JOB CRAFTING AMONG NURSES

The role of job autonomy in job crafting engagement among nurses

Radboud Universiteit

Master's Thesis Strategic Human Resources Leadership
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Date: June 13, 2022

Abstract

Aim: This explorative qualitative research aims to understand how perceived job autonomy facilitates versus hinders job crafting engagement among nurses.

Background: The hospital environment has been rapidly changing in response to massive uncertainty and unpredictability in the health care sector, which could negatively affect nurses' job attitudes towards their jobs. Job crafting can act as a strategy to retain and attract nurses in these uncertain and unpredictable times.

Methods: A qualitative explorative research design was adopted, where 13 nurses, who work in Dutch hospitals, were interviewed using semi-structured interview protocols. Template analysis was applied for data analysis.

Results: Nurses perceived high levels of job autonomy regarding the operational level, which facilitates job crafting engagement. Nurses perceive having the freedom and opportunity to align their work with their preferences and needs and handle job demands. Nurses perceive a lack of job autonomy concerning the tactical and strategic organizational aspects, which hinders engagement in job crafting. Nurses perceive they do not have the freedom to modify aspects of their work and are not capable of dealing with job demands. In addition, nurses have no freedom to decide with whom to work, which can be stressful.

Conclusion: Perceiving high levels of job autonomy facilitates job crafting engagement among nurses since they have the freedom and opportunity to make their work their own and deal with job demands. Perceiving a lack of job autonomy hinders engagement in job crafting among nurses since they have no freedom to match their work with their preferences and needs.

Implications for Nursing Management: It is recommended that the management of hospitals create an attractive environment where there are freedom and opportunities for nurses to shape a work environment that enables nurses to perform better while maintaining standard healthcare procedures.

KEYWORDS:

Nursing | Dutch nurses | Job crafting | Job autonomy | Facilitators | Barriers | Netherlands

Introduction

Nurses are crucial professionals in the healthcare sector whose job attitudes are closely linked to patient health outcomes (Ko, 2013). In organizations where nurses have positive attitudes toward their jobs, nurses carry out high-quality nursing care, where turnover and healthcare costs are reduced (Shusha, 2014). Currently, the hospital environment has been rapidly changing in response to massive uncertainty and unpredictability in the health care sector (Ko et al., 2018), which could negatively affect nurses' job attitudes towards their jobs (van de Pasch, 2019; Vermeulen, 2012). In these contexts, job crafting (JC) has attracted enlarged attention in the nursing profession (Chang et al., 2020), where job crafting enhances the positive job attitudes of nurses towards their job and could act as a strategy to retain and attract nurses (Bakker et al., 2012; Dierdorff & Jensen, 2018; Blanco-Donoso et al., 2017).

Job crafting is conceptualized as a form of proactive behavior that implicates employees actively altering their job's characteristics, aiming to fit better the employee's needs and preferences and their work (Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001). Job crafting is attractive for health care organizations since there are many positive outcomes linked to job crafting, such as quality of care (Baltesen, 2021; Yepes-Baldó et al., 2018), job satisfaction (Wrzesniewski & Dutton, 2001), organizational commitment (Ghitulescu et al., 2007), and physiological well-being (Berg et al., 2010). Therefore, exploring job crafting in the era of nursing is crucial (Ghazzawi et al., 2021). This study explores the perceptions of health care professionals, especially nurses, since well-designed work environments are not only vital to nurses but also indirectly affect the patients (Prins et al., 2009).

When a nurse has engaged in job crafting or is planning to do so, particular barriers and facilitators can be perceived by the nurse, where barriers hinder engagement in JC and facilitators promote engagement in JC (Bakker, 2018; Tims & Bakker, 2010; van der Heide, 2012). Tims and Bakker (2010) assumed that job autonomy could be a facilitator and a barrier to job crafting engagement in general. Harbridge et al. (2022), who have been the only researchers investigating barriers and facilitators of JC within nursing, also found that job autonomy could facilitate and hinder JC engagement. However, both studies did not provide additional insights beyond indicating that job autonomy hinders or facilitates JC. This demonstrates that there is a research gap within the existing literature. The current research fills this gap by exploring how perceived job autonomy facilitates versus hinders engagement in job crafting among nurses.

Job autonomy is a complicated and negative factor in the nursing profession, where the own options for nurses to arrange their work are undervalued aspects of their functions within

the healthcare sector (dos Santos et al., 2015; Rutgers, 2021; Santo et al., 2010). Limited job autonomy is one of the major reasons nurses leave their jobs (Sinclair, 2020). This is a problematic development given the health-related crises that society is going through, partly due to covid-19 (Sahay & Dwyer, 2021), where the demand for healthcare professionals continues to increase, which in the long run can become a social problem (NOS, 2022).

Although that job autonomy is limited within nursing (Amini et al., 2015), this might be distinct from what nurses experience (Hackman & Lawler, 1971). The study by Manal et al. (2014) found that more than half of nurses perceive having job autonomy.

It is practically relevant to conduct this study since the management of hospitals could apply the insights to create an attractive working environment, where there is freedom and opportunity for nurses to shape a work environment that enables nurses to perform better in. This could have an impact on retaining and attracting healthcare professionals (Blanco-Donoso et al., 2017; de Groot & van der Mark, 2020; Sinclair, 2020) and guarantee that nurses have positive job attitudes toward their job, which benefits the quality of the care (Ko et al., 2018; Yepes-Baldó et al., 2018).

The current study expands the comprehension of job crafting theoretically by providing insights into how perceived job autonomy facilitates versus hinders job crafting engagement among nurses. In addition, the current study contributes to the demand for international nursing studies that urge novel research on job autonomy in nursing literature (dos Santos et al., 2015). This will result in scientific outcomes that propose future research suggestions and allows scholars to develop theory. Accordingly, the following research question is formulated: *''How does perceived job autonomy facilitate versus hinder job crafting engagement among nurses?''*

Thesis outline

Firstly, the relevant concept and theories of job crafting and job autonomy are discussed within the theoretical framework. Subsequently, the research methodology is explained, incorporating the methodological approach and a detailed account of how the research is conducted, including; sample, data collection, data analysis, and quality criteria. Moreover, research ethics are discussed in this section. After that, the study's findings are presented. Finally, the discussion is presented, where the interpretation of the results, theoretical contribution, practical implications, limitations, directions for future research, conclusion, and reflexivity are discussed.

Theoretical framework

Job crafting in the context of nursing

Nurses' daily work can be stressful; therefore, nurses must create a comfortable working environment where they can unite their preferences and needs with their work (Bacaksiz et al., 2017). Nurses who craft their jobs are more engaged and nurses with a higher level of engagement might be more enthusiastic about functioning, serve out patient-centered care, and perform a higher work efficiency (Naruse et al., 2013; Tims et al., 2012).

The concept of job crafting was first conceptualized by Wrzesniewski and Dutton (2001) as the cognitive and physical changes individuals make in their work to align the job with the individual's personal characteristics, preferences, and needs without altering the core of their job (Bruning & Campion, 2018; Lazazzara et al., 2020). The current study follows the Job Demands-Resources (JD-R) model to job crafting since the JD-R model is theoretically widely accepted, studied, and most commonly used as a scale to measure JC in the literature (Bakker & Demerouti, 2007; Rudolph et al., 2017; Tims et al., 2012). Job demands refer to the physical, psychological, social, or organizational demands of work and require psychological and/or psychological effort linked to psychological and/or physiological costs (Schaufeli & Bakker, 2004). Job resources are social, psychological, physical, and organizational resources aiming to achieve work goals, promote development and personal growth, and reduce job demands (Schaufeli & Bakker, 2004).

