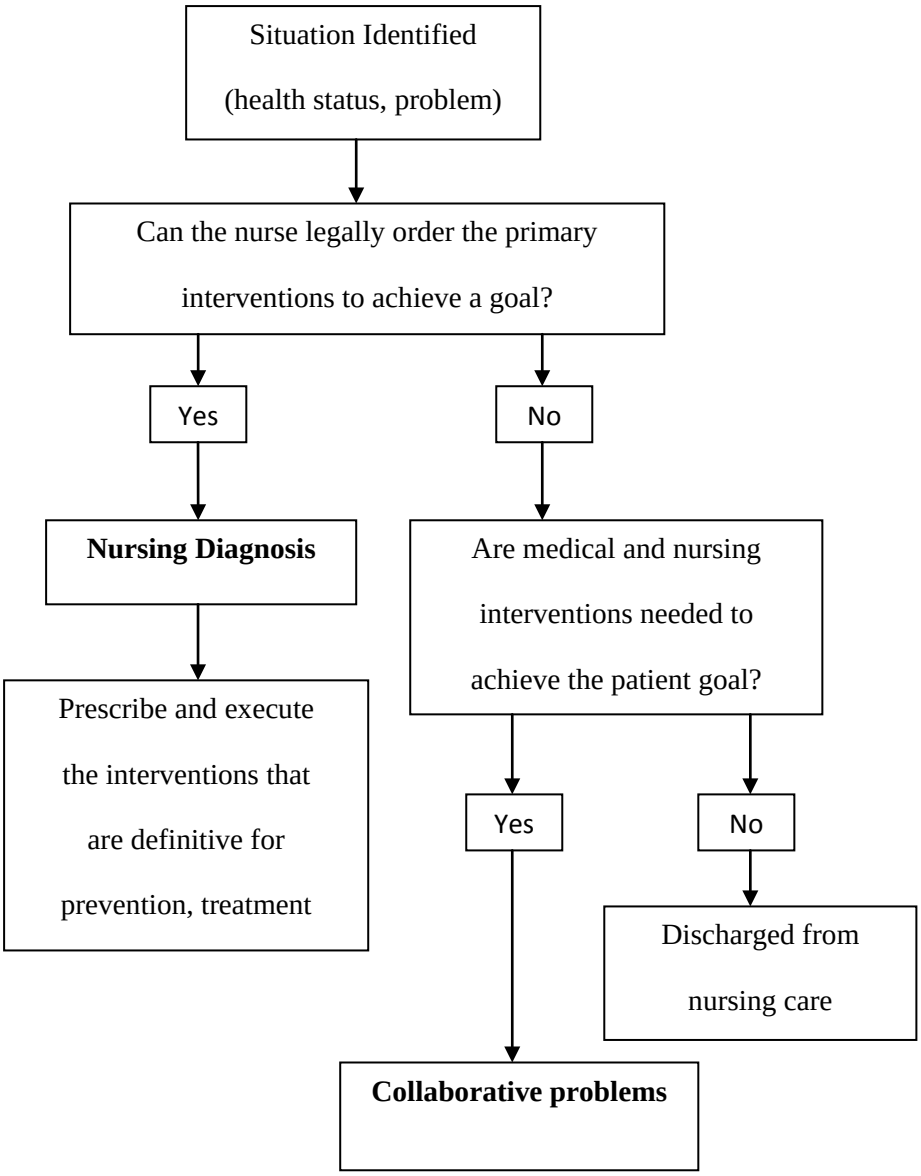

Figure 3: The nursing diagnostic decision making model (Adapted from Smeltzer et al., 2009: 47)

4. CONCLUSION

Taking into consideration the discussions above, decision making could be rational, bounded or irrational. Thus, as my research is based on decision making, nursing theorists strongly recommend that the theoretical framework of my research could be based on this diagnostic decision making model because it explores the transformative role of the nurse acting rationally, less rationally or irrationally.

Hence, according to Huber (2006) it is interesting to explore on how a lower level in the hierarchy such as nurses who participate in an “unexpected” environment, can influence the

decision making of the higher level of the hierarchy such as doctors. According to Segan-Horn (1998: 251) this interaction of different levels of the hierarchy, is based on the 'horizontal decentralization'. The crucial intention of this horizontal decentralization is to involve the lower lever of the hierarchy in the decision making process, because the environment is very ambiguous and it is essential that there is close interaction among doctors and nurses. Hence, according to Hunt (2004: 224) this interaction and involvement of the lower level in the hierarchy, in the managerial aspect of view this deals with the 'departmentation' and Mintzberg (1973: 119) explains that this departmentation gives a great opportunity to the employees of the bottom aspect view to strengthen their 'informal job sharing' in which skillful groups in a specific department work together. From this respect, Hunt (2004) proposes using a functional departmentation which is based on training and most importantly that knowledge is developed and shared between the groups which are specialized in a specific department. This shared knowledge according to Huber (2006: 256) generates a 'shared governance' and is identified with the 'horizontal decentralization'. This 'shared governance' authorizes the nursing personnel in the department where they work, through independence and obligation, involvement in the decision making process concerning patients, as described in the model. Finally, according to Marquis and Huston (2009: 280) shared governance which was developed in the decade of 80's, replaces the bureaucratic structure of the organization in an innovative way. The shared governance 'is shared among board members, nurses, physicians and management'. This gives a free space to nurses to act like professionals.

CHAPTER 4

RESULTS FROM THE INTERVIEWS

1. INTRODUCTION

In this chapter I will present the findings from my interviews with the ten nurses. Six of them work in Public Health Care in southern Sweden and their views are presented using pseudonymous, namely: Anna, Christine, Kathrin, Melinda, Natassa and Sonia. The other four nurses are currently studying in the nursing university and have the pseudonyms: Angela, Marcela, Nicky and Vanessa. Furthermore, depending on the nurses' responses I summarized the data into five different categories: *critical thinking, communication, teamwork, stress and the ideal model of nursing decision making.*

2. CRITICAL THINKING

The following dialogue represents a nurse's beliefs about the critical thinking which is the first finding from my research. In reality, the majority of the nurses responded about critical thinking, but only one nurse, Kathrin who has twenty-five years work experience highlighted in depth and reflectively this characteristic. I realized from my research that only nurses who work in Emergency, such as Kathrin, have deliberate judgments. This is owing to the irrational environment (Emergency Room) where they work:

> **Interviewer:** How do you contribute to the decision making process to your environment?
>
> **Kathrin:** I recommend that through […] thinking critically nurses contribute to the decision making because it is the most important […] skill in order to achieve the most appropriate decision.
>
> **Interviewer:** Why is thinking critically important?
>
> **Kathrin:** When a nurse is thinking critically, it is very unique and useful for her work and let me tell you that […] I have been working since 1985 […]. I would say that because of I am working in a very unexpected environment […] I have learnt that working in the Emergency Room nurses have to deal in their ordinary life with newer,

newer and newer […] ways of thinking, because health is not something constant and each patient's health problem differs. That is the reason why I face every day this situation and to think critically all the time […].

Interviewer: You mentioned previously about an 'appropriate decision' in what ways does it deal with critical thinking?

Kathrin: […] of course it deals with different decisions as I told you and empirically in the Emergency Room these decisions depend on […] when we diagnose clinically and reason clinically.

Interviewer: So, diagnosing and reasoning clinically deal only with the Emergency Department?

Kathrin: I mentioned that because […] a nurse specialized in emergency is much more demanding in comparison with the other nurses who work for example in pediatrics, because these elements I practice everyday in the Emergency Room […] and of course these deal with a complex place […]. But, of course all the nurses apart from the section and the specialization they work, my experience says that nurses have to manage the patients with diagnosing […] and giving reasons to the doctors.

Interviewer: So, in order to make it clear critical thinking depends on clinical diagnosis and clinical reason?

Kathrin: Absolutely […] and I believe that an effective nurse becomes when she practices these […].

According to Kathrin, critical thinking consists of two important characteristics: clinical diagnosis and clinical reason. These elements in the following discussion are crucial for the nurse and strengthen his or her capabilities. Hence, these will prove that play dominant role in the clinical decision making, which empower their role to the "new" doctor-nurse game. Hence, Kathrin reflects and describes the exploitation of this advantage in practice:

Interviewer: Could you please give me an example from your work experience so far that has to do with diagnosing clinically and reasoning clinically?

