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Why nurses quit: Job demands, leadership and voluntary nurse turnover in adult care in the Netherlands

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ABSTRACT

Nurse turnover is a prominent issue in Dutch healthcare, causing staff shortages and operational disruptions. The literature reports myriad factors triggering nurse turnover, but little attention is given to how motives arise at multiple organizational levels and whether these affect distinct groups of nurses differently. Using qualitative and exploratory methods, we examine motives at multiple levels and for distinct nurse categories. We apply thematic and cluster analysis to motives from semi-structured interviews conducted between 2019 and 2020 with 56 nurses who left a healthcare employer but continued working in adult care in the Netherlands. We provide an empirical nuance to understanding and analysing motives by differentiating between all motives reported by each participant and the single most important motive: reported most responsible for their turnover decision. Our exploratory analysis suggests heterogeneity among nurses in their expressed multi-level and multifaceted motives. A universal theoretical model is, therefore, unlikely to explain and predict nurse turnover. Job-demands resources theory and leader-member exchange theory appear most relevant in explaining multi-level and multifaceted motives for two distinct groups of nurses. The most important motives explained by job-demands resources theory are hierarchy and structural changes. The most important motives explained by leader-member exchange theory include increased workload and not being listened to by leaders. Our study has significant managerial and policy implications, highlighting the need to develop different retention strategies tailored to distinct groups of nurses characterized by their expressed motives. The most important motives are within the control of the organization, suggesting scope for healthcare organizations to address nurse turnover more effectively.

1. Introduction

Employee turnover (hereafter turnover) has been a staple research topic for decades because of its significant effects on individuals (Bolt et al., 2024a), organizations (Rodríguez-García et al., 2020) and society (Hom et al., 2017). Turnover is defined as an employee leaving an organization where they could have remained employed had they so wished. Nurse turnover is a key concern of healthcare management in both developed (Serra-Sastre, 2024) and developing countries (Pahlevan Sharif et al., 2021). The minimum cost of replacing a single nurse is estimated at $10,098 and can be as high as $88,000 (Li and Jones, 2013). Nurse turnover affects healthcare operational performance: more conflicts exist in nursing teams with higher turnover (Kuypers et al., 2018), and patients experience reduced satisfaction (Winter et al., 2020). In adult care, research shows that nurse turnover results in increased patient mortality rates (Antwi and Bowblis, 2018) and more use of antipsychotic medication (Shin et al., 2020).

Like many countries (WHO, 2022), the Netherlands is experiencing a demographic transition where people are growing older but not necessarily healthier. Older adults increasingly experience functional limitations that require care, exacerbating pressures on adult care through population ageing and longevity (Chee, 2023). In the Dutch healthcare system, care intensity package assessments for older adults establish when they should move to a nursing home because they cannot safely live independently. If older adults who can live independently require some care, this is delivered by area nursing teams at home. The number of older adults requiring care has increased by 22% since 2015 (Bureau of Labour Statistics Netherlands, 2024) and adult care nurse vacancies continue to grow (Bureau of Labour Statistics Netherlands, 2023). Employee turnover in healthcare was highest in adult care, rising from

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12.7% to 14.6% between 2020 and 2021 (Ernst & Young, 2022).

Despite substantial research into nurse turnover (Hayes et al., 2006, 2012), adult healthcare organizations still face this problem, imposing substantial costs and operational disruptions. The challenges nurses face in their work are neither fully understood nor effectively managed, leaving unanswered the critical question of why nurses quit. To address this lacuna, we propose three research questions. First, what drives nurses to quit their healthcare employer? Second, how are turnover motives (hereafter motives) manifest at different levels in healthcare organizations? Third, do distinct groups of nurses report different motives?

Research exploring factors driving healthcare personnel to quit typically applies an individual-psychological lens and rarely focuses on a specific occupation, despite seminal turnover research arguing the need to contextualize factors specific to occupations (Hom et al., 2017; Price, 1977). The range of factors driving turnover is often overlooked in the literature, probably because of "psychologisation" (Kaufman, 2020) and methodological expediency. Literature reviews of nurse turnover highlight motives at different levels (Halter et al., 2017; Lee, 2022; Pedrosa et al., 2021), but contemporary research mainly focuses on variables at a single level. We briefly discuss the literature below using the individual, job, organization and institution levels used by Xiao et al. (2022).

Individual-level factors include motives intrinsic to individuals such as demographic and personality factors, over which organizations have little control (Xiao et al., 2022). Other individual characteristics like qualifications (Kerzman et al., 2020), age (Le Vasseur et al., 2009) and health (Kox et al., 2020) also affect nurse turnover. Job-level motives include excessive workload, role ambiguity and conflict (O'Brien-Pallas et al., 2010). In contrast, Kox et al. (2020) find lack of job challenges causes nurse turnover. Organization-level factors like HRM practices (Michie and West, 2004) and quality of nursing management (Van den Heede et al., 2013) affect nurse turnover, while Magnet certification, a globally recognized accreditation for nursing care excellence, is found to reduce turnover in one study (Rodríguez-García et al., 2020), but not another (Brewer et al., 2012). Among institutional factors is the labour market, although Rondeau et al. (2008) and Stone et al. (2007) find this has no influence on nurse turnover. Overall, the literature on nurses' motives for quitting appears fragmented, offering partial and conflicting insights, and suggests a distinct, theoretically-driven, multi-level approach to nurse turnover is needed.

