

# Experienced meaningful work and the relation to team design according to nurses

*A qualitative study of how team design could support or obstruct the meaningfulness of work of postoperative care nurses at the Radboud UMC*

## Version 1

Master Thesis Business Administration, Organisational Design and Development  
(MAN-MTHODA-2018-6-V)

Author: Maaïke H.A. van der Loop

Student number: s1014457

Supervisor: Drs. L.G. Gulpers

Second examiner: Dr. M. Moorkamp

Date: 17-06-2019



## Abstract

A lot of attention has been paid to the relation between meaningful work and job design in current literature (Hackman & Oldham, 1976). For nurses, working in a team is important for their work (Pavlish & Hunt, 2012; Sherman, 2006), and therefore the relationship between meaningful work and *team design* is relevant for research. For that reason, the aim of this research was to explain the influence team design on the experience of meaningful work among postoperative care nurses at the Radboud University Medical Centre. The corresponding research question is: *To what extent does team design support or obstruct the experience of meaningful work for postoperative care nurses at Radboud UMC?*

The research method is qualitative with an inductive approach as starting point. The research is explanatory, because it aimed to explain what the relationship between meaningful work and team design could be. Within this single case study, eleven in-depth interviews were conducted with postoperative care nurses at the Radboud UMC. The analysis of the interviews is a combination of a deductive and inductive approach.

The results show that meaningful work is experienced through variety in work, making a difference to the patient, and responsibility. Altogether, challenging tasks are important for meaningful work. Nurses need appreciation in their work and need to become aware of personal strengths and weaknesses in order to understand their contribution towards others. It depends on the nurses within the team what makes team design supporting or obstructing meaningful work, because meaningful work is a subjective experience. It can be concluded that both a social aspect as a work-related aspect are important for meaningful work. Social aspects that can be provided by team design are consultation, learning and knowledge sharing and a team feeling. Work-related aspects are variety, responsibility, and complexity.

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## 1. Introduction

For a long time, meaningful work has been studied by many researchers (Duffy et al., 2015; Lieff, 2009; Steger, Dik & Duffy, 2012). Meanwhile, meaningfulness of work has been recognized as a very important issue within organizations (Michaelson, Pratt, Grant & Dunn, 2014; Dempsey & Sanders, 2010; Chalofsky, 2003). Meaningful work is typically defined as the significance and purposefulness work has to people (Steger, Dik & Duffy, 2012, p. 323). In prior research, meaningful work has been linked to substantial organizational outcomes, such as work satisfaction, employee retention and organizational commitment (Fairlie, 2011). Also, it has been proven that meaningful work enhances the quality and productivity of employees (Pavlish & Hunt, 2012). This suggests that dealing with meaningfulness within organizations will increase the work performance of employees (Pavlish & Hunt, 2012). Therefore, this has led to increasing interest in how organizations could use meaningful work to optimize these organizational outcomes (Bailey, Madden et al., 2017).

### 1.1 Healthcare as context

One of the sectors in which much attention is given to meaningful work is the healthcare sector. The emphasis in these studies is on the role of nurses, because nursing practices determine the value of the overall healthcare (Pappas & Welton, 2015). Also, nurses have a direct impact on the quality and safety of the care of patients and on the costs within healthcare (Pappas & Welton, 2015). Nurses are the center of the hospital: they have the most influence on the quality of care and have the most direct contact with the patients (Kieft, de Brouwer, Francke & Delnoij, 2014). Leiter, Harvie and Frizzell (1998) have found in their research a relation between patient satisfaction and meaningful work among nurses. Therefore, in order to improve and maintain the care of patients, it is important to give attention to the nursing staff. Leiter et al. (1998, p. 1616) even state that *“neglecting staffs’ well-being in the short-term may result in patient dissatisfaction and decrease in service utilization in the long-term”*.

In early research, Leiter, Harvie and Frizzell (1998) found that patients report a higher level of satisfaction on departments where nurses had higher meaningful work. In later research, Aiken, Clarke, Sloane, Sochalski and Silber (2002) also found that meaningful work creates positive outcomes for health services delivery, work performance and patient outcomes. The importance of meaningful work among nurses for the quality of healthcare has

been proven, and therefore the topic of research slowly shifted towards how meaningfulness of work can be managed.

Some researchers emphasize that the organizational environment needs to be changed to enhance meaningful work. For example, Pavlish and Hunt (2012) stated that organizational conditions have to be created to give nurses the opportunity to connect with others and in particular with the patients. Moreover, Pavlish and Hunt (2012) believe that managers should structure the organization in order to allow nurses to have more input in how they work. Also, Malloy, Fahey-McCarthy, Murakami, Lee, Choi, Hirose and Hadjistavropoulos (2015) explain that nurses work with high demands and have a lot of interpersonal contact with vulnerable patients, which makes the need for an environment that enables personal growth through meaning and mentorship important. Therefore, the emphasis is currently on how organizations could manage the perceptions of meaningful work among their employees (Bailey, Madden et al., 2017). Organizations are not able to tell their employees whether or not work is meaningful, but they can create settings that can more or less enhance employees' way of perceiving their work as meaningful (Lips-Wiersma & Morris, 2009). Especially for nurses, the quality of their work life can be improved by interventions from the employer (Brooks & Anderson, 2004).

The call for the restructuring of the work environment of nurses does not only derive from the meaningful work literature. Within healthcare organizations, management is dealing with restructuring of the organization for years and this has had many effects on the way healthcare is delivered (Laschinger, Finegan, Shamian, Wilk, 2001). The nursing staff have been impacted the most by these changes. The nursing workload is often too heavy and there is not enough time to deliver the health services (Brooks & Anderson, 2004). As has been proven from the meaningful work literature (Malloy et al., 2015; Pavlish & Hunt, 2012), the work environment can be supporting in how people perceive their work as meaningful. In contrast, the current literature about the restructuring of healthcare organizations gives examples of negative impact on the work of nurses (Brooks & Anderson, 2004). In this sense, it is expected that the restructuring of healthcare organizations can be both supporting and obstructing meaningful work for nurses.

### *1.2 Focus on team design*

All of the above described calls in the literature are still vague and not specified yet. Thus, in order to specify the work environment for nurses, the focus in this research is on team design. Instead of focusing on team design, the design literature has mainly focused on individual job

design. In their early research Hackman and Oldham (1976) already emphasized the importance of work design to meaningful work. Their research gave clear examples of the way in which job design contributes to meaningful work. They explain, for example, that when a job has a clear task identity, it is likely that the work becomes more meaningful due to increased awareness of the purpose of the job and an overview on the process (Hackman & Oldham, 1976).

Where Hackman and Oldham describe the relation between meaningful work and individual job design, this research focuses on team design. Team design can be defined as the specification of team membership (i.e. its composition), team functioning and performance norms, and the definition and structure of tasks, goals and members' roles within the team (Morgeson & Humphrey, 2008; Cummings & Worley, 2014). This research is interested in meaningful work among nurses and it is known that a team is relevant for delivering health care by nurses. For example, Pavlish and Hunt (2012) found that cohesive teamwork contributes to the meaningfulness of work for nurses. Also, Sherman (2006) described in his article that team performance is important for the quality of healthcare and that conflicts within a nursing team can lead to a loss of productivity, staff turnover and decreased patient satisfaction. Next to the fact that working in a team is relevant for the work of nurses, it is also in health care settings it is common to work in teams (Grumbach & Bodenheimer, 2004). Moreover, especially for nurses the team is important for their work (Pavlish & Hunt, 2012; Sherman, 2006). As has been mentioned above, teams are relevant for the work of nurses. When further specifying it has been chosen to focus on team design instead of team functioning, because in this way it is able to fit in with the design literature.

### *1.3 Research aim and research question*

The call in the literature is currently on how the work environment can stimulate nurses in their meaningful work. Many researchers have found that organizational conditions matter in experiencing the work as meaningful (Pavlish & Hunt, 2012; Laschinger, Fineman, Shamian, Wilk, 2001; Leiter et al., 1998). Although many researchers give examples of organizational conditions, they do not give specific ideas of how a team should be designed to support the meaningfulness of work. In the job design literature, there already is an idea of how a job should be designed in order to support meaningful work (Hackman & Oldham, 1976). For team design, this link with meaningful work has not been explained yet. If an organization is able to better design a team, then the employees might perceive their work as more meaningful and therefore become more productive and satisfied. Especially for nurses, the

team is an important part of their work (Pavlish & Hunt, 2012; Sherman, 2006). This also applies to the Radboud University Medical Center (UMC), an academic hospital in Nijmegen. This hospital pays a lot of attention to their nurses and considers team work as important (Radboud UMC, n.d.). That is why a team within this organization is a relevant case to use for this research. Specifically, the postoperative care team has been chosen for this research. The manager of this team expected that nurses experience their work as meaningful and could give insight in team design.

This research aims to explain the influence of a certain team design on the experience of meaningful work among postoperative care nurses at a department of Radboud UMC. This could give a better understanding of how teams should be designed for nurses to support the meaningfulness of work. The research question that emerges from this research aim, is: *To what extent does team design support or obstruct the experience of meaningful work for postoperative care nurses at Radboud UMC?* For answering this research question the following sub-questions have been formulated:

- To what extent do nurses experience their work as meaningful?
- In what way are the teams designed in the case at Radboud UMC?
- To what extent is the team design *supporting* for the meaningfulness of work for nurses?
- To what extent is the team design *obstructing* for the meaningfulness of work for nurses?

#### *1.4 Research approach*

In order to describe the influence of team design on meaningful work for nurses, this research aims to conduct an explanatory, qualitative research with a case study approach. The organization that is used for data collection is the Radboud UMC in Nijmegen. Within this organization, a team of specialized nurses on the department Postoperative Care is interviewed. The research is mainly inductive due to the lack of research on the relation between meaningful work and team design. A possible relationship can be described between the concepts, but this relationship is too uncertain to use this as a starting point for research. The existing literature on meaningful work and team design will be used to define the concepts. In order to receive in-depth information about the experiences of the nurses, semi-structured interviews will be held.

#### *1.5 Relevance of the research*

The relevance of this research for the literature is that this research gives an elaboration on how the environment of employees can be created in such a way that it better fits the

experience of meaningful work of employees. In prior research, it has been stated that the environment matters for meaningful work, but it has not been investigated yet what the possible effects of team design are. For nurses, it is known that the team where they belong to is important for their work (Pavlish and Hunt, 2012; Sherman, 2006). Therefore, this research elaborates the literature on meaningful work among nurses, by studying the influence that team design has on meaningful work. This will give a better understanding of how the environment of nurses should be designed to support meaningfulness of work.

Managers of health care organizations could use this information to collect more insight in what is important and meaningful to their employees. The results give insights in what supports or obstructs the experience of meaningful work. This insight could help managers to better connect with their employees, because he or she will be more aware of what is important within the work. Also, the information on team design in combination with meaningful work is useful for better designing the work environment, which will improve the job satisfaction and functioning of the nurses. In the end, a higher perceived meaningfulness of work can cause enhanced organizational outcomes (Fairlie, 2011; Pavlish & Hunt, 2012; Bailey, Madden et al., 2017).

The relevance of this research can also be defined in terms of relevance for society. In general, meaningful work has an influence on meaningful life (Rosso, Dekas & Wrzesniewski, 2010) and therefore the description of meaningful work for nurses can help them in their meaning making of life and creating awareness of their role in society. Also, meaningfulness in nurses' work contributes to patient satisfaction and quality of health care (Aiken, Clarke, Sloane, Sochalski and Silber, 2002). Due to the fact that health care is available for most people in society, the development of meaningfulness in the work of nurses can affect a lot of people.

## *1.6 Outline*

In the next chapter, an elaboration of the theory and literature will follow. An explanation of the concept of meaningful work will be given and a more specific explanation of the current literature on team design will be provided. In chapter 3 an overview of the research approach and quality of research will be given. After this, the results of the research will be presented in chapter 4. In the discussion chapter, a conclusion will be given and the results will be compared to prior research. In this last chapter, also some strengths and limitations of the research will be discussed.

## **2. Theoretical background**

In this chapter, the theoretical background of the study will be presented. First the concept of meaningful work will be explained, by comparing definitions and dividing it into sub aspects according to the multidimensional model for meaningful work of Steger, Dik and Duffy (2012). Further on, the literature on team design will be discussed and a model for team design will be given. Lastly, the potential relation between meaningful work and team design will be discussed according to existing literature.

### *2.1 Meaningful work*

To fully understand the concept of meaningful work, it is important to first explain the concept of meaningful life, because work covers a large part of human life. Meaning in life is most often defined as the significance or purposefulness of life (Ryff & Singer, 1998). The concept has received attention due to its positive effects on well-being, personal growth and psychological strengths (Ryff & Singer, 1998). Meaningfulness is something that cannot be separated from human life. Humans need some kind of ‘meaning’ in their life: it is a fundamental need (Yeoman, 2014). Although meaningfulness is something people search for in their life, it only exists if people are aware of it. Working is a large part of human life, and therefore humans intuitively try to seek for meaning in work (Yeoman, 2014).

Many researchers have studied meaningfulness in work and give a definition of the concept. Due to the abstractness of the concept, it is hard to find a clear definition on which all researcher can agree. Rosso, Dekas and Wrzesniewski (2010) start by making a distinction between ‘meaning’ and ‘meaningfulness’. With meaning Rosso et al. (2010) refer to an individual interpreting what his or her work means in the context of life. Meaning is most often meant in a positive sense. If work is interpreted positively then the individual thinks the attributes of work confirms his existence and prove a form of significance. However, work may have a meaning but at the same time it does not have to mean that it is meaningful. Meaningfulness is the amount of significance something holds for an individual (Rosso et al., 2010, p. 95).

Next to Rosso et al. (2010) some other authors also give definitions of meaningful work. Pratt and Ashforth (2003) for example say that meaningful work refers to work that is worthwhile, important, or valuable to oneself and/or others. Rosso et al. (2010) have a similar definition as Pratt and Ashforth. They refer to meaningful work as the significance of work to people. Steger, Dik and Duffy (2012) follow this definition of Rosso et al. and add an

eudaimonic focus to the definition, which means that “*the positive valence of MW has a eudaimonic (growth- and purpose-oriented) rather than hedonic (pleasure-oriented) focus*”.

Although the above definitions differ slightly at some points, they also have some important similarities. First, all the definitions emphasize some degree of positivity: the work has to be important, significant or worthwhile (Pratt & Ashforth, 2003; Rosso et al., 2010; Steger et al., 2012). Second, the definitions have a focus on the individual. This means that work can only be meaningful if it is perceived that way by the focal individual.

Due to the eudaimonic addition Steger, Dik and Duffy (2012) have in their definition, this definition of meaningful work will be used in this research. Their definition describes the positive valence and the focus on the individual, as described in the above paragraph. The degree of positivity is embedded in the ‘significance of work to people’, because they believe that if work is seen as significant it is also received as positive. The definition of Steger, Dik and Duffy (2012) is elaborate and has already been empirically conceptualized, which ensures that the whole concept of meaningful work can be captured.

## 2.2 Conceptualization of meaningful work

In order to conceptualize meaningful work, the Work and Meaning Inventory (WAMI) can be used (Steger, Dik and Duffy, 2012). This is a multidimensional model for meaningful work which Steger, Dik and Duffy (2012) developed and tested empirically. After them, many researchers have used this model for empirically capturing meaningful work (Tims, Derks & Bakker, 2016; Steger et al., 2012; Allan, Autin & Duffy, 2014). According to Steger, Dik and Duffy (2012), meaningful work can be divided into experiencing positive meaning in work, sensing that work is a key avenue for making meaning, and perceiving one’s work to benefit some greater good. The aspect *positive meaning* explains the way in which people find their work meaningful. It refers to in what extent people have found a meaningful career that is personally significant. *Meaning making through work* is the next aspect of meaningful work, and means that people know how their work contributes to their sense of meaning in life. Work can make meaning for example through personal growth or a satisfying purpose. With *greater good motivations*, the authors mean that work helps an individual in making sense of their world and themselves. Also, *greater good motivation* refers to work that is perceived as making a positive difference in the world and having a greater purpose.

### *2.3 Team design*

As has been noticed before, the work environment of employees is important for the way they perceive their work as meaningful. Therefore, an explanation of what a 'team' is will be given, and what is meant by team design.

A team is a common phenomenon within organizations. Cummings and Worley (2014, p. 107) write about a team in terms of a "small number of people working face-to-face on a shared task". Furthermore, they explain that a team can be either permanent or temporary, depending on the function and certain tasks of the team (Cummings & Worley, 2014). Morgeson and Humphrey (2008) have a broader definition of a team. According to them a team can be defined as two or more individuals who socially interact, possess one or more common goals, are brought together to perform organizationally relevant tasks, exhibit interdependencies with respect to workflow, goals and outcomes, have different roles and responsibilities, and are together embedded in an encompassing organizations system (Morgeson & Humphrey, 2008, p. 45-46).