Kathrin: Of course […] for example, it happens so many times to have a long queue of patients and the majority of them when they come to the hospital, they grouse that

> either they are very sick, either they have a terrible pain in their stomach, or either […] they have a pain in their chest etc […] and believe me it is very hard to diagnose all of these patients […], because you have to be very careful and critical and I emphasized that before because nurses usually manage and face new patients' circumstances […]. Two patients with different history and with the same pain, clinically are different and that is the reason that I told you about the critical thinking. Afterwards I can suggest to the doctor and providing him the suitable clinical information on what is happening to the patient […] The crucial part I believe is for example when I diagnose the patient, then I have to reason it to the doctor […]. […] you can understand that reasoning and diagnosing […] depend on our critical reflection and questioning to ourselves […] on what is happening to the patient who has a problem.

In addition, Kathrin's experience by thinking critically underscores below that a nurse is able to recommend something for the patient. Kathrin highlights that this recommendation depends on the nurse's scientific diagnostic role to the patient. To make it simple if a nurse is not able to diagnose clinically the patient, then a nurse will not be able to recommend something to the doctor. In other words we can understand that nursing recommendation influences the doctors' decision making:

> **Interviewer:** You mentioned to your last answer […] about a suggestion-recommendation how does this suggestion deal with the decision making process?
>
> **Kathrin:** Well, of course I said about suggestion because we are not able to treat the patient but our suggestion depends on thinking critically […].
>
> **Interviewer:** It is very interesting this kind of recommendation as you said. Would it be possible to explain me in what ways you can suggest something? Taking into consideration the decision making process.
>
> **Kathrin:** We can do the suggestion, let me think […] in two ways: straightforward suggestion […] and non straightforward suggestion.

Furthermore, diagnosis is underscored from the nursing judgments by looking after the patient. First Kathrin highlights from the following dialogue that before a nurse is going to make an indirect suggestion to the doctor, then she is rationalistic in her decision. The nurse takes into consideration the historic of the patient, examining some alternatives and in the end

choosing the best alternative such as a cardiogram to diagnose the problem. In other words nursing diagnosis is rational from this viewpoint:

> **Kathrin:** […] a non straightforward suggestion means that when the nurse takes care of the patient who has a horrible pain in his chest and with a bad cardiac history […] as I told you before my experience says that probably the patient's heart is not in control. Besides, the nurse who works in the Emergency Room is very skilled […] and she has the ability to recommend for the patient to do a cardiogram […] to identify a possible problem […].
>
> **Interviewer:** So, what happens after the identification of a problem?
>
> **Kathrin:** Thereafter, when the doctor asks the nurse on what is happening to that patient, […] the nurse tells to the doctor the results from the cardiogram from her clinical diagnosis and of course she gives explanation to the doctor […] including and the patient's history. If the result of the cardiogram is not good, probably the patient has cardiac arrhythmia […] or something else.

Second, the following dialogue highlights that from a straightforward suggestion a nurse is important in speeding up the process of the doctor's decision making. Because health is very ambiguous, a nurse should act less rationally and to utilize his or her critical thinking by means of choosing the most satisfying solution for the patient. In other words, if a nurse is always thinking in a rational manner, then a patient, on occasion, may continue to still suffer from pain. Resulting from this nursing diagnosis is less rational:

> **Interviewer:** How about the straightforward suggestion? What happens in that case?
>
> **Kathrin:** […] nurses have the right to recommend something in a straightforward diode. For example, apart from working in the Emergency Department […], nurses who work in other sections such as Operating, […] etc. can recommend for example increasing the patient's dosage of medicine or taking this earlier […] to feel the patient better.
>
> **Interviewer:** In this case you mean that you can provide medicines to the patients?
>
> **Kathrin:** Of course not! We do not have the right to give autonomously medicines to the patients […] but because our role is to give an eye to the patient any time, when we see that something is going wrong, let's assume patient's pain, then we have to

apply our critical deliberation […] from diagnosing […] in order to suggest it and to inform the doctor.

So far from the dialogues we can understand that nursing diagnosis is not always rational. Depending on the patient's disease or pain (which are very random), a nurse effects the decision making process rationally or less rationally. Furthermore, Kathrin highlights from the following dialogue and the importance of the patient's recommendation to the doctor, because nursing diagnosis (rational or less rational) is acceptable from the doctor:

Interviewer: How important is this recommendation to the doctor?

Kathrin: […] As I mentioned you in an other question this procedure has to do with clinically reasoning and diagnosing the patient […] and I emphasize that, because the doctor embodies the nurse's recommendation and afterwards […] the doctor makes the decision on the patient's medical treatment […].

Interviewer: What is the reaction of the doctor's when you recommend something […]?

Kathrin: In general I would say that doctors accept our diagnosis and recommendations and honestly this does not impress me.

Interviewer: Why?

Kathrin: Because I feel that personally […] and broadly the nurses have increased their competence […] from the advanced nursing training and experience.

Moreover, Kathrin explains that nowadays nurses have strengthened their clinical skills from the advanced nursing education in comparison with the past years. The result is that nurses are more critical than the past and can judge the process of decision making. Correspondingly we can understand that nursing has become a more competitive profession:

Interviewer: You just mentioned something interesting about an advanced nursing training. From your work experience […] so far how has nursing education evolved?

Kathrin: Well […] if we turn the time back when I started working to the hospital I remember that it was hard for a rookie nurse to recommend something to the doctor. Only as I can remember the experienced nurses could do that […] Nowadays rookie nurses have the opportunity to take responsibilities […] because nursing training is

progressing continuously and […] nurses have now the right competence […] and that is why I emphasized on thinking decisively towards the patient.

Interviewer: So, the impact of this advanced nursing training to the decision making process is…?

Kathrin: It is definitely obvious […] that nurses can affect the decision making […] from their suggestions as we discussed before.

Finally, Kathrin describes succinctly that nowadays rookie doctors appreciate and respect the nursing experience because of the nurses' clinical judgments. Not only that, but Kathrin enables us to understand that physicians and nurses have "built" interpersonal relationships among them. This close interaction which will be discussed in the following findings, promotes the effectiveness of the clinical decision making:

Interviewer: You mentioned previously about rookie nurses. You reflected me to ask you taking into consideration the decision making, what is the relationship between a rookie doctor and an experienced nurse?

Kathrin: […] We have a good professional relationship and […] because of the new doctors […] are inexperienced I have seen that they appreciate nurse's experience and the nurse in this point of view we can suggest something for the patient's health more openly I would say.

3. COMMUNICATION

The following dialogues and beliefs represent the second theme of my research which is communication. In total three registered nurses and two nursing students argue about this characteristic. However, in this finding only Anna who is an experienced nurse highlights in depth communication because it is the most crucial factor for the patient's medical treatment:

Interviewer: How do you contribute to the decision making process to your environment?

Anna: Usually from communication […] and in my opinion especially communication capabilities are gained from work experience and enlightenment […]

So far I have fifteen years experience on my field […] and currently I am on my third year doing my doctoral studies in Oncology nursing […].

In addition, Anna proposes that communication is in agreement with the nursing clinical judgment, such as critical thinking as Kathrin argued to the first finding of my research. In particular for the patients who are in an exigent health situation, such as cancer, a nurse has to diagnose and to be aware of the patients' needs. In other words if a nurse can not conceptualize these needs then the patient would still suffering from the pain:

Interviewer: So, why communication abilities are crucial?

Anna: […] working in Health Care is very hard, especially working in areas such as the Oncologic Part […] which is totally requesting. […] An example is that patients who suffer from cancer, the field where I elaborate is very hard to communicate with the patients because they say to us "I do not feel good, please help me'' and […] a nurse who works in that field should do a psychological contract with the patients and to feel them because sometimes patients cannot speak […] and a liturgical nurse must understand the patient's necessities!

