

Job crafting among nurses

How job demands and resources can be barriers and facilitators to job crafting.



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Abstract

Due to the increased complexity of professional jobs, the Covid-19 pandemic and the staffing shortage in healthcare, the work structures and work methods of nurses have dramatically altered and the work has become more uncertain and complex. A technique used to keep nurses motivated to work in an uncertain and dynamic work environment is job crafting. Job crafting can be increased by balancing the job demands and job resources with the personal abilities and needs of nurses. This qualitative research aims to discover how job demands and resources can be barriers and facilitators to job crafting among nurses. Existing barriers and facilitators from the literature and new barriers and facilitators mentioned within twelve semi-structured interviews with nurses are analysed using a template analysis. The analysis revealed multiple similarities between the literature and the interviews, however, there are some differences between them. It can be concluded that nurses do want to engage in job crafting at work, yet, there are always factors that can hinder this process. At first, job demands that are barriers to job crafting are task interdependence, too challenging job demands, legal obligations, working in spare time, work pressure and lack of interest. Job demands that function as facilitators to job crafting are an adequate level of job demands, stress or a high workload and interesting new projects. Second, job resources that are barriers to job crafting are conflicts between colleagues, lack of organizational support, lack of social support, lack of social skills, lack of job resources, and lack of job knowledge and experience. Job resources that are facilitators to job crafting are job autonomy, self-efficacy, social skills, motivating potential for employees, meaningful work, social support, job satisfaction and organizational support. In the end, this study extends the existing knowledge by providing an overview of the factors that will increase or hinder job crafting among nurses.

Keywords: Job crafting, JD-R model, job demands, job resources, barriers, facilitators.

Introduction

The rise of global work, virtual work and self-managing teams has considerably increased the complexity and flexibility of professional jobs (Grant & Parker, 2009; Ifran & Qadeer, 2020). In addition, the pandemic situation due to Covid-19 has dramatically altered work structures and work methods, making the work more challenging (Ifran & Qadeer, 2020). These sudden changes have led to big adjustments in the work environment of nurses as their daily work has become more uncertain and complex (Akkermans et al., 2020; Munir et al., 2021). Nurses experience more occupational stress resulting in distress, anxiety and burnouts (Munir et al., 2021). However, according to Munir et al. (2021) a technique that can be applied to keep employees motivated in the workplace, especially those in high stress and high energy jobs, is job crafting. Employees themselves need to proactively adapt and initiate changes in the nature of their jobs in order to respond to these emergent situations (Demerouti, 2014; Ifran & Qadeer, 2020). By recognizing the importance of proactive and self-initiated employees in the workplace, the concept of job crafting was introduced by Wrzesniewski and Dutton (2001).

Job crafting is “the physical and cognitive changes individuals make in the task or relational boundaries of their work” (Wrzesniewski & Dutton, 2001, p. 179). According to Wrzesniewski et al. (2013), job crafting expands traditional approaches of job design to include proactive changes that employees make to their own jobs. Job crafting is an individualized, bottom-up and proactive approach to job re-design, compared to the top-down and one-size-fits-all approaches initiated by the organization (Rudolph et al., 2017). Through job crafting, employees can create a better job for themselves, one that fits their individual skills, needs and preferences (Tims & Parker 2020). Job crafting has four dimensions, namely increasing structural job resources, increasing social job resources, increasing challenging job demands and decreasing hindering job demands (Tims & Bakker, 2010; Tims et al., 2012). These four dimensions are further operationalized in the JD-R model focusing on job demands and job resources. (Tims, Bakker & Derks, 2008).

A sector that is increasingly becoming aware of and that recognizes the need for employees to take a proactive role in shaping their jobs, is the healthcare sector (Gordon et al., 2017). This study focuses on nurses working in hospitals. According to Bakker (2018), job crafting is a powerful strategy that enables nurses to maximize their own performance at work. Moreover, job crafting is helpful for nurses who need to deal with the uncertain and dynamic work

environment on a daily basis (Bakker, 2018). Job crafting is in times of an uncertain period helpful for nurses to decrease job demands and increase job resources for their well-being (Munir et al., 2021). Therefore, according to Sahay and Dwyer (2021) it is crucial that employees engage in job crafting during a crisis to reduce the ambiguity, uncertainty and equivocality. Employees can increase job crafting by balancing their job demands and job resources with their personal abilities and needs (Tims & Bakker, 2010). This study will investigate how these job demands and job resources can be both barriers and facilitators to job crafting among nurses. The corresponding research question that will be investigated during this research is: “How can job demands and resources be barriers and facilitators to all dimensions of job crafting among nurses?”

The heavy workload, work pressure, the high risk of infection and inadequate resources as a result of Covid-19, may affect the mental health of medical staff (Sahay & Dwyer, 2021). The research of Janeway (2020) states that a burnout is common among nurses as they are constantly connecting emotionally with their patients. Nurses who experience a burnout may provide suboptimal care to patients which can threaten their safety (Roczniewska & Bakker, 2021). Job crafting could be a practice to achieve well-being since employees can shape their job while managing personal needs (Saad & Ahmed, 2019). According to the research of Roczniewska and Bakker (2021), nurses who increase their job resources and challenging job demands will experience positive outcomes. For instance, nurses can seek more job resources to help them deal with the high workload, and they can also actively look for challenges in their work to satisfy their personality-driven needs (Tims & Bakker, 2010). This research will elaborate on this by investigating how these job demands and resources can be both barriers and facilitators to job crafting among nurses. Therefore, the findings of this research can be used in practice by understanding what factors, functioning as barriers, can obstruct job crafting and which factors, functioning as facilitators, can enhance job crafting. For hospital management it is important to know which factors increase or decrease job crafting among nurses because engaging in job crafting can reduce several negative outcomes (Roczniewska & Bakker, 2021).

Within the existing theory, limited research has been done into the barriers and facilitators of job crafting among nurses (Bakker, 2018; Baghdadi et al., 2021). There are a lot of concepts that explain what effect job demands and job resources will have on job crafting, yet there is no clear overview about the aforementioned barriers and facilitators of job crafting. For example, Bakker (2018) describes that research among employees in various types of jobs has

shown that job crafting in the form of increasing job demands and increasing job resources leads to an enhanced level of work engagement, improved task performance and creativity. Besides, Tims and Bakker (2010) describe that job resources are very important factors for positive work outcomes and that high job demands are instrumental in motivating employees. In contrast, increased job demands can also cause a level of stress, and decreasing job demands are negatively related to both the motivation and health of employees (Lichtenthaler & Fischbach, 2016). Hakanen et al. (2017) describe that high job demands such as workload, the emotional demands of working with patients and stressful physical demands can lead to burnout among nurses, while job resources such as autonomy, social support and opportunities for professional development are likely to promote job crafting. In conclusion, previous research has supplied multiple examples of the effects of job demands and resources on job crafting, however, it does not explicitly describe what the barriers and facilitators of job crafting are. The research by Bakker (2018) suggests that future research should investigate the possible barriers and facilitators of job crafting for several healthcare workers. Therefore, the aim of this research is to gain insight in factors that obstruct job crafting, the barriers, and factors that will enhance job crafting, the facilitators, to eventually increase job crafting to achieve positive work outcomes for nurses.

In the first section of this study the theoretical framework is built, based on the most important topics related to this research. These topics are job crafting, the JD-R model and the facilitators and barriers of job crafting. The second section describes the methodology that will be used to conduct this qualitative research. In the third section, the findings of the interviews will be described and analyzed in relation to the appropriate literature. Additionally, the discussion and conclusion will be formulated. Finally, the references are summed up and in the end the appendices can be found.

Theoretical framework

In this section, the theoretical framework is built based on the main aspects of job crafting within this research, namely job crafting itself, the JD-R model and the barriers and facilitators of job crafting.

Job crafting

As mentioned before, job crafting amounts the physical and cognitive changes individuals make in the task or relational boundaries of their work (Wrzesniewski et al., 2001). According to Wrzesniewski et al. (2013), job crafting expands traditional approaches of job design to include proactive changes that employees make to their own jobs. Job crafting is not about redesigning the job as a whole but about changing certain aspects of the job within the boundaries of the specific job tasks (Berg & Dutton, 2008). The central characteristic of job crafting is that employees adjust their tasks or other job characteristics on their own initiative, they do not negotiate with their employer about their work conditions (Tims et al., 2012). Therefore, job crafting is an individual-level activity that motivates employees to increase well-being, performance, work meaningfulness and work identity (Tims et al., 2012; Wrzesniewski & Dutton, 2001). Wrzesniewski and Dutton (2001) have identified three ways in which employees can craft their jobs, namely task crafting, relational crafting and cognitive crafting. When looking at those three approaches, job crafting will result in work that is more fulfilling, offers greater opportunity to establish relationships with colleagues and enhances the individual purpose, meaning and values employees attain from their daily activities (Slemp & Vella-Brodrick, 2013).

JD-R model

The job demands and resources model (JD-R model) is an important model that operationalizes job crafting (Bakker & Demerouti, 2007). The model forms the basis for individuals to proactively fit their work environment to their personal skills, needs and abilities as it emphasizes the role of individuals in adapting their job demands and job resources (Tims et al., 2012). The JD-R model extends previous models and is more flexible and rigorous due to its need for including various types of job demands and resources (Bakker & Demerouti, 2007). The definition of job crafting framed in the JD-R model according to Tims and Bakker (2010) is, the changes that employees may make to balance their job demands and job resources with their personal abilities and needs. The JD-R model is a comprehensive framework for understanding how job design elements influence occupational well-being and work

performance, as well as a range of organizational forms of behaviors and outcomes (Rudolph et al., 2017; Bakker, 2018). The assumption of the JD-R model is that all jobs can be characterized by two sets of job elements, namely job demands and job resources (Bakker & Demerouti, 2007).