In terms of team design, Morgeson and Humphrey (2008, p. 46) give a definition: the specification of team membership, definition and structure of a team's tasks, goals and members' roles. Cummings and Worley (2014) do not give a specific definition of team design. However, they do give certain team design components that together determine the structure of a team. They divide team design into five components: goal clarity, task structure, team composition, team functioning, and performance norms (Cummings & Worley, 2014). These components largely correspond to the definitions of team design of Morgeson and Humphrey, because they also write about the definition of goals, task structure, and team membership. Where Cummings & Worley (2014) write about team composition, Morgeson and Humphrey (2008) refer to team membership, but in the end, they both refer to the differences or similarities among team members in terms of gender, personality, age, and other characteristics of team members. The difference between the definition of Morgeson and Humphrey (2008) and the team design components of Cummings and Worley (2014) is that Morgeson and Humphrey use 'members' roles' in their definition to describe team design and Cummings and Worley do not use members' roles within their components for team design. With members' role Morgeson and Humphrey (2008) refer to the set of rules and expectations from the employee as well as the organization, which direct his behavior at work. In comparison to the job, a role can also refer to tasks in a wider social, physical and organizational context (Morgeson & Humphrey, 2008). Also, Cummings and Worley describe team functioning and performance norms as two components for team design, where

Morgeson and Humphrey do not point these components out. Due to the similarities in concepts, the definition of Morgeson and Humphrey (2008) can be combined with the model of Cummings and Worley (2014), in order to get a more complete definition of team design. Thus, the definition of team design that will be used in this research is: the specification of team membership (i.e. its composition), team functioning and performance norms, and the definition and structure of tasks, goals and members' roles within the team (Morgeson & Humphrey, 2008; Cummings & Worley, 2014).

### 2.3.1 Team design components

The five design components of Cummings and Worley (2014) can be further explained. With *goal clarity* they refer to the degree in which all team members understand the goals (Cummings & Worley, 2014). Moreover, they explain that goals need to be challenging and measurable, and there should be a way to receive feedback about goal achievement. The second component is *task structure*, which refers to the way in which the work of the team is designed. The task structure can be further divided into coordination activities and regulation (Cummings & Worley, 2014). The coordination of efforts involves the way in which team tasks are designed to support effective interaction within the group. The regulation dimension refers to the degree in which team members can control their own tasks and behaviors regardless of the control of supervision, plans and programs (Cummings & Worley, 2014). The next component of team design is *group composition* which involves the membership of teams. The members of a team can differ in terms of demographic variables, such as age, education, experience and skills, and this can affect the behavior of the team (Cummings & Worley, 2014). *Team functioning* is another design component, and refers to task-related activities that support the relationship between team members and the quality of these relationships. These task-related activities can be divided into advocacy and inquiry activities, coordinating and evaluating activities, and group maintenance function, which are activities that are aimed at holding the team together as one (Cummings & Worley, 2014). The last component is *performance norms* which concerns the members' beliefs about team performance and its acceptable level. The performance norms are most often guidelines for behavior and are translated into routines (Cummings & Worley, 2014).

To stay in line with the earlier presented definition members' role is added as sixth component of team design according to Morgeson and Humphrey (2008). They describe members' role as the set of rules and expectations from the employee as well as the organization, which direct his behavior at work (Morgeson & Humphrey, 2008).

#### *2.4 Relation between meaningful work and team design*

The theory of Cummings and Worley (2014) on diagnosing teams, and specifically their team design components, are used within this research for describing the concept of team design. Within their theory about work design, they focus on jobs and work groups that can affect employee productivity and satisfaction. They emphasize that achieving such output depends on designing work (i.e. jobs and work groups) to match specific factors that stimulates the productivity of goods and/or services and also serves the needs of employees (Cummings & Worley, 2014). The needs of employees are described in terms of social needs and growth needs. A person with low social needs and low growth needs will be satisfied with an individual job with little interaction and repetitive tasks. On the other hand, a person with high social needs and growth needs will demand work with a lot of challenge, complexity and interaction with others (Cummings & Worley, 2014). In this sense, they describe the relation between work design and work satisfaction.

Cummings and Worley (2014) do not directly link their theory about team design to meaningful work. However, a relationship can be deduced from their vision on design and the output that the design has to deliver. They describe that the design of work has to contribute to work satisfaction and give the relation between design and work satisfaction. This relationship is further specified based on serving social needs and growth needs. As known from other literature, work satisfaction and meaningful work are related to each other. If an individual judges his or her work as meaningful, then it is likely that he or she will be satisfied in its job (Steger, Dik & Duffy, 2012). The other way around, the individual is more likely to perceive its work as meaningful if he or she is satisfied with the work (Fairlie, 2014). However, it does not mean that satisfaction and meaningful work are the same, since a person can be satisfied in his work without finding it more meaningful (Rosso et al., 2010). This means that it takes more to find work meaningful than just work satisfaction. Because these concepts are related to each other, it is likely that the effect that design can have on work satisfaction will be similar to the effect that team design may have on meaningful work. The relationship between team design and meaningful work as described above is therefore a careful attempt of this relationship in practice.

Based on the theory of Hackman and Oldham (1976) on job design, a further description of the relation between team design and meaningful work can be provided. Hackman and Oldham (1976) found in their early research a relationship between job design and meaningfulness of work. They define three job characteristics that contribute to

meaningful work: skill variety, task identity and task significance. In their research they explain that the more skill variety needed for the job, the more meaningful an individual will find its job because the job can challenge or stretch its skills and abilities (Hackman & Oldham, 1976). Task identity concerns the degree in which the job requires the production of a whole piece of work with visible outcomes. The job becomes more meaningful with a clearer task identity, because the individual knows the higher purpose of their job and have an overview on the process (Hackman & Oldham, 1976). The last characteristic is task significance. Hackman and Oldham (1976) explain that when the individual understand the significance of their work to others, the meaningfulness of work will increase.

Although the theory of Hackman and Oldham concerns job design instead of team design, the relationships they have found can be used to determine the relationship between meaningful work and team design. For example, task identity can be compared to the team design components *goal clarity* and *task structure* of Cummings and Worley (2014). Especially the visible outcome and the higher purpose someone can view is something that goal clarity and a clear task structure can deliver, because *goal clarity* means that the individual knows where he or she contributes to and the *task structure* determines the part of the work that contributes to this goal. Therefore, it can be expected, that if team members have clear goals to work for and a task structure that gives them a part of the goal achievement, they will experience task identity. Moreover, skill variety can dependent on some of the team design components. For example, if a team has different goals to achieve and a task structure that stimulates the communication and coordination with many different people, this suggests that the work someone carries out requires a broader set of skills. This last requirement refers to skill variety. Moreover, *team functioning* could require some specific social skills that could also increase the skill variety of the work. In this sense, a diversity in the team design components can cause a variety in the work and this could lead to meaningful work. Task significance is about the impact someone has on others with the work he or she carries out. This job characteristic focuses on the interpersonal relationships of employees and therefore this characteristic can be related to team functioning as described by Cummings and Worley (2014). It could be said that the better team functioning is designed within the team, the better team members are able to interact and function together, and the more they will experience that they have impact on the work of their colleagues.

In summary, it can be said that a relationship between meaningful work and team design is expected. In prior research a relation has been found between job design and meaningful work. Due to the fact that team design is related to job design, a similar

relationship can be expected, which means that when a team is properly designed this will positively affect the meaningfulness of work to people. It is known from Cummings and Worley's theory (2014) that the design has an effect on the needs of employees and their productivity. Because the needs of the employees are related to meaningful work, it can be said that a team is properly designed if it fits the needs of the employees. Although it is expected that team design can affect meaningful work, it is not clear in what way the team design components that together shape team design can be supporting meaningful work. Thus, the way in which a team should be properly designed in order to support meaningful work, needs to be specified. Also, it has to be taken into account that a team design is always a combination of different design components, and these combinations can also cause different relationships towards meaningful work. Moreover, the meaningfulness of work can differ per job and function, and therefore it is important to take into account the case in which the research is conducted. In this specific case, specialized nurses are selected for the interviews. The knowledge, skills and consequences of work of postoperative care nurses can differ from the work of other nursing departments, which could lead to differences in the experience of meaningful work. Therefore, it is relevant to determine which elements of meaningful work are context related and which elements might be transferrable.

Based on the potential relationship as described above, the following conceptual model has been created (figure 1). The conceptual model shows the direct effect of team design on the perceived meaningful work of the nurses. The effect between the separate design components and meaningful work cannot be predicted yet, and therefore the relationship between team design and meaningful work is presented as a whole. The relationship has not been determined as positive (+) or negative (-) yet, because this is dependent on the case.

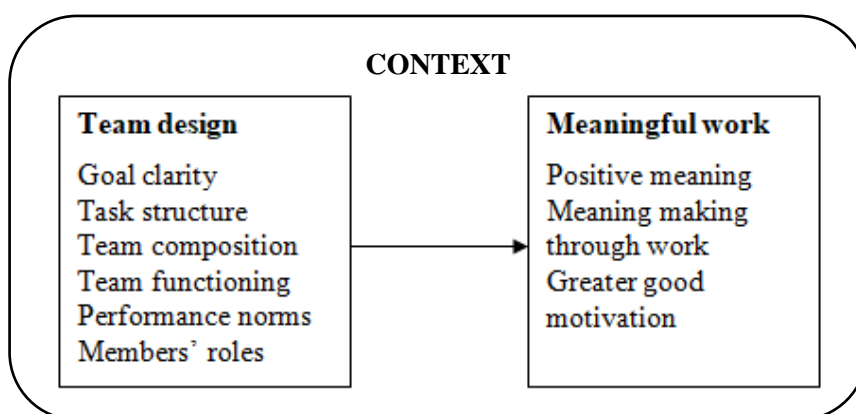


Figure 1 Conceptual model

### **3. Methodology**

Within this methodology chapter an outline of the research method will be presented. In the first paragraph the research strategy is given, with argumentation for research strategy, research approach and research method. Next, a description of the organization and respondents will be given. Further on, a description of the data collection (3.3) and an operationalization of the core concepts (3.4) will be presented. The data analysis is explained in paragraph 3.5. Also, the quality criteria and research ethics are taken into account, which are elaborated in paragraph 3.6 and 3.7.

#### *3.1 Research strategy*

In order to capture more in-depth information about meaningful work and team design, a qualitative research approach has been chosen. Qualitative research can describe experiences of employees and the context of work in an elaborative way (Bleijenbergh, 2015). Meaningful work is a topic that depends on the perceptions of individuals and therefore a qualitative research strategy is suitable in this situation. The research approach is mainly inductive, because the direct relationship between team design and meaningful work has not been studied yet. In the previous chapter it appeared that somehow a relationship could be provided between team design and meaningful work. However, due to the uncertainty of this relationship, the research approach is based on an inductive approach. The results will contribute to the creation of a theory on this relationship. A relationship between the concepts can be expected, but this theory does not provide enough insight to test the relationship between team design and meaningful work. Although the research approach is inductive, both concepts have theoretical models that can be used as a basis for definition and operationalization. Due to the specific context in which the research takes place, the theory will be substantive. The research will try to enhance the understanding of meaningful work and its relation to team design, by focusing on these themes in their specific context (Mills, Durepos & Wiebe, 2009). It will be determined if patterns of similarity or difference are related only to the case study chosen for this research. There has been chosen for this type of theory building, because the experience of meaningful work can differ for different people and it is expected that the context will influence this experience. In addition, the theory of Cummings and Worley (2014) showed that the effects of team design can also be different on people. That is why the interpretation of these concepts depends on the context in which they are located, that is, the work and the type of people involved in the case. The patterns that are

found within the research are transferable instead of generalizable to contexts with similar characteristics as the case under study.

The research is explanatory because the researcher aims to explain the effects of team design components on meaningful work within a specific context. The information of meaningful work and team design are gathered through semi-structured, in-depth interviews. Within this qualitative research a case study approach has been chosen. A case study is highly suited for in-depth observation of a phenomenon in order to recognize patterns and processes (Bleijenbergh, 2015). Also, case studies are suitable when conducting an explanatory research. This is because the context and period of time are determinative for the outcome of research in the case of explanatory research (Yin, 2014). Since there has not much research been done on the subject of meaningful work in combination with team design, it is a good first start to give an insight in how these relations can be shaped. To give an explanation of how meaningful work is affected by the team design, a case study is therefore a suitable approach.

### *3.2 Organization and respondents*

The case study is conducted at the Radboud University Medical Centre (UMC) in Nijmegen, which is an academic hospital. At this hospital, many organizational developments have an impact on the work of the personnel, such as person-oriented working, leadership and teamwork. At Radboud UMC they believe that commitment, excellence and teamwork are three important aspects of good work (Radboud UMC, n.d.). One of the departments that currently is working on teamwork and motivators for work, is the department Postoperative Care. This department consists of 52 specialized nurses and can be seen as one large team that has to work closely together. In order to understand the experience of meaningful work of the nurses, it is important to know what is meant by the work of a postoperative care nurse. After surgery, every patient arrives at this department to wake up safely and return to a stable condition. The patients have had anesthesia and this causes a disruption of the vital functions of the human body, which makes them very vulnerable. Shortly after surgery some unpredictable situations can occur. It is the job of the postoperative care nurse to monitor these vital functions and to intervene if instability arises. They give the patients pain medication if necessary. Also, a task of these nurses is comforting the patient. The patients are most often afraid of what is happening and it is the task of the nurse to take these fears away. In this sense, the work consists of a clinical aspect and a social aspect.

The department of postoperative care is divided into certain ‘focus areas’, which are different work locations with their own workgroup that is responsible for the long-term management and coordination of this work location. Examples of the focus areas are holding, ophthalmology, postoperative child care and postoperative acute care unit (PACU). The nurses can choose a preferred focus area, which means that they will work more often on this work location than other work locations.

In this research, the concept of team design requires data collection at a team, and therefore a considerable number of team members should be interviewed. Also, the duration and depth of all the interviews should be taken into account, because this influences the feasibility of the research (Britten, 1995). From this team, ten members are selected for the interviews. The selection is made in such way that the sample is a reflection of the entire team, based on characteristics such as age and gender. Function and educational attainment are not relevant to take into account, because all team members have roughly the same function and are required to have completed a specialized education from the Radboud UMC. An overview of the respondents and duration of the interviews can be found in table 1.

<b>Respondent</b>	<b>Duration of interview</b>	<b>Date of interview</b>
Respondent 1 (pilot interview)	40 minutes	May 8 <sup>th</sup>
Respondent 2	70 minutes	May 13 <sup>th</sup>
Respondent 3	50 minutes	May 13 <sup>th</sup>
Respondent 4	60 minutes	May 14 <sup>th</sup>
Respondent 5	60 minutes	May 14 <sup>th</sup>
Respondent 6	55 minutes	May 20 <sup>th</sup>
Respondent 7	60 minutes	May 20 <sup>th</sup>
Respondent 8	45 minutes	May 21 <sup>st</sup>
Respondent 9	50 minutes	May 21 <sup>st</sup>
Respondent 10	45 minutes	May 22 <sup>nd</sup>
Respondent 11	40 minutes	May 22 <sup>nd</sup>

**Table 1 Overview of interviews**

### *3.3 Operationalization*

In order to make the core concepts of the research measurable, the two core concepts are operationalized. The two concepts that are central in this research are *meaningful work* and *team design*. For meaningful work, the definition of Steger, Dik and Duffy (2012) has been

used. This definition explains meaningful work as “*the significance and purposefulness that work has to people*” (Steger, Dik & Duffy, 2012, p. 323). In case of Radboud UMC, the definition can be refined to: *the significance and purposefulness that work has to the nurses of the department Postoperative Care*. The multidimensional model of Steger, Dik and Duffy (2012) can be used to further operationalize the concept of meaningful work. Due to their quantitative research they already provide dimensions and items for meaningful work. The three dimensions, as already described in the theoretical framework, are *positive meaning, greater good motivation, and meaning making through work*. A further operationalization of the dimensions into indicators can be found in appendix A.

Team design is defined as the specification of team membership (i.e. its composition), team functioning and performance norms, and the definition and structure of tasks, goals and members’ roles within the team (Morgeson & Humphrey, 2008; Cummings & Worley, 2014). In the case of Radboud UMC, the definition of team design can be transformed into: *the specification of team membership (i.e. its composition), team functioning and performance norms, and the definition and structure of tasks, goals and members’ roles of the nurses of department Postoperative Care*. The components of team design, as derived from Cummings and Worley (2014), are goal clarity, task structure, group composition, team functioning and performance norms. An additional design component is members’ roles, and is derived from the definition of team design of Morgeson and Humphrey (2008). They define members’ role as the set of rules and expectations from the employee as well as the organization, which direct his behavior at work (Morgeson & Humphrey, 2008). The dimensions ‘*rules that direct behavior at work*’ and ‘*expectations that direct behavior at work*’ can be derived from this definition. Based on the definitions of Cummings and Worley (2014) for each of the design components, a further operationalization has been made. The operationalization of all concepts and dimensions can be found in the second part of appendix A.