According to Anna's argument, Vanessa who is a nursing student interprets that the nursing diagnosis to the patients is crucial, because this gives a sense of an "open" suggestion to the doctor. Hence we can understand that this "open" suggestion is gained from the nursing education and I would argue that this strengthens the "doctor-nurse game". Correspondingly this suggestion reinforces the nurses clinical communication with the doctors:

'I judge that the relationship between the doctors and the nurses revolves around a strong communication. It is not easy […] to score communication skills and that is the reason that we exercise to the nursing University in order to become powerful to our decisions. Nurses are obliged to apply perfectly the medicine language […] because I strongly believe they are the connective cringle between the patients and the doctors. It is very important to turn an efficient communication […] because I recognize that doctors expect from us telling them about the progress of the patient's clinical condition[…], as nurses interact with the patients a lot […]'.

Nicky, another nursing student, argues that clinical communication is high demanding in health care and that the provision of the best health quality is based upon communication. She also adds that communication reinforces nurses to be specialized in their area of expertise.

Resulting from this we can understand why Anna referred to her doctoral studies; to become more competitive and specialist in a nursing sector such as Oncology:

> '[…] to achieve an effective quality of care for the patient, my aspect is that communication is the starting point in medical treatment […]. Besides […] it depends on the nurse's communication skills on how she can influence the decision making […] and I consider that specialized nurses are bringing out […] the decision making in an effective way securing to the patient a total care […]'.

According to Nicky's statement Sonia, who has been working in a Surgical Department since 1996, argues that nurses always deal with uncertainty when in an clinical environment. In particular it is essential for the nurse to "speed" the process owing to his or her communication capabilities in order to feel the patient as soon as better:

> '[…] This is not to say that the nurse gives the medicine to the patient […], for example every eight hours and that is all. This is a mistake! I work in a difficult workplace […] and I can not predict when the patient starts suffering again and again from the pain. […] What I am trying to say is that sometimes patients suffer more than their ordinary pain and it is our duty to recommend to the doctor […] immediately providing to the patient a painkiller injection […]'.

Moreover, Kathrin adds to Sonia's argument that this recommendation to the patients must be transmitted to the doctors very specifically. Mostly the following argument interprets that nursing staff have to inform the doctors as detailed as they can in order to provide the doctor with the correct information. In other words the more effective the Nurse's communication skills, the more effective the relief of the patient:

> '[…] I can to suggest to the doctor and providing him the suitable clinical information on what is happening to the patient. (Nurses) can recommend for example increasing the patient's dosage of medicine or taking this earlier in order to feel the patient better'.

Furthermore, it is crucial to mention again an argument that Kathrin highlighted in critical thinking, because my research so far shows that the nurses' communication skills are linked together with their recommendation to the doctors, depending on their critical mentality, clinical diagnosis, experience and interventions:

> ‘[…] nurses have the right to recommend something in a straightforward diode. For example, apart from working in the Emergency Department […], nurses who work in other sections such as Operating, […] etc. can recommend for example increasing the patient’s dosage of medicine or taking this earlier […] to feel the patient better… […] but because our role is to give an eye to the patient any time, when we see that something is going wrong, let’s assume patient’s pain, then we have to apply our critical deliberation […] from diagnosing […] in order to suggest it and to inform the doctor’.

So far we can understand that apart from the nurses’ communication skills, which are linked with the clinical diagnosis, communication is linked with the judgment of the nurse making less rational decisions and to speed up the patient’s needs as soon as possible. Furthermore, Anna adds, in a very thoughtful way, about the way the information is distributed in the clinical environment:

> **Interviewer:** So, taking into consideration the patient’s requirements what is the impact of the nurse’s communication towards the decision making process?
>
> **Anna:** Indeed there is coordination dealing with […] decision making between the nurse and the doctor […] which is very important I think. Not only that, but the information is spread from the nurse to the doctor […].

In addition to Anna’s argument, which centered around the “coordination” of doctors and nurses, Kathrin examines the importance of nursing “coordination” recommendation from clinically diagnosing and reasoning, because it plays a dominant role for the nurse’s ordinary interventions towards the patients. Without this competence, my research shows that nurses would be less able to participate in the decision making process. Hence, their role has consolidated their influential role when they contribute with the patients and the doctors:

> ‘[…] and believe me it is very hard to diagnose all of these patients […], because you have to be very careful and critical […] because nurses usually manage and face new patient’s circumstances […]. Two patients with different history and with the same pain, clinically are different and that is the reason that I told you about the critical thinking. Afterwards […] […] The crucial part I believe is for example when I diagnose the patient, then I have to reason it to the doctor […] Referring that you can

understand that reasoning and diagnosing […] depend on our critical reflection and questioning to ourselves […] on what is happening to the patient who has a problem'.

4. TEAMWORK

Teamwork is the third prominent theme in the collected data. In total two nurses participate in this finding, but once again only one nurse (Melinda) participates mostly compared to the other nurses because she has gained lots of experiences working in Health Care. The result is that Melinda highlights a decentralized health system through an innovative view; namely the joint contribution of doctors and nurses in decision making:

> **Interviewer:** How do you contribute to the decision making process to your environment?
>
> **Melinda:** […] My aspect is that with teamwork […] because of I feel a team member when I take part to the decisions […].
>
> **Interviewer:** So, why do you feel part of a team? I am asking because from a personal experience in my Country nurses have told me the opposite.
>
> **Melinda:** […] It is obvious that the system here involves in particular nurses and doctors and other specializations to concur.
>
> **Interviewer:** Why do you think?
>
> **Melinda:** […] Because without collaboration […] the procedure to cure the patient […] will not be productive and it is our duty to provide the best treatment for the patient.

In addition, Natassa, who is a nurse with five years work experience to the Cardiac Department in Health Care, interprets the importance of this interaction as being a result of the decentralization. This gives plenty of advantage for both professions to increase their social relationships, including commitment and to remain innovative throughout the decision making process:

> ‘Both doctors and nurses must throw in and do their best for the patients. Besides, this gives a plenty advantage improving the work environment […] and establishing a very good group work. This is ensured by the nurse’s involvement […] because this involvement of the nurse nowadays has effective results’.

Furthermore, the following dialogue highlights Melinda’s reflection and experience that an efficient teamwork is affected from the decentralized system that nurses and doctors work together. Nurses are authorized and have the ability to mix their competences with the doctors, because of their knowledge, education and professionalism. Melinda highlights that this close interaction with the doctors was not presented in the past owing to the lack of decentralization:

> **Interviewer:** Previously you mentioned about the system, which demands collaboration. Taking into consideration your work experience so far, it would be interesting to know how does the system work.
>
> **Melinda:** I have been working […] approximately for the last three decades and […] I have seen so many things that have changed and most importantly […] teamwork that I describe. The last decades the system works decentralized.
>
> **Interviewer:** You just mentioned about a decentralized system which is very interesting for my research, I would like to know what is the impact of this decentralization to the decision making process?
>
> **Melinda:** It deals again with the group work and you asked me about the effect of decentralization?
>
> **Interviewer:** Yes please. You could also describe how was decision making process when you started working in the past.
>
> **Melinda:** Ok, I see. Probably the effect is that […] because nowadays the system where I work right now, used to be traditional and now the decision process […] is more modern.
>
> **Interviewer:** I am surprised to be honest! How have you learnt using management terminology?

Melinda: Actually I have learnt from the system that I work here […] and significantly from senior consultants […] who work in Health Care and inform us about the system […].

Interviewer: So, in order to go deeply what is the role of this "modern" process in the Public Health Care that nurses work?

Melinda: I would describe that […] my experience shows that both professions, doctors and nurses who have different kind of competences, […] it is essential these teams to be set on and to contribute in a better way which happens and to reality and […] I would characterize that this contribution gives a great opportunity for both teams to […] cooperate […].

Interviewer: So, what is the benefit for the nurses that you described me with this contribution?

Melinda: This gives a great chance to nurses because […] we feel that we have become energetic members of the whole team. […] All the clinical members in the hospital […] can interact each other in a team work environment.

Moreover, the following response of Melinda highlights empirically the effect of a centralized system to the nursing staff. First, the relationship among the physician and the nurse was very hierarchical. Second nurses did not have the appropriate competence to contribute to the decision making. These two factors were functioning as a "block" for teambuilding among the physician and the nurse:

Interviewer: According to your experience how was the situation in the past? For example when you started working…I mean were able both teams being energetic to the decision making, as you mentioned before?