Tims and Bakker (2010) adopted the JD-R model to guide job crafting research, which consists of four job crafting dimensions: (I) Increasing Social Job resources, (II) Increasing Structural Job resources, (III) Increasing Challenging Job Demands, and (IV) Decreasing Hindering Job Demands (Rudolph et al., 2017). Employees apply these dimensions to change their level of job resources and job demands to converge them with their own preferences, needs, and abilities, resulting in job crafting engagement (Rudolph et al., 2017; Tims & Bakker, 2010).

(I) Increasing Social Job Resources incorporates the social aspects of work, such as emotional and instrumental support from colleagues and supervisors (Bakker & Demerouti, 2018; Schaufeli & Bakker, 2004; Tims et al., 2013; Xanthopoulou et al., 2009). These social job resources aim to be functional in reaching work purposes, decreasing job demands and the corresponding psychological costs and promoting personal growth (Demerouti et al., 2000; Demerouti et al., 2001). Increasing social job resources implies asking for feedback, advice, and support from supervisors and colleagues to reach personal goals (Tims & Bakker, 2010; Tims et al., 2012).

(II) Increasing Structural Job Resources refers to the design, content, and method of the job aspects, including performing behaviors that endeavor to increase the autonomy, skill, variety, creativity, development, and other motivational characteristics of the job to reach work goals (Tims & Bakker, 2010; Tims et al., 2012). It is about: what gets done, when it gets done, how it gets done, in what order it gets done, who is involved, and what tools and equipment are needed (Bakker & Demerouti, 2018; Schaufeli & Bakker, 2004; Tims et al., 2013; Xanthopoulou et al., 2009).

When employees feel that their job is not offering them enough opportunities to use all their skills, employees can create more challenges at their work (Tims & Bakker, 2010). Employees may enhance their job demands by volunteering for interesting project groups, taking over tasks from their supervisor, or expanding tasks (Tims & Bakker, 2010). These demands are called *(III) Increasing Challenging Job Demands* (LePine et al., 2005), which do not deplete someone's energy and are not linked to adverse work outcomes such as dissatisfaction and ill health (Tims & Bakker, 2010).

Rudolph et al. (2017) define (*IV) Decreasing Hindering Job Demands* as ''performing behaviors that aim to minimize physical, cognitive, and emotional demands, such as reducing workload and work-family conflict'' (p.116). The employee is, in this way, capable of reaching work goals without performing under too much strain and therefore staying healthy (Cavanaugh et al., 2000). These demands are called *hindering job demands* since they impede employees from achieving set goals (Cavanaugh et al., 2000). Examples are concerns about job security, role ambiguity, and role conflict (LePine et al., 2005). Similarly, increases in job demands might fuel stressors in employees, which goes along with feelings of anger and anxiety (Nalis, 2017). Employees can decrease the level of job demands by asking their colleagues to assist them with their tasks or by lowering the number of interplays they have with demanding patients or colleagues (Tims & Bakker, 2010).

In short, job crafting is a crucial concept within nursing since it is linked to several positive outcomes for nurses, management of hospitals, and patients (Tims & Bakker, 2010). Nevertheless, how does job autonomy here come into play? What is the role of job autonomy in the context of job crafting? How is job autonomy conceptualized in the literature? What means job autonomy for nursing? How do nurses perceive job autonomy? The following sections give attention to these questions.

Job autonomy in the context of nursing

Job autonomy in the nursing literature was introduced as having the opportunity in a profession, being independent, controlling work-related activities, and self-directing (Blanchfield & Biordi, 1996; Dempster, 1990; Finn, 2001; Foley, 2002). Job autonomy is related to improved patient outcomes (Weston, 2010). Therefore, it should be emphasized that job autonomy needs to be maximized for nurses within the permitted scope of their work, where hospital executives and nurse managers need to monitor nurses' perceived job autonomy (Ko et al., 2018).

The conservation of resources (COR) theory by Hobfoll (1989) helps by exploring the role of job autonomy in JC engagement. This theoretical framework states that it is only possible to deal with high job demands if someone possesses the resources that support these demands (Hobfoll, 1989). High levels of job autonomy are seen in the JD-R theory as a job resource since high levels of job autonomy provide opportunities that could act as a buffer to deal with job demands (Karasek, 1998; Schaufeli & Bakker, 2004; van der Doef & Maes, 1999). Therefore, having the freedom to redesign tasks, conditions, or the overall purpose of the work gives one the possibility to make their job their own and deal with the negative effects of job demands (Braverman, 1974; Rogers, 1995). Job autonomy provides one with awareness, information, freedom, and opportunities to adjust aspects of their work based on their abilities and preferences (Lyons, 2008; Sekiguchi et al., 2017; Tims et al., 2013). If one feels they have no freedom or opportunity to craft their job, they are less likely to attempt to change some aspects of their jobs (Tims & Bakker, 2010). In turn, a lack of job autonomy acts as a job demand since there is no freedom or opportunity to align the work with preferences and needs, where these structural restrictions do limit job crafting possibilities (Wrzesniewski & Dutton, 2001). A lack of job autonomy leads to high-stress levels and can result in negative job attitudes of one's towards their job (Bakker & Demerouti, 2007).

Job autonomy is a complex phenomenon to conceptualize and operationalize (Breaugh, 1985). However, a widely used conceptualization of job autonomy is ''the degree to which a job provides freedom, independence, and discretion to the employee in scheduling their work and in determining the procedures to be used in carrying it out'' (Hackman & Oldham, 1976, p.162; Wrzesniewski & Dutton, 2001). Breaugh (1985) identified three work autonomy dimensions to operationalize job autonomy. Firstly, *work method autonomy* entails how much freedom and self-direction individuals have regarding the procedures (methods) they utilize in their work and what impact this has (Breaugh, 1985). Secondly, *work scheduling autonomy* assesses how much workers feel they have control over planning their work activities and

scheduling (Breaugh, 1985). Finally, *work criterion autonomy* addresses to what extent workers can modify or choose the criteria applied for evaluating their performance, the ability for self-reflection, and have some say over organizational and personal goal setting, objectives, and performance standards (Breaugh, 1985).

Chung and Ross (1977) conceptualize job autonomy in terms of the degree to which an individual can determine his work methods, place himself, control work schedules, and have some say over goal setting. Similarly, DeCotils and Koys (1980) defined autonomy as ‘’the perception of self-determination with respect to work procedures, goals, and priorities’’ (pp. 171-175). Shortly, different scholars mention job autonomy as a multidimensional concept (Khoshnaw & Alavi, 2020). The conceptualizations mentioned above and operationalizations are considered promising tools for measuring job autonomy (Khoshnaw & Alavi, 2020). Based on a substantial evaluation of the literature, the concepts of work method, work schedule, and work criteria autonomy are often quoted as critical elements of job autonomy (Breaugh, 1985) and are therefore applied in the current study.

However, in the context of nursing, high levels of job autonomy are not self-evident and very particular (Amini et al., 2015). Despite increased professionalism in nursing and the enhanced emphasis placed on accountability (Hart et al., 1995), job autonomy options in hospital settings are limited (Oermann & Bizek, 1994), where job autonomy is still restricted (Vera et al., 2016). Freedom is restricted because of health and safety regulations that count in hospitals and management objectives that do not allow this (Sahay & Dwyer, 2021). An example is that there are too many imposed administrative rules that cause an impossibility for nurses to perform their work in a self-directing way (Rutgers, 2021). Another example is adopting an outdated bureaucratic management style in nursing (Kramer & Schmalenberg, 1993; Manley, 1995). The primary reasons for this limited autonomy stem from nursing’s history (Finn, 2001).