### 3.4 Data collection

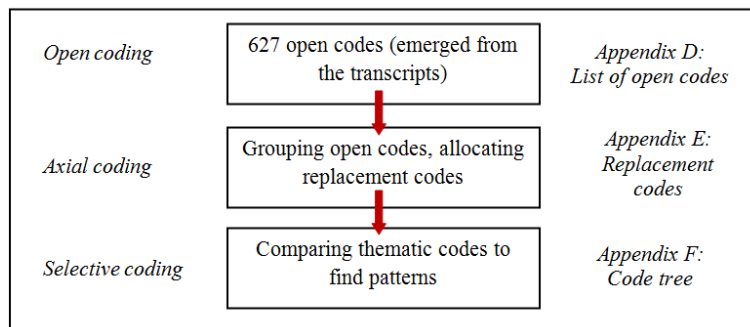
All interviews are held in the period from May 13th until May 22th. Only the test interview has been held on May 8th. For the test interview the initial interview protocol has been used. The initial interview questions can be found in appendix A. After the pre-test, it appeared that there were no uncertainties and that all questions were interpreted and answered correctly. Therefore, no changes arose from the pre-test. All other interviews were also held individually so there would be a focus on personal experiences and perceptions (Bleijenbergh, 2015). In the first phase of the interviews, some formal questions were asked to guarantee anonymity

and to check if the respondent understands what the research is about. Next, the interviews started with informal questions to set the respondent at ease. After this the questions about meaningful work and team design followed. For this sequence has been chosen, because it is usually best to start with easy questions and follow with more sensitive questions (Britten, 1995). The interview questions about meaningful work were based on the WAMI of Steger, Dik and Duffy (2012). This measuring instrument for meaningful work is meant for quantitative research, but the statements in this instrument are translated to open questions which could be used for this research. For the questions about team design the model about team design components of Cummings and Worley (2014) is used. Due to the fact that a lot of research has already been provided upon the two separate concepts, an operationalization has been used as a basis for the interview questions. The operationalization and the interview questions per indicator can be found in appendix A. During the interviews, the researcher intuitively asked follow-up questions to have a more in-depth conversation with the respondent about the relationship between the central concepts. The initial interview guide, with appropriate sequence of interview question, can be found in appendix B. Due to various reasons the initial interview questions have sometimes been changed into other questions or some other questions are added to the interview guide. For example, some questions about *meaning making through work* and *greater good motivation* had to be reformulated to make the respondents able to answer the question. This resulted in the final interview guide, which is attached in appendix C.

The location for the interviews was at the Radboud UMC in the consultation room for this department, which was reserved specially for the interviews. The consultation room was chosen for the interviews, because this is a recognizable and confidential room for the respondents and close to their workplace.

### 3.5 Data analysis

All interviews have been transcribed and coded. All transcriptions are verbatim transcriptions, which means that the audio fragment is word-for-word reproduced into written text as an exact replication (Halcomb & Davidson, 2006). The theory of coding as described by Boeije (2010) has been used for the analysis of the transcriptions. He divides the process of coding into three steps: open coding, axial coding, and selective coding. An overview of the data analysis is shown in figure 2.



**Figure 2 Overview of data analysis**

The analysis started with reading the transcriptions and allocating open codes to separate fragments. In the first step, open coding, the codes were created based on words that have been used within the fragment by the respondent or based on what the respondent was talking about (Boeije, 2010). This way of coding was chosen to prevent that the manner of coding would become too deductive, because the researcher would be seduced to start searching for the indicators of the theories of meaningful work and team design and forget to look for codes that eventually can create a pattern between the concepts. The relationship that is studied within this research was not researched much in previous studies. This relationship that has been described between team design and meaningful work is very uncertain. Within this situation with a new relationship, it is suitable to keep the analysis open for unexpected interpretations (Bleijenbergh, 2015). Thus, the first version of codes were not based on the indicators as known from the theories on meaningful work and team design. The researcher read the texts multiple times and line by line to understand the underlying thoughts of the respondents and capture all of the information that was described within and between the lines. From the first round of coding, 627 separate codes emerged from the text. The codes were placed within the document of the transcript in order to stay close to the context as described by the respondent. The list of codes that resulted from the open coding are attached in appendix D.

The next step of coding, axial coding, was grouping the codes into categories (Boeije, 2010). The researcher searched for codes that referred to the same topic or represented a similar fragment. All open codes that referred to the same theme or dimension received the same replacement code. After this step, 61 codes remained. This code list with the 61 replacement codes can be found in appendix E. Further on, the researcher determined which of the codes could be placed under the dimensions as known from the theories on meaningful work and team design. Sometimes, a new theme had to be created to group the open codes underneath. When placing the open codes underneath the different themes (i.e. dimensions), it appeared that some codes can be placed under both meaningful work and team design, which

was a sign of a pattern code. This part of the axial coding contributed to the theory building, which is an aspect of the inductive approach.

The individual fragments were taken from the transcript and put together in an Excel file. Per fragment is mentioned from which respondent the fragment came, the open code that has been allocated to the fragment, the replacement code, and the theme/dimension under which the fragment belongs. In this Excel file, the researcher was able to filter for certain codes or themes, which helped in making an in-depth comparison between respondents. This approach belongs to selective coding, because the researcher selected different axial codes and compared them to each other in order to discover patterns in the data (Boeije, 2010). Based on the similarities and differences that the researcher found between the respondents, she was able to find patterns. Examples of patterns that were found, are: the emphasis of *'making a difference'* and *'meaning something to the patient'* which were words that were used a lot by the respondents; *learning* from each other and *sharing knowledge* which is seen as important by the respondents; and the *consultation* and *mutual adjustment* that is critical within the job. Due to the fact that the coding and interviewing took place simultaneously, the researcher was able to become more aware of the first themes that emerged from the interviews and was able to ask better questions during the remaining interviews. This iterative parallel process of analysis and interviewing has resulted in changes in the interview guide (appendix C) and code tree with all codes and patterns (appendix F). The most important changes in the interview guide, are the choice to start asking questions about the importance of working in a team for this type of work and the reformulation of some questions about meaningful work to make the questions easier to answer.

### 3.6 Quality criteria

Common used quality criteria in qualitative research are credibility, confirmability, dependability and transferability (Golafshani, 2003). Credibility is the degree in which the research findings are reconstructed in a good way (Symon & Cassell, 2012). This quality criterion refers to the research instrument and the ability of the researcher to translate the original data into representative findings. There are several ways to improve the credibility of the research, such as time sampling, reflexivity, triangulation, member checking and peer examination (Anney, 2014). In this research, peer briefing has been used to improve credibility. By discussing the data and findings with fellow researchers, the researcher became aware of her own understanding of the data and could better reflect on it. Also, the researcher has offered the respondent to do a member check. The respondents were asked if they would

like to read their transcript and/or the findings extracted from the transcripts. Less than half of the respondents liked to read their transcript and none of them had comments.

Confirmability is the degree in which other researchers can confirm to the findings (Anney, 2014). The findings should not be influenced by the imagination of the researcher, but should be clearly derived from the original data. Confirmability is mostly about the data collection and analysis (Symon & Cassell, 2012). Strategies for improving confirmability are keeping a reflexive journal and triangulation (Anney, 2014). For the improvement of confirmability within this research, the researcher has kept a research diary with process description. The research diary can be found in a separate document together with the dataset. Also, all the interviews were recorded and transcribed, which means that the reader can follow the data collection process and can follow the reconstruction of the data into findings. On the basis of an accurately explained coding process in combination with a research diary, the reader can see how the researcher has made an understanding of the data.

The next criterion is dependability, which refers to the changes in methodology constructions. Dependability can be improved by an audit trail, a code-recode strategy and stepwise replication (Anney, 2014). The dependability is enhanced in this research by keeping a research diary with detailed process description and argumentation for changes during the research process. In this way, the reader can judge why certain choices have been made (Symon & Cassell, 2012). Also, a pre-test has been conducted to test the interview questions. Based on the pre-test no interview questions were reformulated. However, the outcome and responses in some of the other interviews have resulted in changes in the interview guide. These changes can be found in the final interview guide, which is attached in appendix C.

The last criterion is transferability, which is the degree in which the findings of the research can be transferred to other contexts (Klopper & Knobloch, 2008). The transferability can be increased by giving an elaborate description of the case and purposeful sampling, which means that a certain sample has been consciously chosen because they have relevant characteristics (Anney, 2014). In this research, the transferability is improved by writing a case description of Radboud UMC and the postoperative care department, so other organizations can assess whether this context is similar to the context in their organization.

### *3.7 Research ethics*

In order to conduct a research in a proper way, it is useful to take research ethics into account. Bell and Bryman (2007) describe four categories of ethics that need to be taken into account: conflicts of interest and affiliation bias, power relations, harm, wrongdoing and risk, and

confidentiality and anonymity. Within organizations it could happen that the organizations has other interests in the research than the intentions of the researcher. This could lead to *conflict of interest or affiliation bias* (Bell & Bryman, 2007). The relationship between manager and researcher can often be seen as ‘imbalanced’ according to Bell and Bryman (2007). Therefore, it is important for the researcher to take *power relations* into account when conducting the research. Another issue is the harm and wrongdoing of a researcher towards the respondents. With this, Bell and Bryman (2007) mean that respondents only have to participate in the research if they are willing to and they never have to do anything that they do not want to.

The *conflict of interest* and imbalance in *power relations* have been tackled in the research process by being clear to the manager of the department about the aim of the research (Bell & Bryman, 2007). During the first meeting with the operational manager of the department, the aim of the research has been discussed and the researcher checked whether or not the head of the department had other interests in the research. Also, the operational manager has been kept up to date during the research process, so no ambiguities could develop between researcher and department. During the interviews, an imbalance in power relations occurred due to the fact that the researcher had the power to direct the interview and determine where the respondent should talk about. With a semi-structured interview the researcher always has a certain power which has been taken into account during the analysis. In order to decrease the imbalance in power during the interview, the researcher emphasized that the respondent should only answer questions if he or she wants to and can stop the interview at every moment. Also, the researcher emphasized that there are no wrong answers and the respondent is free to give the answer that is most suitable in his or her view.

The researcher guaranteed the *confidentiality and anonymity* of the respondents. This was done during the research by asking the respondents only the information that was needed for the research. For example, exact age and years of employment were not asked because this information in combination with gender and function could lead back to one specific person. This would threaten the anonymity of the respondent. Also, the researcher did not ask or note the names of the respondents anywhere in the research report. The interviews were recorded with permission of the respondents. Before the interview, the researcher explained to the respondent that the recordings or transcripts would never be shared with someone else. In this way, the voice of the respondent cannot be linked to the transcriptions.

In order to avoid *harm and wrongdoing*, the researcher tried to be as clear as possible about the research towards the respondents (Bell & Bryman, 2007). When the researcher

invited the respondents for their interviews per e-mail, a document with information about the research was included. This document explained briefly the topic of research, the research aim and the purpose of the interviews. Also, at the start of the interviews the researcher repeated the research aim and purpose of the interview, to check if the respondents understood what is asked from him or her. After this explanation, the respondent was asked if he or she still would like to contribute to the research. At the end of the interviews is asked to the respondents if they would like to read their transcript in order to be able to change or refine things they have said during the interview. All nurses declared that they would like to receive the results of the research.

## 4. Results

Within this chapter, the results of this research will be given, based on the data collection and data analysis that have been taken place. The results will start with the concept *meaningful work*. This first paragraph gives an overview of the degree in which nurses perceive their work as meaningful. Further on, the way in which the team is *designed* will be given. In the last two paragraphs of this chapter, the relation between *meaningful work* and *team design* will be drawn by explaining how the team design can be supporting or obstructing for meaningful work.

### 4.1 Meaningful work

According to Steger, Dik and Duffy (2012), meaningful work can be divided into *positive meaning of work*, *meaning making through work*, and *greater good motivation*. The experience of nurses on all three aspects will be discussed below. At the end of this paragraph, an answer will be provided to the first sub-question of this research, which is: *To what extent perceive nurses their work as meaningful?*

#### 4.1.1 Positive meaning

The work of a nurse in itself, as meant by the definition of *positive meaning in work* from Steger, Dik and Duffy (2012), is perceived as meaningful by the interviewed nurses. The nurses of Radboud UMC give various reasons why they perceive their work as meaningful. These reasons will be elaborated below. The patient is central in their experience of meaningful work, because they consider their work as personally significant if they can make a difference to the patient.

*“I think that if I have made a patient feel better after a surgery than they did before surgery, then my day has gone well”. (Respondent 2, note 147)*

*“In order to make this work meaningful to me, that I can really find satisfaction in it, I have to notice that I have made a difference for the man or woman that I have nursed”. (Respondent 5, note 293).*

*“And that small piece when you know you have helped someone, that’s where I get my satisfaction from and therefore I go with pleasure to my work.” (Respondent 3, note 152)*

The way in which the nurses can make a difference to the patient, is personally significant to them. This personal significance is important for the meaning-making process, as stated by

Steger, Dik and Duffy (2012). ‘Making a difference’ can also be seen as *greater good motivation*, because it also explains how the nurses have an impact on others with their work. However, due to the fact that the nurses emphasize the importance and pleasure of helping others fun to them, this aspect is also considered as *positive meaning in work*.

Although all nurses find it personally significant to make a difference, they all have their own way of making this different. For example, one of the nurses believes it is important to be able to show his specific skills (Respondent 2, note 48 and 59). Another nurse emphasizes the social contact and comfort she offers the patient after surgery (Respondent 7, note 447). Also, some of the nurses like to make a difference by having an extra contribution towards the team or the organization. One of the nurses gives the example that she has a notable role as coach of the students within the team (Respondent 6, note 385). It seems that the extra tasks gives the nurses the opportunity to do the tasks in which they excel. Thus, it is not only about the extra contribution they have towards others, but also the ability to excel which these extra tasks offer.

The next aspect nurses perceive as meaningful within their work, is the variety and challenge they can find in their work. Due to the variety in patients, different surgeries and colleagues, every day is different with its own challenges in which the nurses have to be alert and need to have attention for the needs of patients. The nurses emphasize that the patients are in a vulnerable situation, due to the impaired vital functions, and therefore it is even more important to make a difference to these people. The patient who comes out of a surgery can be unstable, which makes it necessary to closely monitor the vital functions. The nurses only have contact with the patient for a short time, and this results in a variety in patients and associated nursing tasks, which is seen as challenging and fun. Also, because every patient is different, it is challenging to search for the needs of the patient to deliver care that fits the situation.

*“Sometimes you have days when patients leave the department without any problems and everything goes well. But there are also days when you have really unstable patients and you have to act quickly, act appropriately because things can go wrong quickly. I think that's a bit of a challenge in this work.”* (Respondent 2, note 41)

*“Every patient is different, really. You have to deliver ‘customization’. And that makes this work so much fun. [...] That is the most important here, ‘customization’. Always think for yourself of what is good for the patient.”* (Respondent 6, note 404)

The last important aspect which makes the work in itself meaningful to the nurses, is the appreciation they receive for their work. Most nurses are modest about their performances and

only judge their work as ‘good’ if they receive positive feedback from their patients or colleagues.

*“If the patient leaves the department two hours later and gives me thumbs up, that’s just amazing. In that sense this work is really meaningful to me.”* (Respondent 11, note 597)

*“It gives me a good feeling if I am appreciated by my colleagues within the team.”*  
(Respondent 4, note 279)

In short it can be said that the nurses believe their work is personally significant, because they are able to help others in their work. In addition, the work gives the nurses the opportunity to show their specific skills and excel in extra tasks besides the nursing tasks. Moreover, the nurses judge their work as personally significant, due to the variety and complexity of work. This variety and complexity is caused by the different patients with different surgeries, which requires different nursing tasks and criteria to monitor. The nurses explain that the variety and complexity makes their work challenging and they perceive this as important. Therefore, the variety in work can be seen as personally significant according to Steger, Dik and Duffy (2012). Also, it is important what the patient feels and shows, because the work becomes more significant to the nurses if they receive a visible sign of appreciation from the patient. If nursing work involves complex tasks and takes place in a dynamic environment with unpredictable situations, it seems that the nurses are satisfied with the difference they can make in that situation for the vulnerable patient. Moreover, the nurses need feedback and appreciation in order to judge their work as meaningful for themselves.

#### 4.1.2 Meaning making through work

In the second part of the interviews about meaningful work, questions were asked about what the work means to the nurses within their lives. This corresponds to *meaning making through work* from Steger, Dik and Duffy (2012), which means that the work contributes to a meaningful life. Initially, the nurses found it hard to come up with an answer, because most of them just find it important to have a job they enjoy and do not immediately see the link with meaningful life (Respondent 2, note 52; Respondent 4, note 214; Respondent 7, note 433). When talking in terms of better being able to understand yourself through the work, the nurses had a lot to tell. Through the confrontations they face in their work, the nurses are able to reflect on their actions and take things into perspective in their private lives.

*“You look at things differently. It takes things into perspective. If the light switch breaks at home, you think like: there are worse things that could break. Just to give a simple example.”* (Respondent 8, note 485).

*“I think that, because of our work, we are more able of how things could go in life. And that’s why we are so aware of everything being only relative. I think that, for me, it has the value that my work does not have to be my life.”* (Respondent 10, note 562).

From these quotes it can be concluded that the nurses appreciate their life more, because they have seen worse with their patients. Some other nurses see the opportunity to use their work in their private life.

*“In my private life, I can also make money with this work, by giving courses in nursing<sup>1</sup>.”* (Respondent 5, note 311)

*“I notice that it is meaningful in my own environment at home, because I can do a lot to help people with my knowledge and skills.”* (Respondent 6, note 366)

It seems like the nurses find it important to be helpful to people at all times, and not just at work.

*Meaning making through work* also takes place, because the nurses are more able to understand themselves because of their work. The work requires a lot of reflection, because a wrong action can have large consequences. It seems like the nurses are well aware of their actions.

*“If a child cries for a long time, there are some colleagues that stay calm and some colleagues that get irritated. So, in this sense, you notice who you are. And also, the action you have carried out and the reaction on it. [...] If you notice that a situation triggers you and you react in panic or get angry. Then you understand your weaknesses.”* (Respondent 7, note 438)

Moreover, the patient can be a mirror of your behavior. One of the nurses further explains this:

*“People that just awoke from anesthesia have quit uninhibited behavior, in a positive and negative sense. So basically, all filters are gone for a while. The reactions of people are very pure and they will respond to you in the way you approach them. So, in this sense, these patients are a mirror. If I am reared up because of something, then the patient will also be restless.”* (Respondent 8, note 491)

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<sup>1</sup> The actual name of the private activity is omitted due to privacy considerations.