Melinda: I remember that nurses used to work without being able […] participating and to propose […] something for the patient. The past years I remember that when the patients were feeling pain […] during their hospitalization, we used to call the doctor in order to look on what is going wrong to the patient. At least when I started working to the hospital […] so far I have seen that nursing has developed in a better way! And what I mean with that: […] The past years there was no team building

between the doctors and the nurses. These two different teams were acting […] separately without collaborating and there was no engagement […] between them.

Furthermore, Melinda underscores the characteristics of team work which include trust and commitment. My interviews so far prove that the more teambuilding exists in an organization, the more are increased the relationships among the members which lead to efficient results:

Interviewer: Except from the engagement that you mentioned before […] what other characteristics reinforce nurses […] to act as team members into the decision making process?

Melinda: It also exists trust […]. Usually, doctors trust us and this gives us the opportunity […] to act in different ways which obtain the role of our profession.

So, what is the deep understanding of this discussion? Why has Melinda focused on teamwork? Melinda interprets in an innovative way that when a nurse is not able to diagnose a patient on her own. This means that nursing participation is essential for the doctors' decision making. This happens when ambiguity exists in an extremely high level and all the organizational members have to share this complex and uncertain knowledge. For example, this could be argued to happen in the ever changing Emergency Department. So, taking into consideration all of the indivudals arguments, it is highlighted that nurses are becoming irrational in terms of his or her decision making with the doctors, because in Emergency Department if they do not work rapidly, then the patient who is close to "death's door" will die!

5. STRESS

The following short dialogue with Melinda (who participated to the teamwork discussion) represents the fourth theme of my research. In particular this finding suggests that they only involve experienced nurses because, as outlined in from the previous dialogues, we can they were "obliged" to make a "bypass" to their decisions in order to make a quick and time sensitive recommendation to the doctor. Hence, we can obviously understand that this "bypass" creates stress for their decision making:

Interviewer: So, as I have understood so far from your developed role in the hospital I suppose that you will face some difficulties. Is that true?

Melinda: Yes nowadays our role has changed in contrast with the previous decades because I see from myself and from my partners that we face lots and lots of stress.

Interviewer: Does this stress deals with the decision making process that we are discussing?

Melinda: Definitely! Our patients' demands and requests are high because they need the best treatment and every one of us needs the best health care service […] because health is the most important authority for the people. That is why nurses have to be aware of this demand because we have increased our responsibilities […] having close relationship with the patients and understand any time what they want, because if I am not alert in my work then simply I will not exist! Besides, apart from the stress I love my work […].

From Melinda's perspective about stress, obviously this deals with nursing awareness. This "consciousness" of the nurses is another characteristic of teamwork because it identifies the patient's requirements. Hence, decision roles arise into the organization and that the both professions have to cooperate when ambiguity exists. Correspondingly, Sonia highlights the importance of this awareness, which increases the responsibility of the nurses:

'[…] This is not to say that the nurse gives the medicine to the patient […], for example every eight hours and that is all. This is a mistake!! I work in a difficult workplace […] and I can not predict when the patient starts suffering again and again from the pain. […] What I am trying to say is that sometimes patients suffer more than their ordinary pain and it is our duty to recommend to the doctor […] immediately providing to the patient a painkiller injection […]'.

In addition stress deals with critical thinking, because thinking critically has become a stressful routine. It has been acknowledged from previous discussions, in the the last few decades nurses were not applying critical thinking. As a result Kathrin interprets in depth that nursing education has evolved and now nurses are more competent in terms of awareness of the patients problem. Hence, patient's problem creates stress, as argued by Kathrin:

> ‘I would say that because of I am working in a very unexpected environment […] I have learnt that working in the Emergency Room nurses have to deal in their ordinary life with newer, newer and newer […] ways of thinking, because health is not something constant and each patient’s health problem differs. That is the reason why I face every day this situation and to think critically all the time […] …because you have to be very careful and critical and I emphasized that before because nurses usually manage and face new health circumstances on patients […]’.

Finally, Anna emphasizes that the clinical communication is also stressful. When the nurse interacts with the patient it is essential to have compassion and to understand ambiguous circumstances. Thus, communication starts from the patient and the more complex is the patient’s clinical situation, the more stressed becomes the nurse in terms of communication:

> ‘[…] working in Health Care is very hard, especially working in areas such as the Oncologic Part […] which is totally requesting. […] An example is that patients who suffer from cancer, the field where I elaborate is very hard to communicate with the patients because they say to us “I do not feel good, please help me’’ and […] a nurse who works in that field should do a psychological contract with the patients and to feel them because sometimes patients cannot speak […] and a liturgical nurse must understand the patient’s necessities!’

Taking into consideration the four different argumentations, an important characteristic from these is that they are argued in accordance with experience of the nurses. Resulting from this we can understand that these women *have experience on being less rational or irrational on the decision making* and this produces stress in order to provide to the patient the best quality of health care in a very short time.

6. THE IDEAL MODEL OF NURSING DECISION MAKING

From the previous discussions, argumentations and reflections of the nurses interviews, an “ideal model” is presented outlining the nurses’ contribution to the decision making process in different aspects. My aim was to trigger the nurses to respond to my research question by the use of the popular culture as an interview technique. To begin with critical thinking was highlighted by Kathrin at the beginning because an effective nurse who works in Emergency Department must have this skill which gives a great deal for the nurse challenging with the

patients and to the decision making process. Thus, she argues that critical thinking is portrayed in a correct way and to the E.R drama series:

> **Interviewer:** Taking into consideration the popular culture such as Grey's Anatomy, Dr. House and E.R. series, in which series does nurse's critical thinking applied mostly?
>
> **Kathrin:** I would say that only the E.R. series record the reality because in that series nurses were […] applying their critical thinking! Grey's Anatomy and Dr. House series did not represent nurses dealing with the patients. From these […] you can understand that nurses could not diagnose the patient and of course it is true […] they were not able to think critically without dealing with the patient.

In addition, Christine agrees with Kathrin that E.R drama series portrays nurses as having authority to look after patients without being looked from the doctors, because a nurse in Emergency Department has increased capabilities through specific knowledge and experience. Consequently, Christine gives an example of nurse's skills in connection with E.R. drama series:

> '[…] I work in the Emergency Room approximately a decade […], and soft injured patients are taken care from us and not from the doctors because we have work experience, increased skills and specialized in this area […] and the same happens to E.R series'.

In the second place, E.R. drama series deal with clinical communication: Anna from the following dialogue supports that the series such as Dr. House and Grey's Anatomy are not connected with the nursing communication capabilities. These series portray nurses in a wrong way because they remind us of the past decades in terms of nursing education not being a competent profession or at least nurses were subordinated owing to the doctors' power:

> **Interviewer:** In that fact, talking about communication so far what is missing from the popular culture such as Dr. House or Grey's Anatomy?
>
> **Anna:** […] I can not believe that Dr. House did not include in his team at least one specialist nurse. That is not real!! I remember that when Dr. House used to arrange

consultations with his team, a nurse such as an Oncologist was missing from the group […].

Furthermore, Anna and Marcela explain that communication in E.R drama series is portrayed in the reality, because of the advanced nursing education such as doctoral studies. This advancement reinforces nurses to become experts to their work assuring that their profession becomes more competent, taking into consideration their increased knowledge and their contribution to the decision making becomes more significant for the medical treatment:

Interviewer: In reality what happens? I mean what a correct representation would like?

Anna: Usually in this consultation from my work experience so far a specialist nurse is participating […]. But […] we can not take clinical decisions.

Interviewer: So, taking into consideration the decision making process or recommendations, what is the role of a specialized nurse participating in this consultation?

Anna: Specialized nurses working for example in the Oncology Department […] have the advantage to provide useful information when the doctor arrange consultations […] for the patient's health condition in order to formulate a medical and a scientific strategy which is very serious. In order to become more concrete, because of our relevance is to be close to the patient any time, our recommendations and "voices" […] to the doctor's decision makings are very useful for the patient. Trust me it is very tricky for a nurse understanding the patient's exigencies! […] Nowadays in each hospital you go to visit, you will meet an increased number of patients who have cancer. As we all know cancer is a very painful illness and our role is to communicate with these people and to provide them the appropriate medicines through the doctor's instructions.

Interviewer: Is there a series that represents communication in a correct way?