The first element of the job is job demands. These are characteristics of the job that will cause stress if they exceed the employee's adaptive capability (Tims & Bakker, 2010). More specifically, job demands are physical, social or organizational aspects of the job that require sustained physical or mental effort, so the job requires energy investment (Bakker & Demerouti, 2007). Examples are a high work pressure and emotionally demanding interactions with clients (Bakker & Demerouti, 2007). The second element of the job is job resources. Job resources refer to physical, physiological, social or organizational aspects of the job that may be functional in achieving work goals, may reduce job demands, can be used to deal with complex job demands, have an intrinsic and extrinsic motivational potential and stimulate personal growth and development (Bakker & Demerouti, 2007). Job resources emphasize the motivational potential they have at task level, including autonomy, feedback and task significance (Bakker & Demerouti, 2007). The JD-R model proposes that job demands and resources interact with each other (Tims & Bakker, 2010).

Furthermore, Tims and Bakker (2010) and Tims et al. (2012) operationalized job crafting using four dimensions based on the JD-R model. The first dimension of job crafting is increasing structural job resources. This dimension deals with the development of individual capabilities and autonomy (Tims et al., 2012). The second dimension of job crafting is increasing social job resources. This dimension is related to individual behavior, feedback and social support (Tims et al., 2012). The third dimension of job crafting concerns itself with increasing challenging job demands. Challenging demands are job demands that require extra effort to be met. However, employees react positively to the challenging demands because it gives them personal growth and responsibility when they overcome them (Tims et al., 2012). The fourth and last dimension of job crafting is decreasing hindering job demands. Hindering job demands are related to stress because they unnecessarily thwart personal growth and goal achievement, are emotionally demanding and hinder optimal functioning (Tims et al., 2013; Tims & Bakker, 2010).

Job crafting framed in the JD-R model

Employees may change their levels of job demands and resources to align them with their own preferences and abilities (Tims & Bakker, 2010). When looking at the JD-R model, employees can craft these aspects of the job in three ways, namely by increasing the level of job resources available at work, by increasing the level of job demands at work and by decreasing the level of job demands at work (Tims & Bakker, 2010).

The first way is the increased level of job resources at work (Tims & Bakker, 2010). Job resources are very important factors of positive work outcomes such as work engagement, commitment and satisfaction (Tims & Bakker, 2010). In general, it would be valuable to have a high amount of job resources at work. However, in some work situations the level of job resources may be low (Tims & Bakker, 2010). In this situation it can be good for employees to deploy more job resources in order to deal with the job demands without giving too much effort (Tims & Bakker, 2010). Employees with a lot of resources can reach the high job demands and will experience less stress compared to employees who have fewer resources (Tims & Bakker, 2010). The second way is the increased level of job demands employees create at their work (Tims & Bakker, 2010). Employees may create more challenges at their work when they feel that their job is not offering them enough opportunities to use the required skills they possess. Employees can increase the challenges at work by adding tasks to their original job, by volunteering for new projects and by taking over tasks of colleagues (Tims & Bakker, 2010). Challenging demands do not exhaust an employee's energy, they are related to goal accomplishment and work motivation instead (Tims & Bakker, 2010). However, employees will only increase their level of job demands when they have plenty of job resources available. If not, health impairment can occur because employees have to invest too much effort (Tims & Bakker, 2010). The third way is employees who decrease the level of job demands at work. This happens when certain job demands exceed the capabilities and knowledge employees have (Tims & Bakker, 2010). Employees can decrease the job demands by asking colleagues to help them with their tasks or by reducing the number of interactions they have with demanding customers (Tims & Bakker, 2010). As a result, employees can still achieve work goals without making too much effort and by staying healthy (Tims & Bakker, 2010).

Barriers and facilitators of job crafting

As mentioned before, job crafting is operationalized through job demands and job resources (Bakker & Demerouti, 2007). The paragraphs below describe how job demands and job resources can be both barriers and facilitators to job crafting. Factors are considered as barriers if they limit a certain concept (Guessous et al., 2010). On the other hand, factors are considered as facilitators if their presence improves a certain concept (Guessous et al., 2010). In this study, a barrier is an aspect that will obstruct job crafting and a facilitator will increase job crafting.

Job demands as barriers

Job demands are physical, social or organizational aspects of the job that require sustained physical or mental effort, so the job requires energy investment (Bakker & Demerouti, 2007). A job demand that can be a barrier for job crafting is task interdependence. Task interdependence is the dependency employees have to one another needed to get access to critical resources that require coordinated action (Dust & Tims, 2019). Too much task interdependence can hinder employees' ability to engage in a self-directed action of the work (Dust & Tims, 2019). However, not receiving enough task interdependence is considered as a stressor because it hinders one's sense of having the interconnections necessary to understand and influence the elements of their work (Dust & Tims, 2019).

In addition, too challenging job demands can be a barrier to job crafting because it can cause feelings of stress and exhaustion (Van den Broeck et al., 2010). A certain level of challenging demands is beneficial, but demands which are too much of a challenge may turn into a stressor (Dust & Tims, 2019). This can eventually lead to health problems such as burnouts (Schaufeli & Taris, 2014). In order to deal with this, employees may try to protect their resources and energy levels and they might lower their work goals (Van den Broeck et al., 2010). However, such a withdrawal from work may make employees more vulnerable to the adoption of a cynical attitude towards their jobs instead of engaging in job crafting (Van den Broeck et al., 2010).

Finally, according to Harbridge et al. (2022) a barrier to job crafting among nurses is the legal obligations nurses have to deal with in their daily work. As a result, nurses are not totally flexible in adapting aspects within their work, because there are several obligations which need to be followed (Harbridge et al., 2022).

Job demands as facilitators

A job demand that will increase job crafting is employees experiencing an adequate level of challenging job demands (Tims et al., 2012). When employees feel they have an adequate level of challenging job demands, it stimulates employees to develop their individual knowledge and skills or attain more difficult goals which will increase the level of job crafting (Tims et al., 2012). In contrast, a job that lacks both stimuli and challenges may cause boredom which in turn may lead to absenteeism and job dissatisfaction (Tims et al., 2012). Activities that aim to seek new challenging tasks at work and voluntarily taking on new responsibilities are methods in which employees can find new challenges at work (Hakanen et al., 2017).

Moreover, job demands can function as a facilitator to job crafting when employees have to deal with job stress or a high workload (Petrou et al., 2015). According to Bakker and Demerouti (2007), an underlying process proposed by the JD-R model is the health impairment process. This means that poorly designed jobs or chronic job demands exhaust the mental and physical health of the employees and may therefore lead to health problems (Bakker & Demerouti, 2007). Employees will engage in job crafting when they experience an unpleasant reaction to a stressor, which leads them to minimize the negative emotional impact of the stressor or avoid the strain associated with it (Dust & Tims, 2019). For example, employees will make changes that reduce the emotional or mental intensity of their work (Dust & Tims, 2019). According to Dust and Tims (2019) and Tims and Bakker (2010), one way of doing so is by staying away from unrealistic or emotionally draining colleagues.

Job resources as barriers

Job resources refer to physical, physiological, social or organizational aspects of the job that may be functional in achieving work goals, may reduce job demands, can be used to deal with complex job demands, have an intrinsic and extrinsic motivational potential and stimulate personal growth and development (Bakker & Demerouti, 2007). A barrier for job crafting is a lack of job resources (Bakker et al., 2003). When employees have too few or no job resources at all, actual goal accomplishment is precluded and this can result in failure and frustration (Bakker, et al., 2003). When the external environment lacks resources, individuals cannot reduce the potentially negative influence of high job demands and they cannot achieve their work goals (Bakker et al., 2003). This may lead to a withdrawal from work and less motivation to change individual aspects of the job (Bakker et al., 2003).

Another barrier of job crafting is the lack of organizational support (Kim et al., 2017). When employees feel that they are not appreciated within the organization, it can lead to dissatisfaction and less commitment towards the organization (Kim et al., 2017; Harbridge et al., 2022). However, if an organization provides their employees with sufficient social job resources, such as supervisory support and support for strength use, employees feel more engaged to their work and they will be motivated to engage in job crafting (Botha & Mostert, 2014). Organizational support will then be functioning as a facilitator to job crafting.

Finally, a job resource that can function as a barrier for job crafting is conflicts between colleagues (Tims et al., 2015). A conflict can arise when colleagues note that someone differs from the regular standards and if individuals perceive other individuals are oppose their interests and beliefs (Tims et al., 2015). When individuals craft activities within their job, colleagues may feel their tasks are threatened or they are afraid of having to take over several tasks (Tims et al., 2015). Employees who work in the same team or department are likely to be affected by the crafting of job demands by colleagues (Tims et al., 2015). Therefore, individuals cannot craft anything they want in their job, especially not when working together with others (Tims et al., 2015).