In this way, the work gives nurses the opportunity to learn more about themselves and to discover their strengths and weaknesses.

In summary, the nurses make meaning in their life through work, because they are more able to put things into perspective. The work with different patients makes them aware of the life they have and enables them to value it more. This corresponds *meaning making through work* by Steger, Dik and Duffy (2012), because the nurses are more able to understand themselves and the world around them. Moreover, taking care of different patients helps the nurses to understand who they are and what their strengths and weaknesses are. Also, it provides insight into activities that they would like to do in their private life.

#### 4.1.3 Greater good motivation

The *greater good motivation*, which is about the bigger impact someone has with their work on their environment (Steger, Dik and Duffy, 2012), is also a hard topic for the nurses to describe. The first thing they think about, is the impact they have on the patient. On one hand, the nurse has impact with the way of using their skills and knowledge:

*“If I do not monitor the situation well, do not understand something, or do not act in the right way, then a patient could die. Or the patient could have serious complications.”* (Respondent 6, note 388)

On the other hand, a nurse can also have an impact by using his or her social skills and making contact with the patient.

*“Sometimes holding someone’s hand is enough. [...] I give my hand and say: hold my hand, I am here and I am here for you. You are doing great, it is going to be fine. And sometimes that is enough.”* (Respondent 7, note 447)

It seems that the impact that the nurses have on the patient even becomes more meaningful, because sometimes they can make a difference in a small amount of time.

*“But in the way we work here, you can see that we can mean a lot to patients in a short time and this gives me satisfaction.”* (Respondent 3, note 137)

*“Of course we have short contact with the patient. But I think that, in this short time, we can clearly mean something to the patient, because they are so vulnerable when they come in here.”* (Respondent 4, note 216)

It is the combination of the difference they make to the patient and the responsibility they feel towards the patient that makes the nurse aware of the impact they have. The nurses are individually responsible for the care of two patients. The patient is in a vulnerable position, which makes him or her dependent on the care of the nurse. This feeling of responsibility

seems to make the work for the nurse more important, because they are aware of the impact they individually can have on the patients.

Besides the impact the nurses have on patients, some of the nurses also like to serve a greater purpose than only taking care of patients. This varies from having a contribution to the team to having a contribution to Radboud UMC as an organization. One of the nurses thinks it is important to contribute to the exposure of Radboud UMC. He contributes to the exposure of the hospital by being the best nurse he can be (Respondent 5, note 362). Another nurse explains:

*“You would like to achieve that a patient leaves the hospital and thinks: Well, I have been in Radboud UMC and there was taken care of me in such a nice way. In this sense I help Radboud in developing a good name and they put much effort in that. So in that sense, I contribute to putting Radboud on the map.”* (Respondent 4, note 235)

It seems that some of the nurses are aware of the larger impact they have on the organization. However, the explanation of the *greater good motivation* that some nurses have, does not go beyond the organizational level. The nurses give no examples of the impact they have on society or other larger contexts.

Another nurse is aware of the extra contribution she delivers to the team:

*“For instance the [...] <sup>2</sup> project, that is meaningful to me but also for the others (colleagues), because eventually I do this more for others than for myself. So yes, that part of my job is meaningful to me.”* (Respondent 7, note 432)

The *greater good motivation* of the nurses is that they contribute to the overall patient care of the Radboud UMC. All nurses explain that they have the most direct impact on the patients. Besides the patient care, some of the nurses also emphasize that they have to contribute to the Radboud UMC. This corresponds to *greater good motivation* of Steger, Dik and Duffy (2012) because these nurses have the desire to have a positive impact on a greater good, in this case the organization. It seems like this is important for the nurses, because they are a part of the system, or like some of the nurses calls it: “*a cog in the wheel*” (Respondent 5, note 330) and it is impossible to deliver good patient care on your own. One of the nurses explains this clearly:

*“I am a piece of the chain, just like my colleagues. And every piece has to be positive for the patient, so all my colleagues also have to do their work well.”* (Respondent 4, note 234)

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<sup>2</sup> The name of the project is omitted due to privacy considerations.

#### 4.1.4 Experience of meaningful work

Based on the above information, an answer can be given to the first sub-question: *To what extent do nurses experience their work as meaningful?* When answering the sub-question, the coherence between *positive meaning in work*, *meaning making through work*, and *greater good motivation* was taken into account, because these three concepts together describe meaningful work (Steger, Dik & Duffy, 2012).

The experience of meaningful work seems to depend on ‘making a difference’ to the patient. According to the nurses, the most important aspect within their job is taking care of the patient in such way that a difference can be made. Due to the emphasis on this aspect, ‘making a difference’ is experienced as personally significant to all the nurses, which refers to the *positive meaning in work* (Steger, Dik & Duffy, 2012). There are different ways in which the nurses believe their work can make a difference. For example, some of them believe it is important to use specific clinical or social skills. Through the difference they make to the patient, the nurses are also aware of the impact they have with their work. In this way, ‘making a difference’ can also be seen as a *greater good motivation* (Steger, Dik & Duffy, 2012). The nurses describe that the work has most impact on the patient, but sometimes they also can make indirectly a difference to the patient through contributing to the team or the organization. Finally, the nurses mention that helping others, taking care of patients and making a difference to patients is something that belongs to them. Some nurses even state that the work makes them who they are. In this sense, the nurses are able to understand themselves through their work, which refers to the *meaning making through work* from Steger, Dik & Duffy (2012).

It seems that the nurses are more able to answer questions about *positive meaning* rather than about *meaning making through work* and *greater good motivation*. This could be explained because the nurses emphasize the importance of the work in itself and the achievements in work. Because the nurses value the work in itself in a large extent, they seem to care less about other dimensions or are less aware of the larger impact on the world or the impact it has on their lives. And even if the nurses talk about *greater good motivation* or *meaning making through work*, they reflect it back to the work itself. The *greater good motivation* is explained by some nurses through the contribution that they have to the organization. Through this contribution, they have an indirect effect on the patient care. Also, the work makes them able to understand themselves, which is an indicator for *meaning making through work*. However, some nurses explain that these insights in strengths and weaknesses are useful for delivering good patient care, which refers back to the nursing job.

## 4.2 Team design

Within this part of the results, the team design will be presented according to the definition of Morgeson and Humphrey (2008) in combination with Cummings and Worley (2014). They describe team design in terms of *goal clarity*, *task structure*, *team composition*, *team functioning*, *performance norms*, and *members' roles*. Ultimately, the second sub-question can be answered: *In what way are the teams designed in the case at Radboud UMC?*

### 4.2.1 Goal clarity

In order to make sure a goal is clear to employees, the employee should be able to explain the content of a goal. For the nurses, the clarity of goals differed. Some of the nurses were not able to explain the goals for the team or did not care about goals.

*I can't give an answer to that. I can't come up with one... Goals for the team... Yeah the patient care. That everything is cozy and fun? No I can't think of anything."*

(Respondent 7, note 448)

*"To be honest, I don't care much about goals. I have seen everything pass by for multiple times and every time they come up with new goals I think: Well I've seen this one three times before and next year it will be different again."* (Respondent 8, note 502)

The ability to explain goals differs between the nurses who actively participate in workgroups or nurses who prefer focusing on the patient care. It appears that the team goals are created within the workgroups for the different focus areas and that the goals are set for one year (Respondent 4, note 241; Respondent 5, note 332; Respondent 10, note 571). Some nurses who have extra tasks beside their job as nurse, can explain the team goals (Respondent 5, note 333; Respondent 10, note 572). It is obvious that taking care of the patient is the main goal of the team and it is most important that the patient leaves the department satisfied. It seems that taking care of the patient is the basic goal of the nurses and it is 'just' something that is expected within their job.

*"You would like to be patient friendly. Delivering good care and stuff like that."*

(Respondent 2, note 114).

*"In first instance that is the patient care, to make that as safe and efficient as possible. And delivering the care patient friendly. So that is actually our goal."* (Respondent 3, note 163)

In short it appears that the most important goal for all nurses is to take care for the patient in such a way, that the patient leaves the department satisfied. A number of workgroups are present within the team and these workgroups have separate goals. For some of the nurses the goals of the workgroups are also clear, but this depends on the role they have within the workgroup and the commitment they have towards the workgroup.

#### 4.2.2 Task structure

The task structure of a team is determined by the effective interaction and communication that takes place between team members, and the control that team members have over their own tasks (Cummings and Worley, 2014). This corresponds with the data, although the nurses talk about ‘consultation’ and ‘adjustment’ with colleagues instead of interacting or communicating.

*“Some colleagues are elderly, almost 60 years old. They cannot act as fast as the younger colleagues. So often we switch patients. [...]. Then the question is: Could you take care of a complex patient or do you prefer two easy ones? We discuss things like this.” (Respondent 7, note 452)*

*“Everything is still negotiable, even if the distribution of patients is already made. If someone doesn’t feel well, then it is okay to take 1 patient instead of 2. That is possible.” (Respondent 4, note 255)*

The nurses explain that this consultation and mutual adjustment that takes place between colleagues, gives them the freedom to control their own tasks. The nurses are able to decide how many patients they would like to nurse and what kind of patients they are (Respondent 4, note 264). Also, due to the responsibility that nurses have individually for a patient, this gives them the opportunity to control their own tasks by delivering customization and searching for the needs of the patient (Respondent 5, note 301; Respondent 6, note 404). However, the control that nurses have over their own tasks is reduced by the protocols that have to be followed after specific surgeries.

Another element that seems to determine the task structure, is the way in which the distribution of tasks takes place within the team. This distribution of tasks is not described as an element of task structure according to Morgeson and Humphrey (2008) or Cummings and Worley (2014). From the interviews appeared that every month a planner determines which shifts the nurses will run. Possible shifts can be: day shift, night shift and evening shift. Afterwards, another planner fills in the work locations where the nurses will work every day, based on the preference of the nurse and the work locations where the nurse has worked less

during the last month. This daily planning is based on the principle of “*everyone has to be able to work everywhere*” (Respondent 2, note 106; Respondent 3, note 171). So, this means that every nurse can be scheduled for every focus area with associated work location. The goal of this task rotation system is to keep all nurses up to date with their knowledge. This rotation system results in variety in work, because every work location has different surgeries and the tasks of the nurse depends on the type of surgery of the patient.

*“We take care of a child that has just been born and also take care of people over 100 years old. And they get surgeries from head to toe, so you see a lot of different things passing by.”* (Respondent 3, note 154)

*“Every patient is different, really! And you have to deliver customization. And that makes the job so much fun. [...] You always have to think about what is best for the patient.”* (Respondent 6, note 404)

The tasks also can be different dependent on the shift someone has (Respondent 6, note 363), the amount of unpredictable events (Respondent 5, note 343) and the extra tasks that someone assigns themselves (Respondent 7, note 428).

The task structure can be divided into effective interaction and the control that nurses have over their own tasks (Morgeson & Humphrey, 2008; Cummings & Worley, 2014). The way in which this interaction happens is related to the distribution of tasks. The distribution of tasks starts with a planning that takes place on the background of work and is the basis of the distribution. Further distribution occurs between the nurses by interacting and consulting about patients and deciding together which patient have to be taken care of by which nurse. Through this process, the nurses feel that they are in control over their own tasks. The control that nurses have over their own tasks is perceived as high, due to the individual responsibility they have over the patient. However, the nurses also explain that the control over their own tasks is reduced by the protocols and fixed steps that they have to follow in their work.

#### 4.2.3 Team composition

In general, a team composition can be determined based on team members with different age and experience, education and skills (Cummings & Worley, 2014). In the case of the postoperative care department, these characteristics all fall together. The nurses describe that there is a dichotomy within the team when looking at age, experience and background. On the one hand, young nurses most often were educated specifically for postoperative care (Respondent 1, note 15). On the other hand, the older nurses have worked most often on the Intensive Care department and have gathered much knowledge about different patients with

different disorders (Respondent 4, note 267). These nurses then ended up in the postoperative care department for various reasons. Most nurses talk positive about the team composition. They describe it as a ‘good mixture’ of people.

*“Everyone has something they are good at. Well, not everyone, but most of us. [...] We distinguish ourselves within the team in terms of knowledge and skills. And we know this from each other and we make use of it. [...] Everyone has its own ‘thing’ within the team. That is nice to see.”* (Respondent 6, note 407)

*“I think we have a good mixture of ages. The last few years many colleagues have retired and some younger colleagues have taken these open spots. So on one hand we attract young nurses, but on the other hand we recruit nurses with a lot of experience.”* (Respondent 5, note 349)

In the end, all nurses have the same function, which is postoperative care nurse. However, there are some differences between the nurses in terms of age, education and experience. In general, the current composition of nurses is perceived as positive and beneficial by the interviewed nurses.

#### 4.2.4 Team functioning

The next design component, as described in the literature (Cummings & Worley, 2014), is about the activities that support the relationships between team members. This component is also called ‘team functioning’ and consists of advocacy and inquiry, coordinating activities, evaluating activities and a group maintenance function (Cummings & Worley, 2014).

With advocacy and inquiry is dealt within the Postoperative Care department by organizing work meetings to discuss opinions and to make decisions about the work. The team consists of more than 50 members, so it is impossible to gather all team members together for a meeting. Moreover, within the team are some strong opinions about the work and extra activities (Respondent 4, note 275; Respondent 6, note 408; Respondent 9, note 545).

When looking at the coordinating activities, the role of Oldest of Shift is the most important. The Oldest of Shift is a nurse that is assigned to coordinate all activities at the work location for that day. This role of Oldest of Shift rotates between all nurses, so this means that all nurses should be able to coordinate the daily activities. One of the nurses describes what the role of Oldest of Shift consists of:

*“He or she is responsible for a bit of direction during the day, in the ideal world you manage your colleagues and you put the right puppets in the right place. You use*

*everyone's qualities. And you ensure that the care proceeds as it should. You ensure that patients are all given a place. That all colleagues can take a break and if it is not possible that you can see when it is possible. And you ensure that people also work properly. That they don't sit on their ass all day and drink coffee. Or suddenly be gone when a patient comes in. So that is a responsible task.*" (Respondent 5, note 340)

In reality, the way in which the Oldest of Shift acts, can differ a lot among the nurses. Some nurses are naturally stronger in coordinating and leading the team (Respondent 4, note 251), others are more insecure in this role (Respondent 8, note 506). Also, the Oldest of Shift does not impose tasks to the nurses, but consultations about this with the colleagues (Respondent 8, note 507). Some of the nurses even state that the team is self-managing, because the supervisors do not coordinate the daily tasks of the nurses (Respondent 2, note 68; Respondent 5, note 344; Respondent 11, note 624). If the coordination is about long term plans, then the supervisors use a top-down approach for presenting changes and developments (Respondent 2, note 116; Respondent 6, note 397).

Standard evaluation activities are not present within the team. Multiple nurses explain that a daily evaluation was once introduced, but is no longer performed nowadays. There is no time for evaluation during work and after work prefer nurses to go home rather than evaluate the day (Respondent 2, note 122; Respondent 3, note 195; Respondent 4, note 271; Respondent 5, note 354). However, when an extreme situation has occurred, the involved employees evaluate the situation. In addition, a formal report must be made of the incident and a special commission assesses the way in which the employees have dealt with the situation.

The last aspect of team functioning according to Cummings and Worley (2014) is the group maintenance function, which is about the bond that team members have and the feeling of being one team. A lot of nurses give examples of fun activities that are organized outside of work (Respondent 3, note 199; Respondent 7, note 470; Respondent 10, note 588). Other nurses describe some sort of 'team atmosphere' that is determinative for the group maintenance function. One nurse calls the team 'close' (Respondent 3, note 192), and another one emphasizes the fun part of the team (Respondent 4, note 225). She explains:

*"We share a lot of our personal situation with each other. The willingness towards each other increases, I think. For example when taking over shifts: I will do that for you. [...] The support that you receive when things don't go well in your private life, the understanding. People can share their story with colleagues. [...] It's an open atmosphere, that's for sure. In a good way."* (Respondent 4, note 227, 228, 259)

It seems like the openness that the colleagues have towards each other about their private life contributes to the willingness to help each other within their work. The nurses believe that the open atmosphere is positive for the patient, because when you can openly communicate with your colleagues, you can together create a safe environment for the patient.

*“For me it is important to communicate with each other and that there is a good atmosphere, because you transfer the atmosphere to the patients who come here. You have to be able to trust people.”* (Respondent 5, note 359)

*“We do this together, organize it together. We make sure that the patient is taken good care of and I notice within the team that whatever happens, we deliver good and safe care for the patient and we try to help each other.”* (Respondent 3, note 164)

*“You have to feel safe with your colleague. That things just go well. Because you’re never alone with a patient, the whole department has to work well.”* (Respondent 8, note 499)

Another aspect that seems to contribute to the team functioning and is not mentioned in the article of Cummings and Worley (2014), is the learning and knowledge sharing environment that is created within the team. The Radboud UMC is an academic hospital, which makes educating people and knowledge sharing an important topic within the work (Respondent 5, note 313). The nurses see their work as an opportunity to learn from each other and from the patients (Respondent 3, note 156; Respondent 7, note 462; Respondent 8, note 489). Others think it is valuable to share their knowledge with others (Respondent 2, note 99; Respondent 4, note 240; Respondent 6, note 406). Eventually this contributes to the team work:

*“It occurs regularly that you say to your colleague: Take a look. There is something about that patient and I can’t find it. Or I can’t communicate with that man or woman. What do you see?”* (Respondent 8, note 501)

*“Learning things from each other. Everyone has their experience and expertise, so I think that we can use each other in that sense. And this also makes it fun for me to work in a team. The differences that a team brings along is fun and is important.”* (Respondent 10, note 570)

A lot of learning situations occur at the department and the nurses are open for learning from each other. This is something that is valued as fun and satisfying, but it also makes the care that they deliver together of better quality.