Though, this could be different from what nurses perceive (Hackman & Lawler, 1971). Perception plays a crucial role in the context of job crafting and job autonomy (Hackman & Lawler, 1971). The study of Manal et al. (2014) found that more than half of the nurses perceived high levels of job autonomy. Therefore, it should be emphasized that not the objective state of job autonomy is decisive for job crafting possibilities within nursing, but it is about if nurses perceive they have job autonomy to craft their jobs (Hackman & Lawler, 1971). In short, the cited literature shows that a high level of job autonomy is a job resource, and a lack of job autonomy is a job demand based on the JD-R model, which clarifies the role of job autonomy within job crafting engagement (Bakker & Demerouti, 2007; Schaufeli &

Bakker, 2004). Though, the findings on the role of job autonomy are mainly founded in general research and are not explored in nursing literature. Nevertheless, it is expected that the role of job autonomy will show up in the data since it is a fundamental workforce management concept that counts for many professions, including the nursing profession (Chang et al., 2020; Manal et al., 2014). Nevertheless, how does the role of job autonomy express itself across the JC dimensions that make JC engagement measurable (Tims & Bakker, 2010)?

The role of job autonomy in job crafting engagement

Job autonomy is a crucial factor contributing to job crafting (Sekiguchi et al., 2017). Considering the four dimensions of job crafting and the role of job autonomy, the study of Rudolph et al. (2017), who studied the relationship between job autonomy and job crafting in general, found that there are positive relationships between job autonomy and (I) Increasing Social Job Resources, (II) Increasing Structural Job Resources, and (III) Increasing Challenging Job demands. These relationships imply that having high levels of autonomy enhances job crafting engagement since job autonomy provides opportunities and the essential information to make alterations to job characteristics based on individual preferences (Lyons, 2008; Tims et al., 2013). The study of Sekiguchi et al. (2017) supports this and states that a high level of job autonomy enhances engagement in job crafting because one has the freedom and opportunity to perform initiative changes in their work (Bindl & Parker, 2011; Grant & Ashford, 2008; Petrou et al., 2012). When one perceives that they lack job autonomy, they are less likely to change some aspects of their job (Harbridge et al., 2022; Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001).

Regarding Human Resource Management, organizations are responsible for ensuring an environment where job crafting is supported and emphasized (Chang et al., 2020). When a nurse has engaged in job crafting or is planning to do so, particular barriers and facilitators can be experienced (van der Heide, 2012). *Barriers* are defined as ‘’the general limits on the available opportunities and the limits encountered in attempts to craft one’s job’’ (Berg et al., 2010, p. 164). Examples of job crafting barriers are lack of support from management, lack of experience of the individual nurse, lack of opportunity, limitations in the nurse’s role, heavy workload, and insufficient staffing (Harbridge et al., 2022).

Job crafting facilitators are factors that promote job crafting behavior and make the ability to engage in JC more likely (Berg et al., 2010; Rudolph et al., 2017; van der Heide, 2012). Examples are the level of skills, abilities, and knowledge of the nurse (van der Heide, 2012),

support from management (Harbridge et al., 2022), feedback, (instrumental) support, coaching (Bakker, 2018), autonomy (Tims & Bakker, 2010), and direct communication between managers and employees (Berg et al., 2010). Job crafting engagement would increase if nurses got professional freedom to change some aspects of their job actively and proactively (Bakker, 2015; Berg et al., 2008; Oldham & Hackman, 2010; Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001).

The relationships discussed above between job autonomy and the job crafting dimensions could help to understand and clarify the role of job autonomy within JC in general, which might create insight into the data in the context of nursing (Harbridge et al., 2022; Rudolph et al., 2017; Tims & Bakker, 2010).

In short, the cited literature substantiates that job autonomy and job crafting are intertwined. Nevertheless, no additional insights exist about how perceived job autonomy facilitates versus hinders job crafting engagement among nurses. This research gap will be filled by conducting interviews.

During the interviews, general questions were asked about job crafting and its facilitators and barriers, whereas no direct questions were asked about the role of job autonomy. Accordingly, which answers related to job autonomy were identified. This data collection method is not a very straightforward since the current research aims not to prime the participants into thinking that job autonomy plays a role in facilitating and hindering engagement in job crafting. Still, it was assumed that job autonomy should come up in the data based on the extensive above-cited literature, which strengthened this method.

To structure the data in a clear and well-organized manner, in the findings section, per job crafting dimension is identified and presented how perceived job autonomy can be a facilitator versus a barrier regarding that particular dimension. Based on this, an overall conclusion about how perceived job autonomy facilitates versus hinders engagement in job crafting among nurses is given within the discussion section.

Methodology

Research design

The current study was conducted in a qualitative explorative way of research. Hornung et al. (2010) indicated that an excellent way to study job crafting is by performing qualitative research methods which can contribute to understanding the different concepts. Since this study examines the understanding of complex social phenomena, conducting exploratory research was most appropriate (Ogawa & Malen, 1991).

The adopted research approach was abductive reasoning (Bleijenbergh, 2015). Abductive reasoning is a suitable research method for empirical nursing research because it helps the researcher find meaningful deep structures in nursing research (Råholm, 2010). The starting point of the current study was deductive reasoning, where literature was searched, after which data was collected by conducting interviews (Bleijenbergh, 2015). Subsequently, inductive reasoning was performed to explore and build on existing literature on how perceived job autonomy facilitates versus hinders job crafting engagement among nurses since this has not been investigated yet (Bleijenbergh, 2015).

Research sample

The sample in the current study must meet the needs of the research, which was based on the non-probability sampling technique, which is widely used in qualitative research (Saunders, 2012). A convenience sampling method was adopted, where data was collected from a group of people, in this study nurses, that are easy to reach for the researcher and where nurses are subjectively selected randomly (Saunders, 2012).

A crucial concern within qualitative research is the number of interviews which is sufficient (Saunders, 2012). Considering the guidance of Guest et al. (2006), the minimum number of interviews is five (Kvale & Brinkmann, 2009). Combining this with the established standard of the department of Business Administration of Radboud University, conducting at least 12 interviews was sufficient (R. Ghazzawi, Personal communication, February 17, 2022). Twelve female nurses and one male nurse were interviewed, currently working in different hospitals throughout the Netherlands, in various departments, and having a difference in age and work experience.

The sample was approached by deploying the student's network. Every respondent was contacted by email or telephone where openness and transparency were given about the aim of the research, the purpose of the interview, what was expected from the participant, the

time, duration, place, and what would happen with the information gathered, and emphasized that participation was completely voluntary and anonymous. In addition, it was mentioned that after the thesis has been assessed, the respondents would see the results. Based on this information, the potential participant could determine whether they wanted to participate or not. Moreover, it was clarified that the participants got the freedom to withdraw from the research at any time. An informed consent form was handled, confirming that identifiable information will not be announced, see Appendix A (Smith, 2003). Moreover, the research participants and their privacy are protected using pseudonyms (R1, R2, Etc.) (Wiles, 2012). Considering the COVID-19 risks, the respondents were allowed to indicate whether s/he wanted to perform the interview online or physically. It was plausible that the interviews aroused certain emotions among the respondents, such as uncertainty or discomfort. The researcher handled this with care by putting the respondent at ease by showing empathy, making time for a small talk, acknowledging the researcher's own lack of knowledge, and confirming the respondent's expertise (Bleijenbergh, 2015). The interview protocol was not shared with the respondents beforehand to guarantee the spontaneity of the interviews.