Our findings highlight the relevance of job-demands resources (JDR) theory (Demerouti et al., 2001), explained by hierarchy and structural change as the most important motives, and leader-member exchange (LMX) theory (Dansereau et al., 1975), explained by increased workload and not being listened to by leaders as most important motives, so these theories are applied in interpreting findings. JDR suggests that employees will experience less burnout and exhaustion, factors associated with turnover (Moloney et al., 2018), when there is a balance between job demands, i.e., "the physical, social and organizational aspects of a job" and job resources, i.e., "the physical, psychological, social and organizational aspects of the job that are functional in achieving work goals, reduce job demands, and stimulate personal growth and development" (Demerouti et al., 2001, p. 501). Healthcare is notoriously hierarchical, so job demands can be difficult to navigate without sufficient job resources. Nursing research shows that job resources like social support and rewards (Thapa et al., 2022) and meaningful work (Van der Heijden et al., 2019) reduce nurse burnout, while psychological (Thapa et al., 2022) and quantitative (Van der Heijden et al., 2019) job demands increase burnout, reflecting the importance for managers to balance resources and demands.

LMX concerns the quality of vertical dyadic relationships between leaders and subordinates where the degree of "negotiation latitude" given to subordinates defines superiors as having either a leadership style (a relationship based on interpersonal exchange), or a supervision style (allowing limited input from subordinates and providing little negotiation or autonomy) (Dansereau et al., 1975, p.49). For nurses, high-quality subordinate-leader relationships improve job satisfaction (Laschinger et al., 2007) and psychological empowerment (Brunetto et al., 2012), factors known to reduce turnover and enhance retention (Bolt et al., 2022; Brunetto et al., 2012).

Our analysis of all expressed motives suggests different theories explain motives at different levels and for distinct groups of nurses, confirming the complexity of nurse turnover (Halter et al., 2017; Pedrosa et al., 2021). Further analysis of the most important motive similarly delineates two groups of nurses that are more clearly and theoretically distinct. These findings support theoretical predictions made by Xiao et al. (2022) that motives are multifaceted and that a uniform approach addressing turnover is likely to be ineffective. Our results strongly suggest heterogeneity in the nurse population in which distinct groups of nurses can be associated with different motives.

This paper makes two principal contributions. First, we explore actual turnover rather than turnover intention (Lee, 2022), recognising they are separate constructs with distinct explanatory antecedents (Bolt et al., 2022). We explore the lived experiences of nurses who left a healthcare employer but remained working as nurses, excluding those who left the occupation, which is driven by different motives (Moloney et al., 2018), and focusing on turnover that is avoidable (unavoidable turnover includes illness and spouse relocation). We also make an empirical contribution to turnover literature by analysing the most important motives, and all expressed motives.

Second, we contribute to methodological diversification in nurse turnover research by applying several social science research methods, using qualitative semi-structured interviews to delineate deeper subjective experiences and associated meanings and applying thematic analysis and cluster analysis (Choudhury et al., 2020) to capture multi-level motives and assess heterogeneity in the study sample. While the literature suggests nurse motives are complex and stem from different levels in the organization (Halter et al., 2017; Pedrosa et al., 2021), to our knowledge, no previous research has shown that there are distinct groups of nurses characterized by different motives. This application of novel methods enables us to identify heterogeneity among nurses participating, with important policy implications. Our contribution to theory involves employing both JDR theory (Demerouti et al., 2001) and LMX theory (Dansereau et al., 1975) while simultaneously deploying a multi-level lens (Xiao et al., 2022) to evidence how different theory explains motives at different levels and for distinct groups of nurses.

In the sections below, we outline the application of qualitative methods to identify and analyse all motives, the most important motives, and motives at different levels. The discussion relates the findings to theory, method and practice, and highlights limitations. The conclusion emphasizes the need for more advanced research into nurse turnover and provides suggestions on how this might be done.

2. Method

2.1. Data collection

We employed a qualitative research method to capture underlying meanings of expressed motives, exploring lived experiences and giving voice to participants (Denzin and Lincoln, 1994). We contacted healthcare organizations in the Netherlands to recruit participants after securing ethics approval from the University Human Ethics Committee. Telephone calls, e-mails and face-to-face meetings with HR managers clarified the purpose, method, respective roles of organization and researcher, and data management plans, including participant confidentiality. HR managers identified participants and distributed information through internal channels. Their involvement was crucial because they had data on nurses who met the inclusion criteria: those who voluntarily left their employer; continued in similar adult-care patient-facing nursing roles; stayed on the nursing register; had at least one year of experience; and whose job change was not a promotion.