Marcela (nursing student): E.R. series represents truly communication .[…], because […] it is the most important for a nurse-deliver to inform exactly the patient's heavily injury, before the patient goes to the surgery room […] In this event, the patient's live as you can see depends on specific communication that the nurse deliver informs the

> doctor […]. Imagine that if the surgeons were not informed on time, then they would have delayed taking an action saving the patient […] that is the reason why communication is very important and to the Emergency Department.

In the third place, in comparison with the Dr. House and Grey's Anatomy series, Melinda, argues that only the E.R series represent true teamwork, because their goal is to save the patient. I have to notice that when physicians and nurses face increased level of ambiguity, for example saving the patient from a bad accident, the nursing contribution to the decision making becomes irrational. The reason is that it is essential for doctors and nurses to save the patient which happened and to E.R drama series:

> **Interviewer:** Taking into consideration the popular culture, series such as Dr. House, Grey's Anatomy and E.R. series, in which series do these characteristics such as engagement and trust, represent the reality?
>
> **Melinda:** Thanks for asking because I am a fan of E.R. series because these series give a sense of truth according to the reality […] and that is the reason that I am a fan of these series. […] all the members in the Department must pull together and do their best in order to treat the patients who are in danger. That is why I insisted before on team working, […] because everything starts from a functional team […] and represent the trust […] and engagement.

From Melinda's statement, taking into consideration the popular culture, Vanessa and Anna highlight and interpret teamwork in similar vain. Vanessa calls it "community" because teambuilding engages once again the relationship among physicians and nurses and Anna argues about the role of this "community" that the knowledge and experience is shared between them. Thus, we can understand that this relationship plays a crucial role to the decision making:

> Vanessa: 'I remember that in E.R. […] all the members had created a strong community between them and they respected each other […] amazing which happens and to reality.'
>
> Anna: 'Actually there is coordination […] in terms of decision making […] which is very important. Not only that, but the information is spread from the nurse to the doctor. […] Most importantly because of doctors and nurses work in […] Health Care

it is essential an uninterrupted and continuous interplay creating a […] solid community […].'

Interviewer: How important is a 'strong community' into the decision making process of a team?

Vanessa: It is important, because doctors for example in E.R. series […] do not see us as their workers, but as partners and friends!

According to Vanessa's opinion, another nursing student Angela highlighted this "community". Hence, it is sensible that nurses from the University learn to contribute with physicians. The reason is that doctors expect from nurses (taking into consideration their knowledge) to cooperate with them because without teambuilding the clinical decision making will not be innovative or dynamic but rather falls into the trap of inertia:

'[…] E.R. series shows that doctors and nurses […] work in an changeful […] place and with doctors we have made a fantastic place to work in order to help the patients, because their lives depends from our care!'

Nicky argues, with another example from popular culture, about the missed role of nurses' into the decision making process. The hierarchical relationship does not enhance the nursing profession, even if the nurses are well trained from nursing education and clinical practice:

'The power of the doctors puts in my mind the traditional […] pathway of decision making […], because the doctor has the clinical competence versus the nurse. I remember that in Grey's Anatomy the doctors only when they wanted some help […], then they used to call the nurse. Not only that, but without […] inviting the nurse with her name. It seems that […] we were completely subordinated from the doctors without being involved […] This series is based on a […] hierarchical relationship […] and this situation does not exist anymore!! In reality, we have increased our […] informal power […]'.

Finally, Nicky stated about "informal power" which provides considerable space to nurses to act into their own action. This is gained working in a decentralized area because it gives nurses authority and responsibility. Hence nurses feel "free" to practice in their ordinary work life their cognitive skills (critical thinking and communication). From this practice nurses gain experience and increase their judgments:

Interviewer: Very interesting, what is the role of this "informal power" into the decision making process?

Nicky: This power ensures that our profession gives a sense of action […] into the decision making and working in a team […] we have gained competitive advantages.

7. SUMMARY

Taking everything into consideration from the above nurses' interviews and examples, my research shows that there exist five different themes that encapsulate the way nurses contribute to the decision making process. In the first place, critical thinking consists of two important attributes: clinical diagnosis and clinical reasoning. In the second place, communication in which the scientific information is spread between the clinical members. In the third place teamwork which consists of commitment, engagement, trust, strong community, nurse's professionalism and awareness. In the fourth place stress plays an important role which "speeds" the process of decision making. Finally, taking into consideration the popular culture, E.R series which is proved to be a perceived ideal model of nursing decision making. These five characteristics are continuously interplaying and determining an individual's decision making. This results in the nurses decision making being influenced in three different ways: rationally, less-rationally and irrationally, depending on the patient's clinical situation, which will now be analyzed on the discussion chapter.

CHAPTER 5

DISCUSSION

1. INTRODUCTION

The purpose of this chapter is to describe the nurses' decision making in the decentralization, including their knowledge and experience. Borkowski (2008) suggets that if we decrease the hierarchy then the involvement of the nurses in the decision making process would be more efficient. Hence, Huber (2006) argues that it is important to empirically explore this involvement because nurses do not have the medical competence as doctors have. In addition, I will discuss the five findings from my research (critical thinking, communication, stress, teamwork and the ideal model of nursing decision making) in relation to the theory chapter. In particular, the findings are discussed based on the nursing diagnostic decision making model (Smeltzer et al., 2009), which was presented in the theory chapter, and its impact on decentralization.

The chapter is structured as follows: In the first section I discuss the nursing participation to the decision making including all the findings from my research through three models: The Step By Step model, the Recognition-Primed Decision model and the Garbage Can Model. Finally, in the last section I discuss the importance of a decentralized health system which provides considerable space to nurses to act with these models.

2. NURSING DECISION MAKING MODELS

2.1 THE EMPIRICAL NURSING RATIONAL MODEL

To begin my discussion on the rational decision making model, according to Smeltzer et al. (2009) when the nurse can legally apply his or her competences to the clinical practice then the nurse can affect the decision making. So, how can the individual nurse accomplish it?

According to Smeltzer et al. (2009), the first action for the nurse to influence the decision making is to apply critical thinking. This is the first and the "new" finding from my research, because it was not identified by Stein et al. (1990). Smeltzer et al. (2009) add that critical thinking is the ability for the nurse to make judgments by taking into consideration all the

available choices. In addition, Jones and Beck (1996) add that critical thinking consists of two important elements: diagnosis and reasoning. Besides, these two elements were identified and from Kathrin's experience which will be described below. In addition, Kathrin highlights from the following statement that before the nurse is going to make a recommendation to the doctor, that he or she takes a rationalistic approach to her decision:

> 'when the nurse takes care of the patient who has a horrible pain in his chest and with a bad cardiac history […] as I told you before my experience says that probably the patient's heart is not in control. Besides, the nurse who works in the Emergency Room is very skilled […] and she has the ability to recommend for the patient to do a cardiogram […] to identify a possible problem […].'

So, what is the practical meaning of this argument? In this occasion the nurse takes into consideration the history of the patient, examining some alternatives and in the end choosing the best alternative such as a cardiogram to diagnose the problem. In other words Hedberg (2005: 18) argues that the procedure to diagnose the problem is a 'logical Step-By-Step-process'. Thus, the nurse influences the decision making process through the 'Step-By-Step' model, in which the nurse applies his or her critical thinking taking into consideration some clinical assumptions such as: 'How long has the problem existed? What is the history of the problem?'(Jones and Beck, 1996: 4). Moreover, Chitty (2005: 387) adds alternative clinical assumptions such as: 'What assumptions have I made about this patient? How do I know my assumptions are accurate? Do I need any additional information?...How might I look at this situation differently?' According to Newel et al. (2002: 107) these assumptions of the individual-nurse deal with the human memory in order to fit pieces of knowledge together to produce a bigger picture in predictable ways'. Hence, in this occasion Smeltzer et al. (2009) argue that critical thinking deals with rational thinking.

In addition, according to Mengel et al. (2002), nurses are able to explain and to reason their recommendation to the doctor which has to do with their communication abilities. Communication is the second finding from my research. So, after diagnosis the next step for the nurse is to notify the doctor (Sullivan and Decker, 2005). Hence, Kathrin supports Mengel's et al. (2002) argument with her own empirical example:

> ‘Thereafter, when the doctor asks the nurse on what is happening to that patient, […] the nurse tells to the doctor the results from the cardiogram from her clinical diagnosis and of course she gives explanation to the doctor […] including and the patient’s history. If the result of the cardiogram is not good, probably the patient has cardiac arrhythmia […] or something else.’