Data collection

The data was collected by performing interviews using a semi-structured interview protocol. This Master Thesis was written within two thesis circles of each of five master Strategic Human Resources Leadership students, where the students and their supervisor jointly lined up the interview protocol. These students predominantly used the same semi-structured interview protocol. Irrelevant questions that did not relate to the current research have been filtered out to prevent asking unnecessary questions. This resulted in a definitive semi-structured interview protocol with seven main questions, including some sub-questions. A semi-structured interview protocol was chosen since all the respondents were interviewed under the same circumstances, and the questions were conducted in the same way (Dingemanse, 2015). Moreover, a qualitative semi-structured interview protocol contributes to the objectivity, trustworthiness, and dependability of research and makes the results more plausible (Dingemanse, 2015; Kallio et al., 2016). In addition, an interview protocol guides the interview and gives structure, therefore, it is a preferred method for novice interviewers, which is the current researcher (Bleijenbergh, 2015).

Initially, the interview protocol was written in English, see Appendix B. Since all respondents are Dutch, the interview protocol was translated to Dutch, see Appendix C, and the interviews were performed in Dutch. A *committee approach* was applied to develop an

accurate translation (van de Vijver & Tanzer, 2004). The group of master's thesis students individually prepared the translation of the literal text. Subsequently, a cooperative effort was performed where the translations were compared and adapted, aiming to improve the quality of the translations and minimize individual preference bias (Daouk-Öyry & McDowal, 2013; van de Vijver & Tanzer, 2004). The procedure chosen to obtain an adequate translation is based on the *application option*; there was no need to develop a new instrument but to use the existing instrument translated to the target language (van de Vijver & Tanzer, 2004). It was assumed that the underlying concepts were appropriate to the Dutch cultural group and that a simple, straightforward translation was sufficient to get an instrument that accurately measures the same concept in the target group (van de Vijver & Tanzer, 2004). Every student conducted ten interviews. To reach a minimum of 12, at least two interviews were mutually exchanged and individually analyzed. In this way, time could be used efficiently, and there was more time for data analysis. This way of sharing data was possible since there was enough overlap between the sample characteristics, namely nurses in hospital settings.

During the interviews, it was made clear that the participants were always free to stop the interview or give suggestions if something did not go well. Moreover, after the interview, the respondents had the opportunity to ask questions and provide the interviewer feedback. Furthermore, participants were asked whether they were open to verifying data correctness afterward, called a member check (Halcomb & Davidson, 2006; Lincoln & Guba, 1985). The interviews took about 30-45 minutes and were recorded and verbatim transcribed in Dutch immediately afterward, enhancing the credibility of the data (Baker, 1999; Bleijenbergh, 2015). Verbatim transcription of interview data is a widely accepted data management approach in nursing research (Halcomb & Davidson, 2006). Audio recordings permit supervisors or third parties to guarantee that interviews were really performed and that the data reported by a researcher are a precise and actual representation of data gathered through the interview (Halcomb & Davidson, 2006).

Data analysis method

The following step was to analyze the collected data to present the findings and draw conclusions. Template analysis was adopted to analyze the data in the current study. Template analysis supports a high degree of structure in the analysis process with the flexibility to make changes based on the needs of the study (King, 2012). *Template analysis* is a suitable method for analyzing data from individual interviews and was therefore applied in the current study (King, 2012). Firstly, an *initial template* was drafted based on relevant themes and subthemes

from cited literature, see Appendix D. Secondly, the first few transcripts were read, and the relevant fragments from the interview data that related to the aim of the study were coded with preliminary codes based on literal words used in the fragment. Accordingly, the preliminary codes were linked to the themes and subthemes from the initial template to structure the data. After coding the first five interviews, the preliminary codes started repeating, and some patterns appeared in the data. At this saturation point, the researcher began to bundle groups of similar preliminary codes into more general high-order codes, called *hierarchical coding* (King, 2012). New themes and subthemes, based on the literature and the data, emerged throughout the coding process, whereby the initial template was continuously changing. This process continued until all relevant codes and themes were captured into the template, which resulted in the *final template* (King, 2012), see Appendix E. The definitions of the subthemes were added to make sure that all possible codes were captured. The final template served as a foundation for analyzing the data set and the basis for presenting the findings, which are lined up around the main themes, sub-themes, and hierarchical codes.

Quality of the research

To conduct good research and ensure its quality, the assessment criteria for qualitative research of Guba and Lincoln (1989) were considered. To assure *credibility*, the research process was discussed several times with fellow master's students and the supervisor (Lincoln & Guba, 1985). To create *transferability*, a detailed description of the research context was given in the introduction and theoretical framework and further elaborated on in the discussion section (Lincoln & Guba, 1985; Symon & Cassell, 2012). To achieve *dependability*, the research is well-structured and organized, where the research process is clearly defined and substantiated. This makes the study for the readers a logical, integrated, and traceable whole and therefore allows evaluation (Guba & Lincoln, 1989). *Confirmability* was reached by providing a detailed account of the data collection and analysis process (Guba & Lincoln, 1989). Furthermore, well-organized arguments were given for theoretical, methodological, and analytical choices. Therefore, the readers have insight into how and why decisions were made, enhancing reproducibility (Koch, 1994).

Research Results

The role of job autonomy in Increasing Social Job Resources

Freedom for feedback and evaluate work performance

During the interviews, the social resources of nurses were featured several times, such as asking for and giving feedback. Within nursing, the concept of feedback is a highly valued part of the profession. Feedback is generally provided both mutually between nurses and their supervisors in the workplace, R12 states: *''But we always say to each other, it's very important to do and from time to time you notice that we provide each other with feedback. Both by the management and by colleagues among themselves, and also towards the students and back again''.* By the possibility of receiving or giving feedback, nurses are made aware of their strengths and areas for improvement, which promotes personal growth and makes them better able to reach personal and organizational goals.

What is essential is that the role of job autonomy within this dimension frequently emerged during the interviews. All nurses perceive that they have the freedom and opportunity to ask for or give each other feedback, R12 mentions: *''There is certainly room for feedback'',* R9 supports this: *''It is a very free, free to give feedback, work supervisors, who also takes the time to give feedback, and who is also willing to observe you, so if you say: well, I want feedback on that and there''.* Moreover, nurses perceive this as a win-win situation for both the nurses and the healthcare profession, which is subjected to rapid changes, R10 clarifies: *''Uhm, I know, for example […] it all changes so quickly and when you have a student along, you give him/her feedback about something, and he/she gives you feedback about something, about how you work, compared to your colleagues, then you can grab a bit of both worlds, so to speak. And that benefits everyone''.*

Nurses perceive they have the opportunity to evaluate their long-term work performance formally with their supervisor during semi-annual or annual conversations. Moreover, nurses perceive that they have the freedom to introduce aspects of development opportunities and can express what is needed to perform the work better, R2 states: *''Yes, it is definitely present, and um I'm happy with that too. That means that twice a year we sit around the table, hm, uh. I have to prepare for that […] with my supervisor. We're also going to discuss personal growth and development. What could be better, what else would you like, what do I need, to do my job well. So of course, the concept is there and that may also come from me''.* R4 explains the freedom for expressing their needs: *''But there are also other things, there are also open cups in the conversation of uh, what else do you need […] so that you remain happy in the job''.*

In addition, nurses also have a more informal way to discuss and evaluate their workday performance, which is short-term oriented, R11 gives an example: *''Yes at the beginning of the shift a day starts and at the end of the shift you always have a final evaluation of your day. And in this we evaluate, gosh, did you work well, did you run into something and then you also discuss with your colleagues on the wing how it went, what can we do better next time and improvements that might result there we have an improvement board for it and that is then picked up by one of the nurses to tackle those improvements''.*

Overall, nurses perceive they have the freedom and opportunities to increase their social job resources by adding meaningful social interaction to their work with their colleagues and supervisors. Nurses perceive high levels of job autonomy for feedback and to evaluate their work performance in manners they prefer, which facilitates creating a work environment that fits nurses' needs.