Inclusion criteria led to purposive participant recruitment, with interviews scheduled at a location and time convenient to nurses, including organizational premises, local cafés and nurses' homes.

Interview questions were developed from the objectives of the study, following rigour guidelines for qualitative research (Gibbert and Ruigrok, 2010). The question topics were derived from turnover (Rubenstein et al., 2018) and nursing management literature (Xiao et al., 2022). All team members were actively involved in developing the interview protocol. Three independent nursing academics reviewed the protocol and provided feedback. A pilot study with two Dutch nurses helped replace academic jargon and introduced relevant nursing terms related to patient interaction, daily living activities, and intramural and extramural care. The questions were developed in English and translated to Dutch with back translation to ensure fidelity of meaning. This rigour process in question development allowed an optimal in-depth interview protocol with limited jargon.

The interview schedule included four parts, starting with a briefing on aims of the study and how data would be used, allowing individuals to ask questions. After securing written consent to be interviewed, participants were asked an open question to contextualize them in the research: 'Could you tell me a bit about yourself as a nurse?' followed by 'Can you explain your career as a nurse, how and where you started nursing and when you moved to different organizations?' To investigate motives critically, the interviewer elicited detailed accounts of their most recent turnover experience, with questions like 'What experiences triggered you to leave your former healthcare employer?' and 'Was there a single most important reason for quitting, and if so, which one?' At the end of each interview, the primary researcher summarized the interview to validate interpretation. Interviews lasted 45 min on average.

56 nurses from 6 healthcare organizations participated and were interviewed between late 2019 and early 2020. Most (50) participants were female. Regarding age, 26 were 40 years or younger, 14 between 41 and 50 years, and 16 were 51 years or older. Just over half (29) held a vocational qualification, 26 had a Bachelor's degree, and one held a Master's degree. Mean occupational tenure was 18 years. All nurses had left adult nursing care, with most leaving older adult care settings, followed by hospitals and other older adult specialist care such as dialysis and respiratory care.

2.2. Data analysis

Our objectives required a two-phased data analysis approach. The first phase involved thematic analysis (Braun and Clarke, 2012) using Atlas.TI to identify deeper meanings and latent themes in extensive unstructured textual data from interviews. The second phase involved cluster analysis (Choudhury et al., 2020) using R programming language to quantitatively explore which motives tend to appear together or apart. These methods complement each other as thematic analysis identifies nuanced reasons behind motives whereas cluster analysis groups participants based on motives, identifying relationships that neither method can reveal independently. Together, these methods offer an integrative research design and a comprehensive approach to surfacing novel insights into turnover experiences and broader patterns in the data (Prevett et al., 2021).

Thematic analysis is widely used in social sciences to analyse qualitative data, capturing patterns across raw data and structuring them into meaningful themes (Thompson, 2022). It is known for flexibility and depth and can be employed for both inductive and deductive research. We adopt an abductive thematic analysis due to its flexibility in combining deductive and inductive methods in social sciences (Vila-Henninger et al., 2024). To generate different themes for motives, abductive thematic analysis uses existing theories and concepts while finding new insights and perspectives directly from the data. This is particularly valuable when researchers aim to generate explanations for understanding motives that are grounded yet extend beyond observed data. This translates into identifying themes for motives that categorize the data and suggest underlying explanatory relationships (Vila-Henninger et al., 2024).

Interviews were transcribed verbatim. The primary researcher read the interview transcripts several times to identify all motives and the single most important motive for each participant. The number of motives reported by the 56 participants ranged from 1 to 9, from which 52 unique motives were identified. All participants mentioned a single most important motive. The research team examined the diversity and characteristics of motives, assigning them to the four levels (Xiao et al., 2022): 8 motives were assigned to the individual level; 23 motives to the job level; 18 to the organization level, and 3 to the institution level.

2.3. Cluster analysis

We performed cluster analysis to explore the data further and identify participant clusters. Cluster analysis, a data-driven exploratory tool involving classifying subjects into different groups based on underlying shared characteristics, provides a reliable method for interpreting coded qualitative data and has been applied in several fields (Guy et al., 2023; Nimbley et al., 2023). Cluster analysis is an unsupervised machine learning and exploratory method using data and algorithms to explore different groups (James et al., 2021) so participants within each group are similar, and between groups are dissimilar. Using cluster analysis with qualitative data is less common in social science, but examples exist (Tasselli and Sancino, 2023). Grouping nurses according to their turnover experiences explores heterogeneity and facilitates developing group-specific retention strategies.