From Kathrin’s respect, Hedberg (2005: 25) argues that this communication which starts from the patient, creates dialogue between the professionals (doctor and nurse) because nurses represent to the doctors the ‘voice of medicine’. That is, Vanessa argues:

> ‘I recognize that doctors expect from us telling them about the progress of the patient’s clinical condition […], as nurses interact with the patients a lot […].’

In other words, Hedberg (2005) argues that the process of communication should be clear, efficient and understandable to the doctors. Thus, taking into consideration the above arguments and empirical examples, the success factors for the nurse being rational are critical thinking and communication in order to be implemented the decision making process (Mengel et al., 2002; Hedberg, 2005). Hence, in this occasion according to Hedberg, (2005) nurse’s knowledge is explicit and objective which makes it transferable to the clinical environment. She adds that ‘it may include facts about properties and relations, but also procedures that are given by means of rules and roles’. Thus, from this respect, Chivu and Popescu, (2008) argue that explicit knowledge enables for example nurses to think rationally.

2.2 THE EMPIRICAL NURSING BOUNDED RATIONAL MODEL

However, Simon et al. (1992) argue that it happens in the clinical environment that the decision making of the individuals becomes more complex and in general individuals are unable to include in their mind all the available choices. For example, Sonia from my research stated:

> ‘[…] This is not to say that the nurse gives the medicine to the patient […], for example every eight hours and that is all. This is a mistake! I work in a difficult workplace […] and I can not predict when the patient starts suffering again and again from the pain. […] What I am trying to say is that sometimes patients suffer more than their ordinary pain….’

In this occasion, according to Smeltzer et al. (2009) the individual-nurse applies his or her critical thinking and communication without rationalistic actions. According to Marquis and Huston (2009) intuitive skills are emerged and when there is a need to manage ambiguities and to afford stress in order to make successful decisions and Hedberg (2005: 12) adds that 'intuition thus implies competence where individuals have the ability, without formal reasoning, to make decisions'. Correspondingly, it is applied the Recognition-Primed Decision model in which nurses use their intuitive skills (Marquis and Huston, 2009).

In addition, there exist some examples from my research which support the use of the nurses' intuitive skills, such as critical thinking and communication. These competences were described and to the Step-By-Step model, but these have different influential character to the decision making process when nurses apply their intuition. For example, Kathrin from my research highlights an empirical example of critical thinking:

> 'Two patients with different history and with the same pain clinically are different and that is the reason that I told you about the critical thinking… I have learnt that working in the Emergency Room nurses have to deal in their ordinary life with newer, newer and newer […] ways of thinking, because health is not something constant and each patient's health problem differs. That is the reason why I face every day this situation and to think critically all the time […]'.

So, what is the practical meaning of Kathrin's arguments? Chitty (2005) argues that when a nurse faces this kind of situation, such as two patients with corresponding pain, it is sensible that the nurse can not look after both patients. Ebersolle et al. (2004) argue that the nurse has to examine the patient who responds mostly to the nursing care rather than the patient who responds less and that is the reason why the nurse needs to be critical. Thus, we can understand that when ambiguity is increased to the clinical environment, critical thinking is different than the Step-By-Step process which was described previously.

In addition, according to Simon et al. (1992: 150) individuals have to "reduce" their alternatives through their capabilities in order to "win" the complexity that they face. In other words, they argue that 'it is a game where there exist both a winning strategy and a procedure to find it'. That is, there exists a game between the nurse and the pain of the patient, which is uncertain. In other words the individual takes the role of the "player" against uncertainty because the knowledge in this aspect of view is limited. If the nurse was continuing

examining the patient taking into consideration all the available choices and after taking the best solution, then the patient would have been in pain.

So, how does the nurse achieve a winning strategy against the patient's pain (uncertainty)? To begin with, Newel et al. (2002: 107) argue that in this occasion the individual uses the metaphor of 'human memory'. To support this statement, Simon et al. (1992) argue that it depends on the subjective standards from the past taking into consideration the work experience. So, we can understand that the individual becomes subjective because he or she does not have the ability to anticipate the decisions being rational. In this occasion, Simon et al. (1992) argue that the rationality is bounded because the nurse makes a "bypass" in his or her decisions. I would agree with Simon et al (1992), because in this occasion a nurse should act less rationally and to utilize his or her critical thinking by means of choosing the most satisfying solution for the patient. A practical example is noted from Kathrin who argues:

> '(nurses) can recommend for example increasing the patient's dosage of medicine or taking this earlier […] to feel the patient better… […] but because our role is to give an eye to the patient any time, when we see that something is going wrong, let's assume patient's pain, then we have to apply our critical deliberation […] from diagnosing […] in order to suggest it and to inform the doctor'.

Correspondingly, we can understand that critical thinking and communication interplay to the nursing decision making which are dominant elements for the nurse to apply his or her intuitive skills. However, I have to note that because of nurses face complexities to their decisions, these complexities generate stress to their work environment. According to Shuldham (1998) stress is created from the awareness-responsibility of nurses to treat the patient. Hence apart from critical thinking and communication, stress is another finding that nurses noted to my research. In particular, Kathrin highlighted this characteristic that nurse's role "is to keep an eye to the patient anytime". Thus, this "lookout" to the patient reinforces nurses to influence the decision making. So, how does the individual's awareness influences the decisions?

According to Hedberg (2005: 19), nursing stress and awareness is described from the model which we discuss about the bounded rationality ('Recognition-Primed Decision model'). The crucial intention of this model is to describe that the individual has limited time to take the decision and hence we can understand that this creates stress. That is, Sonia argues that:

> ‘sometimes patients suffer more than their ordinary pain and it is our duty to recommend to the doctor […] immediately providing to the patient a painkiller injection […]’.

However, stress is a other “new” finding in comparison with Stein’s et al. (1990) observation study. From Sonia’s argument the adverb “immediately” identifies that the nurse has narrow time to recommend it to the doctor. Hence, Hedberg (2005: 20) argues that this model is centered: first to ambiguous situations, second the decision that should be taken would be the most satisfying and not the right decision and third the solution to the patient’s problem is connected with the nurse’s awareness. In other words, all of these actions have to do with the intuitive skills of the individuals ‘in a conscious search of data that could confirm their sense of change in the patient’s status’. So, taking into consideration the above reasons and examples the success factors for this model are critical thinking, communication and intuition. Hence, nurses should be aware of the clinical demands and to identify necessary practices and eventual results.

In addition to these “eventual” results, Hedberg (2005) argues that without communication the decisions will never be implemented. The communication competence is a great deal for the individuals-nurses to consult to the treatment of the patient. For example Anna from my research argues:

> ‘[…] working in Health Care is very hard, especially working in areas such as the Oncologic Part […] which is totally requesting. […] An example is that patients who suffer from cancer, the field where I elaborate is very hard to communicate with the patients because they say to us “I do not feel good, please help me’’ and […] a nurse who works in that field should do a psychological contract with the patients and to feel them because sometimes patients cannot speak […] and a liturgical nurse must understand the patient’s necessities!’

So, what is the practical meaning from this argument? With reference from Hedberg (2005: 23) the nurse has to encourage his or her patients to make “psychological contract”. That is, because of the nurse’s compassion role during the hospitalization of the patient. Anna’s and Hedberg’s (2005) arguments involve three different communicative techniques: First the ‘orientation phase’ the nurse gathers information about the patient’s problem. Second the ‘working phase’ which has to do with the recognition of the patient’s health status. Finally, the third ‘resolution phase’ in which nurses are encouraging the patients from the illness they

face. Furthermore, from this statement, Kathrin interprets that nursing staff have to inform the doctors as detailed in order to receive the doctor that the correct information, through the nurse's critical thinking.

2.3 THE EMPIRICAL NURSING IRRATIONAL MODEL

In this paragraph I will discuss the nurse's cooperation with the doctors into the decision making process through teamwork which is portrayed in nursing practice and in popular culture. To begin my discussion Smeltzer et al. (2009: 47) argues that when a nurse is not able to participate to the decision making on his or on her own, then the nurse has to cooperate with the doctor, in order to solve 'collaborative problems'. So, what is the impact on the decision making when nurses mix their competences with the doctors?