The role of job autonomy in Increasing Structural Job Resources

Freedom to divide labor

All nurses perceive that they have the freedom and opportunity to divide their work activities among themselves, R2 states the importance and possibility of this: *''There is a lot more supply of patients, so you have to, kind of, divide tasks, and look like; who is good at what. It is nice to see that it is possible. That's possible''.* R13 gives an example: *''[...] Sometimes you walk over that you have too much work and someone else doesn't, then you can just turn on each other, do you want to have a dismissal interview, do you want to take out an intravenous drip (IV) or do you just want to prick the IV [...] You know, you also have room there for''.* In addition, nurses perceive they have the freedom to swap or shedding of tasks, R2 gives an example: *''[…] But well know where my limits are, of; I'm not having my day today or this isn't going to happen today, then I'm just willing to shift it to that other person and ask if that other person is willing to take over from me''.* Even if a nurse is temporarily unable to perform their regular duties, tasks are exchanged, an example of R4: *''We had also had a colleague who had temporary physical complaints, so she couldn't lift heavy and such, so they planned her a bit more free at our IC so that she could work a bit more in the emergency room, and there which can do less physically demanding work''.*

Freedom to shape work shift schedule

As for the work schedules, all nurses perceive they have the freedom to shape their work schedules to fit their preferences. Nurses do not have the total freedom to make their own schedules but have the freedom to indicate their preferences to the scheduler and swap shifts

with equivalent nurses. R2 gives an example: *''[…] I think that autonomy is very important. When I look at myself because, uhm, for example, I'm someone who likes to work late shifts or work evenings […] So give me evening and night shifts, I'll exchange my day shifts, I think that's also a way of job crafting. So that means of exchange is a very nice one for me''.*

Freedom in utilizing work methods

As regards work method autonomy, which entails freedom nurses perceive have regarding the work methods nurses utilize in their work (Breaugh, 1985), nurses have the opportunity to perform tasks in a way that aligns with their ideas which is primarily based on the patient, R12 states: *''Always in the context of the patient. So if it makes the patient better and it is better at that moment, then you choose that. So always very patient-oriented''.*

Within hospitals, protocols are leading and must be followed, therefore, the aim of execution of work methods is the same. There is the freedom to perform deviations in exceptional cases, which must be substantiated. Nurses perceive those protocols as conditions, like frames, in which there is the freedom to match this with their preferences, R12 states: *''[…] Of course, you have structures and protocols that you have to adhere to, so of course, you have frameworks in that respect. But if you stay within those frameworks, you actually have much influence on how you fill your day*'', where R5 supports this: ''*Yes, you do have protocols, the preconditions, but you can knead a bit in between''.*

Overall, protocols are foundations for nurses to perform their tasks, it provides nurses with guidelines. Within utilizing these protocols, nurses perceive the freedom to perform tasks according to their preferences, such as contact with patients or changing the order of the tasks at all times with the patients as a starting point. R10 states: *''It is possible to shift in certain parts of the day, but some things must be done in the morning, for example for the doctor's visit. So high-priority parts are important to do at the right time, and that's often as quickly as possible, with me estimating those priorities myself''.*

Freedom for personal development

For nurses, it is crucial to continuously develop themselves by investing in their knowledge and skills to keep up with the current developments and rapid changes within the hospital environment. All nurses perceive they have the freedom and opportunities to keep up and develop themselves. All nurses indicate that these possibilities are present and perceive that their management fully supports them. Examples are following courses, following further education, or being seconded. R2 gives an example: *''[…] At (hospital name), it is, of course, academic, so education is first and foremost. So, you get real-time, real money for it. You*

have to be able to develop yourself, but you have to put in that time. But you will get it back in return [...] It is actually promoted. I don't see so many hindering factors''.

Freedom to develop the nursing profession

The nursing profession is continuously changing and developing. Nurses perceive they have the freedom and opportunity to contribute to this by signaling improvements regarding work tasks or methods aiming to perform their work better. Moreover, nurses also have the opportunity to critically reflect on work tasks or methods to improve the quality of the care, R1 states: *''[...] That you start looking critically, and that you get questions of wonder, that's what they call it, from; why do you do certain things like this? And that is now, and I think that is the case with future nursing, you have now been taught that you start thinking about things more'',* where R12 expresses their positive feelings about signaling improvements at work: *''Yes, it gives me a lot of energy when I see things go wrong. Or if I see things going wrong, that is perhaps very strange, but I mean when I see things that I think can be improved. That sounds a bit nicer. Then I'm like why are we doing it so clumsily or why does it actually work that way?''.*

In short, within this dimension, high levels of perceived job autonomy emerged as a facilitator to increasing structural job resources among nurses. Nurses perceive having the freedom and opportunity to match their work with preferences and needs, making nurses able to perform their work better, such as division of labor-, work schedule-, work method-, and personal- and profession development autonomy, mainly on the operational level, linked to operational nursing duties. In this way, nurses can endeavor skill, variety, and development in their work.

The role of job autonomy in Increasing Challenging Job Demands

Freedom to expand tasks

Nurses perceive having the opportunity and freedom to perform additional tasks, making their work more challenging, and promoting personal growth. Examples are having the freedom and opportunity to volunteer for project groups, take over managerial tasks, work cross-departmental, supervise students, and give training or education. R4 gives an example of having the opportunity and freedom to take over managerial tasks: *''[...] Unit coordinators, did a step back so to speak, and uhm, they have ensured that we, as shop floor nurses, could become day coordinators. So, the unit coordinators have given up some tasks, mainly the, uh, daily scheduling''.*

In summarizing, nurses perceive having the freedom and opportunity to make their work more challenging and take a step outside their comfort zone, aiming to give more meaning to their work. High levels of job autonomy clearly showed up in the data as a facilitator to increasing challenging job demands among nurses, where nurses perceive freedom and opportunities to expand their tasks, providing them energy and satisfaction.

The role of job autonomy in Decreasing Hindering Job Demands

Freedom to evaluate work experiences and express emotions

Nurses perceive they have the freedom and opportunity to evaluate negativity or impressive work experiences and to express emotions at work with their colleagues during, for example, a lunch break, with their supervisor, or with family. R2 states: *''If I notice that things uhmm, that give me negative stress, that I can ventilate that with colleagues during the break, that helps a lot''*. Bottling up these emotions and experiences affects nurses' energy and job attitudes. It relieves nurses of having the freedom and opportunity to evaluate their work experiences and express their emotions. In addition, nurses can seek help from professionals who are present in the hospital. R2 states: *''Yes, that's really well organized. Those are chaplains, uhm, pedagogical staff, they are people who are on that team, who have had special training, to accompany people who have a violent event at work, and to find good ways to do so; can we do this ourselves by talking, breaking through, or should there be more, do you have to go to a medical, to a health and safety doctor […] to take further steps. That is very low-key''*. Moreover, nurses have the space to forget the hustle and bustle for a while and to perform tasks that makes them feel happy, R6 states: *''Because it's quite busy with us, and every now and then I'm really like: oh, not now. And then sometimes I also choose to say: I'm going with a few children who are good, or, I'm going to play a game, and then I have contact with the patient in a different way, then just in my caring role, so to speak. And I like that very much, and that makes me very happy''*.