Job resources as facilitators

A job resource that would increase job crafting is job autonomy (Sekiguchi et al., 2017). Autonomy is people's desire to experience ownership of their behavior and having the opportunity to make personal choices (Van Wingerden et al., 2017). A high degree of job autonomy would stimulate job crafting by signaling to employees that they have the freedom and opportunity to take initiative changes (Sekiguchi et al., 2017). Employees who have a high level of autonomy have discretion in how they accomplish their work, have more confidence and have more leeway to act in a certain way which is in line with their individual needs (Dust & Tims, 2019). A higher level of autonomy is related to a higher level of self-efficacy (Sekiguchi et al., 2017). Self-efficacy is another job resource that will increase job crafting. Self-efficacy encourages employees to carry out a wider range of tasks and redefine their roles and job boundaries to include broader responsibilities and impacts (Sekiguchi et al., 2017). Therefore, employees should be able to set goals for themselves and mobilize their own job resources because employees who feel self-efficacious are more likely to craft their jobs (Tims & Bakker, 2010).

In addition, social skill is a job resource that will increase job crafting. Social skill represents the ability of an employee to adjust the behavior to different and changing social demands and to control other people's responses (Sekiguchi et al., 2017). Social skills can be taught and are trainable for employees (Ferris et al., 2001). Employees with a higher social skill are more likely to engage in job crafting because it plays an important role where jobs, roles and tasks are socially embedded (Sekiguchi et al., 2017). A good social skill enables employees to interact with others, such as supervisors and coworkers, and to obtain valuable feedback about the meaning of their jobs (Sekiguchi et al., 2017).

According to Bakker and Demerouti (2007), an underlying process proposed by the JD-R model is the motivational process. This process assumes that job resources have both an intrinsic and an extrinsic motivating potential for employees (Bakker & Demerouti, 2007). An intrinsic one because job resources ensure employees' growth, learning and development and an extrinsic one because job resources are instrumental in achieving work goals (Bakker & Demerouti, 2007). Supportive colleagues and helpful feedback from a supervisor will increase the probability of being successful in achieving work goals (Bakker & Demerouti, 2007). The motivational potential of job resources can function as a facilitator for job crafting because through the achievement of work goals, the presence of job resources leads to engagement in job crafting, whereas their absence can lead to a cynical attitude towards work (Bakker & Demerouti, 2007)

Finally, a job resource that functions as a facilitator for job crafting is meaningful work. The pandemic has raised the status of many jobs, as these jobs are important to the functioning of the organization and society (Barclay et al., 2021). In addition, the pandemic highlighted how employees were helping others through their work, by which the social value of their work became visible (Barclay et al., 2021). The meaningfulness of work will be high when employees engage in job crafting because that increases their perceived person-job fit (Berg et al., 2013). Managers should provide room and opportunities for their employees to engage in self-initiated alternatives in the job, because employees who proactively take initiatives open new opportunities for themselves to create meaningful experiences through an increased level of job crafting (Berg et al., 2013; Tims et al., 2016).

Methodology

This section justifies the research strategy, the data collection, the method of analysis, the research criteria and the research ethics.

Research strategy

The research that is conducted is qualitative research which means that the underlying meanings and experiences of people are investigated (Symon & Cassel, 2012). In this study, the experiences and expectations of nurses about job crafting will be investigated through interviews. There are multiple research approaches, namely a deductive research approach, an inductive research approach, and an abductive research approach (Bleijenbergh, 2015). This research is not totally deductive and not totally inductive, but there is a mixture of both approaches. Therefore, the best suitable research approach for this study is an abductive research approach (Awuzie & McDermott, 2017). An abductive approach does not only take advantage of the systematic character of the empirical world, like inductive research, it also draws on the systematic character of theoretical models (Dubois & Gadde, 2002). The abductive approach is suitable if the researcher wants to discover new things, new concepts and the development of theoretical models instead of confirming new information to the existing theory (Dubois & Gadde, 2002). The abductive research approach suits the best with this research, as this research is focusing on both existing theories and on generating new empirical observations and knowledge through the conduction of interviews. The research begins with deductive reasoning and to fully answer the research question, inductive reasoning is used. There is a constant interaction between theory and empirical data and this is a characteristic of an abductive research (Bleijenbergh, 2015). The research question answered as a result of this research is: "How can job demands and resources be barriers and facilitators to all dimensions of job crafting among nurses?"

Data collection

The data is collected through twelve semi-structured interviews, lasting approximately 30 to 45 minutes. The respondents were chosen based on a few selection criteria. The most important selection criterium is that the respondents need to be nurses who are working in a hospital in the Netherlands. Nurses who are working in a nursing home, in home care or other health care sectors are excluded from this research. Besides, age, gender or a particular nursing specialty are also not included selection criteria in this study. All nurses that have participated in this

research are very diverse and are working at different departments within different hospitals in the Netherlands. The respondents were gathered by asking around in the researcher's network. By asking around in the own network, the contact with nurses who wanted to participate was informal. Most of the contact was achieved via email or WhatsApp. Eventually ten respondents were found and all interviews were conducted online through Zoom. All interviews are recorded and can be requested from the researcher.

The interviews that were conducted are semi-structured and respondent interviews (Symon & Cassel, 2012). Respondent interviews are interviews in which participants are asked to share their perspectives and experiences (Symon & Cassell, 2012). In this research, all nurses will be asked to share their previous experiences and future expectations about the different barriers and facilitators of job crafting. Within semi-structured interviews the questions are preformulated in an interview guide, yet, there is some flexibility to adapt and respond to the answers of the interviewees (Bleijenbergh, 2015). An advantage of semi-structured interviews is that the researcher can decide on the spot which information must be discussed and what needs to be added or left out the interview (Bleijenbergh, 2015). Another advantage is that the interviewer can get a better idea of the interviewee's point of view (Bleijenbergh, 2015). Finally, semi-structured interviews enable interviewees to give more personalized and comprehensive answers (Bleijenbergh, 2015). However, the interview guide makes sure that there are certain guidelines and directions the interviewer has to apply.

The interview guide that is used during this research can be found in appendix A. The interview guide is drawn up by the supervisor of this research, meaning that all the questions are pre-formulated by the supervisor. The fellow students from the thesis circle have also used this interview guide. Therefore, all students ask the same questions and data can be shared. Since the interview guide is in English and all the interviews conducted in Dutch, the interview guide had to be translated into Dutch. The translated interview guide can be found in appendix B. Translating can be a difficult process so all students have shared their thoughts on the translations. Firstly, all students translated the interview guide individually after which they compared their own translation with the translations of others. Eventually, there was a meeting in which every student could share their thoughts regarding the translations. In this way, all concepts were correctly translated and the questions remained in the appropriate context. After comparing and discussing the interview questions, one final translated version was made which has been used by all the students.

The interviews were conducted in the end of March and in the beginning of April. The researcher of this study individually conducted ten interviews and the two other interviews were collected through exchanging interviews with other students from the thesis circle. Finally, twelve interviews have been analysed within this research.

Method of analysis

The first step after conducting the interviews was transcribing the interviews. The interviews have been transcribed based on the verbatim method (Bleijenbergh, 2015). This means that all interviews have been transcribed literally. The transcripts can be requested from the researcher. After transcribing, the interviews have been coded and analyzed based on the template analysis which is an analysis related to this abductive research (Symon & Cassell, 2012).

Template analysis is a style of thematic analysis that balances a relatively high degree of structure in the process of analyzing textual data (Symon & Cassell, 2012). In this research template analysis will be used to analyze both the information from the literature and data from the interviews. After collecting data from the existing literature, the initial template was developed using a priori themes and subthemes from the literature. The initial template exists of the main concepts and themes that are known in the existing literature. In this research the main themes are job demand and resources. Within the initial template those two concepts are operationalized into barriers and facilitators. Eventually the barriers and facilitators known in the existing theory are described in the last column of the initial template. The initial template is shown in appendix C. After developing the initial template and after conducting the interviews, the coding process started. Template analysis does not insist on a fixed number of levels coding hierarchy, instead it encourages researchers to develop themes more extensively where the richest data in relation to the research question are found (Symon & Cassell, 2012). Relevant quotes from all the interviews were put together in a coding scheme. An example of the coding scheme is pictured in appendix D. The whole coding scheme can be requested from the researcher. The respondents stayed anonymous in the coding scheme by using respondent 1 (R1) up to respondent 12 (R12). Based on the relevant quote, the researcher came up with a preliminary code. This is a code created by the researcher herself based on the information from the quote. After that, a code from the initial template was linked to the quote. If there was no matching code from the initial template, the researcher had to come up with a new code which was related to the interview quote. The new code needed to be added to the initial template.

Therefore, the initial template is adjusted continuously. This is an iterative process. The codes are clustered together to produce more general high order codes (Symon & Cassell, 2012). The information from the interview quotes is clustered together under job demands or job resources. This is the first high order code. Furthermore, the information from the quotes and the distinction between job demands and job resources is filtered into two categories, namely barriers and facilitators. This is the second high order code. By doing so, the main information related to the research question can be found in this coding scheme.

By adding new codes from the interviews to the initial template, the information from the literature and the new information from the interviews is merged together. Eventually, the final template is developed based on both the themes and the codes from the existing literature and new themes and codes from the interviews. The final template is shown in appendix E.

Research criteria

According to Lincoln and Guba (1985), there are four criteria for assessing the trustworthiness of qualitative research, namely credibility, dependability, confirmability and transferability. In addition, reflexivity is also an important criterion within qualitative research (Symon & Cassell, 2016). In the paragraph below, the five quality criteria will be discussed in relation to this research.