Hedberg (2005: 14) agrees with Smeltzer's et al. (2009) statement and she argues that this occasion leads to 'collaborative competence'. These 'collaborative problems' and 'collaborative competences' deal with the irrational capacity of the individuals in the hospital environment when uncertainty is increased in a high level and resulting from this their interaction is mandatory. Each individual who has his or her own capabilities and experiences comes close to each other and to accomplish the goal of the organization. Hence, we can understand that apart from the explicit knowledge it happens to the clinical environment for nurses to apply and their tacit knowledge, which is difficult to communicate (Chivu and Popescu, 2008). To refer from Hedberg (2005: 12) nursing tacit knowledge deals with the intuitive and 'knowing-how' skills. Correspondingly, 'the right participants must find the right solution to the right problem at the right time' (Nelson and Quick, 2008: 225). Thus, the model which supports this is the Garbage Can Model, because the decision making becomes non rational (Nelson and Quick, 2008). For this reason, I chose to put E.R series in this discussion, because nurses from my research have argued that this series portrays teamwork working in an accidental setting.

In addition Newel et al. (2002: 107) argue that this interaction of the participants deal with teamwork (which is the fourth finding from my research) and it is applied with the metaphor of 'human community.' The crucial intention of this community is to achieve the organization knowledge sharing between the organizational members. Hence, each individual has his or her own experiences and these experiences are shared between them. Communities enhance

the work performance of the employees and these motivate employees to do social interaction. So, taking into consideration the popular culture, Vanessa from my research highlights the characteristic of this social interaction*:*

> 'I remember that in E.R. […] all the members had created a strong community between them and they respected each other […] amazing which happens and to reality.'

Newel et al (2002) argue that communities consist of groups of people who are focused on value sharing to accomplish their goal. Communities do not have formal character, but construct groups of people in an informal way in order to gain social interaction between them. Additionally, Angela adds:

> '[…] E.R. series shows that doctors and nurses […] work in an changeful […] place and with doctors we have made a fantastic place to work in order to help the patients, because their lives depends from our care!'

Hence, taking into consideration the importance of this community, Newel et al. (2002) suggest that it is crucial to examine in depth the characteristics of this 'community'. During my research, I found that there exist five characteristics which include trust, commitment-engagement, nurse's professionalism and awareness. In comparison with Stein's et al. (1990) research two characteristics were missing: commitment-engagement and awareness. Hence, we can understand that the role of the community among physicians and nurses has developed over the last decades. So, how are these characteristics connected with the community of the health care environment? With reference from Watson et al. (2005: 34) Mintzberg (1979) argues that these characteristics deal with his theory of dimensions of management. First, trust and commitment-engagement have to do with the 'interpersonal' dimension because these characteristics empower the social interaction among doctors and nurses. Second, nurse's professionalism and awareness belong to Mintzberg's (1979) 'decisional' dimension because nurses have gained greater responsibility than the past. However, there exists a third dimension, namely the 'informational' dimension that the information is shared and to the subordinates in order to achieve the organization efficiency. Correspondingly I will discuss these characteristics through Mintzberg's (1979) dimensions.

To begin with the interpersonal dimension, Melinda from my research argues about E.R drama series:

> '[…] all the members in the Department must pull together and do their best in order to treat the patients who are in danger. That is why I insisted before on team working, […] because everything starts from a functional team […] and represent the trust…'

In other words she explains that trust in the E.R series is portrayed as a reality among doctors and nurses. Newel et al. (2002: 56, 58) agree with this statement because trust is a dominant element for establishing cooperation between the organizational members. That is, to be shared between tacit knowledge and to promote 'knowledge-sharing and knowledge creation'. In addition they highlight that trust in terms of competences (among doctors and nurses who have different competences) argue that 'trust is based on an attitude of respect for the abilities of the trustee to complete their share of the job at hand'. Resulting from this we can understand for example that the doctors have trustfulness to the nurses. In addition, Newel et al. (2002) add that another important factor which empowers the interpersonal relationships is commitment, because when the organizational members work under conditions of risk and high levels of ambiguity this reinforces them to "trust" their co-workers and partners to complete their task.

In the second place, the informational dimension deals with the communication abilities of the organizational members (which was described in a previous paragraph). For example, E.R. series portrays sincerely this characteristic in teamwork. Marcela from my research argues:

> 'E.R. series represents truly communication .[…], because […] it is the most important for a nurse-deliver to inform exactly the patient's heavily injury, before the patient goes to the surgery room […] In this event, the patient's live as you can see depends on specific communication that the nurse deliver informs the doctor […].'

Hence, we can understand that communication starts to be shared from the subordinates in the clinical environment, because it is a dominant element for the hospital to achieve effective results, such as to save the patient (Watson et al., 2005).

In the third place, the decisional dimension deals with the nurse's professionalism and awareness. First, Williams and Wilkins (2002) argue that nursing has evolved very strongly in comparison with the past and Hedberg (2002) adds that this has given greater responsibility to their profession. Second, according to Videbeck (2006), in order to become the nurses

members of the team it is essential to be aware of the patient's situation and to cooperate with the doctors. Hence, if awareness is missing from the nurse, this indicates that the nurse is unable to cooperate with the doctor. Resulting from this, we can understand that when ambiguity exists in a high level in the organization if nurses (who mix their competences with doctors) do not have the right awareness of a complex situation, then the nurse is dismissed from the health care (Smeltzer et al. 2010; Nelson and Quick, 2008).

However, I have to notice that the finding "stress" was not referred from the interviewees as a collaborative perspective. Because of I described about the Garbage Can Model which deals with the collaborative practice of doctors and nurses in an ambiguous environment, hence we can understand that when they mix their competences, they mix and their intuitive skills. (Jones and Beck, 1996). Thus, it can be argued that stress is a result of dealing with the irrational decision making process.

Taking everything into consideration for the above reasons and examples we can understand that E.R series is the ideal model of irrational decision making because my research shows that it is the same model with the Garbage Can Model. In addition, the irrational decision making strongly recommends teamwork and on account of this we can understand that this series is represented sincerely, as the nurses argued. In addition, Mintzberg et al. (1998) have a different opinion for the Garbage Can Model. They argue that the organizational members adapt an emergent strategy and they act rationally. However, an ambiguous place of the hospital such as the Emergency Room strongly recommends irrational actions and not rational, because if physicians and nurses do not act rapidly then the patient will die.

2.4 SIMILARITIES AND DIFFERENCES BETWEEN THE MODELS

The following table on the next page represents the previous discussion of the three nursing decision making models. Hence, I summarize these taking into consideration the similarities and the differences of these models. However my research showed that these different models construct the "ideal model of nursing decision making", which is the last finding from my research:

	Step By Step Model (Rationality)	**Recognition-Primed Decision Model (Bounded Rationality)**	**Garbage Can, E.R Series Model (Irrationality)**
Knowledge	Explicit	Explicit	Tacit (experience-social groups)
Metaphors	Human Memory	Human Memory	Human Community
Primary activity (Knowledge)	Capture Knowledge	Capture Knowledge	Knowledge Sharing
Success factors	Critical Thinking, Communication	Critical Thinking, Communication, Intuition	Trust, Commitment-Engagement, Intuition
Stress	Not included	included	included

Figure 4: Three constraining models of nursing decision making (some parts adapted from Newel et al., 2002: 107, 153)

3. NURSING PARTICIPATION IN DECENTRALIZATION

Taking into consideration the discussion about the nursing participation into three different decision making models, Huber (2006) argues that it is interesting to explore what is the factor that makes nurses participate in the decision making process. Segan-Horn (1998: 251) argues that this contiguous interaction is owing to a 'horizontal decentralization' system. A system which supports horizontal decentralization enables the organizational members to be in a line and in particular there exists 'a varying distribution of power within each group.' So,

what is the role of this power between the organizational members? According to Mintzberg (1979) this power is distributed not only to each group as Segal-Horn (1998) suggested, but it is distributed to individuals and to experts. Resulting from this we can understand that a horizontal decentralized area empowers the organizational members who belong to the lower level of the hierarchy to involve the decision making into three ways: The individual nurse, the expert nurse and the team nurse. Nicky from my research stated this characteristic: '*In reality, we have increased our […] informal power […].'*

In addition to the three dimensions outlining nursing involvement in the decisions (individual nurse, team nurse and expert nurse), I have to state that the role of the expert nurse was not discussed before. Anna, who does her PhD in oncology nursing argues:

> 'Specialized nurses working for example in the Oncology Department […] have the advantage to provide useful information when the doctor arrange consultations […] for the patient's health condition in order to formulate a medical and a scientific strategy which is very serious. In order to become more concrete, because of our relevance is to be close to the patient any time, our recommendations and "voices" […] to the doctor's decision makings are very useful for the patient.'