Freedom to reduce workload

Nurses' workload is relatively high, and when nurses experience that the workload reaches a certain height, some nurses have the freedom to put specific tasks on hold or choose not to participate in a particular project. However, only three nurses indicated that this possibility was there, in the remaining ten interviews, this was not addressed. R2 states*: ''[…], And that's where I am in principle, that gives me a lot of negative energy. So, before that, I built myself, uh, safe, security, which I said; I'm not going to do that''.* Moreover, nurses perceive having the freedom to ask colleagues for help or advice when performing demanding tasks or

swapping or shed tasks to make work easier. This corresponds with the freedom nurses perceive in dividing their labor, which also facilitates increasing structural job resources. By reducing workload, nurses can continue to function optimally.

No freedom to decide whom to work

Nurses mainly work in a team, which they generally like, although, sometimes, nurses experience that they have to deal with colleagues with whom they can get along less. In such cases, nurses perceive they do not have the freedom to avoid them and choose whom they work with, which can cause work stress, R3 gives an example: *''Yes, and you also have colleagues with whom you get along a lot less, and that is of course always, for example, or a midwife or doctor that you do not get along with. And yes, you just can't avoid it. So, I notice, for example, if I work with someone, a midwife or something, with whom I recently had a problem or something, then I do get some stress from that […] I do have less fun at work, because I know I have to work with him/her. You can't, uhm, avoid each other''*, and R4 also experiences this: *''[…] You don't always have the choice, but hey, there are always colleagues with whom you work more easily than with other colleagues. You can't really avoid them, so to speak''.* Moreover, some nurses experience that when they have the intention to perform JC behavior, this is hindered by some colleagues, R2 explains: *''If you want a quick change at that moment to bring that evening to a successful end, just thought very short term, then there are people who put their heels in the sand''.*

In short, nurses generally perceive they have the freedom and opportunity to decrease their hindering job demands. Nurses perceive high levels of job autonomy to evaluate impressive work experiences and express negativity and emotions with their colleagues, family, or professionals, which provides relief and facilitates performing their work optimally. In addition, some nurses have the freedom to put specific demanding tasks or projects on hold in order to reduce their workload. Moreover, division of labor autonomy also acts as a facilitator within this dimension. Concerning a lack of job autonomy as a barrier, nurses perceive that they have a lack of freedom to determine with whom they work and thus cannot avoid contact with colleagues whom they, for example, do not get along with. In this way, a lack of job autonomy impedes job crafting opportunities, causing nurses cannot handle the negative effects of job demands.

The role of job autonomy across all four job crafting dimensions

No freedom regarding the tactical and strategic organizational aspects

One finding of the role of perceived job autonomy came back across all dimensions. Nurses perceive that they have the freedom to arrange some parts of their work according to their preferences, however, this is possible to a certain level, namely the operational level. Examples are dividing tasks, swapping tasks, swapping work shifts, planning the order of tasks, and so on. When it concerns more aspects related to the tactical or strategic organizational level, nurses experience that they have restricted freedom and perceive a lack of job autonomy, R6 states: *''[…] Because you've got a ceiling somewhere, that's being held back from above [...] and that you can't do what you want, because then you get another hiatus, or whatever''*. According to the nurses, many management layers are present in the hospital that cause a lack of freedom which impedes nurses from increasing job resources and decreasing (hindering) job demands. R2 states: *''It is quite difficult at (hospital name), because it is very large, and you have to put in much effort to eventually set up something. Because it has to be about 26 disks''.* When nurses want to change something on a tactical or strategic organizational level, aiming to align their work better with their preferences, nurses run into a barrier that impacts the nurse's job attitudes. R2 states*: ''Surely those, uh, rules from above, which are very tight. Changes for the benefit of the organization, which are not so much, change, uh, beneficial to me as an employee […] And certain things are really imposed by the Board of Directors, and you can't change that […] it's a stumbling block, and that's something that makes people run away''.* This finding indicates that nurses perceive a lack of job autonomy regarding their work's tactical and strategic aspects, which hinders engagement in job crafting. This concerns mainly top-down decisions, where nurses do not perceive the freedom to change certain elements, aiming to align it with their preferences and needs and handle the adverse effects of job demands.

Overall, nurses perceive high levels of job autonomy regarding the operational level, where nurses can match their operational nursing duties with their ideas and wishes and make their work their own, facilitating job crafting engagement. Considering the tactical and strategic aspects, nurses perceive a lack of job autonomy, where nurses perceive a lack of freedom to align their preferences and needs with their work, hindering job crafting engagement.

Discussion

The current study has investigated how perceived job autonomy facilitates versus hinders engagement in job crafting among nurses. The role of job autonomy showed up in the data frequently, and it was found that job autonomy plays an essential role within the context of job crafting among nurses, which corresponds to the expectations from the literature (Sekiguchi et al., 2017). It was found that high levels of perceived job autonomy were seen as a facilitator to engage in job crafting among nurses in all four job crafting dimensions. This is in line with the studies of Rudolph et al. (2017) and Sekiguchi et al. (2017). As a contribution to the literature, this study created an understanding of how perceived job autonomy facilitates JC engagement among nurses.

Although the job autonomy options within hospital settings are limited according to the literature (Amini et al., 2015), almost all nurses experience job autonomy, which corresponds with the study of Manal et al. (2014). However, how can nurses perceive high levels of job autonomy in an environment known for having limited job autonomy options? A possible explanation for this is that despite the objective state of limited job autonomy options in hospital settings, nurses can still experience and believe they have high levels of job autonomy (Hackman & Lawler, 1971). The amount of job autonomy a nurse really has in their work is based on how much they perceive and believe (Hackman & Lawler, 1971).

The existing literature frequently states that the job autonomy options for nurses are limited (Amini et al., 2015). However, an explanation of what this *limited job autonomy* exactly means is missing. The literature mainly describes what causes it, whereas the current study gives a possible new understanding of this. This study found that nurses perceive high levels of job autonomy on the operational level, facilitating job crafting engagement. When nurses tend to tactical or strategic aspects, they perceive a lack of job autonomy, where they run into a ceiling. This hinders nurses from engaging in job crafting on these levels. Therefore, a possible explanation of what *limited job autonomy* means is that nurses perceive high levels of job autonomy to a certain extent, at the operational level. When nurses tend to more tactical and strategic aspects, they experience a lack of job autonomy, which hinders engagement in JC. The nurses indicated that this has to do with the tight rules from higher management layers that cause the impossibility for nurses to perform their work in a whole self-directing way, which confirms expectations (Rutgers, 2021). Another barrier nurses perceive is a lack of freedom to choose with whom to work, which causes stress. With this lack of job autonomy, nurses cannot shape a work environment where they perform better in.

These findings show how a lack of job autonomy hinders engagement in job crafting, which was not earlier mentioned in the existing literature.

In short, the most crucial finding considering the research question is that job autonomy can facilitate and hinder nurses' engagement in job crafting. Nurses' perceived degree of job autonomy is deciding whether it is ultimately a facilitator or a barrier, which corresponds to the expectations based on the literature (Hackman & Lawler, 1971; Harbridge et al., 2022; Sekiguchi et al., 2017; Tims & Bakker, 2010).

Theoretical contribution

The current study focuses on how perceived job autonomy facilitates versus hinders job crafting engagement among nurses, resulting in insights contributing to the existing literature.

Firstly, the current research has gained insights into nurses' experiences concerning job crafting facilitators and barriers. It is crucial to study nurses' perceptions regarding job crafting since several positive outcomes are linked to job crafting engagement within hospital settings (Baltesen, 2021; Yepes-Baldó et al., 2018). There is one study on nurses' perceptions regarding JC facilitators and barriers (Harbridge et al., 2022). However, additional insights about the facilitators and barriers of JC are lacking within the nursing profession.