The credibility of this research is enhanced by paying sufficient attention to the translation process of the Dutch interview quotes into English which are used in the result section of this study. The quotes have been checked by the researcher herself and by an external person. As a result, all the quotes have been written down in the right manner and the context is still guaranteed. The dependability in this research is guaranteed by documenting all the steps the researcher has taken during the research process. The research strategy and the research approach have all been written down before the research will be conducted. In this way, other researchers can check the process and do the same research again. The confirmability of this research is maintained by describing where all the data comes from, using a codebook and an initial template. This codebook illustrates how certain conclusions have been drawn from all the quotes and the reader can confirm what the researchers have done. On top of this, the theoretical framework is provided with references, so the readers can find all information using the reference list. Within this research interviews with nurses from a few hospitals in the

Netherlands are conducted. These interview results can also be used in other hospitals in the Netherlands or in other healthcare institutions like a nursing home where job crafting is also an upcoming concept. This ensures the transferability of this research. Finally, the researcher has taken into account reflexivity by being aware of the possible prejudices that exist around job crafting among nurses. Nurses have to deal with a lot of guidelines and procedures within their work, which may have influenced the expectations of the researcher. However, before starting with this research, the researcher was not entirely familiar with the health care sector or with job crafting, therefore the prejudices are limited within the study.

Research ethics

The research ethics within this research will be ensured by a number of aspects. The first aspect is deliberative conversation and listening (Symon & Cassel, 2012). Within this research twelve interviews have been conducted. During those interviews it is important that the researcher talks clearly and openly about the interview and ideas, yet, not in such way that the voices of the respondents are excluded (Symon & Cassel, 2012). The respondents must feel that they are valuable to the research. Another ethics aspect is the sensitivity in handling participant relationship and data and honesty (Symon & Cassel, 2012). During the interviews, the respondents have told their experiences and stories in a confidential environment. The confidential environment is guaranteed by using a consent form which is shown in appendix F. A consent form is an official form that ensures the respondents that they have all information that might reasonably influence their willingness to participate (Smith, 2003). Before the interviews were conducted, the consent form was sent to the respondents. This form states that the respondents will remain anonymous and all personal information will be taken away. Within this research the anonymity will be ensured by not using real names or functions, but by using respondent 1 up to respondent 12. As a result, there is no possibility for readers to find out who said what and the privacy of the respondents will be guaranteed. In addition, the consent form informs the respondents about the recording of the interviews. Besides, at the beginning of the study, the researcher emphasized again that the interview will be recorded and that the interview will only be used for this research and deleted after completion of the research. If the respondent did not want the interview to be recorded, the researcher would have taken notes during the interview. However, if a respondent wanted to withdraw from the research either because of emotional involvement or because he or she disagreed with the interview, it was possible at any time during the interview. This is also stated in the consent form respondents have received.

Results

This section describes the results of this study based on the information gathered from the interviews. The interviewees all mentioned that there are various barriers and facilitators regarding job crafting. Job demands that can be barriers to job crafting are lack of interest, legal obligations, task interdependence, work pressure and working in spare time. By contrast, job demands that are facilitators to job crafting are an adequate level of challenging job demands, interesting new projects and stress and/or a high workload. Job resources that are barriers to job crafting are conflicts between colleagues, lack of organizational support, lack of social skills, lack of social support, and lack of job knowledge and experience. Job resources that are facilitators to job crafting are job autonomy, self-efficacy, job satisfaction, organizational support, social support and social skills. Below, all the aforementioned barriers and facilitators are briefly explained.

Job demands as barriers

Lack of interest is a concept that came out of the interviews as a barrier to job crafting. Multiple respondents have mentioned that when they are not interested in new projects or subjects, they are less likely to engage in those projects. The respondents argue that they would take the projects seriously, however, they would not accelerate the project in as little time as possible. Moreover, respondent 9 and 10 state that when a new, uninteresting project has to be executed by them, they are not inclined to work on the projects on their own. They would rather participate in project groups which fit their interests.

In addition, legal obligations are a barrier to job crafting according to the respondents. Respondent 3 states the following: *“I do not feel that individuals can completely take care of patients based on their own ideas and initiatives, as there are several requirements’ nurses need to meet after a specific diagnosis.”* Furthermore, multiple respondents mention the importance of all nurses working uniformly based on protocols within hospitals. According to respondent 7, these legal protocols withhold nurses from being able to give their own touch to the work.

Task interdependence is another barrier respondents have mentioned in the interviews. Respondent 3 indicates that it is not a motivational factor to approach a colleague who can teach you new operations in the hospital time and time again without any success. It is not stimulating

for nurses to be dependent on colleagues who do not reply. Besides, respondent 10 has mentioned that task interdependence is also about the layers within the organization. Initiating new alternatives in the hospital takes a lot of time, as there are many people involved that need to approve of new initiatives. As a result, respondent 10 is not motivated to actively search for new initiatives, because the feeling of not being taken seriously arises when a lot of time passes before a decision is taken.

Another barrier named by the interviewees is work pressure. Because of the high work pressure within the hospitals, the respondents are not always able to attend trainings sessions or project groups. According to respondent 4, it is important to set limits for yourself and make choices regarding the extra tasks you want to perform. In addition, respondent 3 and respondent 5 state that there are other priorities during peak moments at work than attending new project groups or doing research into new initiatives. In general, multiple respondents mention that there is a high work and time pressure due to staffing shortage. Therefore, there is not always time to engage in new project groups, training sessions or initiatives. However, respondent 11 indicates: *“If there is the occasional quiet time of day at work, there is not always the drive to proactively engage in new initiatives.”*

Finally, multiple respondents indicate that working in spare time functions as a barrier, too. The respondents are willing to engage in new projects and in developing themselves, yet, they do not want to devote their free time to these activities. However, respondent 2 mentioned that working in spare time fits the irregularity of the nursing profession.

Job demands as facilitators

In respondent 5's view, an adequate level of challenging job demands functions as facilitator to job crafting. When new projects are initiated, nurses have to decide for themselves if they have enough time to participate in those new and extra projects. Respondent 5 has mentioned that engaging proactively in a certain number of new projects, it leads to new extra tasks, more challenging work and an entirely new meaning to the individual profession. What's more, a lot of respondents mentioned many times that they are motivated to engage in new projects and trainings if they are interested in the specific subjects of the projects or educational programs. Therefore, interesting new projects functions as a facilitator to job crafting.

Stress or a high workload is another facilitator to job crafting. Respondent 1 indicates that the high work pressure in healthcare ensures that nurses are continuously switching between new initiatives and protocols in health care. Multiple respondents state that when nurses experience a level of stress or a high workload, they are looking for ways to reduce this. Possible ways to do this, as mentioned by some respondents, is searching for colleagues who can help dealing with difficult tasks and by handing over certain tasks. According to respondent 1 and 3, it depends on the colleagues. To deal with the high workload and stress, colleagues, patients and other people who emotionally affect you should be avoided.

Job resources as barriers

A job resource that can function as a barrier to job crafting is conflicts between colleagues. Respondent 1 indicates that when doing new things, there is a need for accountability to all people who are involved. When working on new things, all colleagues who can be affected by the new interventions will have an opinion about it. Respondent 1 is of the opinion that *“It can be frustrating when those colleagues who have a clear opinion, make no extra effort to work on it themselves.”* Therefore, if commitment and dedication within the same team are not more or less equal, this can lead to mutual frustration, both on a personal and professional level.

Respondent 1 is of the opinion that lack of organizational support can be a barrier to job crafting, as when nurses feel there is a lack of organizational support, they may feel that they are not taken seriously by the organization. As mentioned before, there are a lot of people involved when somebody tries to implement a new initiative, and since it takes a very long time before a decision is taken, nurses feel their initiatives are not being taken seriously and they feel their ideas are seen as worthless. In addition, the high work pressure due to the staffing shortage within the hospital can also lead to a feeling of lack of organizational support among nurses. Therefore, respondent 9 says: *“The hospital is aware of the high work pressure and the staffing shortage, but there are no plans that may reduce it. So, the fact that it is recognized by the organization but nothing is done about it causes frustration.”*

An additional barrier to job crafting is the lack of social skills. Multiple respondents indicate that asking for feedback from colleagues may or may not be easy as this depends on the colleagues they need to ask for the feedback. Respondent 11 states that asking for feedback is more difficult when colleagues are busy or stressed. As a result, the threshold to ask feedback is getting higher. However, respondent 5 mentions that it is also difficult to receive feedback

on personal traits. When the same feedback is heard more often, it can affect an individual emotionally. Lack of social support is a barrier related to lack of social skills. Multiple respondents mention that it depends on the managers within the hospital which feedback will be received. Not everyone on the nursing staff is equally strong when it comes to communication. Besides, a lot of respondents indicate that a grumpy, closed and busy manager is not accessible for feedback or questions.

Another barrier to job crafting can be a lack of job knowledge and experience. Multiple respondents have argued that they do not always feel confident in the work they have to execute. Respondent 7 believes that this may have to do with comparing with other colleagues which can lead to unrealistic expectations of oneself. Especially, respondents that are just graduated feel less confidence in the work environment, as they feel they have less knowledge and experience than their colleagues. Respondent 9 and 10 state that not being as skilled as colleagues can lead to restrained behaviour in which they may take fewer initiatives during the work they have to do. In addition, respondent 12 indicates that being afraid of making mistakes does not stimulate nurses to engage in new initiatives. However, according to respondent 12, nurses are not always aware of the training and development possibilities within the hospital, while those can actually make them feel more competent and secure in the work environment. On the other hand, older colleagues with a lot of experience and previous education are less likely to participate in for example educational programs. Those colleagues already have a feeling of competence within the work.