So, what is the practical meaning of Anna's argument? Mintzberg (1979: 199) argues that 'the organization has need of specialized knowledge, notably because…certain experts attain considerable informal power.' Hence Mintzberg adds (1979: 79) that the expert who is specialized in a horizontal decentralization becomes major and influential to the decision making. Resulting from this, complex jobs such as Anna's job, 'are referred to as professional' without losing the experts their motivation working under ambiguity.

Taking into consideration all the above reasons and examples we can understand that a horizontal decentralized area is emerged such as in Health Care, because there exist ambiguities and complexities (Earl, 2001). Hence, according to Mariner-Tomey (2004) the organizational members (nurses) gain autonomy, authority, responsibility and obligation to participate and to influence the decision making.

CHAPTER 6

CONCLUSION

Before I conclude my master thesis, I would like to remind that my ambition for this research was to extend the observation study of Stein et al. which took place in 1990. Inspired by Stein et al. (1990) my research took place in 2010 with a different qualitative research, an interview study in a decentralized area, which I explored in depth the nursing contribution into the decision making process. In response to my research question, my research showed that nurses influence the doctors' decision making by applying three different decision making models into the clinical practice. These include the *rational* (Step By Step Model), the *bounded rational* (Recognition-Primed Decision Model) and the *irrational* (Garbage Can Model).

In the first place the rational model showed that the nurse has the ability to apply critical thinking into the clinical practice. This competence plays dominant role to the decision making, because nurses make judgments through their knowledge and experience. However, I have to notice that in 1990, Stein et al. did not identify this competence. Hence we can understand that critical thinking is another characteristic adjoined, which was largely absent during the 90's. Consequently, in a distance of twenty years the nursing education has evolved in a more innovative aspect. In clinical practice, nurses take into consideration the historic overview of the patient's illness and all the available choices they have in order to choose the best alternative for the patient's treatment. In addition, communication plays important role to the decision making because nurses have to reason and to explain to the doctor the patient's clinical situation in order to implement the decision, which is the final step of this process. In other words the nurse follows a step by step procedure to the clinical practice. Thus, critical thinking and communication are the success factors for the nursing rational contribution to the doctor's decision making.

In the second place, the bounded rational model showed that the nurse applies the same characteristics as described in the rational model, but in a different function. In particular nurses face complexities and in order to manage these, they become less rational. For example it happens for the nurse that has to make a choice between a number of patients in the room where they stand. In this occasion my research showed that the nurse has to apply his or her critical thinking in order to choose the patient who responds mostly the clinical care. Hence,

after the choice of the patient the nurse makes “shortcuts” to her decisions and the most “satisfying” solution for the patient in order to speed the patient’s treatment through communication. In other words nurses have limited time to make the decision and this creates stress to their decisions. I would say from my research that stress energizes nurses to act as soon as possible to respond to the clinical demands. However, I have to mention that this model was described mostly from expert and proficient nurses, such as E.R and Oncologist nurses. In comparison with Stein’s et al. (1990) research they did not identify about nursing specialization. They referred only about the role of the registered nurse. Hence, we can understand that because of nurses work under conditions of ambiguity, I strongly believe that uncertainty reinforces nurses to be specialized to their sector in order to become effective to their recommendations. Thus, the more experienced and specialized is a nurse the more judgments can apply to his or her work. Correspondingly, this model is applied mostly from nurses who have gained experiences through past clinical circumstances. The success factors for this model are the intuitive skills (critical thinking and communication) of the nurses by making “bypass” decisions and judgments taking into consideration their experience, awareness and knowledge.

In the third place the irrational model showed that when the hospital environment faces random and complex situations such as problems, solutions and choice opportunities then it is essential the collaboration between the physicians and the nurses. A typical and practical example from my research is the Emergency Department, which is very random and ambiguous. Hence, the nurse mixes his or her competences with the doctors, where the information is insufficient. In this occasion, because of nurses do not have the medical competence as doctors have, my research showed that the intuitive skills (which were described to the bounded rationality model) play dominant role to emergent situations and in general for the cooperation among physicians and nurses. In particular Stein et al (1990) were the first researchers who identified this cooperation in a hospital environment. They suggested that teamwork included trust and the professionalism of the nurses. I would definitely agree with these researchers, however I found and some extra characteristics which support teamwork and missing from Stein’s et al. (1990) work: These include strong community (which is referred as teamwork), commitment-engagement and awareness. These new elements from my research strengthen first the interpersonal relationships among doctors-nurses (commitment-engagement) and second the decision roles (awareness). In addition, I have to mention that stress was not referred by Stein et al. (1990). My opinion is that they did

not find this characteristic, because they argue that nursing profession started to be developed when they did their research. Hence we can understand that after Stein's et al. (1990) work nursing was continuously evolving and because of the advancement of this profession it is sensible that nurses started to be aware of the problem of the patient and this awareness my research showed that creates stress to their profession. The same happens and to the bounded decision model.

Moreover, including in my research the popular culture as an interview technique in this paper, E.R drama series is proved to be the ideal model of irrational decision making. Nurses from my research liked mostly these series because of the nursing participation to the decision making. Because of this I would say that the famous actress Julianna Margulies who was the leading lady among all the nurses presented in E.R drama is the ideal irrational nurse participating with the medical team. I strongly believe that this actress should be an ideal model on decision making in the clinical environment of our society. Hence, we can understand that the E.R drama series is aligned completely with the "new" doctor-nurse game in decentralization. The E.R drama series proved to be apart from the ideal model of irrational decision making because of teamwork. Correspondingly, the success factors for this model are trust, commitment-engagement and intuition.

Taking into consideration the three decision making models, I would argue that these models construct the "ideal model of nursing decision making". Hence, nursing participation is the "heart" and the "engine" of Health Care because my research showed that this profession makes the "difference" for the best treatment of the patient. And this "difference" is owing to a decentralized system and in particular a flat decentralization gives nurses considerable space of action and involvement to the decision making by gaining authority, responsibility, trust, commitment and practicing their intuitive skills. Two decades before, in comparison with Stein's et al. (1990) study which was dealing with the doctor-nurse game, this "new" doctor nurse-game in 2010 explains in depth the intuitive skills of the nurses that they have gained from the nursing education and nursing practice. These are dominant elements for the nurses acting individually and in groups and taking more responsibility on their decisions. In other words this "new" doctor-nurse game in decentralization deals with the continuous practice of the "ideal model of nursing decision making". Resulting from this, we can understand that this has a social character in order to improve continuously our knowledge society because physicians and nurses have a common goal: The best and the fastest treatment of the patient.

1. FUTURE RESEARCH

To end my master thesis, I would like to propose to extend the "new" doctor-nurse game in decentralization. This new study teaches us that the nurses have increased their competences from their work experience and from nursing education. However nurses from my research identified that apart from their experience, the most difficult for them is to communicate with the patient when he or she is in a situation that can not speak. To support it, once again I was influenced by Anna who said: a '*nurse….should do a psychological contract'* (with the patient). However, from a personal experience working in a hospital I have seen enough times and close relatives of the patients been close to them. The patient's close relatives who live and spend their time together in their life, I strongly believe that it is sensible these people to know better the required "psychological contract" than the nurses. I do not suggest that nurses do not have compassion for the patients, but I suggest that close relatives have the advantage of the "psychological contract" to provide additional information for the patient that nurses have not thought.

So, a research question could be on how do the close relatives of the patients influence the nursing decision making? I strongly believe that it would be interesting to explore on how the close relatives can consult on the nursing decision making exploring. The goal of this study is to identify on what is "missing" on the nurses competence that has not been identified so far.

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