We use hierarchical cluster analysis, where each nurse participant is initially considered its own cluster (James et al., 2021). It then iteratively executes the following steps to create clusters of similar nurses: 1) identify clusters of nurses that are similar to one another in terms of turnover experiences using a distance metric; 2) use a linkage criterion to merge the two most similar clusters. A distance metric determines dissimilarity between clusters, and a linkage criterion is then used to determine where the distance is computed to create clusters of similar nurses' motives. Clusters in close proximity are merged using a linkage criterion. After the two similar clusters are merged, distance measures between the new and remaining clusters are computed again to merge and create new clusters. This is known as agglomerative hierarchical clustering, where clusters of nurses with similar turnover experiences are created iteratively until a single cluster remains. The final result is a set of clusters of nurses, where clusters differ from each other and nurses within each cluster are similar to one another in terms of motives. The clusters are visually represented in a hierarchical tree-like format called a *dendrogram*, where clusters are created based on predetermined hierarchical ordering and differ in closeness as determined by the chosen distance metric.

To prepare the thematically analysed motives for cluster analysis, motives were coded as 'one' if participants had mentioned them and 'zero' otherwise. We use the Canberra distance method for binary-coded qualitative data (Lance and Williams, 1966) and the Ward algorithm as the linkage criterion to create the clusters. Compared to alternative clustering methods, such as K-means, a variant of latent class analysis, hierarchical clustering has the advantage of not requiring the number of clusters to be specified a priori (James et al., 2021). When exploring clusters based on binary-coded qualitative data, Henry et al. (2015) find hierarchical clustering produces similar levels of accuracy compared to alternative methods like latent class analysis. Further details of hierarchical clustering and Ward's method are provided in Method S1 (Supplementary file).

3. Findings

The section first presents an analysis of all motives, followed by the analysis of the most important motive. Considering all motives, cluster

analysis revealed two distinct clusters. Fig. S1 (Supplementary file) shows the dendrogram (to the left) for all the participants, indicating two distinct clusters, and provides further explanation. The blue dotted line in Fig. S1 cuts the dendrogram such that the vertical distance between the two separate clusters, coloured green (Cluster 1) and red (Cluster 2), is the highest and, therefore, reveals the two most distinct clusters.

The summary statistics of nurses' characteristics in each cluster indicate a mean tenure of 18 years and an average age difference of 2 years across the two clusters. One meaningful difference between clusters appeared to be in relation to employment contracts. Most nurses in Cluster 2 left an ongoing contract (79%) as opposed to a temporary contract (21%), whereas most nurses in Cluster 1 left a temporary contract (91%), not an ongoing one (9%). A similar pattern appears concerning the most important motive. Analysis of aggregated motives per level shows that nurses cited organization-level motives 60 times with an average of 3.33 times in Cluster 2, compared to 58 times and an average of 3.22 times for nurses in Cluster 1. Individual-level motives were cited 17 times in Cluster 1, with an average of 2.13 and mentioned 10 times in Cluster 2, with an average of 1.25.

Key differences between the two clusters were observed when analysing motives per level. Nurses in Cluster 1 mostly cited individual-level motives, like a desire for new challenges (28.1% of nurses), and organization-level motives, such as concerns related to organizational hierarchy (31.3% of nurses). This sharply contrasted with motives provided by nurses in Cluster 2, who mainly cited job-level factors, such as workload issues (58.3% of nurses) and organization-level factors, such as not being listened to by leaders (83.3% of nurses). Using the non-parametric Wilcoxon signed-rank test to compare the mean differences of average motives across the two clusters, we find no statistically significant differences between the clusters. However, we find weak statistical evidence (p-value = 0.09) for the sum of motives across the clusters, albeit only for job-related motives.

Next, we describe the themes reflecting the clusters. The most prominent motives in Cluster 1 capture the theme 'Tense work environment, need for development and work challenge'. The most prominent motives in Cluster 2 capture the theme 'Demanding workload and unacknowledged voice'. To enhance validity, we use participant quotes in evidence. Tables 1 and 2 provide additional quotes to substantiate further the motives associated with Clusters 1 and 2, respectively. Names of nurses are pseudonyms.

3.1. Cluster 1: Tense work environment, need for development and work challenge

At the individual level, the motive of wanting to move on with new challenges (28.1% of nurses), as an internal motivation not necessarily triggered by factors related to the organization or job, was most prominent. As Veerle said, "I desired a new start, to take matters into my own hands again". Other nurses, like Fleur and Paulien, wanted to avoid "getting stuck in the same work" and some said wanting to try out new things was part of their character: "always been someone who likes to try new things" (Jasmijn). Surprisingly, nurses with considerable tenure in a single organization, like Martine (20 years tenure) and Eva (36 years tenure), said that they were taking stock of their careers, pondering their aspirations within nursing and life, but not necessarily dissatisfied with their work conditions. Norah said, "I was very satisfied with work at my former employer, but after having worked there for 15 years, I started to think that I should perhaps just try something new". This echoed the experiences of Fieneke, who worked for 20 years in the same healthcare organization: "I simply wanted to experience what working in another organization would be like". Some nurses approaching retirement age reflected on whether they wanted to continue the same work in their final years before retiring, kindling a desire to seek novel job opportunities and new challenges.