Concluding, the most important part of team functioning is the coordination that takes place within the team. Thus, coordination is present for the team functioning, just like the

literature appoints (Cummings & Worley, 2014). However, the evaluation that has to take place after coordination is most of the time not present. The advocacy and inquiry, as meant by Cummings and Worley (2014) is designed in this case by giving all nurses the opportunity to give their opinion during team meetings. The group maintenance function, which are the activities for improving the relationship between team members (Cummings & Worley, 2014), is designed through fun activities outside of work, and the team atmosphere, which is described as ‘close’, and ‘fun’.

#### 4.2.5 Performance norms

The performance norms are the believes and performance level of work that is necessary according to the employees. According to the literature, this is an individual aspect of team design (Cummings & Worley, 2014). However, from the interviews it can be concluded that the performance norm of the postoperative care department coincides with the basic goal of the department: delivering good patient care. When asking further for the definition of good patient care, most of the nurses consider their work as ‘good’ if the patient leaves the department satisfied (Respondent 7, note 474; Respondent 9, note 522; Respondent 10, note 591). There are some written norms and protocols that the nurses have to consider, such as dismissal criteria (Respondent 10, note 592) and protocols for emergency situations (Respondent 4, note 282-283), but the main norm is delivering customization to the patient and having attention for the needs of the individual patient (Respondent 3, note 202). In the end, when the patient gives a visible sign of satisfaction before he or she leaves the department, then the nurses know they have delivered good work (Respondent 3, note 158; Respondent 11, note 597).

#### 4.2.6 Members’ roles

Beside the function someone can have, he or she could also have an extra role within a team. From the literature, it is known that members’ is the set of rules and expectations from the employee as well as the organization, which direct his behavior at work (Morgeson & Humphrey, 2008). This definition makes a distinction between the *rules* and the *expectations* that direct the behavior at work. The rules, which refer to the formal aspect of the behavior, are similar to the performance norms and therefore already explained in the previous section. The different roles that are present in the team and the vision on these roles are presented below.

From the data it appears that all the nurses have the same function, which is postoperative care nurse. When asking about additional roles that someone performs within the team, the nurses give different examples. A common role that every nurse appoints, is the role of Oldest of Shift. Next to this role, the nurses give examples like planner (Respondent 4, note 274), student coach (Respondent 7, note 477), chairman of the workgroups (Respondent 1, note 26) and some informal roles based on the knowledge and experience (Respondent 6, note 420). Based on background and experience it seems that some natural roles arise, because some nurses start to play a more dominant part in knowledge sharing and coordinating the team. The set of expectations that should direct the behavior of the nurses are different among the nurses. Some of them think it is important to have an extra role besides being a nurse or think it is ordinary to enact in these roles (Respondent 7, note 432). Attracting extra tasks is also encouraged by the manager (Respondent 1, note 9). Other nurses believe that there should be no expectations about enacting in extra tasks, because the priority should always be the patient care and every nurse should be able to decide whether or not to do extra tasks (Respondent 2, note 76-81).

#### *4.3 Team design and meaningful work*

The relationship between team design and meaningful work was not clear yet, and therefore there has been searched for patterns in which team design can be supporting or obstructing the extent in which the nurses find their work meaningful. In the first section, the sub-question *‘To what extent is the team design supporting for the meaningfulness of work for nurses?’* will be answered. The second section about obstructing aspect of team design will answer the next sub-question: *To what extent is the team design obstructing for the meaningfulness of work for nurses?*

##### 4.3.1 Supporting aspects of team design

As the section on meaningful work has shown, ‘making a difference’ to the patient has both a *positive meaning* and a *greater good motivation* for the nurses. Moreover, the nurses describe that the way of working belongs to them and makes them who they are, which refers to the *meaning making through work*. It could be stated that if the team design elements are designed in such way that a nurse is more able to make a difference for the patient, is more able to make the patient satisfied or more able to deal with the complex and unpredictable situation, then the team design supports the meaningfulness of work for the nurses.

When looking at the data, a few situations can be seen as supporting for meaningful work. It appears that when a nurse takes good care of a patient in the responsible situation they are in, it is more meaningful, because there is much that depends on their job. This feeling of responsibility is designed within the team, by assigning two patients to one nurse. It seems that this feeling of responsibility in a job with various tasks and extreme consequences, gives the nurse a larger feeling of meaningfulness, because she is able to make a larger difference to the patient. It also turned out that appreciation within the job is important for the nurses to consider their work as meaningful. It is not only the visible sign of appreciation they receive from the patient, but also the feeling of being appreciated by their colleagues.

*"I think it is important to be valuable for the team. That I can contribute value to my colleagues." (Respondent 7, note 434)*

*"That we can give each other a pat on the back and can say: Good job, well done. That we cheer each other up and give compliments. That is important." (Respondent 3, note 203)*

Receiving compliments and appreciation is one way of receiving feedback, but nurses can also receive feedback in terms of receiving tips and criticism about the job. This form of feedback is also appreciated:

*"In general, you receive little feedback from colleagues, that would help a lot. How you come across to someone, or how you could do something better. That is not the case here." (Respondent 6, note 379)*

It seems that the nurses appreciate receiving feedback and that this contributes to the experience of meaningful work. At some points, this reasoning can be compared to the theory of Cummings and Worley (2014) about social needs. They explain that people have social needs and that work has to be designed in such way that individuals have a lot of interaction. In this case, feedback is a sign of interaction between colleagues and this contributes to meaningful work. Also, it could be argued that giving feedback to colleagues would help in improving the patient satisfaction and would enable a nurse to make a difference to the patient. Colleagues could make a nurse aware of his or her actions which leads to more knowledge in dealing with patients. This process of giving feedback to colleagues is an example of team functioning, because it is a way of evaluating the work. Thus, giving feedback supports the way in which the nurses find their work meaningful, because they can improve their way of working with the patient, and this is seen as the most important aspect of work.

The coordination of the patients is a task that mainly lies with the Oldest of Shift. However, in practice this coordination often goes with consultation between different colleagues. It is naturally to the nurses to think along with each other and give their opinion about it (Respondent 8, note 505; Respondent 5, note 340). It seems that when the right nurse is allocated to a patient, this will give the nurse a larger feeling of satisfaction, because he or she has made a difference to the patient by using specific skills and knowledge. The coordination of the patients is therefore an aspect that can be supporting meaningful work for the nurses.

In the above examples it appears that a lot of consultation and mutual adjustment takes place at the department being investigated. The mutual adjustment is also an example of meeting the social needs that the nurses seem to have. This mutual adjustment between colleagues is enabled by the open workspace and the sight that colleagues have on the work of colleagues. The open space gives the opportunity to the nurses to watch each other in their work and to have a quick consultation. The team is therefore able to fall back on each other, which is important in extreme and problematic situations with the patient.

*“That you can trust on someone, that you only have to call someone in an emergency situation. And that you can solve it together. That is team spirit.”* (Respondent 5, note 357)

It also stimulates the feeling of ‘one team’, because the quick consultations makes it possible to operate together. This team feeling is contributing to meaningful work, because the nurses seem to have a need for social interaction in their work. The open space has also a positive contribution to delivering the best patient care.

Another supporting aspect of team design is the rotation system, which makes sure that the colleagues get to know each other well, in a work specific way and a private way. Work specifically, colleagues are up to date with the knowledge and skills other colleagues possess, and they know who to approach with a specific problem. Every day there is a different colleagues and patients to learn from. This learning and knowledge sharing makes the work fun, and for some nurses this is meaningful. The private information that colleagues share with each other is also contributing to the patient care. Two nurses give an example:

*“Sometimes you have colleagues’ difficulty with a certain operation, because they lost a family member through it for example. Then you do not let that nurse take care of such patient. You assign them to other patients.”* (Respondent 11, note 614)

*“If someone is not well, then it is possible to take care of one patient instead of two.”* (Respondent 4, note 255)

The above example about sharing work specific information contribute to the variety and complexity of their work. This variety in work is experienced as meaningful by the nurses, and therefore it can be concluded that the rotation system that is embedded in the team design is contributing to meaningful work. Also, sharing private information seems to be a social urge for nurses.

Altogether, team design is supporting meaningful work in the following way. The team design takes into account the needs and wishes of nurses. Nurses have a need for a social aspect, and the team design deals with this by giving nurses the opportunity to divide tasks in a self-managing way. Learning, knowledge sharing and positive feedback are stimulating this self-managing character. In terms of work-related aspects, the team design creates tasks that are varied, challenging and have a certain degree of responsibility. This is enabled by the distribution of tasks, coordination within the team and the rotation system.

#### 4.3.2 Obstructing aspects of team design

For the obstructing aspect of team design it could be argued that a team should be enabled to make a difference in the patient care (or make the patient satisfied), because otherwise it is automatically obstructing the meaning-making process of the nurses. 'Making a difference' to the patient is experienced as personally significant, and also as a *greater good motivation* due to the impact that nurses have on the patient. Moreover, team design should enable the use of specific skills and variety in tasks, and to share knowledge and learn from others, because these are also aspects that are personally significant to the nurses. In terms of *meaning making through work*, the team design should enable the assignment of the work to the nurses that fits to them, because using their strengths and discovering their weaknesses contributes in understanding themselves.

Many of the nurses start talking about the extra tasks and the different opinions about these extra tasks among the nurses. On one hand, some of the nurses find it important to participate in the workgroups, because they feel like it is expected and ordinary within the job. It seems like the same nurses who are positive about these extra tasks, also find meaning in their work if they can contribute in some kind of way towards the organization. These nurses are aware of the larger impact they can have on the organization, which refers to a *greater good motivation*. For these nurses, it appears that the care of the patient is not necessarily the only thing that can make their work meaningful.

*“I’m also hired to make sure that the postoperative care department keeps developing and will be put on the national map. [...] You can really show what you can achieve as a team. That makes it valuable for me, I have to be able to get satisfaction from my work.” (Respondent 5, note 329)*

*“For instance the [...] <sup>3</sup> project, that is meaningful to me but also for the others, because eventually I do this more for others than for myself. So yes, that part of my job is meaningful to me.” (Respondent 7, note 432)*

For these nurses, it would be obstructing if they do not get the possibility within the team to participate in these extra tasks. Some of the nurses states that there is not always time for these extra tasks and they feel unfortunate about that (Respondent 2, note 76; Respondent 8, note 513). The assignment of extra tasks could challenge these nurses, which will increase the meaningfulness of their work. Also, if the nurses do not get the opportunity to carry out these extra tasks, they will experience a lower level of *meaning making through work*, because they cannot carry out tasks that belong to them and define them as a person. This can be obstructing because they do not get the opportunity to discover their strengths and weaknesses through extra tasks.

On the other hand, some nurses give priority to patient care, because this is the only thing that matters to them. Therefore, the tasks that contribute to the patient care are the only tasks that will contribute to their experience of meaningful work. These nurses are aware of the impact they have on the patient, but do not have a *greater good motivation* beyond the patient care. If a development or extra task misses a clear link with the patient care, then it is likely that these nurses will judge these developments as useless (Respondent 9, note 537; Respondent 8, note 502). For this particular group of nurses, the assignment of extra tasks that has nothing to do with patient care is an obstacle to their experience of meaningful work. These extra tasks can only be seen as meaningful, if the team is able to make a clear link with the contribution to patient care.

In the previous section about supporting aspects, it was concluded that the rotation system and different team compositions can be supporting. However, it seems that with this team size, team composition and rotation system can also be obstructing to meaningful work. Patient care includes creating a safe environment for the patient and this is needed for making a difference to the patient. The nurses describe that creating this environment is something that has to take place in collaboration with colleagues. In order to create a safe environment, it

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<sup>3</sup> The name of the project is omitted due to privacy considerations.

is necessary to have certain skills and knowledge for dealing with the patient. The changing composition leads to all colleagues having broad knowledge about every surgery and nursing tasks. This broad knowledge is positive for the employability of the nurses, but in some situations specific knowledge is necessary to deal with a patient.

*“I don’t trust everyone who works here. [...] I would not like to start a resuscitation of a child with everyone. And that is because of the skills from the person that works here.”* (Respondent 5, note 357)

The trust in colleagues is important for creating a safe environment for the patient and sometimes for saving lives. Nurses gain meaning from good patient care, and thus a lack of trust and specific care skills can obstruct the meaningful work.

In conclusion, team design is also obstructing in some extent. Next to the nursing tasks also some additional tasks have to be carried out and the expectation is that every nurse contributes to these extra tasks. Some nurses do not feel the need to participate in other activities than taking care of patients, which makes it obstructing their meaningful work if it is expected of them. It seems that when organizing the tasks of a team, it is inevitable to impose general tasks that apply to everyone, which makes it hard to take into account the needs of *all* nurses. Also, in this specific situation the size of the team in combination with the rotation system leads to a lack of trust in the knowledge and skills of some nurses. This results in less meaningful work, because the lack of trust obstructs the delivery of good patient care.

## 5. Discussion

The discussion chapter gives the conclusion of the research and a critical explanation of the quality of the research. In the first paragraph the conclusion is presented in which an answer is provided for the research question. The second paragraph is in the light of the discussion, which consists of the limitations of the research, theoretical relevance, practical relevance, and recommendations for theory and practice.

### 5.1 Conclusion

The aim of the research is to explain the influence of team design on the experience of meaningful work among nurses at the Postoperative Care department of Radboud UMC. Eventually, this could give a better understanding of how teams should be designed for nurses to support the meaningfulness of work. The research question that emerged from this research aim, was: *To what extent does team design support or obstruct the experience of meaningful work for postoperative care nurses at Radboud UMC?* The sub-questions, which were needed to be able to answer the main question, have already been answered in the results chapter. The answer on the main question will be provided below.

First of all, in order to understand how team design can be supporting or obstructing meaningful work to the nurses, it is important to know what is experienced as meaningful in the work. Meaningful work is experienced through variety in work, making a difference to the patient, and the responsibility of work. Challenging tasks are also important for meaningful work. The work becomes even more meaningful if patients or colleagues give a sign of appreciation. Moreover, nursing work is experienced as meaningful because carrying out this work helps to become aware of personal strengths and weaknesses and helps to create awareness for the contribution towards others.

As has been concluded from the sub-questions, it seems that the team design can be both supporting and obstructing the experience of meaningful work. It depends on the employees within the team what makes team design supporting or obstructing meaningful work. Meaningful work is a personal and subjective experience, which makes it important to take the composition and characteristics of the team into account. It can be concluded that both a social aspect as a work-related aspect are important for meaningful work. Team design has an effect on the social aspect, because this design stimulates communication and teamwork among the nurses. The way in which work is designed within the team contributes to a stronger team feeling that makes nurses feel valuable. Moreover, sharing knowledge and

learning from others, which is also seen as meaningful, is also provided by team design. Within the context of complex and acute nursing tasks, it seems that learning and knowledge sharing, communication and teamwork are needed for the nurses to experience their work as meaningful. In terms of the work-related aspect, it becomes clear that team design can offer a challenge to nurses. The design of team tasks and the alignment between them can differ in terms of variety, degree of knowledge sharing, and degree of interaction. In this specific case, team design creates a situation in which the nurses become aware of the contribution they have as a person through the responsibility and clear sight they have on the outcomes of their work. This is supporting meaningful work. Interaction and distribution of tasks are elements that can only be designed within the team and not in the job, which makes it an important factor for affecting meaningful work. Team design can also be obstructing if the nurses do not have the opportunity to contribute to the team in a way they prefer. It's a combination of a lack of goal clarity and mixed expectations about extra tasks that makes the design obstructing in some extent in this specific case.

This research did not intend to describe the job design of nurses. However, it seems necessary to align team design with the individual job designs to make the work meaningful to nurses. It is impossible within this specific job to make a difference on your own: a nurse has to be able to discover and compare their contribution with others. This awareness is what makes them experience their work as meaningful. Thus, in order to create a team design that is supporting meaningful work, it is also relevant to take into account how the team design is aligned to job design.

It can be concluded that an alignment between team design with the needs of the individual team members is supporting. However, the obstructing aspects of team design cannot be avoided. Due to individual opinions about work and experience of meaningful work, it is hard to create a team design that fits all employees. Moreover, in this case it becomes clear that next to the needs of the employees also organizational considerations need to be taken into account when designing a team. For example, when allocating all additional tasks, the wishes of nurses cannot always be taken into account, because otherwise there might not be enough nurses left for these tasks. For some nurses, new organizational decisions concerning the team will enrich their meaningful work, and for others it will obstruct their meaningful work. Thus, in order to design a team that supports meaningful work there should be searched for the right balance between the needs of the individual employees and the organizational possibilities for the design.

## *5.2 Discussion*

### 5.2.1 Limitations

There has been tried to meet the following quality criteria for qualitative research: credibility, confirmability, dependability and transferability (Golafshani, 2003). The credibility has been enhanced by discussing the results with colleague researchers, to check if the conclusions seem logical. Also, the respondents of the department were asked for a member check. Unfortunately, not all respondents were open for a member check. Most of them trust that the researcher is able to find the right results. This could have an impact on the credibility, because the researcher cannot verify if the data is interpreted in the right way. Also, some changes in the interview questions were made due to the inability of respondents to answer them. Some nurses had trouble in understanding questions about meaningful work and therefore it was necessary to reformulate the questions. It could be that the reformulated questions did not fully cover the aspects of meaningful work due to these changes. Also, it could be the case that the researcher has given direction to the answers of the nurses, by giving examples of meaningful work. Therefore, the credibility might be decreased, because it is less sure if the right conclusions have been drawn.