Job resources as facilitators

A facilitator to job crafting can be autonomy. Respondent 2 takes the view that the feeling of being heard within the organization and the opportunity to implement initiatives taken by employees themselves can positively influence the behaviour of employees. What is more, another facilitator to job crafting in line with autonomy is self-efficacy. The most frequently cited reason respondents give for continuously developing themselves is, that they want to keep up with new innovations in healthcare. For example, respondent 1 states: *“I think you should not stand still and you should keep developing and keep thinking. Healthcare never stands still, so I believe you have to be part of it and participate in it to be able to continue to give the best possible care to others.”* The respondents are motivated to participate in extra educational programs to eventually expand their knowledge and improve the quality of their work. For respondent 10, expanding knowledge means an increased feeling of confidence in the working

environment. Besides, respondent 3 and 9 indicate that they have a need to develop themselves based on the career path they want to take.

Both respondents 4 and 9 declare that job satisfaction can be a facilitator to job crafting. Nurses are responsible for their own well-being and job satisfaction at work. For this reason, respondent 4 states that there needs to be a balance between home, school and work. If there are problems at home, it may be difficult not to let those problems interfere at work. As a result, they are not motivated to engage in extra tasks at work, as they have other priorities related to their home situation. Therefore, nurses need to define and limit their activities in order to maintain a good balance which affects their job satisfaction. When nurses feel happy at home, they will be more likely to extend this feeling at work.

Finally, job resources that can function as facilitators to job crafting are organizational support, social support and social skills. Organizational support is a facilitator to job crafting. When nurses feel the organization supports them in participating in new training courses or by motivating them to come up with new initiatives, they are more likely to engage in job crafting. In addition, respondent 9 takes the view that if employees in higher management positions are accessible to nurses for feedback and consultation this will also enhance job engagement. The second facilitator in line with the previous one is social support. Multiple respondents indicate that a good relationship with colleagues is a very important aspect. Several respondents are of the opinion that key aspects that should be present in this professional relationship are talking about difficult situations together with colleagues, an open and accessible attitude among colleagues, a feeling of being part of a team and transparent communication. The third facilitator that is closely connected to the aforementioned facilitators is social skills. According to multiple respondents, not all colleagues possess the right skills needed at work. This means that the skills necessary to communicate with one another and to provide feedback are dependent on the person. In other words, respondent 11 mentions: *'To certain colleagues you tell things more easily. If I am very busy, I notice that I can express my stress more easily to colleagues I have a good relationship with.'*

Discussion

In this section, the interpretations and explanations of the results will first be described. Moreover, the contribution to the knowledge, the practical implications, the limitations of the research and recommendations for future research will be discussed.

Job demands as barriers

To start with, there are various job demands that can function as barriers to job crafting. Legal obligations and task interdependence are barriers that can both be concluded after studying the existing theories and analyzing the interviews. In the first place, legal obligations hinder nurses in being totally flexible in adapting aspects within the work (Harbridge et al., 2022). Also, in the interviews it is confirmed that individuals cannot completely adopt their own ideas and initiatives into their work, as nurses have to work uniformly based on several mandatory protocols. Secondly, task interdependence can obstruct employees' ability to engage in a self-directed action of the work (Dust & Tims, 2019). Within the interviews, task interdependence is also seen as a barrier to job crafting. Respondents indicate that it does not motivate to be dependent on several colleagues, as this can hinder their own ability to continue their work. Barriers that were only mentioned in the interviews are lack of interest, work pressure and working in spare time. Lack of interest is mentioned multiple times by the respondents, while in the existing literature this is not known. A possible reason for this can be that a lack of interest in general is not motivating for people to participate in certain activities. It is not a specific barrier related to job crafting but also in other concepts it can often be seen as a barrier. The same applies to work pressure. Finally, working in spare time is mentioned in the interviews and not in the literature. In the literature, job crafting is about adapting things during the work and within the interviews nurses often have mentioned that there is time to engage in job crafting after working hours. Therefore, the literature and the respondents approach the concept of job crafting from different perspectives. The literature focusses on job crafting during the work and the respondents on job crafting after work in their spare time. However, too challenging job demands is a barrier that has only been mentioned in existing studies.

Job demands as facilitators

Experiencing an adequate level of challenging job demands and stress or a high workload are facilitators identified in both the literature and the interviews. According to the literature, when employees feel they have an adequate level of challenging job demands, it will stimulate them

to develop their individual knowledge and skills or attain more difficult goals (Tims et al., 2012). This is confirmed by the interviews, as respondents indicate that if there is time to engage in new extra tasks and to develop themselves, they are motivated to do so. However, respondents do express that this is only the case if there is time for it. The literature does not explicitly mention this time aspect. Other facilitators include stress and a high workload. When nurses experience stress or a high workload, they will try to minimize the negative emotional impact of the stressor or avoid the strain associated with it by reducing emotional or mental intensity of their work (Dust & Tims, 2019). This is in line with the results of the interviews which state that nurses are actively looking for new ways to reduce their work in order to deal with the high workload. However, the respondents approach this facilitator more as a job resource than a job demand, as they are looking for ways to reduce the high workload. Finally, interesting new projects is a facilitator which is only mentioned in the interviews. As mentioned before, being interested is not only a facilitator to job crafting, but employees in general will be motivated to engage in certain projects when they are interested in it. Therefore, it can possibly be a reason that interesting new projects is only mentioned in the interviews and not specific in the literature on job crafting.

Job resources as barriers

Conflicts between colleagues and lack of organizational support are barriers to job crafting mentioned in both the literature and the interviews. First, the literature states that a conflict between colleagues can arise when someone differs from the regular standards and if individuals differ in their interests and beliefs (Tims et al., 2015). In contrast, the respondents elaborate more on the fact that mutual frustration can arise when not everyone puts the same amount of effort into new initiatives. Therefore, there is a different focus on how conflicts between colleagues occur when comparing the literature and interview results. In addition, lack of organizational support is a barrier, as when employees feel a lack of organizational support, a feeling of not being appreciated can grow. This can lead to dissatisfaction and less commitment towards the organization (Kim et al., 2017; Harbridge et al., 2022). The interviews confirm this. When nurses feel a lack of organizational support, a feeling of not being taken seriously by the organization may be imminent.

Lack of job knowledge and experience, lack of social skill and lack of social support are barriers only mentioned in the interviews. Lack of job knowledge and experience is an aspect stated many times by the interviewees. Nurses can feel insecure when comparing with older and more

experienced colleagues. As a result, nurses are afraid of taking the lead in new projects and restrained behaviour can occur. However, this is an aspect that often recurred during the interviews, yet, it is not described in the literature. Besides, lack of social skill and lack of social support are also mentioned multiple times by the respondents yet not in literature. According to the nurses, it is not always easy to ask for or receive feedback. It really depends on the attitude colleagues adopt and the relationship they have with these colleagues. A possible reason that those three barriers are only mentioned in the interviews is that it is dependent per person. All people experience social support, social skills and job knowledge and experience to a different degree. Thus, it is more difficult to determine a general standard in the literature about when for example social support is good or bad. Moreover, lack of job resources is a barrier only mentioned in the literature. When employees have too few or no job resources at all, they cannot reduce the high job demands which will lead to not achieving work goals (Bakker et al., 2003).

Job resources as facilitators

Facilitators that have both been described in the literature and by the respondents are autonomy, self-efficacy and social skills. Firstly, job autonomy stimulates job crafting by signaling to employees that they have the freedom and opportunity to take initiative changes (Sekiguchi et al., 2017). The respondents confirm this by stating that when nurses feel that there is increased employee voice and the freedom to start new initiatives of one's own accord, this will influence the work behavior of these nurses. Secondly, self-efficacy is a facilitator which encourages employees to carry out a wider range of tasks and redefine their jobs. Within the interviews, self-efficacy is a facilitator that is mentioned many times, as nurses want to continuously develop themselves and start new initiatives as a result of the dynamic character of the healthcare sector. Thirdly, social skills enable employees to interact with others and to obtain valuable feedback (Sekiguchi et al., 2017). However, the interview results indicate that not all colleagues possess the right skills necessary at work, yet, these skills differ per person.

Moreover, job satisfaction, organizational support and social support are facilitators which are only mentioned in the interviews. Being totally satisfied with the job and employees have a feeling of pleasure while working is an important aspect appointed several times within the interview results. In addition, organizational support is stated in the interviews as a facilitator to job crafting, while lack of organizational support is seen as a barrier in the literature consulted. However, the lack of organizational support can lead to less commitment and dissatisfaction, nurses who feel a satisfactory amount of organizational support have a feeling

of being appreciated by the organization and are more likely to engage in job crafting. Social support is seen as a facilitator by the respondents, as the relationship with colleagues has to be good in order to dare ask for valuable feedback. However, lack of social support is also seen as a barrier by the respondents. Thus, organizational support and social support are facilitators that can be viewed from multiple perspectives and the degree to which they are perceived positively or negatively varies from person to person. Finally, motivating potential for employees and meaningful work are facilitators that are only mentioned in literature and not in the interviews.