At the job level, two motives were most prominent: poor workplace atmosphere and lack of challenge (each cited by 21.9% of nurses). The poor atmosphere was primarily caused by staff shortages and turnover of fellow nurses combined with high healthcare demands, resulting in an environment that felt like working in a pressure cooker. Lieke attributed the negative atmosphere to internal competition between nursing colleagues, noting, "We viewed each other as rivals and that competition did not sit well with me". Norah described the atmosphere at work as an "upset and poisonous atmosphere". Willeke mentioned experiencing stress from working in a "very tense workplace atmosphere", which she attributed to constant churn among colleagues destroying collegial stability. She described a "grouch culture" where colleagues continually complained about everything and everyone, and to everyone, including patients. Irene described internal conflict caused by "one colleague assuming a disproportionate authority, imposing their preferences", increasing her feelings of work pressure and negative culture. There was consensus about insufficient resources available to cope with such atmosphere, while job demands felt heavier because of this climate.

Nurses reported several causes of absence of challenges, ranging

Table 1
Supportive quotes for Cluster 1: Tense work environment, need for development and work challenge.

Levels and motives	Supportive quotes
Individual	
To move on with a new challenge	"It is good to make a change after working somewhere for many years, it gives me energy and allows me to develop myself' (Martine) "I enjoy learning new things and going through a challenge" (Floor)
Job	
Poor workplace atmosphere	"The workplace atmosphere was poor due to demanding work causing colleagues to have a miserable mood, fostering a cycle of dissatisfaction, and I felt I did not want to work in such a negative environment so decided to look for an opportunity elsewhere where the environment seemed more positive" (Robin) "Everyone was complaining at work, and everyone was aware of this, so at one point we collectively decided to stop complaining, but this triggered even more complaining, there was a grumbling and poisonous atmosphere in which everyone seemed upset" (Norah)
Lack of challenges	"I just felt like I knew everything in that organization, I knew everyone and everything, all the tasks that had to be performed, and it became boring after a while" (Irene) "I experienced daily grind in providing patient care. I knew exactly what they would say when I arrived, care requirements were often the same. Sometimes I felt like a robot providing care, there was simply no challenge" (Janneke)
Organization	
Hierarchy	"People at all levels in the organization needed to have a say in, what seemed to me, simple decisions, slowing down the speed at which I could deliver my work. All I wanted was just to continue my work, but I got slowed down due to clumsy hierarchy, which drained all my energy, making me question myself why on earth I was trying so hard to do my work properly while receiving little support from people above me" (Margreet) "Policy development was top-down leaving little opportunity for us nurses to provide input. Us nurses are essentially the people who have to put these policies into practice" (Adriaan)
Poor-person leader fit	"I lost the fit with my leaders, so only worked effectively in my own small team, where there was no fit or connection with those people who were supposed to lead us" (Cornelia) "A colleague of mine advanced her nursing training and then became in charge of me, she became my leader. It made me feel like 'now she is allowed to tell me what to do while I possess much more nursing experience than her, and I previously explained all my knowledge to her'" (Marije)

from caring for the same patient daily and providing repetitive treatments, to conducting nursing tasks beneath their educational level, which nurses interpreted as their leaders not valuing their skills. Janneke described how she was gradually "feeling in a rut" having to perform the same treatments with the same patients every day:

> What am I supposed to say to a patient when I've seen them three consecutive days a week, caring for the same person for days, weeks and months? (Janneke)

Willemien had to perform nursing tasks usually done by lower grade care workers, which led to dissatisfaction through lack of challenge and professional stimulation, which she expected her leader to consider when assigning work. Alexander noted the monotonous nature of his full-time night shift role, commenting "All care to patients had been provided during the day, so there was little work left to do at night" and mentioned the only nursing task at night was "distributing some medication". Nurses noted how they felt leaders were not interested in ensuring they had sufficiently challenging work, occasionally referring to their nursing specialism:

> Well, there was an overwhelming focus on the same specialization. Respiration is highly specific. I spent my entire day on it and realized: There's a bigger world out there. I am still young. I want to explore, learn and achieve more. (Fleur)

Among organization-level motives, the most prominent included problems with hierarchy (31.3% of nurses) and poor person-leader fit (21.9% of nurses). Regarding hierarchy, several nurses mentioned a gap in proximal leadership, particularly when leaders imposed changes without soliciting their input. Nursing resources were inadequate for coping with such sudden changes, notably changes with which nurses often disagreed. Marije recalled how management emphasized the inherently hierarchical nature of healthcare, requiring nurses to adhere to established structures and rules:

> When I challenged my former managers, they said that hierarchy was normal and that the rules were clear that way, and that we nurses had to simply adhere to the rules … they could not do anything with my concerns (Marije).