The next criterion is confirmability. This criterion is about the degree in which others can confirm to the findings (Anney, 2014). The researcher has tried to increase the confirmability by keeping a research diary and recording and transcribing the interviews. Although the researcher has offered the process of data collection and data analysis in detail, it still could be that other researchers cannot confirm to some findings, because the context plays a substantial role in understanding the dynamics between team design and meaningful work. The researcher has visited the department for the interviews, and thus has relatively more insight in how the work is carried out on the department. The researcher has tried to tackle this problem, by keeping a research diary in which she has written out her thoughts during interviews and the findings that popped-up into her head. This should help in understanding the translation process from data to results.

The researcher has kept a research diary and kept a pre-test interview to contribute to the dependability of the research. For the first interviews, an initial interview protocol was used. Based on the pre-test, no changes has been made to the interview protocol. The pre-test was held with the operational manager and he understood all the questions that were asked and was able to answer all of them. Therefore, it was hard to check if a question was formulated wrong or should be asked in a different way. The data collection and data analysis took place in an iterative parallel process. This means that when some insights or additional

questions came to mind during the analysis, the researcher was able to change the interview guide. The additional questions and changes in the interview guide can be found in appendix C, and the considerations for these extra questions can be found in the research diary.

The transferability of this case study is a difficult topic for this research. The case that has been chosen is very specific, because the case study is conducted in an academic hospital, which has some additional goals compared to a regular hospital. Also, the work that the nurses carry out on the Postoperative Care department is very specific, due to the short patient contact and variety in patients they can receive. Therefore, the findings are not entirely transferable to other nursing departments. However, the researcher has tried to abstract the results to general concepts, which makes it easier to understand how the dynamics could work in other contexts.

The next topic that can be critically reviewed, are the chosen theories within this research. For the operationalization of meaningful work, the theory of Steger, Dik and Duffy (2012) has been used. This theory has been statistically tested and used in multiple researches, which makes it a credible theory for defining meaningful work. Within this research it was a challenge to translate this quantitative research tool into qualitative interview questions. The translation was made by staying close to the items created by Steger, Dik and Duffy (2012), to make sure the concept is actually presented.

The chosen theory for the definition and operationalization of team design is from Cummings and Worley (2014) and Morgeson and Humphrey (2008). They both write about team design, but where Morgeson and Humphrey (2008) only give a broad definition of team design, Cummings and Worley give a specification of dimensions and indicators of team design components. It was chosen to combine these theories, because the theory of Cummings and Worley (2014) lacked of a clear definition of team design. On the other hand, the theory of Morgeson and Humphrey did not give an operationalization that could be used for the defining the concept. It therefore seemed to be logical to combine these theories into one definition and one operationalization for team design. Members' role was added as an extra dimension to the theory of Cummings and Worley (2014). During the interviews, it became clear that role of member was hard to describe solely, because of the overlap between role of member and other dimensions. For example, the rules that direct behavior in work, which is an indicator for a role, is related to performance norms and goal clarity. The respondents found it therefore hard to distinguish these questions from the questions about other dimensions of team design. Although there was some overlap between role of member and other dimensions, it had a contribution to the theory of Cummings and Worley (2014).

Expectations that direct behavior in work within the team, which is also an indicator for members' role, should fit the growth needs of the team members. Moreover, if it is expected for all team members to participate in certain extra tasks, then the goals of these tasks should be clear.

The researcher has had influence on the research, mainly during the interviews. It was consciously chosen to personally connect with the respondents during the interviews, because the researcher believes that this will result in more honest answers from the respondents. The researcher tried to create this trust by clearly explaining the goal of the research and explaining the concepts to the respondents, to make sure they are not uncertain about what they talk about. Moreover, the researcher asked questions that showed interest in the respondent and let the respondent tell their story without interrupting. These choices have resulted in lack of time in some cases and probing questions when trying to show interest. If the research was done over again, it would be an option to stick more strictly to the questions that have to be answered to make sure the whole concept is specified during the interviews. Another way in which the research might be influenced by the researcher, is that the researcher was sometimes less focused during the interviews. This was the case because the consulting room that was chosen for the interviews was near the department and thus noises and interruptions from colleagues were present in the background. It seemed, however, that the respondents were not bothered by these distractions, because they are used to the environment. When listening to the tape recordings, it seems that the distractions have not changed much in the interviews, but when conducting this research again it would be better to choose a room for the interviews where both interviewer and respondent cannot be distracted from the interview.

### 5.2.2 Theoretical relevance

This research aimed to enrich the current literature by giving insight on how the work environment of nurses should be design in order to experience meaningful work. Different authors stated the significance of an environment that enables nurses in their experience of meaningful work. This research confirms these calls from the literature and further specifies the environment by describing the influence of team design. Pavlish and Hunt (2012) found that the organization should give nurses the opportunity to connect with others and in particular with the patient. This research contributes to Pavlish and Hunt (2012), because the finding in this research show how team design enables nurses to connect with the patient in a way they prefer. The results show that the responsibility in combination with short patient

contact gives nurses the opportunity to make a difference to the patient. Moreover, Pavlish and Hunt (2012) believe that nurses should have input in how they work. The team, which was the center of this research, is designed in such way that the distribution of tasks is done in a self-managing way. In this sense, the research contributes to the theory of Pavlish and Hunt (2012) because it specifies how nurses can be enabled to have input in their work. The call for specifying the work environment for nurses also came from Malloy et al. (2015). They found that nurses with high work demands and a lot of interpersonal contact with vulnerable patients, need an environment that enables personal growth through meaning and mentorship. This research specifies the environment of nurses by describing team design and describes how team design can enable growth within work. Although the nurses do not mention growth as an important aspect of work, they emphasize challenge in work, which is related to growth. The different design components of a team can together create challenge, variety and responsibility which enables the nurses to grow.

Within the design literature it was known that meaningful work can be influenced by design. Especially the relation between job design and meaningful work has been studied repeatedly. This research contributes to the design literature, because it proves that, next to job design, team design also can have a supporting influence on meaningful work. Thus, when describing meaningful work both job design and team design can be included in the description. Moreover, it appeared that the alignment between team design and job design is important for the experience of meaningfulness in work, and thus this research contributes to the job design literature.

### 5.2.3 Recommendations for future research

Based on the limitations and theoretical relevance, there are some recommendations for future research. First, it could be useful to test the combined definition of Cummings and Worley and Morgeson and Humphrey in a quantitative approach. This research has brought to light that *role of member* which is extracted from the definition of Morgeson and Humphrey, may have a contribution to the theory of Cummings and Worley (2014). The expectations that direct behavior in work, which are relevant for defining roles, are relevant for the distribution of tasks and the meaningfulness the nurses receive from it. However, role of member also has some overlap with other dimensions. A quantitative research could test if these team design components as described in the combined definition are separate components. This could be tested with for example a factor analysis.

Second, a recommendation for future research would be to conduct a comparative case study. The transferability of this research is limited based on the specific case that has been chosen, because the themes that are found within this research could be context dependent. A comparative case study could compare different nursing teams and their designs to discover which patterns are similar to the patterns found in this research.

Thirdly, a research with observations as data collection method could be an addition to this research. The execution of a team design can tell a lot about the team design itself. Moreover, sometimes the team design can differ between the way respondents tell it should be and the way it actually is in practice. Moreover, the researcher will be able to better understand the context of research if he or she can see how the work is done.

#### 5.2.4 Practical relevance

As explained in the introduction of this research, experienced meaningful work is likely to have a positive effect on employees and organizational outcomes (Fairlie, 2011; Pavlish & Hunt, 2012; Bailey, Madden et al., 2017). Therefore, the practical relevance as stated was that team design can enhance the experience of meaningful work and thus be beneficial to organizations. When organizations are more able to have insight in what supports and obstructs meaningful work, they will be more able to control their organizational outcomes. This research gives a specific example of how team design can stimulate the needs of the employees and also describes how team design can be obstructing. The postoperative care nurses have a need for a diversity and complexity of tasks, but also like the feeling of carrying out the work together. The team design in this case is aligned with the needs of the employees in a reasonable degree, because the nurses experience challenge, variety and responsibility within the team. However, it seems that the distribution and goal clarity of extra tasks is sometimes experienced as negative by some nurses, which indicates an obstruction in meaningful work. It is likely that if this team is aware of the experience of meaningful work among all nurses, they will be more able to design a team that supports meaningful work and thus can expect improved organizational outcomes.

Moreover, it is known that the design of a team is challenging due to different visions, preferences and needs within work. For meaningful work it is important to align the work to the needs of the individual employees. However, it is almost impossible to satisfy all different needs of the employees. This research gives insight in how team design can satisfy personal needs in some extent and shows that team design influences meaningful work in different ways for the nurses. These insights help organizations to find the right balance between

serving customization for nurses and at the same time it helps to create a bundle of aligned tasks for enabling the main processes of the team.

#### 5.2.5 Recommendations for practice

Based on the practical relevance as described above, some recommendations for practice can be provided. First of all, it is relevant to determine the needs of the team members. It appeared from this research that the nurses have different social needs, growth needs and needs in learning and knowledge sharing. These needs are something that the manager should take into account. Dividing the organization into departments and teams is necessary for the production process. It is for the manager relevant to know that all members of the team cannot be treated the same, because they do not have the same needs. This research proves that the nurses all have a social need, but have different growth needs which affect their meaningful work. When assigning extra tasks to the nurses, these needs have to be taken into account and a clear link should be provided between the goals of the extra tasks and the patient care. Also, nurses must be aware that not every colleague has the same needs. When distributing the patients, for example, it is relevant to take into account in which areas a colleague would like to develop his or her knowledge. This will give a larger feeling of appreciation and increases variety in work which will enhance meaningful work.

It also appeared that communication and feedback during the work are important for teamwork. Currently, the nurses feel inhibited from giving feedback, while they indicate that receiving feedback contributes to feeling valuable. It gives direct sight on the situation and the direct feedback is better for this nursing work because the nurses sometimes have to act fast. Therefore, it can be recommended that nurses need to become more aware of the value of giving feedback. The manager should stimulate giving feedback and the nurses should motivate each other to give feedback.

The last recommendation is about the size of the team. It appeared that the nurses sometimes have too broad skills for some specific nursing tasks due to the rotation system. The rotation system is positive for meaningful work because it provides variety within the work. However, because the team is large, it takes a long time for a nurse to have worked within all focus areas and therefore it is more difficult to keep skills and knowledge up to date. It is recommended to keep the rotation system, but to minimize the team size in some way to make sure it is easier to keep all skills up to date.

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## Appendix A – Operationalization

Concept	Dimension	Indicator	Interview question
<p><b><i>Meaningful work</i></b></p> <p><u>Theoretical definition:</u> The significance and purposefulness that work has to people (Steger, Dik &amp; Duffy, 2012, p. 323)</p> <p><u>Operational definition:</u> The significance and purposefulness that work has to the employees of the department Postoperative Care</p>	<p><i>Positive meaning</i></p> <p>The way in which people find their work meaningful (Steger, Dik &amp; Duffy, 2012)</p>	<ul style="list-style-type: none"> <li>• The work has personal <u>significance</u></li> <li>• The work matters to the individual</li> <li>• The work in itself is judged as meaningful</li> </ul>	<p>In hoeverre zou jij persoonlijk je werk als betekenisvol omschrijven?</p> <p>-Welke aspecten van je werk maken je werk betekenisvol?</p> <p>-Kun je voorbeelden noemen binnen je werk die je als betekenisvol ervoer?</p> <p>Wat maakt voor jou het werk belangrijk?</p>
	<p><i>Meaning making through work</i></p> <p>The work contributes to the sense of meaning of</p>	<ul style="list-style-type: none"> <li>• The work contributes to <u>personal growth</u></li> <li>• The work contributes to a <u>meaningful life</u></li> <li>• The work helps the individual</li> </ul>	<p>In welke mate maakt je werk jouw leven betekenisvol?</p> <p>In welke mate draagt je werk bij aan jouw <u>persoonlijk groei</u>?</p> <p>Op welke manier draagt jouw werk bij aan het</p>

	the individual (Steger, Dik & Duffy, 2012)	to better <u>understand him-/herself</u>	beter <u>begrijpen van jezelf?</u>
	<p><i>Greater good motivation</i></p> <p>The work contributes to a higher purpose in the world (Steger, Dik &amp; Duffy, 2012)</p>	<ul style="list-style-type: none"> <li>• The work makes a difference to the world</li> <li>• The work has important impact on others</li> <li>• The work serves a greater purpose</li> </ul>	<p>Kun je omschrijven in wat voor mate jouw werk een positief verschil levert voor de wereld om je heen?</p> <p>Wat voor impact heb jij met je werk op anderen?</p> <p>In welke mate heeft dit werk invloed op de samenleving?</p> <p>-Wat voor impact heeft jouw werk op de patiënten?</p>
<b>Concept</b>	<b>Dimension</b>	<b>Indicator</b>	<b>Interview question</b>
<p><b><i>Team design</i></b></p> <p><u>Theoretical definition:</u></p> <p>The specification of team membership (i.e. composition), team functioning and performance norms, and the definition and structure</p>	<p><i>Goal clarity</i></p> <p>The degree in which all team members understand the goals (Cummings &amp; Worley, 2014).</p>	<ul style="list-style-type: none"> <li>• Team member can explain the goals</li> <li>• Team member understands what the goals means for their work</li> </ul>	<p>Kun je mij vertellen welke doelstellingen jullie binnen het team hebben?</p> <p>Wat betekenen deze doelstellingen voor jouw werk?</p> <p>In welke mate is voor jou helder wat de doelstellingen inhouden en hoe je de doelen moet behalen?</p>

<p>of team's tasks, goals and members' roles (Morgeson &amp; Humphrey, 2008; Cummings &amp; Worley, 2014)</p> <p><u>Practical definition:</u> The specification of team membership (i.e. composition), team functioning and performance norms, and the definition and structure of team's tasks, goals and members' roles of the employees of department Postoperative Care.</p>	<p><i>Task structure</i> The way in which the work of the team is designed (Cummings &amp; Worley, 2014).</p>	<ul style="list-style-type: none"> <li>• Coordination: tasks should support effective interaction within the group</li> <li>• Regulation: degree in which team members have control over their own tasks and behaviors, free from external control</li> </ul>	<p>Kun je vertellen hoe de taken tussen collega's binnen het team zijn verdeeld?</p> <p>-Hoe worden de taken verdeeld en hoe vindt er afstemming plaats tussen teamleden?</p> <p>Kun je omschrijven welke taken er binnen jullie team zijn die de communicatie en interactie tussen teamleden moet bevorderen?</p> <p>In hoeverre heb jij binnen het team controle over je taken?</p> <p>In hoeverre wordt jouw takenpakket van buitenaf beïnvloed, dus bijvoorbeeld door een planning, programma of je leidinggevende?</p>
	<p><i>Team composition</i> The differences between team members (Cummings &amp; Worley,</p>	<ul style="list-style-type: none"> <li>• Differences within the team in terms of <u>age/experience</u></li> <li>• Differences within the team in terms of <u>education</u></li> <li>• Differences within the team in</li> </ul>	<p>Wat zijn verschillen tussen de team leden als het gaat om leeftijd en ervaring?</p> <p>Wat zijn verschillen tussen de team leden als het gaat om opleiding?</p> <p>Wat zijn verschillen tussen de team leden als</p>

	2014).	terms of <u>skills</u>	het gaat om vaardigheden? -Zijn er andere belangrijke verschillen tussen teamleden?
	<i>Team functioning</i> Task-related activities that support the relationship between team members and the quality of relationships (Cummings & Worley, 2014).	<ul style="list-style-type: none"> <li>• Advocacy and inquiry</li> <li>• Coordinating and evaluating activities</li> <li>• Group maintenance function: holding the team together as cohesive team.</li> </ul>	<p>Hoe wordt binnen het team omgegaan met verschillende meningen over het werk?</p> <p>In hoeverre kun jij je eigen mening verkondigen binnen de groep?</p> <p>Op welke wijze wordt het werk van het team gecoördineerd?</p> <p>Op welke wijze wordt het werk van het team geëvalueerd?</p> <p>Hoe wordt ervoor gezorgd dat jullie je één team vormen?</p> <p>-Zijn er specifieke onderdelen van het werk die hieraan bijdragen?</p>
	<i>Performance norms</i> The members' beliefs about team performance and the acceptable level of it (Cummings &	<ul style="list-style-type: none"> <li>• Beliefs about team performance</li> <li>• Acceptable performance level</li> </ul>	<p>Wanneer levert jullie team goed werk volgens jou persoonlijke mening?</p> <p>In hoeverre heeft het team een algemeen prestatieniveau dat gehandhaafd wordt?</p>

	Worley, 2014).		
	<p><i>Members' roles</i></p> <p>The set of rules and expectations from the employee as well as the organization, which direct his behavior at work (Morgeson &amp; Humphrey, 2008)</p>	<ul style="list-style-type: none"> <li>• Rules that direct behavior in work</li> <li>• Expectations that direct behavior in work</li> </ul>	<p>In hoeverre is jouw functie anders dan die van je collega's?</p> <p>In hoeverre gebruiken jullie, naast de functienamen, ook verschillende rollen voor teamleden?</p> <p>-Kun je toelichten wat deze rollen inhouden?</p> <p>Welke verwachtingen zijn er met betrekking tot deze rollen?</p>

## Appendix B – Interview guide

### Introductie

- Bedanken voor het interview
- Doel van onderzoek en interview uitleggen
- Thema's *meaningful work* en *team design* toelichten
- Uitleg geven wat gedaan wordt met de informatie uit de interviews
- Anonimiteit benadrukken
- Toestemming vragen voor geluidsopname

### Algemene vragen

- Kunt u zich even kort voorstellen?
- Welke functie heeft u en wat houdt dit werk in?
- Kunt u vertellen hoe een gemiddelde werkdag eruit ziet?