Contribution to the knowledge

This study contributes to the literature on job crafting by providing a clear overview of how job demands and resources can be barriers and facilitators to job crafting in the healthcare sector. Research by Bakker (2018) and Baghdadi et al. (2021) state that limited research has been done into the barriers and facilitators of job crafting among nurses. There are many concepts that explain job crafting, yet, there are no specific barriers and facilitators known from previous research. This study has explored new barriers to and facilitators for job crafting based on the experiences and perceptions of nurses. Therefore, this study contributes to the existing literature by providing new knowledge as to which factors will obstruct or increase job crafting among nurses working in hospitals. This is in line with the research by Bakker (2018) which suggests that future research should examine the barriers and facilitators of job crafting for several healthcare workers. This research has filled this knowledge gap.

Practical implications

The practical implications of this study will be valuable for the management and department managers of healthcare institutions. For hospitals it is helpful to know which factors will increase job crafting, as job crafting can decrease several negative aspects of the work for nurses. Due to the high workload caused by staffing shortage within healthcare and by the strains of Covid-19, the mental health of nurses can be affected. Therefore, job crafting could be a means to achieve well-being among the nursing staff, as they can shape their job while managing personal needs (Saad & Ahmed, 2019). The management can for example deal with the staffing shortage by setting up a recruitment and selection campaign. Hiring new nurses will reduce the work pressure which may lead to nurses who have more time to engage in job crafting. Another way in stimulating job crafting is for example by the use of office hours. Nowadays, nurses see job crafting as an after-work activity, as during their work it is not possible to work on other things than their patients. Nurses want to engage in new initiatives,

yet, they do not want to devote their spare time to it. Therefore, it will be good for nurses when department managers will schedule office hours one day a week in which a nurse will have no patients. By doing so, the related nurse can work that day on new initiatives and innovations and participate in training sessions. Thereby, the hospital management should recognize the necessity of nurses to keep up with the dynamic character of the healthcare sector and to allow nurses to participate in new initiatives and educational programs that fit their interest.

Limitations of the research and recommendations for future research

In this study, a few limitations can be identified. The first limitation is the sample size. Only twelve interviews have been conducted and analyzed. Due to the little time available to conduct this research, there was no room to interview more participants, and it can be difficult to establish an objective overview of results based on only twelve interviews. For future research it will be good to focus on a larger sample, as the results will then be more representative and the higher number will allow for a more valid justification of new barriers and facilitators. Secondly, the sample size exists of five nurses who only graduated a year ago. These nurses have less experience and may not yet be aware of all the possibilities in terms of job crafting in their department. As a result, the findings may be less valuable than the answers of more experienced nurses. Thirdly, Covid-19 restrictions were a limitation to this study. Despite the fact that the lockdown was over during this research, its backlash meant that all interviews were conducted online via Zoom. As a result, contexts of answers may have been interpreted differently and the personal part omitted. For future research it would be a recommendation to interview nurses physically. By doing so, the attitude and atmosphere around the participant and its answers can be perceived. Fourthly, a limitation of this research is the interview guide which was preformulated by the supervisor of this study. As a result, not all data necessary for this research may have been obtained during the interviews. Therefore, valuable data can be missing in this study. Besides, all researchers had to ask the same questions as stated in the interview guide. On the one hand this was a good thing, as everyone could use each other's data. On the other hand, all researchers had different interests in asking questions that fit their own research best. Thus, the two interviews that were collected from other researchers may not contain all necessary data for this research. Finally, this research only focuses on the healthcare sector. For future research it can be valuable to investigate how job crafting can be enhanced in other sectors. Thereby, it is essential to look at the barriers and facilitators employees in other sectors cite as important and whether there are similarities between healthcare and other sectors.

Conclusion

This qualitative research aims to answer the following research question: “How can job demands and resources be barriers and facilitators to all dimensions of job crafting among nurses?” Within both the existing literature and twelve semi-structured interviews with nurses, the existing barriers and facilitators of job crafting are studied and new ones are discovered.

After conducting this research, it can be concluded that nurses do want to engage in job crafting, yet, there are always aspects that hinder this process. Nurses have to deal with a staffing shortage and the aftermath of Covid-19 which still affects the operations within hospitals. This research has found multiple barriers and facilitators to job crafting. At first there are various job demands that can function as barriers to job crafting, namely task interdependence, too challenging job demands, legal obligations, working in spare time, work pressure and lack of interest. However, there are also job demands that function as facilitators to job crafting. These job demands are an adequate level of job demands, stress or a high workload and interesting new projects. Second, there are multiple job resources that can function as barriers and facilitators to job crafting. Job resources that are barriers to job crafting are conflicts between colleagues and a lack of the following aspects: organizational support, social support, social skills, job resources, and job knowledge and experience. On the other hand, job resources that are facilitators to job crafting are job autonomy, self-efficacy, social skills, motivating potential for employees, meaningful work, social support, job satisfaction and organizational support. In conclusion, nurses will be motivated to engage in job crafting because of their own need to stay informed, as the healthcare sector is a dynamic and innovative sector. Nurses themselves, have to be interested in new initiatives, projects and education to eventually engage in job crafting. Attending new educational programs and training sessions give nurses a sense of competence and security. However, it is important that nurses set limits for their selves in order to stay satisfied over the job. The work life balance must be well controlled, as nurses do not feel like working in spare time. Overall, job demands and resources can function in multiple ways as both barriers and facilitators to job crafting in the work environment of nurses.

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Appendices

Appendix A. Interview guide – English

Thank you for agreeing to participate in this study. In the following 30 minutes or so I will ask you a set of questions that revolve around your tasks at work and the way you perform them.

1. Can you please describe for me the nature of your job? (outpatient/inpatient nurse)
2. Can you describe to me your daily tasks in terms of:
 - The tasks that you do that involve interacting with other individuals (colleagues and patients)
 - The tasks that you conduct alone
3. Sometimes we like to add our own “touch” to our jobs and the way we conduct the tasks that fall under it. Can you tell me how do you think you do your job differently from others in comparable jobs?
4. Have you ever heard about the concept of job crafting? [even if the participant has heard of the concept of job crafting before, please provide him or her with the definition below]

Job crafting includes the set of changes that employees engage in at work in order to achieve a better match between their needs and preferences and their jobs. Employees who engage in job crafting shape their job demands and resources in order to create a work environment that enables them to perform better in.

JC can be divided into the four dimensions outlined in the table below:

| |
|--|
| Increasing Social Job Resources |
| <i>I ask my supervisor to coach me</i> |
| <i>I ask whether my supervisor is satisfied with my work</i> |
| Increasing Structural Job Resources |
| <i>I try to develop my capabilities</i> |
| <i>I try to learn new things at work</i> |
| Decreasing Hindering Job Demands |
| <i>I manage my work so that I try to minimize contact with people whose problems affect me emotionally</i> |
| <i>I make sure that my work is mentally less intense</i> |

| |
|---|
| Increasing Challenging Job Demands |
| <i>When an interesting project comes along, I offer myself proactively as project co-worker</i> |
| <i>When there is not much to do at work, I see it as a chance to start new projects</i> |

5. I am now going to go through each of the dimensions that I mentioned and ask you specific questions about them:

Increasing Social Job Resources

- Can you please elaborate on the possibility of engaging in this dimension in your job context?
- What do you think are the facilitators of increasing your social job resources in your job context?
- What do you think are the barriers to increasing your social job resources in your job context?
- What impact do you think COVID-19 has had on increasing your social job resources in your job context?

Increasing Structural Job Resources

- Can you please elaborate on the possibility of engaging in this dimension in your job context?
- What do you think are the facilitators of increasing your structural job resources in your job context?
- What do you think are the barriers to increasing your structural job resources in your job context?
- What impact do you think COVID-19 has had on increasing your structural job resources in your job context?

Increasing Challenging Job Demands

- Can you please elaborate on the possibility of engaging in this dimension in your job context?
- What do you think are the facilitators of increasing your challenging job demands in your job context?
- What do you think are the barriers to increasing your challenging job demands in your job context?

- What impact do you think COVID-19 has had on increasing your challenging job demands in your job context?

Decreasing Hindering Job Demands

- Can you please elaborate on the possibility of engaging in this dimension in your job context?
- What do you think are the facilitators of decreasing your hindering job demands in your job context?
- What do you think are the barriers to decreasing your hindering job demands in your job context?
- What impact do you think COVID-19 has had on decreasing your hindering job demands in your job context?

6. Can you please provide me with some job crafting examples that you have initiated in your job or you have witnessed someone initiate in their job and that you thought were effective/ successful?

You yourself:

- What did you do?
- What was the reason behind this JC behavior?
- How did this JC behavior make you feel?
- What was the outcome of this JC behavior?

Another person:

- What did they do?
- What was the reason behind this JC behavior?
- How did this JC behavior make them feel?
- What was the outcome of this JC behavior?

7. Can you please provide me with some job crafting examples that you have initiated in your job or you have witnessed someone initiate in their job and that you thought were ineffective/ unsuccessful?

You yourself:

- What did you do?
- What was the reason behind this JC behavior?

- How did this JC behavior make you feel?
- What was the outcome of this JC behavior?

Another person:

- What did they do?
- What was the reason behind this JC behavior?
- How did this JC behavior make them feel?
- What was the outcome of this JC behavior?

Appendix B. Interview guide – Dutch

Bedankt dat u deel wil nemen aan dit onderzoek. In de volgende 30 tot 45 minuten ga ik u een aantal vragen stellen wat betreft uw taken die u heeft op uw werk en de manier waarop u ze uitvoert.