Sudden changes in departmental structure and team composition were also mentioned as turnover triggers. Hans described how his former employer, facing nurse shortages, closed an intensive care unit, making him join a different team, which he found unbearable because of his strong bonds with the original team. Maaike shared similar accounts of increased conflict between colleagues due to organizational restructuring:

> A larger organization took us over. After that, I felt we were no longer allowed to do all our nursing job duties. Many things were no longer allowed and had to be arranged centrally, I just could not take it. (Maaike)

Regarding poor person-leader fit, nurses gave various reasons for a sub-optimal nurse-leader relationship. Irene mentioned how leaders exhibited superiority: "My leader felt like he was the best". Floor faced communication issues with her leader, so she felt a lack of mutual fit: "It seemed like speaking to a wall when I spoke to my leader". Eva experienced "not having clicked" with her leader believing the organization did not care about nurse-leader relationships. Similarly for Anouk:

> The relationship between myself and my direct leader was never perfect. I never had the feeling that I was treated well. (Anouk)

3.2. Cluster 2: Demanding workload and unacknowledged voice

Job-level motives encompassed increased workload (58.3% of nurses) and irregular working hours (33.3% of nurses). Nurses mentioned staffing issues causing increased workload. Vivienne experienced pressure from her leaders to take on more work despite fulfilling her monthly contractual hours, which she believed was triggered by nursing colleagues continuously working above their contractual hours:

> I fulfilled the contractual hours easily, including working nine night shifts a month, but there were other nurses who worked an additional 20 hours per month! Each week they would very willingly work additional hours, creating an expectation to leaders that other nurses should also work beyond contractual hours, especially under circumstances of high staff shortages. (Vivienne)

Such practices led nurses to feel guilty for not working extra shifts. Failure to replace a departing colleague made Renee think "I'm losing someone with whom I can work together really well … now I have to do everything by myself", and she had no support from her manager to cope with reduced staffing and extra workload. Tessa, Feline and Maria faced situations when colleagues fell ill which increased their workload leading to other challenges, including receiving criticism for administrative delays, having reduced time to provide patient care and having to work in an environment in which taking sick leave was actively discouraged because it increased workload for others:

> Calling in sick is considered forbidden. When someone calls in sick, their hours become available, and someone else must take them. To find someone to take extra hours is impossible. (Tessa)

Regarding irregular working hours, night shifts most often triggered quitting. Some nurses found it difficult to balance family needs with working nights, while others noted breaks during night shifts were unpaid. Julia found it difficult to leave her child at a childminder at night, knowing that her children had to go to school the next day: "I found it important to have regularity in our family". Participants felt managers were not interested in considering nurses' needs to maintain work-life balance when assigning irregular work shifts and paid no attention to recovery time when changing day-night work routines:

> I found it much easier to recover from night shifts when I was 18, back then I could easily do three night shifts in a row and do things the next day, but it became increasingly difficult to recover from these night shifts. (Jasmijn)

Among organization-level motives, the most prominent was not being listened to by leaders (83.3% of nurses). Several nurses felt leaders dismissed their input to workplace improvements, with Klara saying, "They completely silenced you". Guusje described how she felt a lack of interest from leaders to involve nurses in decision-making: "I realised there was too much hierarchy, the people above me sitting at the office" (the health coordinating nurse) so she decided "not to involve myself too much with them", particularly in relation to "their decisions", and as much as possible, avoid "providing my ideas". Ellie recounted repeated attempts to raise concerns to leaders about inadequate washing machines for soiled laundry separation and insufficient patient diet training, only to be disregarded by her supervisors:

> Everyone ate from the same pot of food, while certain things could not be eaten by patients with medical dietary requirements. All our comments to leaders fell on deaf ears: if you had comments, you were

Table 2
Supportive quotes for Cluster 2: Demanding workload and unacknowledged voice.

Levels and motives	Supportive quotes
Job	
Increased workload	"My workload continued to increase, and duties were not entirely clear which led me to become burnt out. It was only then that I realised that I could not cope with such a high workload in combination with little guidance on how to manage the workload" (Lara) "I left primarily because of the ever-increasing workload. We received little time for patients and there were days that I only saw them in the morning when I washed them. I had to do a lot of admin work, phone calls, and when colleagues were ill we had to cover their shifts too, increasing my workload even more" (Yara)
Irregular working hours	"I worked night shifts, late evening shifts, and frequently got home late at night. I had to drive home on my motorcycle late at night when I was exhausted, and I sometimes wondered about my own wellbeing and safety" (Johan) "We could not discuss our working hours and shifts with the scheduler. Each time the work schedule was published I had so much stress at home thinking 'how will I manage my work and family life', and at one point I realised the amount of stress I had of trying to manage my work schedule was way too much. Sometimes I collected my children after 10.30pm from the childminder" (Julia)
Organization	
Not being listened to by leaders	"My leaders told me 'we will have a look into your concerns', but what they really did is just to postpone it. I did tell my concerns to the management as well, and they promised to do better, but then it struck me that they would just not do anything" (Claire) "I didn't feel that my leader had any intention to listen to me, she was not easily approachable, and when I did manage to schedule a meeting with her, she was nowhere to be found. I found it painful that I was available myself to listen to any other colleagues' concerns, but when I had some concerns to be shared, my leader was not there for me" (Merel)

considered a whiner. At one point, it struck me that the atmosphere was disrespectful from leaders to patients and to staff. (Ellie)