### Betekenisvol werk

#### *Positive meaning*

- In hoeverre is je werk betekenisvol volgens jou?
  - Welke aspecten van je werk maken je werk betekenisvol?
  - Kun je voorbeelden noemen binnen je werk die je als betekenisvol ervoer?
- Hoe belangrijk is je werk voor je?

#### *Meaning making through work*

- In welke mate maakt je werk jouw leven betekenisvol?
- In welke mate draagt je werk bij aan jouw persoonlijk groei?
- Op welke manier draagt jouw werk bij aan het beter begrijpen van jezelf?

#### *Greater good motivation*

- Kun je omschrijven in wat voor mate jouw werk een positief verschil levert voor de wereld om je heen?
- Wat voor impact heb jij met je werk op anderen?
- In welke mate heeft dit werk invloed op de samenleving?
- Wat voor impact heeft jouw werk op de patiënten?

### Team design

#### *Helderheid van doelen*

- Kun je mij vertellen welke doelstellingen jullie binnen het team hebben?
- Wat betekenen deze doelstellingen voor jouw werk?
- In welke mate is voor jou helder wat de doelstellingen inhouden en hoe je de doelen moet behalen?

### *Taak structuur*

- Kun je vertellen hoe de taken tussen collega's binnen het team zijn verdeeld?
  - Hoe worden de taken verdeeld en hoe vindt er afstemming plaats tussen teamleden?
- Kun je omschrijven welke taken er binnen jullie team zijn die de communicatie en interactie tussen teamleden moet bevorderen?
- In hoeverre heb jij binnen het team controle over je taken?
- In hoeverre wordt jouw takenpakket van buitenaf beïnvloed, dus bijvoorbeeld door een planning, programma of je leidinggevende?

### *Team compositie*

- Wat zijn verschillen tussen de team leden als het gaat om leeftijd en ervaring?
- Wat zijn verschillen tussen de team leden als het gaat om opleiding?
- Wat zijn verschillen tussen de team leden als het gaat om vaardigheden?
  - Zijn er nog andere belangrijke verschillen tussen team leden?

### *Functioneren van het team*

- Hoe wordt binnen het team omgegaan met verschillende meningen over het werk?
- In hoeverre kun jij je eigen mening verkondigen binnen de groep?
- Op welke wijze wordt het werk van het team gecoördineerd?
- Op welke wijze wordt het werk van het team geëvalueerd?
- Hoe wordt ervoor gezorgd dat jullie je één team vormen?
  - Zijn er specifieke onderdelen van het werk die hieraan bijdragen?

### *Norm van functioneren*

- Wanneer levert jullie team goed werk volgens jou persoonlijke mening?
- In hoeverre heeft het team een algemeen prestatieniveau dat gehandhaafd wordt?

### *Rollen van teamleden*

- In hoeverre is jouw functie anders dan die van je collega's?
- In hoeverre gebruiken jullie, naast de functienamen, ook verschillende rollen voor teamleden?
  - Kun je toelichten wat deze rollen inhouden?
- Welke verwachtingen zijn er met betrekking tot deze rollen?

### Afsluiting

- Heeft de geïnterviewde nog vragen?
- Inzien van transcript?
- Inzien van resultatenhoofdstuk?
- Eindresultaat ontvangen (thesis of samenvatting)?
- Bedanken voor het interview

## Appendix C – Final interview guide

The differences between the initial and final interview guide are shown in *italics*.

### Introductie

- Bedanken voor het interview
- Doel van onderzoek en interview uitleggen
- Thema's *meaningful work* en *team design* toelichten
- Uitleg geven wat gedaan wordt met de informatie uit de interviews
- Anonimiteit benadrukken
- Toestemming vragen voor geluidsopname

### Algemene vragen

- Kunt u zich even kort voorstellen?

**Omitted:** *Not asking the respondents to introduce themselves to prevent that private information is shared with the researcher.*

- Welke functie heeft u en wat houdt dit werk in?
- Kunt u vertellen hoe een gemiddelde werkdag eruit ziet?

### Betekenisvol werk

#### *Positive meaning*

- In hoeverre is je werk betekenisvol volgens jou?
  - Welke aspecten van je werk maken je werk betekenisvol?
  - Kun je voorbeelden noemen binnen je werk die je als betekenisvol ervaart?
- Hoe belangrijk is je werk voor je?

**Changed into:** *Why is your work important to you?*

**Reason for change:** *the first question was answered a lot as a closed question. The respondents often answered with 'very important' or similar answers. By changing it into a why question, it stimulated the respondents to tell more about the importance of work.*

#### *Meaning making through work*

- In welke mate maakt je werk jouw leven betekenisvol?

**Changed into:** *Do you feel like your work makes your life more meaningful?*

**Reason for change:** *the first question was unclear and hard to answer. When reformulated, the respondents were better able to answer this question.*

- In welke mate draagt je werk bij aan jouw persoonlijk groei?
- Op welke manier draagt jouw werk bij aan het beter begrijpen van jezelf?

#### *Greater good motivation*

- Kun je omschrijven in wat voor mate jouw werk een positief verschil levert voor de wereld om je heen?

**Changed into:** *Could you describe in what extent your work has a positive impact on your work environment (thus, the people that are involved during your work) ?*

**Reason for change:** respondents had no idea what to answer to the initial question. It was better to start small and ask for the impact on the direct environment, because this is something the nurses are familiar with. Next, some follow-up questions were asked about the larger impact they think they have on for example the organization or the society.

- Wat voor impact heb jij met je werk op anderen?
- In welke mate heeft dit werk invloed op de samenleving?
- Wat voor impact heeft jouw werk op de patiënten?

### Team design

#### *Helderheid van doelen*

- Kun je mij vertellen welke doelstellingen jullie binnen het team hebben?
- Wat betekenen deze doelstellingen voor jouw werk?
- In welke mate is voor jou helder wat de doelstellingen inhouden en hoe je de doelen moet behalen?

#### *Taak structuur*

- Kun je vertellen hoe de taken tussen collega's binnen het team zijn verdeeld?

**Changed into:** specific questions about the Oldest of Shift and the mutual adjustment that takes place between colleagues when taking care of the patients.

**Reason for change:** After a few interviews it was clear that every respondent would start talking about the Oldest of Shift when asking for the distribution of tasks. Instead of letting the respondents tell the same story over and over again, the researcher decided to verify the information she already had on the topic and then ask additional questions. Examples of additional questions are:

- In what extent does the distribution depend on the Oldest of Shift?
- How does the mutual adjustment between nurses take place when taking care of the patients?
  - Hoe worden de taken verdeeld en hoe vindt er afstemming plaats tussen teamleden?
- Kun je omschrijven welke taken er binnen jullie team zijn die de communicatie en interactie tussen teamleden moet bevorderen?
- In hoeverre heb jij binnen het team controle over je taken?
- In hoeverre wordt jouw takenpakket van buitenaf beïnvloed, dus bijvoorbeeld door een planning, programma of je leidinggevende?

#### *Team compositie*

- Wat zijn verschillen tussen de team leden als het gaat om leeftijd en ervaring?
- Wat zijn verschillen tussen de team leden als het gaat om opleiding?
- Wat zijn verschillen tussen de team leden als het gaat om vaardigheden?
  - Zijn er nog andere belangrijke verschillen tussen team leden?

#### *Functioneren van het team*

- Hoe wordt binnen het team omgegaan met verschillende meningen over het werk?
- In hoeverre kun jij je eigen mening verkondigen binnen de groep?
- Op welke wijze wordt het werk van het team gecoördineerd?

- Op welke wijze wordt het werk van het team geëvalueerd?
- Hoe wordt ervoor gezorgd dat jullie je één team vormen?

**Changed into:** *Do you feel like you are one team together?*

**Reason for change:** *the initial questions suggests that the team is already one, where some respondents could describe that this team feeling is not always there. Also, when asking if the respondent experiences a team feeling, they intuitively start giving examples of activities from which this team feeling appears or not. Therefore, the researcher decided to first check how strong this team feeling is, and then ask follow-up questions about how this team feeling is created and maintained.*

- Zijn er specifieke onderdelen van het werk die hieraan bijdragen?

#### *Norm van functioneren*

- Wanneer levert jullie team goed werk volgens jou persoonlijke mening?
- In hoeverre heeft het team een algemeen prestatieniveau dat gehandhaafd wordt?

#### *Rollen van teamleden*

- In hoeverre is jouw functie anders dan die van je collega's?

**Changed into:** *omitted*

**Reason for removal:** *the operational manager explained in the pre-test that all nurses have the same function title with the same duties. Due to this fact, the initial question was unnecessary.*

- In hoeverre gebruiken jullie, naast de functienamen, ook verschillende rollen voor teamleden?
  - Kun je toelichten wat deze rollen inhouden?
- Welke verwachtingen zijn er met betrekking tot deze rollen?

#### Other additional questions

- *What makes working in a team so important for this job?*
- *Why is working in a team important for you in this job?*
- *What aspects of the team are important for this job according to you?*

**Reason for addition:** *after a few interviews, the researcher doubted if it is necessary to work in team for this job. This came to mind, because from the first few interviews it appeared that the nurses are very solely in taking care of the patient. Moreover, the nurses explained that they have a lot of control over their own tasks. The additional questions stimulated the nurses to talk about the team context instead of talking about their individual jobs within the team.*

#### Afsluiting

- Heeft de geïnterviewde nog vragen?
- Inzien van transcript?
- Inzien van resultatenhoofdstuk?
- Eindresultaat ontvangen (thesis of samenvatting)?
- Bedanken voor het interview

## Appendix D – List of open codes

1. Waking up and making pain free
2. Patients are grateful when they leave
3. Able to explain goals: zo efficiënt mogelijk patienten terug laten gaan naar afdeling
4. Able to explain goals: kwaliteit verbeteren en kennis verbreden
5. Able to explain goals: Voorbeeld van efficiënter werken
6. Verdeling van taken en verantwoordelijkheden
7. Verdeling van taken en verantwoordelijkheden
8. Verdelen van 'lusten en lasten', geeft een 'we doen het met elkaar'
9. Control over own tasks: waar ligt je hart?
10. Effective interaction: in een overleg
11. Effective interaction: kan geen duidelijk voorbeeld geven
12. Group maintenance function: elkaar op een andere manier eens zien
13. Control over own tasks: afhankelijk van OK planning
14. Differences in education: dezelfde achtergrond
15. Differences in age/experience: divers
16. Advocacy and inquiry: vrij spreken
17. Advocacy and inquiry: hetzelfde idee over de zorg
18. Advocacy and inquiry: verschillende visies op neventaken
19. Coordinating: vooraf een planning
20. Coordinating: oudste van dienst voor dagcoördinatie
21. Evaluating: alleen bij noodzaak
22. Group maintenance function: het werk dat we doen schept een band
23. Group maintenance function: commissies
24. Performance level
25. Role of member
26. Role of member: voorzitter aandachtsgebied
27. Role of member: leerling begeleiding
28. Role of member: rouleren van rol
29. Monitoring vital functions
30. Let the patiënt wake up safely
31. Leave department if stable
32. Older men only day shifts
33. In quiet periods working on workgroups
34. Program of Operating room is leading for mutual distribution
35. Number of patiënt depends on intensity of care
36. Fixed order of checks
37. Diversity of patients. Everyone has to be able to do everything.
38. 'Oldest of shift': coordinating task and contact person
39. Diversity in work is fun
40. Quick interventions and being alert is challenging
41. Preventing serious problems is satisfying.
42. Recognizing endangered vital functions and solving
43. Short patient contact
44. Short patient contact
45. Anesthesiologist remains the point of contact
46. Holding is a workplace to prepare the patient for surgery
47. Competence to solve emerging problems when able to argument the choices
48. The work is fun because it has great content
49. Well-paid job
50. Work is mandatory
51. If you have to work then find something you like
52. Due to academic hospital: higher level of care
53. Taking care of patient for a longer period became boring
54. Already had personal growth at IC
55. Relativize in normal life
56. More aware where you are complaining about
57. All the fun parts of IC
58. Sequence important!: solving instability of a patient, waking up of a patient, comforting patient
59. Understanding my skills and preferences
60. Impact on the patient; can be really satisfied and grateful
61. Patient gives his trust
62. Mean something to someone
63. Patient can be nervous and afraid
64. Give a good feeling to patient in the circumstances
65. Appreciation of a patient is important
66. Does not know overall goals Radboud
67. Head of department and self-managing team
68. Continuity of workgroups
69. Addressed by operational manager
70. Task of the personnel and workgroups to organize things
71. Goal to finish off operating program
72. Consultation with employees for coordination
73. Doing the work together
74. Expectation: just do your job well
75. Extra tasks next to your job in academic hospital
76. Expected to participate in workgroups
77. Good nurse if participating in several workgroups
78. The supervisor only has attention for workgroups
79. Priority and appreciation for care
80. Frustration: less attention for good care
81. The task of 'oldest of the shift' rotates
82. Supervising students
83. task distribution for the 'focus areas'
84. Structure for task rotation to keep skills up to date
85. Expectation to keep skills up to date
86. Better to be specialized in care
87. More ideally businesslike to have broad skills
88. You should feel comfortable in your job, should fit with you strengths
89. Low threshold to contact anesthesiologist
90. Organizing task is for oldest of shift
91. Agreed to talk out conflicts
92. Enough communication
93. Fairly autonomous
94. Can always count on the doctor.
95. Try to stick to protocols
96. Possibility to consult with colleagues
97. Try to accomplish a certain balance in age
98. Transferring knowledge to younger colleagues
99. IC nurse has more knowledge
100. Skills depends on point in career
101. More experiences employees work more autonomous
102. Not much policy for elder employees
103. Physical hard work for 60 plus colleagues
104. Physical work

105. Everyone has to be able to work everywhere
106. The young colleagues do not question much
107. The elder colleagues are more critical
108. The young colleagues don't know any better
109. Strong leadership, nothing to argue with
110. Hard organizational culture
111. Feeling of self-managing; in the end no control
112. No costs allowed
113. Want to be patient friendly and deliver good care
114. If you do not fit in then you can leave
115. Operational manager for the bigger picture
116. You should feel more involved if you can control your own work
117. Too less time for extra tasks
118. Move tasks off to workgroups is too easy
119. Evaluations for special cases or problems
120. Low-threshold to evaluate with someone
121. Daily evaluation is not effective
122. Important to take responsibility within the job
123. Together finish the operating program
124. Do what you have to do, take responsibility
125. Task of OVD to monitor daily work
126. Hard to monitor for OVD
127. Care after surgery
128. Holding: making patients ready for surgery
129. Helping with punctures
130. Taking care of all ages
131. Work depends on the workplace
132. Preparations before receiving patients
133. Transmission from operation room
134. Certain method for monitoring vital functions
135. Variety, different operations
136. Short contact, can mean a lot
137. Patients are afraid
138. Mean a lot in a short time
139. Patients have little control
140. Being alert, take responsibility
141. Developing a relationship with patient
142. Patients tell their live stories
143. Comforting patients is meaningful
144. Making contact with patients
145. Patients experience of the work
146. Making a difference for at least one patient
147. Appreciation of patient
148. Appreciation of patient
149. The work belongs to me
150. Taking care of people belongs to me
151. Helping others gives satisfaction
152. Diversity of work
153. Different patients
154. Much to learn
155. Every day learning new things
156. Diversity in work belongs to me
157. Appreciation of patient
158. Feedback of patients
159. Awareness by patients and colleagues
160. Visible impact on patient
161. Can notice a difference
162. Taking care of patients main goal
163. We do this together
164. Helping other departments
165. Think quickly
166. We respond quickly to each other
167. Everyone has the same basic goal
168. It's a standard job every day
169. Same function, different background
170. Everyone should be able to work everywhere.
171. Rotation to keep employees up to date
172. Dedicated team per workplace
173. Responsible for long term goals
174. Rotation: knowledge lingers
175. Consultation about patients
176. Oldest of shift has transcending overview
177. Tasks are dependent on workplace
178. Responsible for own work
179. Individualistic in decisions of patients
180. Patient distribution in consultation
181. Planning of shifts is predetermined
182. Workplace dependent on program of operating room
183. Every week is roughly the same
184. Unplanned surgeries
185. Varied work
186. Longer in service, stronger opinion
187. Appreciation for different opinions
188. Some people always have to say something
189. Support from the team
190. Ask for support of teammembers
191. Close team
192. Oldest of shift had overview and contact person
193. OVD coordinating that workplace
194. No evaluation, not a standard activity
195. Evaluation when things went wrong
196. Not entire team involved in evaluation
197. Don't see colleagues for a longer time
198. Activities outside of work
199. Fun activities together as a team
200. Rotation: keeping in touch
201. Given the necessary attention to patient
202. Giving positive feedback to colleagues
203. We have standard for care
204. Variety of work
205. Deviate from protocol
206. Differences in qualities of colleagues
207. Direct care is the same, different extra tasks
208. Preference for extra contribution to the team
209. Monitoring vital functions
210. Monitoring well-being of patient
211. Work depends on workplace
212. Dependent on operating program
213. Work important to find happiness
214. Work is fun
215. Short contact, mean much to patient
216. Can't give an example of a meaningful situation
217. Can mean something in short time
218. Exhausting to hear live stories
219. Cliche: nursing because likes to help people
220. Helping others feels good
221. Work belongs to me
222. Changing composition of the team
223. Willingness to help colleagues
224. A fun team
225. Sharing private information