1. Kunt u de aard van uw werk beschrijven? (klinische verpleegkundige (inpatient – opgenomen in het ziekenhuis)/ poliklinische verpleegkundige (outpatient – niet opgenomen in het ziekenhuis))

2. Kunt u uw dagelijkse taken beschrijven in termen van:

- De taken die u uitvoert waarbij u interactie hebt/ in contact komt met andere personen (zoals collega's en patiënten)?
- De taken die u alleen/zelfstandig uitvoert?

3. Soms willen we onze eigen 'touch' / 'draai' aan ons werk geven en de manier waarop we de taken uitvoeren die daaronder vallen. Kunt u vertellen hoe u denkt dat u uw werk anders doet/uitvoert dan anderen in vergelijkbare functies

4. Heeft u ooit eens gehoord van het concept job crafting?

[zelfs als de deelnemer al eerder van het concept job crafting heeft gehoord, geef hem of haar dan de onderstaande definitie]

[Job crafting (JC) omvat een reeks van veranderingen die werknemers op het werk doorvoeren om een betere match te bereiken tussen hun behoeften en voorkeuren en hun baan. Werknemers die aan job crafting doen, geven vorm aan hun functievereisten- en middelen een

werkomgeving te creëren waarin ze beter kunnen presteren/ *een werkomgeving die het mogelijk maakt/ de mogelijkheid biedt om beter te kunnen presteren/ beste uit jezelf haalt.*]

Job crafting kan verdeeld worden in vier verschillende dimensies, uitgelegd in de tabel hieronder.

| |
|---|
| Increasing Social Job Resources |
| <i>Ik vraag mijn supervisor om mij te coachen</i> |
| <i>Ik vraag aan mijn supervisor of hij of zij tevreden is met het werk dat ik uitvoer</i> |
| Increasing Structural Job Resources |
| <i>Ik probeer mijn capaciteiten te ontwikkelen</i> |
| <i>Ik probeer nieuwe dingen te leren op werk</i> |
| Decreasing Hindering Job Demands |
| <i>Ik richt mijn werk zo in dat ik zo weinig mogelijk contact heb met mensen wiens problemen mij emotioneel raken</i> |
| <i>Ik zorg ervoor dat mijn werk mentaal minder intens is</i> |
| Increasing Challenging Job Demands |
| <i>Als er een interessant project langskomt, bied ik me proactief aan als projectmedewerker</i> |
| <i>Als er niet veel te doen is op het werk, zie ik dat als een kans om nieuwe projecten op te starten</i> |

5. Ik ga nu elk van de genoemde dimensies bespreken en u daarover specifieke vragen stellen:

Increasing Social Job Resources

- Kunt u ingaan op de mogelijkheid om aan deze dimensie deel te nemen in uw werkomgeving? Dit te omschrijven?
- Wat zijn volgens u de **ondersteunende/bevorderende** factoren in het vergroten van uw sociale job resources in uw werkomgeving?
- Wat zijn volgens u de belemmerende factoren om uw sociale job resources in uw werkomgeving te vergroten?
- Welke impact heeft COVID-19 volgens u gehad op het vergroten van uw sociale job resources in uw werkomgeving?

Increasing Structural Job Resources

- Kunt u ingaan op de mogelijkheid om aan deze dimensie deel te nemen in uw werkomgeving? Dit te omschrijven?

- Wat zijn volgens u de **ondersteunende/bevorderende** factoren in het vergroten van uw structurele job resources in uw werkomgeving?
- Wat zijn volgens u de belemmerende factoren om uw structurele job resources in uw werkomgeving te vergroten?
- Welke impact heeft COVID-19 volgens u gehad op het vergroten van uw structurele job resources in uw werkomgeving?

Increasing Challenging Job Demands

- Kunt u ingaan op de mogelijkheid om aan deze dimensie deel te nemen in uw werkomgeving? Dit te omschrijven?
- Wat zijn volgens u de **ondersteunende/bevorderende** factoren in het vergroten van uw uitdagende job demands in uw werkomgeving?
- Wat zijn volgens u de belemmerende factoren om uw uitdagende job demands in uw werkomgeving te vergroten?
- Welke impact heeft COVID-19 volgens u gehad op het vergroten van uw uitdagende job demands in uw werkomgeving?

Decreasing Hinderering Job Demands

- Kunt u ingaan op de mogelijkheid om aan deze dimensie deel te nemen in uw werkomgeving? Dit te omschrijven?
- Wat zijn volgens u de **ondersteunende/bevorderende** factoren in het verminderen van uw belemmerende job demands in uw werkomgeving?
- Wat zijn volgens u de belemmerende factoren om uw belemmerende job demands in uw werkomgeving te verminderen?
- Welke impact heeft COVID-19 volgens u gehad op het verminderen van uw belemmerende job demands in uw werkomgeving?

6. Kunt u mij een aantal voorbeelden geven van job crafting die u in uw werk hebt toegepast of die u iemand in zijn werk hebt zien toepassen en die volgens u **doeltreffend/succesvol** waren?

Over jezelf:

- Wat heb je gedaan?
- Wat was de reden achter dit JC-gedrag?
- Hoe voelde je je bij dit JC-gedrag?
- Wat was het resultaat van dit JC-gedrag?

Over de ander:

- Wat hebben zij gedaan?
- Wat was de reden achter dit JC-gedrag?
- Hoe voelden ze zich door dit JC-gedrag?
- Wat was het resultaat van dit JC-gedrag?

7. Kunt u mij een aantal voorbeelden geven van job crafting die u in uw werk hebt toegepast of die u iemand in zijn werk hebt zien toepassen en die volgens u **niet doeltreffend/ niet succesvol** waren?

Over jezelf:

- Wat heb je gedaan?
- Wat was de reden achter dit JC-gedrag?
- Hoe voelde je je bij dit JC-gedrag?
- Wat was het resultaat van dit JC-gedrag?

Over de ander:

- Wat hebben zij gedaan?
- Wat was de reden achter dit JC-gedrag?
- Hoe voelden ze zich door dit JC-gedrag?
- Wat was het resultaat van dit JC-gedrag?

Einde

- Heeft u nog vragen?
- Heeft u nog tips voor mij?

Appendix C. Initial template

| | | |
|---|------------------|---|
| <p>1. Job demands</p> <p><i>Physical, social or organizational aspects of the job that require sustained physical or mental effort, so the job requires energy investment.</i></p> | 1.1 Barriers | 1.1.1 Task interdependence |
| | | 1.1.2 Too challenging job demands |
| | | 1.1.3 Legal obligations |
| | 1.2 Facilitators | 1.2.1 Adequate level of challenging job demands |
| | | 1.2.2 Stress or a high workload |
| <p>2. Job resources</p> <p><i>Physical, physiological, social or organizational aspects of the job that may be functional in achieving work goals, may reduce job demands, can be used to deal with complex job demands, have an intrinsic and extrinsic motivational potential and stimulate personal growth and development</i></p> | 2.1 Barriers | 2.1.1 Lack of job resources |
| | | 2.1.2 Lack of organizational support |
| | | 2.1.3 Conflicts between colleagues |
| | 2.2 Facilitators | 2.2.1 Job autonomy |
| | | 2.2.2 Self-efficacy |
| | | 2.2.3 Social skills |
| | | 2.2.4 Motivating potential for employees |
| | | 2.2.5 Meaningful work |

Appendix D. Example of coding scheme

| Coding Scheme | | | | | |
|---------------|--|---------------------------------------|--------------------------------------|---------------------------|---------------------------|
| Respondent | Interview quote | Preliminary code | Initial template theme | General high order code 1 | General high order code 2 |
| R1 | Maar dat is meer omdat je iets in zijn geheel anders moet doen en misschien ook te maken heeft met de levensfase waarin je zit. Het is nu, het HBO opleiden is nu hip en dat zie ik mezelf niet doen met drie kleine kinderen thuis. Dus dat is misschien ook wel een beetje een dingetje. Je hebt ook met zoveel verschillende mensen te maken en levensfasen enzovoort | Stage of life you are in | Lack of job knowledge and experience | Job resources | Barrier |
| R1 | Ik vind dat je niet stil moet blijven staan en je moet blijven ontwikkelen en blijven denken. Dat is wat ik zeg, de zorg staat nooit stil dus ik vind dat je daarin mee moet en daarin deel moet nemen om het zo goed mogelijk voor andere voort te kunnen zetten | Ongoing development | Self-efficacy | Job resources | Facilitator |
| R1 | Dat niet altijd de inzet van iedereen even groot is, waardoor het moeilijk is om dingen in te voeren. Ja dat is het denk ik wat me het meeste zou belemmeren. | Unequal commitment between colleagues | Conflicts between colleagues | Job resources | Barrier |
| R1 | Dat het soms lastiger is en dat je je soms moet verklaren. Iedereen heeft altijd wel een mening ergens over en dat is dan soms best lastig. En ook als mensen zichzelf dan niet inzetten en toch een mening hebben over iets waar andere mensen over nagedacht hebben dat vind ik dan wel een belemmering ja. | Disagreements between colleagues | Conflicts between colleagues | Job resources | Barrier |