Mara raised concerns about data management of medical treatment documentation and felt ignored, saying "I was seen as the troublemaker for wanting quality and structure in documentation, for enforcing the rules". Leaders were unwilling to adopt contemporary data documentation rules, responding to her suggestions with "We've done it 20 years like this, it will all go well, don't worry about it". Aafke expressed frustration that decisions regarding nursing practices were made by leaders without consulting "the experts", nurses performing those practices, highlighting a disconnect between leaders and nurses providing care.

3.3. Most important turnover motive

Analysis of the most important motive indicates the existence of two participant clusters, as shown in the dendrogram on the right in Fig. S1. The findings suggest two distinct clusters, with turnover in Cluster 1 driven by organization-level factors and Cluster 2 driven by job-level and organization-level factors. Compared to the clusters on all motives, the clusters on the most important motive are more distinct, with Cluster 1 characterized by hierarchy, structural changes and a lack of development opportunities. Cluster 2 is characterized by increased workload and not being listened to by leaders. These findings hint at the relevance of JDR theory for explaining motives in Cluster 1 and LMX theory for explaining motives in Cluster 2. Contingency analysis on the most important motives organized at the four levels shows that all 23 participants in Cluster 2 cited job-level factors as their most important motives. This sharply contrasted to nurses in Cluster 1, where out of the 33 participants, 9 (27%), 20 (61%) and 4 (12%), point to individual, organization and institution-level factors as their most important motives. This is corroborated by testing the statistical difference of the two clusters using the Fischer exact test, which rejects the null assumption of no difference between the clusters at a 1% significance level. The clustering results were robust to the choice of alternative agglomeration methods to create the clusters for all motives and for the most important motives, see Method S1 and Fig. S2 (Supplementary file).

In summary, our findings identify heterogeneity in nurses with respect to motives for quitting, suggesting the likelihood of heterogeneity in the wider nursing population. We discuss the implications of this finding and others next.

4. Discussion

This study examined why nurses quit healthcare employers and how motives manifest at different levels and for distinct groups of nurses in healthcare organizations. The central contribution is identifying significantly different nursing groups within an apparently homogeneous occupation, each characterized by distinct multi-level motives explained by different social science theories. The nursing literature suggests nurse motives stem from different organizational levels (Halter et al., 2017; Lee, 2022), but research on nurses' motives to date has not empirically demonstrated heterogeneity in the nursing occupation. This could explain why extant nurse turnover research is difficult to reconcile with theoretical frameworks (Bolt et al., 2022).

Our findings confirm that motives relate to different levels and distinct groups of nurses, which has important implications for theory in raising doubts over framing motives within a single social science theory. The data identified two groups of nurses, each with distinct motives. Different theories explained the two clusters, suggesting that applying multiple levels is relevant *within* social science theory in explaining all expressed motives. Cluster 1 captured motives that summarise as a 'tense work environment' and a 'need for development and work challenge', which align closely with the principles of JDR. Nurses experience a tense environment due to understaffed teams, where insufficient job resources, including staffing levels, are available to handle demanding workloads. As a result of this staffing shortage, the same nurses are repeatedly assigned to the same tasks and patients, leading to a sense of monotony and a lack of professional challenge. The motives in Cluster 2 highlight a 'demanding workload' and 'unacknowledged voice', which are closely related to LMX. Nurses reported experiencing a demanding workload, feeling pressured by their leaders to take on additional tasks while simultaneously being criticized for not completing work on time. Regarding their unacknowledged voice, nurses felt that their leaders consistently ignored their concerns about improving work quality. These situations reflect an imbalance in the nurse-leader exchange relationship, which leads to dissatisfaction contributing to nurse turnover. As the demand for older adult care continues to grow (Bolt et al., 2024b), ensuring a sufficient supply of nurses will depend on improving nurse retention. This will require significant enhancements in nurse-leader relationships, as well as providing adequate job challenges and resources to support nurses in performing their roles effectively.

The most important motives for Cluster 1, hierarchy, structural changes, and lack of development opportunities, confirm the relevance of JDR theory in explaining nurse motives. An organization's hierarchy represents a job demand that hinders nurses' effective care delivery as they must navigate the organization's numerous changing and hard-to-access hierarchical layers. Nurses are known for greatly valuing patient care quality, and not being able to deliver this care through spending too much time navigating hierarchy and structural change leads to feelings of diminished professional efficacy, depleted energy and motivation, triggering turnover as self-protection. Development opportunities are job resources that allow nurses to experience professional efficacy. The absence of development opportunities negatively influences nurses'

coping mechanisms in a hierarchical environment where sudden structural changes are imposed. These findings support the impact an interaction effect (Demerouti et al., 2001) has on nurses facing high job demands, i.e., having to work in a demanding hierarchical environment with sudden structural changes in combination with a lack of resources, such as development opportunities, to satisfy nurses' professional needs. Since all became re-employed as nurses, these motives suggest they are not necessarily unhappy with nursing work *per se* but mostly with the healthcare organization structure and resources available to maintain professional efficacy.