226. Support for personal situation
227. Support and willingness to help
228. Different knowledge
229. Growth in communication and teamwork
230. Work confronts you with yourself
231. Reflecting on work
232. Dynamic and variety in work
233. Part of the chain
234. Contribution to Radboud as organization
235. Overall patient experience
236. Goal of work
237. Delivering quality
238. Doing research
239. Education and student development
240. Separate goals for workplaces
241. Creating own goals
242. Different responses due to dynamic environment
243. Individual intuition
244. Many protocols
245. Not everyone up to date with protocols
246. Attitude to search for protocol
247. Not much changing goals
248. OVD has coordinating function
249. OVD task rotates between colleagues
250. Natural leaders overrule others
251. OVD dynamic function
252. Sometimes too informal sphere
253. More structure in accepting patients
254. Switching patients is always possible
255. Easy to ask for advice
256. Ask for practical advice
257. More depth in advice and questions of colleagues
258. Open sphere
259. Too sweet for each other
260. Take into account each others situation
261. Supervisor does much in consultation
262. One team one task
263. Control over tasks due to consultation with colleagues
264. No control over planning
265. Developments are imposed from higher management
266. Difference between student colleagues and colleagues from other departments
267. Variety in age and sex
268. Elder colleagues try to avoid certain tasks
269. Supervisor and anesthesiologists give feedback
270. No evaluation within the team
271. Not evaluating if not effective
272. DIM commission for extreme situations
273. Planners as extra role/task
274. Different opinions within the team
275. Task of supervisor to address someone
276. Consensus within team is impossible
277. Opinion is appreciated by colleagues
278. Feeling appreciated by the team
279. Nice environment to wake up in
280. More structure in accepting patients
281. Problematic situations sometimes just happen
282. Good work when delivered expertise according to protocol
283. Clear communication; verifying if someone understands what you mean
284. When criteria are met, patient can leave department
285. Daily work depends on type of shift
286. Waiting for patients
287. Waiting is boring
288. Difference to whom the work is meaningful
289. For adults you can make a difference on numerically and mentally.
290. Act like it is your own loved one
291. Sometimes work looks like an assembly line
292. Meaningful if patient experiences it as meaningful
293. For children: make a difference in their experience world
294. Acting on the needs of parents and child
295. Need to develop empathy
296. Every patient has to leave satisfied
297. Try to act on needs of parents. Appreciation of parents
298. Strive with the whole team for the best quality
299. Quality is humanity and numerically
300. Have an eye for the patient
301. Making a difference with everything I got
302. Being the best colleague
303. Being meaningful to Radboud and receiving appreciation for it
304. Receiving feedback about work
305. Would like to receive feedback from patients
306. Work has become a part of life, I am the work
307. Life and dead influences life of nurse
308. Taking care of people is the most beautiful job
309. Not my identity, but has made me who I am
310. Can use work in private life
311. Challenged and stimulated to keep developing
312. Keeping up to date with new developments; typical for umc
313. Team spirit to keep developing
314. Dichotomy in team about developments
315. Active role in doing extra tasks
316. The dichotomy creates friction
317. People that do extra things like to receive extra things
318. Do your work because it is fun and stimulating
319. Difference for the patient
320. Every colleague would like to make a statement of how care should be delivered
321. Better exposure to other departments
322. Becoming a sparring partner
323. Exposure to top management
324. A patient gives his vulnerability to us
325. Together striving for highest level
326. Different ways to mean something for the patient
327. Taking care of patients
328. Show what the team can do, developing
329. Contributing to profiling of Radboud
330. Goals of operating room department
331. Per workgroup different team goals

332. Goals should be clear
333. Colleagues get possibilities to keep up to date with goals
334. We all have the same task
335. OVD for coordinating tasks
336. No function differentiation
337. We have the same tasks and the same name on the badge
338. Everyone should be able to be OVD
339. OVD is a responsible task
340. Safety and stability of a patient determines number of patients
341. Keep communicating and consulting
342. Unpredictability requires continuous estimations
343. Self-managing, much control over tasks
344. Responsible use of time is expected
345. When which task can be influenced from the outside
346. Care for patients never influenced
347. Dealing with aggressive family members
348. Good mix of colleagues with different ages and backgrounds
349. Knowledge is lost when people go with retirement
350. The intention for work is important
351. Not addressing each other enough
352. Evaluation should be part of the job
353. Giving feedback on disfunctioning
354. Patient feels when nurse is disfunctioning
355. Fun activities do not create a team bond
356. Team feeling is trusting your colleagues and counting on each other
357. Trust in colleagues
358. Show interest in colleagues
359. I have done everything that I could do
360. Good work if colleagues can share their concerns
361. Good exposure of the department
362. Moment of day determines tasks
363. Mean something in a vulnerable period
364. Meaningful to work in a team
365. Use your knowledge in private life
366. Challenging to organize everything for the patient
367. You need each other and have to trust each other
368. Working with a lot other departments
369. We can't work without the team
370. Educating students is fun
371. Taking care of the patients
372. Being alert in a vulnerable period
373. Technical skills and entertaining
374. Proud feeling to take home
375. Use knowledge in private life
376. Personal growth in extra tasks
377. Always searching for challenge
378. No feedback from colleagues
379. Feedback in extreme situations
380. Receiving compliments from colleagues
381. Thinking about own life due to stories of patients
382. Much fun at work
383. Does less working hours make me more happy?
384. Notable role as coach
385. Try to take all colleagues' interests in account
386. Knowing your colleagues
387. Disfunctioning has large negative impact
388. Emotional and social aspect of work is important
389. Patients are grateful
390. No clear goals
391. Goals per dedicated team
392. Speak out preference for work
393. Clear distribution of tasks, role of OVD
394. Goal of holding
395. Supervisor wants employees to join workgroups
396. Management always imposes new developments
397. Continuous communication
398. OVD has important role
399. Communicating all day long
400. Much control and independency in job
401. Influence on work is nice
402. Protocols are a tool, not leading
403. Use customization for every patient
404. Protocols useful for students and new employees
405. Knowledge sharing to younger employees makes work fun
406. Everyone has its own qualities and expertise which is nice
407. Different opinions makes it hard to listen to each other
408. Learning from each other's opinions
409. Not much animo for daily evaluation
410. Feedback when doing the job
411. DIM notification for extreme situations
412. Evaluation after work makes no sense
413. Evaluation after extreme situations
414. Direct feedback on the job
415. Not everyone as much committed
416. Together create a safe environment for the patient
417. Address people personally, not entire team
418. Good work is being there for patient and others at stake
419. Informal roles based on skills and expertise
420. Members of workgroups
421. Waking up patients in controlled manner.
422. Patients are in dependable situation
423. Variety makes it challenging
424. Different reactions on which you have to anticipate
425. Enters and leaves work with pleasure.
426. Short contact is nice
427. Doing the same thing every day is boring
428. Nice to have an extra contribution
429. It is meaningful if job goes well
430. Work is important for life; social contact, keeping up with new developments and you are a part of something
431. Doing something extra for someone else

432. Work creates who you are
433. My skills contribute to the team
434. Appreciation of colleagues
435. Compliments are nice
436. Different approaches among colleagues is meaningful
437. Understanding what your strengths and weaknesses are
438. Confronted with strengths and weaknesses
439. Show interest in colleagues
440. Getting in contact with patient
441. Appreciation from patient
442. No control over situation is frustrating
443. Talking about experiences with colleague
444. No deep relationship with patient
445. In short time more indepth actions and mean more to patient
446. Reassuring one patient
447. Care for patient is goal, cannot think of other ones
448. Choose a workgroup based on your preferences
449. Distribution of patients based on individual estimations
450. OVD helps with overview
451. Consultation about distribution of patients
452. Helping other colleagues
453. Giving feedback to colleagues is hard
454. Giving feedback is a goal
455. Colleagues make you conscious about your behavior
456. Always some protocols or framework to follow within work
457. Your patient, you decide
458. Psychological part; individual estimation what is needed
459. Meaningful to share knowledge
460. Insecure colleagues
461. Diversity in team creates new insights, learning from each other.
462. Different opinions
463. Listening to opinions and finding solution together
464. Cannot always act upon opinions
465. Mutual adjustment with other departments
466. On higher levels evaluation
467. No team evaluation
468. Evaluation to resolve conflicts and address the task of OVD
469. Fun activities with team
470. Fun activities with other departments
471. Good work if team members feel safe
472. If patients are satisfied
473. Search for the needs of the patient
474. Reflect on work
475. Be able to see and learn from your mistakes
476. Student supervision is a role
477. Head of workgroups have meetings about department wide topics
478. First choice for nursing was practical
479. Working at operating room is most meaningful
480. You can see the difference you make for a patient
481. Work is not important to me
482. Would never choose nursing again
483. Goes to work with pleasure
484. More able to put things into perspective
485. Faster thinking about worst case scenario
486. As older employee you cannot take things slow
487. Early with retirement to do things you always wanted to do
488. Learning from stories of patients
489. Learning from stories of patients
490. A patient is your mirror, reflects your behavior
491. Patients take over your behavior
492. Have patience and keeping overview
493. Impact on the family of patient
494. Having impact on colleagues, feeling safe
495. Extension of the anesthesiologist
496. Always alert for your colleagues
497. Thinking with your colleague contributes to the team
498. Feeling safe with your colleague
499. Some tasks can only be done by 2 employees
500. Within this profession teamwork is important
501. Does not care about goals
502. Educating people is an important goal
503. Sometimes higher quality norms does not make the work of a higher quality
504. Consulting about patient distribution
505. OVD differs between employees
506. Always thinking along, not alone
507. Use each others qualities
508. Cannot take OVD into account in planning
509. Communication is essential
510. Better communication when accepting patients
511. Mutual adjustment is good
512. Different opinions about extra tasks
513. Not always able to show your opinion due to group dynamic
514. We have good sight on each others work
515. Knowing your colleagues
516. Different compositions and rotations makes that people know each other
517. Various work demands flexibility
518. Solving problems together and making a difference for the patient
519. I am good at my job
520. Broad function
521. Meaning something for patient
522. Succeeded in technical skills
523. Being there for the patient
524. Seeing a difference, making patient comfortable
525. Professional interest
526. Mean something with your technical skills
527. Did my best, time to go home
528. Work less relevant due to personal experience
529. Better balance in work and private life
530. Better insight in patients due to personal experience
531. More experience means more impact
532. Learning from older colleagues
533. Cannot do the work alone, need to work together
534. Having fun with colleagues

535. In complex situations, mutual adjustment very important
536. Not interested in goals
537. Cannot appoint goals
538. Distribution of colleagues over workplaces
539. Quality of colleagues distributed
540. Dedicated teams for guarantee quality
541. Self-managing in taking care of patient, your responsibility
542. Good mix of colleagues
543. Diverse team good for atmosphere
544. Work meetings for creating one vision
545. Different opinions, same goal in the end: making patient satisfied
546. Medical coordination from doctor
547. Process coordination with OVD
548. In extreme situations: evaluation
549. Only evaluation in extreme situations
550. Daily evaluations not anymore.
551. For students evaluation relevant
552. Social element with colleagues important
553. If patients leave the department satisfied
554. Preference for work fields, not roles
555. Love to mean something for people
556. Being meaningful for vulnerable people
557. Being there for someone
558. Useful and nice day completion
559. Not living for my work
560. Contribution to organization
561. Other perspective on life
562. More appreciation for life next to work
563. You cannot always control how your life goes
564. Task to make someone comfortable
565. Much more impact in shorter time than a nursery department
566. Being a part of someone's experience
567. Having time to make personal contact
568. Having a backup in extreme situations
569. Learning from each other
570. Goals per workgroup
571. Goal of holding
572. Goal has impact on job
573. Feedback on goal achievement
574. Not all goals of workgroups are clear
575. Goals for holding clear
576. Daily distribution of colleagues over workplaces
577. Flexibility and variety in work is fun
578. Afraid to give feedback
579. Own fulfillment of tasks
580. Being secure in your work
581. Different opinions is good for the team
582. Not possible to get the group together
583. Operating program is leading
584. No evaluation due to different shifts
585. Evaluation between OVD's
586. Not able to work as one team
587. Fun activities
588. Committed towards each other, helping each other
589. Good team work
590. Satisfied and stable patient
591. Protocols as norm
592. Choose the work you prefer
593. Different backgrounds
594. Different and unpredictable work
595. Different patients in their vulnerability
596. Showing appreciation
597. Patient showing appreciation gives satisfaction
598. Carpe diem
599. Learning from professionals
600. Learning from patients
601. Learning from reaction of patient
602. Reflecting on own actions
603. Appreciation gives insight in my work
604. Show trust and safety
605. Dependent on team
606. Responsible for patient
607. Asking colleague for knowledge
608. Quality of care is goal
609. 'Human job'
610. Goals to point a direction
611. Goal for holding
612. OVD as contact person and distribution of patients
613. Taking into account personal situation of colleagues
614. Daily planning in consultation
615. Afraid to give feedback
616. In acute situations we stand as a team
617. Fluctuations in number of patients
618. Dependent on operating program
619. Mirror of society in team
620. Team meetings to discuss opinions
621. People afraid to give opinion
622. More experience, stronger opinion
623. The team members direct each other
624. No evaluation
625. Fun activities
626. Acted together to make all patients satisfied
627. Different background, no roles

## Appendix E - Replacement codes

1. Ability to explain goals
2. Academic hospital
3. Advocacy and inquiry
4. Appreciation
5. Attention for needs
6. Being alert
7. Belongs to me
8. Challenging
9. Communication
10. Consultation and mutual adjustment
11. Content of work
12. Contribute to team
13. Control over own tasks
14. Coordination
15. Dealing with family
16. Dependency on team
17. Differences between group members
18. Distribution of tasks
19. Evaluation
20. Exposure
21. Extra contribution
22. Feedback
23. Fun activities
24. Function of member
25. Grateful patient
26. Helping people
27. Holding
28. Impact of work
29. Importance
30. Knowing colleagues
31. Learning and knowledge sharing
32. Link between goal and work
33. Making a difference
34. Meaningful
35. Oldest of shift
36. Part of my life
37. Patient satisfaction
38. Performance norm
39. Personal growth
40. Pleasure in work
41. Preference for work
42. Protocols and operating program
43. Psychological/social aspect
44. Quality
45. Responsibility
46. Role of member
47. Self-managing
48. Short patient contact
49. Standard aspect
50. Structure in accepting patients
51. Take things into perspective
52. Taking older employees into account
53. Task rotation
54. Team atmosphere
55. Top-down
56. Understanding myself
57. Use of skills
58. Useful for private life
59. Variety in work
60. Visible impact
61. Vulnerability

## Appendix F – Code tree

### Context

- a. Academic hospital
- b. Content of work
- c. Holding (department)
- d. Psychological/social aspect
- e. Standard aspect

### Meaningful work

- a. Positive meaning
  - a. Personal significance
    - i. Belongs to me
    - ii. Challenging
    - iii. Extra contribution
    - iv. Helping people
    - v. Importance
    - vi. Making a difference
      - 1. Vulnerability
    - vii. Short patient contact
    - viii. Use of skills
    - ix. Variety in work
  - b. Matters to the individual
    - i. Pleasure in work

- c. Judged as meaningful
    - i. Appreciation
    - ii. Attention for needs
    - iii. Contributes to team
    - iv. Grateful patient
    - v. Meaningful
    - vi. Visible impact
  - b. Meaning making through work
    - a. Personal growth
      - i. Challenging
    - b. Meaningful life
      - i. Part of my life
      - ii. Take things into perspective
      - iii. Useful for private life
    - c. Better understand him-/herself
  - c. Greater good motivation
    - a. Difference to the world
    - b. Important impact on others
      - i. Impact of work
    - c. Greater purpose

## Team design

- a. Goal clarity
  - a. Able to explain goals
    - i. Patient satisfaction
    - ii. Quality
  - b. Understands link between goal and work
- b. Task structure
  - a. Distribution of tasks
    - i. Dependency on team
    - ii. Oldest of shift ('OVD')
    - iii. Task rotation
  - b. Effective interaction
    - i. Communication
    - ii. Consultation and mutual adjustment
    - iii. Feedback
  - c. Control over own tasks
    - i. Preference for work
    - ii. Protocols and operating program
- c. Team composition
  - a. Differences between team members
- d. Team functioning
  - a. Advocacy and inquiry
  - b. Coordinating and evaluating

- i. Self-managing
  - ii. Oldest of shift
  - iii. Top-down
  - iv. Evaluation
- c. Group maintenance function
  - i. Fun activities
  - ii. Team atmosphere
  - iii. Knowing colleagues
- e. Performance norms
  - a. Beliefs
  - b. Performance level
- f. Members' roles
  - a. Function of member
  - b. Role of member

## Pattern codes

Goal clarity / extra tasks	→	Growth needs
Variety in work	→	Need for challenge
Task structure / responsibility	→	Need for challenge / task identity
Team composition	→	Learning and knowledge sharing
Team functioning	→	Social needs
Task rotation	→	Need for challenge / social needs / skill variety