Secondly, the current research has gained insight into how perceived job autonomy facilitates versus hinders job crafting engagement among nurses, filling a research gap. These insights help work towards job crafting engagement among nurses by decreasing barriers and increasing facilitators (Gerritsen, 2020). Some research is known about the facilitators and barriers of job crafting and the role of job autonomy (Harbridge et al., 2022; Rudolph et al., 2017; Sekiguchi et al., 2017). Nevertheless, these scholars did not provide additional insights beyond indicating that job autonomy hinders or facilitates engagement in JC. In addition, this was mainly not studied within the nursing profession. Therefore, this study contributes to the job crafting literature and nursing literature.

A final contribution to the theory is that this study incorporates the role of job autonomy within nursing, which is in great demand by international nursing studies since job autonomy is a crucial topic within the nursing profession (dos Santos et al., 2015). By investigating the role of job autonomy within nursing, new insights have arisen, which all substantiate the importance of this phenomenon within the job crafting literature and nursing literature.

Practical implications for nursing management

Insights into the perceived job autonomy of nurses as a facilitator and a barrier to engagement in job crafting could help nurses and the management of hospitals create an attractive environment where there are freedom and opportunities to engage in JC, with all the positive consequences entail for nurses, management of hospitals, and patients.

Firstly, nurses did not recognize the terminology of job crafting. When it was explained, nurses understood what it meant, making them more aware of parts of their behavior. This indicates that the term job crafting is unknown among nurses in hospitals. Therefore, it is recommended for health care organizations to familiarize nurses and other stakeholders with the concept of job crafting. This can be done by investing in training programs that give nurses the tools they need to create jobs aligned with their preferences and needs.

Secondly, the current study showed the importance of the role of job autonomy and job crafting within the hospital setting. Nurses perceive having high levels of job autonomy on the operational level, which they are already delighted with. Hence, it is essential to continue to pay attention to this and promote this. In addition, nurses perceive a lack of job autonomy in deciding with whom to work. Therefore, it is essential to give nurses more autonomy to avoid working with others who make their work more stressful.

Finally, by acknowledging the importance of job autonomy of nurses, the undervalued background of job autonomy can be eliminated and taken more seriously, aiming to make it a formal part of their work, incorporating some tactical and strategic aspects. To manage responsibly, it is essential to agree on concrete preconditions, where different stakeholders need to think carefully about the preconditions they wish or accept and capture this in a procedure (Waaijer, 2018) while still maintaining standard healthcare procedures.

Limitations

Speaking of *generalizability* is not appropriate for conducting qualitative research. However, this is a limitation of the research since the study outcomes are not generalizable to the target population. Therefore, the term *transferability* is accurate (Guba & Lincoln, 1989), obtained by giving a detailed description of the research context.

Another limitation is that credibility is often lacking by using a convenience sampling method (Saunders, 2012). Appropriate participants were obtained regarding the research question to minimize this.

Moreover, there was a possibility that participants gave social-desirable answers by conducting interviews. The interview protocol was not shared beforehand, and anonymity and

confidentiality were guaranteed to minimize this. Furthermore, there were asked for examples when answers were given. In addition, it was emphasized that there were no right or wrong answers, and it was mentioned that participants had quiet time to think.

Finally, some interviews were performed online and some in person, meaning the respondents were not interviewed under the same circumstances. These interviews were compared, and no remarkable differences were noticed.

Directions for further research

Suggestions could be made for further research directions based on the current research. Since the current research findings are not generalizable, it would be interesting to set up a cross-country quantitative analysis, where nurses worldwide get involved, to create a representative result for the target population. In addition, it will be value-adding to study if job crafting engagement is possible and desirable for all nurses. Some nurses indicated that job crafting opportunities and preferences depend on personality traits, age, type of department, type of hospital (academic or peripheral), organizational culture, support from management and colleagues, and years of experience. Therefore, exploring how these aspects facilitate versus hinder job crafting engagement is interesting. Moreover, an important direction for future research is that it is helpful to study where to draw a line in giving nurses the freedom in their work without endangering health and safety regulations or conflicting with management objectives (Sahay & Dwyer, 2021). This is based on the finding of perceiving high levels of job autonomy on mainly the operational level. Investigating to what extent it is desirable and achievable for nurses to have freedom on higher levels might provide insights into if job crafting engagement is possible on these levels or whether it ends until the operational level.

Conclusion

This explorative qualitative study aims to answer the following research question: *''How does perceived job autonomy facilitate versus hinder job crafting engagement among nurses?''* The current study gives an understanding that perceived job autonomy facilitates and hinders engagement in job crafting among nurses. However, this depends on the amount of job autonomy nurses perceive. When nurses perceive high levels of job autonomy, this facilitates job crafting engagement since it provides nurses the freedom and opportunity to match their work with their preferences and needs and handle job demands. High levels of

perceived job autonomy give nurses motivation, support, and consciousness to modify aspects of the work based on nurses' wishes and ideas. In this way, nurses can create an environment where they can perform better in. When nurses perceive a lack of job autonomy, this hinders engagement in job crafting. This is because when nurses perceive a lack of freedom and opportunity to adjust aspects of their work, nurses are less capable of creating a work environment that enables them to perform better in and are unable to handle the negative effects of job demands.

Reflexivity

I have tried to 'create reflexive awareness' among myself as a researcher during the research process, which is an essential part of qualitative research (Haynes, 2012). First of all, I was aware that the object of the study and I mutually and continually affect each other. Since I was unfamiliar with the topic in advance, I had no prejudices. In addition, I did not know any people in my immediate environment who were nurses in the hospital, so I could not argue with them. After multiple readings of the existing literature and consultation with fellow students and the supervisor, I realized that I had started shaping opinions and presuppositions about the topic.

Considering my position as a researcher, I can say that the existing literature influenced me, so I influenced the research. I had little knowledge about job crafting and nursing in advance. The current literature and some newspapers were my only point of reference. An example of an assumption I had is that I thought hospitals were very hierarchical and that nurses probably thought so too. I noticed that I was looking for confirmation in the data substantiating this. Since I was aware of this assumption during the coding of the first few interviews, and thus at an early stage, I think I have been able to limit this bias to a minimum.

Another aspect is that I noticed after conducting a few interviews that I felt integrated by the answers and stories of the nurses. I was impressed by their stories, which made me develop a kind of empathy. After the first two interviews, I was aware of this and started looking for the best way to cope with this. The literature states that an interviewer must balance empathy and appropriate distance (Evers & de Boer, 2012). Distance is kept having genuine interest, staying in the background, and asking for clarification (Evers & de Boer, 2012). Empathy is shown by listening actively, respectfully reacting, and behaving consistently (Evers & de Boer, 2012).

I kept a research diary to keep my emotions, thoughts, and feelings clear and was continually aware of this.

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Appendix

Appendix A. Informed Consent Form

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 Esmée Leidelmeyer, 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 30-45 minutes. The interview will be audiotaped. Your contact data will 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 *Esmée Leidelmeyer* (email: esmee.leidelmeyer@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 I do not agree

Appendix B. Interview protocol (English version - Original)

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 ask my supervisor to coach me
I ask whether my supervisor is satisfied with my work
Increasing Structural Job Resources
I try to develop my capabilities
I try to learn new things at work
Increasing Challenging Job Demands
When an interesting project comes along, I offer myself proactively as project co-worker
When there is not much to do at work, I see it as a chance to start new projects
Decreasing Hindering Job Demands

I manage my work so that I try to minimize contact with people whose problems affect me emotionally
I make sure that my work is mentally less intense

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

1. 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?