The most important motives for Cluster 2, increased workload and not being listened to by leaders, confirm the relevance of LMX theory and explain the relationship between nurses and their superiors as supervision rather than leadership (Dansereau et al., 1975). We believe a supervisory approach from leaders to nurses is ineffective in the current adult healthcare context characterized by nurse shortages requiring nurses to take on additional work and adopt flexible behaviour. When superiors do not acknowledge nurses' concerns, nurses experience a disrupted leader-member exchange relationship: nurses feel they give so much of themselves to ensure quality patient care by taking on additional workload while receiving little back from superiors to resolve issues at work. Our findings show that nurses experience the leader-nurse relationship as an exchange relationship, but this view does not seem to reciprocate. Healthcare leaders must be trained to practice a mutually reciprocal nurse-superior leadership relationship to improve nurse retention.

Implications for advancing policy and practice to reduce turnover suggest the need for healthcare employers to develop parallel nurse retention strategies. Turnover-reducing strategies for Cluster 1 include diminishing the organizations' hierarchical structure through decentralized decision-making processes and preparing nurses for planned structural changes by involving them in change committees to counter perceptions of top-down management and enhance feeling valued. A decentralized decision-making process empowers nurses, fostering a sense of recognition as knowledgeable professionals. It also speeds up decision-making, reducing delays in care. Additionally, professional development programmes that enhance nursing challenges, such as exchange programmes between teams, locations and organizations, can expose nurses to diverse care environments, keeping their work dynamic and engaging.

Turnover-reducing strategies for Cluster 2 include providing nurses with manageable workload and providing voice opportunities to improve nurse-superior relationships. Nurse leaders should reassess nursing resources to mitigate work overload. Allocating resources to technological advancements, including robots, electronic communication systems and lifting equipment, would alleviate physical workload, while time management training could alleviate mental workload. Alternatively, hiring lower-grade carers to provide primary care could reduce physical and psychological burdens nurses experience due to heavy workloads. Strategies to enhance nurse-leader relationships include involving nurses in work allocation.

Policy development on improving nurses' position in the organizational hierarchy is needed to address turnover in Cluster 1. Policy development in establishing a formal communication system where nurses can share their thoughts and see what is done to address their concerns and alleviate feelings of being listened to by superiors is needed to address turnover in Cluster 2. Healthcare managers should prioritize leadership communication training emphasising the importance of two-way communication between nursing leaders and their teams. In the hierarchical Dutch healthcare system, respectful communication is essential for maintaining professional nurse-leader relationships and reducing turnover.

Several limitations must be acknowledged. While we value the wide variety of motives, we recognize some motives could have been grouped or might be correlated. We decided against grouping motives further to preserve nuance in meanings and acknowledge the subjective nature of our data analysis. While the quantitative robustness is sufficient, further collating motives could have enhanced statistical significance. Our findings hint at a potential influence of the type of employment contract and nurses' age on motives, where increased workload and not being listened to by leaders are more prominent for younger nurses than middle-aged or older nurses. We encourage future researchers to consider these avenues. The findings represent the viewpoints of older adult care nurses and do not represent the viewpoints of colleagues, leaders, spouses, and nurses working in other healthcare settings. Larger-scale replication research in relevant healthcare sectors, such as social care, mental health care and hospitals, is necessary before our findings can be generalized more widely. Turnover and nursing literature could take a significant leap forward if researchers explore the possibility of distinct nurse clusters to predict organizational performance metrics, such as accidents, waiting time, patient satisfaction, employee well-being and sickness absence.

5. Conclusion

Nurses' turnover experiences are complex and comprise various multi-level and multifaceted motives explained by distinct social science theories, suggesting heterogeneity in the broader nursing population. For too long, nursing and turnover researchers have been preoccupied with identifying a range of universal motives rather than looking deeper into underlying population characteristics. It is time to examine heterogeneity in the broader nursing population to deepen understanding of motives that characterize specific nursing groups. Effective retention strategies can only be developed if the nursing population is fully understood.

CRediT authorship contribution statement

Ester Ellen Trees Bolt: Writing – review & editing, Writing – original draft, Visualization, Validation, Software, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Manhal Ali:** Writing – review & editing, Validation, Supervision, Software, Resources, Methodology, Investigation, Formal analysis, Data curation. **Jonathan Winterton:** Writing – review & editing, Supervision, Resources, Project administration, Methodology.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.socscimed.2024.117550.

Data availability

The data that has been used is confidential.

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