| | | | | | |
|----|---|--------------------------------|-----------------------|---------------|-------------|
| R2 | Nou ik vind het zelf altijd wel belangrijk, ik wil graag op de hoogte blijven van alles want de ontwikkelingen die zijn altijd zo veel en als er een keer weer wat veranderd dan ben ik zelf wel zo leergierig van oh is dat nou weer zus of zo dus dan zoek ik dat dan weer uit. Dus ja ik wil dat altijd zelf wel weten. | Stay up to date as an employee | Self-efficacy | Job resources | Facilitator |
| R2 | maar ik heb ook collega's die dat dan dus niet doen maar je probeert elkaar ook wel een beetje te stimuleren door te zeggen van goh had jij dat ook gelezen of wat vind jij daarvan? En de afdelingsmanager moet dat ook wel in de gaten houden hoe mensen daar in staan en dat als ze dat niet veel doen in werkgroepen of in andere dingen. | Motivate each other at work | Social support | Job resources | Facilitator |
| R2 | Ja soms als het echt heel erg druk is, tijdsdruk is altijd wel een dingetje dat je gewoon weinig tijd hebt en dat je het allemaal in je vrije tijd moet gaan doen en ja dat doen de meeste niet. Die hebben zo iets van we willen wel dat doen maar dat je dan of die uren door kan schrijven of dat je zeg maar dat in werk tijd dat kan doen. Maar in werk tijd dat is lastig omdat het altijd wel druk is. | Time pressure | Work pressure | Job demands | Barrier |
| R2 | Dus dat is wel eens belemmerend dat je dan veel in je vrije tijd moet gaan doen of ervoor terug moet komen ook voor die scholingen dan moet toch wel eens op je vrije dagen terugkomen, maar ja het hoort er wel een beetje bij met dat onregelmatig werken dat is gewoon lastig om dat in te plannen. | Working in spare time | Working in spare time | Job demands | Barrier |

| | | | | | |
|----|---|-----------------------|--------------------------------|---------------|-------------|
| R2 | Ja dat niemand luistert naar je of dat je zei van ik moet nu echt 1 dag even vrij dat daar ook wel echt naar werd geluisterd. Dat je dan wel echt een dag vrij kreeg om echt eventjes op adem te komen. En als dat niet zou gebeuren en ze zeggen nee dat kan niet je moet gewoon door dat zou wel een belemmerende factor zijn. | Not being listened to | Lack of organizational support | Job resources | Barrier |
| R3 | Het is niet zo dat ik het gevoel heb dat ik compleet mijn eigen manier van zorgen kan verlenen. I: Nee komt dat dan ook door de protocollen waarmee jullie moeten werken? R3: Ja en ook dat. Ik kan niet zomaar als ik zeg, bij wijze van, dan ga ik even in medische termen, een kind heeft echt forse koorts daar moeten wij normaal wat mee. En stel ik wil een beetje afwachten, dat kan eigenlijk helemaal niet bij een temperatuur van 38,9 want dan moet je wat. Dus het is niet dat ik compleet, dat ik alleen maar individueel handel. | Obligations at work | Legal obligations | Job demands | Barrier |
| R3 | Ja we werken best wel nauw met onze teamleiders. Dat zijn mensen die ooit verpleegkundige waren maar uiteindelijk een meer management rol op zich hebben genomen. En je kan eigenlijk in principe continue de hele dag langs om te vragen, of om vinger aan de pols te willen houden of het goed gaat, of je dingen anders aan had kunnen pakken, of daar een goed antwoord terug komt is per persoon anders. Maar er is zeker een mogelijkheid om laag drempelig bij je leiding te achterhalen hoe je het doet of hoe zij vinden hoe jij het doet. | Accessible feedback | Social support | Job resources | Facilitator |

| | | | | | |
|----|--|---------------------------|-----------------------|---------------|-------------|
| R5 | Nou ja weet je je merkt het gauw genoeg door toch wel de non-verbale kant, dan zijn er echt wel collega's die je een beetje vragend aan kunnen kijken, die kunnen denken wat bedoelt ze nou. En eigenlijk ook door wie ik ben vraag ik dan ook joh snap je wat ik allemaal bedoel, wil je nog extra uitleg van me, waar loop je tegen aan, ja daar ben ik altijd wel heel direct en open in. | Proactive personality | Social skills | Job resources | Facilitator |
| R5 | Ik denk dat dat gewoon zit in de persoon wie ik ben. | Personality traits | Social skills | Job resources | Facilitator |
| R5 | Nou ja er zit soms echt wel een belemmering in, niet om het te vragen maar wel om het te horen. Met name als men vindt dat ik te direct ben, te in mijn communicatie soms wat agressief kan overkomen. Zo bedoel ik het helemaal niet maar ja daar kan ik niet zoveel... ja soms raakt je dat wel als je dat dan steeds weer terugkrijgt. | Coming across differently | Lack of social skills | Job resources | Barrier |
| R5 | doordat ik ook meerdere functies heb, heb ik gewoon ook minder tijd en daardoor dat ik ook denk van ja ik wil van alles bijblijven en doen maar laat het me op mijn eigen tijd doen en laat me ook meer dingen lezen en dan zie je nog wel eens dat je daar de tijd voor hebt tijdens nachtdiensten of wat rustigere diensten. | developing at my own pace | Self-efficacy | Job resources | Facilitator |
| R5 | En ja weet je op het moment dat je hier op de afdeling het echt heel druk is qua bevellingen dan weet je gewoon dat het niet gaat lukken. En dan is zeker de tijd de belemmerende factor. | Work/time pressure | Work pressure | Job demands | Barrier |

Appendix E. Final template

| | | |
|---|------------------|---|
| <p>1. Job demands</p> <p><i>Physical, social or organizational aspects of the job that require sustained physical or mental effort, so the job requires energy investment.</i></p> | 1.1 Barriers | 1.1.1 Task interdependence |
| | | 1.1.2 Too challenging job demands |
| | | 1.1.3 Legal obligations |
| | | 1.1.4 Working in spare time |
| | | 1.1.5 Work pressure |
| | | 1.1.6 Lack of interest |
| | 1.2 Facilitators | 1.2.1 Adequate level of challenging job demands |
| | | 1.2.2 Stress or a high workload |
| | | 1.2.3 Interesting new projects |
| <p>2. Job resources</p> <p><i>Physical, physiological, social or organizational aspects of the job that may be functional in achieving work goals, may reduce job demands, can be used to deal with complex job demands, have an intrinsic and extrinsic motivational potential and stimulate personal growth and development</i></p> | 2.1 Barriers | 2.1.1 Lack of job resources |
| | | 2.1.2 Lack of organizational support |
| | | 2.1.3 Conflicts between colleagues |
| | | 2.1.4 Lack of job knowledge and experience |
| | | 2.1.5 Lack of social support |
| | | 2.1.6 Lack of social skill |
| | 2.2 Facilitators | 2.2.1 Job autonomy |
| | | 2.2.2 Self-efficacy |
| | | 2.2.3 Social skills |
| | | 2.2.4 Motivating potential for employees |
| | | 2.2.5 Meaningful work |
| | | 2.2.6 Social support |
| | | 2.2.7 Job satisfaction |
| | | 2.2.8 Organizational support |

INFORMATION AND CONSENT FORM

You are invited to participate in a research project in which we explore nursing work behaviors in hospital settings. This research project is being conducted by Rawan Ghazzawi and Janneke Gebbink, at the Institute for Management Research at Radboud University. The procedure involves being interviewed. The questions concern nursing work behaviors in hospital settings. The interview will take approximately 30-40 minutes. The interview will be audiotaped. Your contact data not be collected.

Confidentiality of the research data

The research data will be made anonymous/ pseudonymized and safely stored according to the research data management guidelines of Radboud University and conform General Data Protection Regulation. The collected data will remain confidential and anonymous and in no way will the answers that you provide be linked to you. As soon as possible, any personal data will be deleted. The researchers involved in this study, will use the research data for academic publications and presentations. The data will not be used for other studies, unless we got your explicit permission to do so. For research integrity purposes, the research data will be accessible to the academic community for a period of at least 10 years.

Voluntary participation

Your participation in this research is voluntary. This means that you can withdraw your participation and consent at any time during the data collection period, without giving a reason. Even up to six weeks after participating you can have your research data removed, by sending a request to rawan.ghazzawi@ru.nl.

Compensation

Thank you for participating. You will not receive payment for participation in this study. Your participation helps to improve knowledge about nursing work behaviors in hospital settings.

More information

Should you want more information on this research study, now or in future, please contact: *Rawan Ghazzawi* (email: rawan.ghazzawi@ru.nl; address: Elinor Ostrom Building, room 03.611) or *Janneke Gebbink* (email: janneke.gebbink@ru.nl)

Should you have any complaints regarding this research, please contact the researcher *or*

Contact the confidential Advisors Academic Integrity via email: vertrouwenspersonen@ru.nl

or

Contact the Committee Scientific Integrity of Radboud University. The committee's secretary is mr. M. Steenbergen, (m.steenbergen@bjz.ru.nl or 024 3611578) Executive and Legal Affairs.

More information on the Committee Scientific Integrity can be found here:

<https://www.ru.nl/english/research/other-research/academic-integrity/>

CONSENT: Please select your choice below.

Selecting "Agree" below indicates that:

- you have taken note of and you understand this information
- you voluntarily agree to participate
- you are at least 18 years of age

If you do not wish to participate in the research study, please decline participation by selecting "I do not agree".

Do you agree to participate?

I agree

I do not agree

Do you agree to have the interview recorded?

I agree