2. 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?

3. 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?

4. 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?

Ending

- Do you have questions?
- Do you have any tips for me?

Appendix C. Interview protocol (Dutch version - Translated)

Fijn 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 taakeisen- en hulpbronnen om een werkomgeving te creëren waarin ze beter kunnen presteren.]

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

1. Sociale hulpbronnen vergroten
Ik vraag mijn supervisor om mij te coachen.
Ik vraag aan mijn supervisor of hij of zij tevreden is met het werk dat ik uitvoer.
2. Structurele hulpbronnen vergroten
Ik probeer mijn capaciteiten te ontwikkelen.

Ik probeer nieuwe dingen te leren op werk.
3. Uitdagende taakeisen vergroten
Als er een interessant project langskomt, bied ik me proactief aan als projectmedewerker.
Als er niet veel te doen is op het werk, zie ik dat als een kans om nieuwe projecten op te starten.
4. Belemmerende taakeisen verkleinen
Ik richt mijn werk zo in dat ik zo weinig mogelijk contact heb met mensen wiens problemen mij emotioneel raken.
Ik zorg ervoor dat mijn werk mentaal minder intens is.

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

1. Sociale hulpbronnen vergroten

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

2. Structurele hulpbronnen vergroten

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

3. Uitdagende taakeisen vergroten

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

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

4. Belemmerende taakeisen verkleinen

- Kunt u ingaan op de mogelijkheid om aan deze dimensie deel te nemen in uw werkomgeving?
- Wat zijn volgens u de ondersteunende/bevorderende factoren in het verminderen van uw belemmerende taakeisen in uw werkomgeving?
- Wat zijn volgens u de belemmerende factoren om uw belemmerende taakeisen in uw werkomgeving te verminderen?
- Welke impact heeft COVID-19 volgens u gehad op het verminderen van uw belemmerende taakeisen 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 D. Initial template

1. Job crafting

1.1 Increasing Social Job resources

1.1.1 Emotional support

1.1.2 Instrumental support

1.1.3 Reaching personal goals / Personal growth

1.1.4 Feedback / Advice

1.2 Increasing Structural Job resources

1.2.1 Design/content/method of the job

1.2.2 Reaching work goals

1.3 Increasing Challenging Job resources

1.3.1 Volunteering for project groups

1.3.2 Take over tasks

1.3.3 Expand tasks of their job

1.4 Decreasing Hindering Job Demands

1.4.1 Reducing workload

1.4.2 Reducing work-family conflict

1.4.3 Job insecurity / role ambiguity / role conflict

1.4.4 Stressors/work stress

1.5 Proactive behavior

1.5.1 Taking initiative changes

2. Perceived Job autonomy

2.1 Job autonomy

2.1.1 Being self-directing

2.1.2 Working independent

2.1.3 Having control over work-related activities

2.1.4 Some say over work conditions

2.1.5 Some say over the overall purpose of the work

2.2 Work Method autonomy

2.2.1 Redesigning of tasks/methods /procedures

2.2.2 Determining the procedures to be used in carrying it out

2.3 Work Scheduling autonomy

2.3.1 Ability to plan/schedule work activities

2.3.2 Ability to schedule their own workdays

2.4 Work Criterion autonomy

2.4.1 Ability to evaluate personal performance / choose or modify the criteria used for evaluating personal performance (with colleagues/supervisor)

2.4.2 Ability for self-reflection (on your own)

2.4.3 Some say over personal goal setting/objectives

2.4.4 Some say over organizational goal setting, objectives, and performance standards

3. Influencing engagement in job crafting

3.1 Facilitators

3.1.1 High levels of autonomy

3.2 Barriers

3.2.1 Low levels / lack of autonomy

Appendix E. Final template

1. The role of perceived job autonomy in job crafting engagement among nurses

Themes	Job Crafting dimensions	Subthemes & definitions	Hierarchical codes
1.1 Perceived job autonomy as a **facilitator** to..	*1.1.1 Increasing Social Job Resources*	**1.1.1.1 Work performance evaluation autonomy** *Refers to the opportunity or freedom nurses perceive in evaluating their work performance.*	(a) Feedback on the work floor (b) Evaluate personal performance formal/informal (c) Own input for evaluation criteria
	1.1.2 Increasing Structural Job Resources	**1.1.2.1 Division of labor autonomy** *Refers to the freedom nurses perceive in dividing their work activities/tasks among themselves.*	(a) Allocate tasks (b) Delegate tasks (c) Divide work tasks (d) Swap tasks with colleagues (e) Shedding tasks
		1.1.2.2 Work scheduling autonomy *Refers to the freedom nurses perceive to have control over their scheduling (Breaugh, 1985).*	(a) Schedule own workdays (b) Swap work shifts among equivalent colleagues (c) Indicate workday preference
		1.1.2.3 Work method autonomy *Entails freedom nurses perceive have regarding the protocols/work methods nurses utilize in their work (Breaugh, 1985).*	(a) Plan / schedule work tasks / methods (b) Giving own touch towards work
		1.1.2.4 Personal development autonomy *Refers to the freedom and opportunities nurses perceive to develop oneself personally as a nurse.*	(a) Invest in skills and knowledge (b) Follow a course / training (c) Follow further education (d) Career opportunities
		1.1.2.5 Profession development autonomy *Refers to the freedom and opportunities nurses perceive to develop parts of the nursing profession.*	(a) Develop parts of the profession (b) Signal work improvements (c) Reflect on work tasks / methods (d) Redesign work tasks / methods
	1.1.3 Increasing Challenging Job Demands	**1.1.3.1 Expand tasks autonomy** *Entails the freedom and opportunities nurses perceive to expand their tasks on top of to their regular nursing tasks.*	(a) Take over managerial tasks (b) Work cross departmental (c) Supervise students (d) Give education / training (e) Volunteer for project groups

	1.1.4 Decreasing Hindering Job Demands	**1.1.4.1 Work experience evaluation autonomy** *Entails the opportunity and freedom nurses perceive to evaluate their work experiences.*	(a) Discuss negativity with colleagues, supervisor, or family (b) Help from professionals (c) Discuss significant experiences with colleagues, supervisors, or family (d) Perform tasks that makes feel happy (e) Discuss dissatisfaction with colleagues, supervisor, or family (f) Discuss emotions with colleagues, supervisor, or family
		1.4.1.2 Reducing workload autonomy *Refers to the opportunity and freedom nurses perceive to reduce their workload.*	(a) Not participate in projects (b) Put tasks on hold (c) Ask for help/advice from colleagues/supervisor
1.2 Perceived job autonomy as a **barrier** to…	*1.2.1 Increasing Social Job Resources*	*Did not show up as a barrier*	XXX
	1.2.2 Increasing Structural Job Resources	*Did not show up as a barrier*	XXX
	1.2.3 Increasing Challenging Job Demands	*Did not show up as a barrier*	XXX
	1.2.4 Decreasing Hindering Job demands	**1.2.4.1 No freedom to decide whom to work** *Refers to that nurses do not have the freedom to decide with whom to work.*	(a) Cannot avoid cooperation with certain colleagues (b) Cannot choose with whom to work
	1.2.5 Regarding all four job crafting dimensions	**1.2.5.1 Restricted managerial autonomy** *Refers to the limited freedom nurses perceive concerning tactical and strategic aspects within hospitals.*	(a) Being dependent of management layers (b) No freedom to change organizational decision-making/goal setting