Engaging, Binding and Retaining Nurses: The Success Formula of an Exemplary Ward

D.A.E. Spoolder[1] ![ORCID], A.G. van Duijn[2], H.A. Schreuder-Cats[3]
and M.J. de Bie-Timmer[2]

Abstract

Background: Nurse staffing remains an ongoing issue in healthcare worldwide. However, a Dutch urology ward has hardly any staffing difficulties. Nevertheless, it remains challenging to grasp what exactly is the success formula of the ward. Investigating a practical example of a successful ward will facilitate a deeper understanding of the application of current knowledge. Furthermore, novel concepts offer potential solutions to current problems. There is a need of putting the knowledge into practice.

Objective: The objective is to identify the factors that contribute to the success of the urology ward in engaging, binding, and retaining nurses, to provide practical insights and opportunities for other wards.

Methods: The Dutch Model for Excellent Care forms the basis of a prospective, qualitative research study with focus groups. Twelve nurses were divided into three focus groups, based on work experience. They were asked about why they love working on the ward. Analysis was performed using Braun and Clarke's method for thematic analysis. Emerged themes were presented, substantiated by quotes.

Results: Four themes and twelve subthemes became apparent: (a) Supportive structures: nursing governance, professional development, and quality of leadership. (b) Optimal work environment: working with skilled nurses, a professional relationship with physicians and professional autonomy. (c) Team culture: feeling seen, good ambiance, and equality. (d) Specialty of urology: variation in work, workload, and the type of patient.

Conclusions: Nurses are uniquely positioned to provide invaluable insight into their needs. They illuminated the crucial importance of fostering a work environment that prioritizes both professional as well as personal needs.

Introduction / Background

Recently, the World Health Organization (WHO) provided a revised estimate of a 4.5 million shortage of nursing staff by 2030 (Boniol et al., 2022). Moreover, the International Council of Nurses (ICN) considered the current state of the nursing workforce a global health emergency (Buchan & Catton, 2023), that could lead to morbidity and mortality of patients (Twigg et al., 2010).

Urological healthcare is also suspected of staffing shortages. McKibben et al. (2016) predicted the urology workforce up until 2035. They expect a decrease in urology workforce staff, with shortage predictions ranging from 12% to 46%. Moreover, it is prone to "the millennial effect," in which more and more people prefer working part-time, which increases with more female employees (McKibben et al., 2016).

Unfortunately, a nursing shortage also exists in the Netherlands. The Dutch government describes a nationwide shortage of 14,300 nurses in 2032 (Helder, 2023). Sufficient registered nurses are necessary to guarantee patient safety (Twigg et al., 2010). Engaging, binding, and retaining nurses is increasingly important, as described in

[1]Knowledge and Information Centre, Antonius Academy. St. Antonius Hospital, Nieuwegein, The Netherlands
[2]Urology Department, St. Antonius Hospital, Nieuwegein, The Netherlands
[3]Antonius Academy, St. Antonius Hospital, Nieuwegein, The Netherlands

Corresponding Author:
D.A.E. Spoolder, Knowledge and Information Centre, Antonius Academy. St. Antonius Hospital, Nieuwegein, The Netherlands.
Email: d.spoolder@antoniusziekenhuis.nl

the multiyear policy plan of a nonacademic teaching hospital in the Netherlands (St. Antonius Hospital, 2020).

However, not all wards of this nonacademic teaching hospital experience the same staffing difficulties. The urology ward of this hospital is known as a ward with low sick leave (2.2%) (Human Resources Department, 2023), high employee satisfaction (7.8/10) (St. Antonius Hospital, 2022), and high patient satisfaction (scored 8.7/10) (St. Antonius Hospital, 2023). There are hardly any staffing problems, and vacancies are filled quickly. Researching the success formula of this ward could provide great insights for other wards in preserving nurses.

Previous efforts were made to give an insight into the state of affairs of the ward. The head of the ward (MB) talked about this in an internal podcast called "the person behind the leader" (St. Antonius Hospital, 2021). However, it remains challenging to grasp what exactly is the success formula of the ward. What factors contribute to the success of the urology ward in retaining its nurses?

Review of Literature

Attraction and retention of nurses is nothing new. McClure et al. (1983) provided a theoretical base on "Magnet" hospitals, which work as a magnet for attracting nurses who want to work in those hospitals. They found two main themes: administration and professional practice. Administration consists of the organizational aspects and management, as well as personnel policies. Professional practice entails items of education and development, as well as quality of patient care. One of their most significant conclusions was the importance of making efforts toward improvement (McClure et al., 1983).

For the situation in the Netherlands, the Dutch Model for Excellent Care (MEC) (V&VN, 2009) was developed. Based on the essentials of magnetism, three main areas are described: supportive structures, optimal work environment, and quality of care. Supportive structures refer to the structural conditions the organization has set up. This is about the preconditions that nurses need to provide the best care to patients. An optimal work environment consists of qualitative interprofessional relations, autonomy, and nursing governance. Quality of care focuses on patient outcomes (V&VN Excellente Zorg, 2019). See Table 1 for the full MEC.

While both models, the Magnet Hospitals and the MEC, provide crucial information on retaining nurses, the WHO as well as the ICN still emphasize that the issue of a nursing shortage has not been solved yet. In fact, an estimate of a shortage of a total of 10 million healthcare workers in 2030 (Boniol et al., 2022) is concerning. Consequently, a need of putting the knowledge into practice remains.

Investigating a practical example of a successful ward will facilitate a deeper understanding of the application of current knowledge. It is vital to hear the viewpoint of nurses themselves since they will be able to provide a living example of the situation. Furthermore, novel concepts offer potential solutions to current problems.

The objective is to identify the factors that contribute to the success of the urology ward in engaging, binding, and retaining nurses, as well as providing high-quality care. The aim is to uncover the "success formula" of the ward, to provide practical insights and opportunities for other wards.

Methods

Design

A prospective, qualitative research study with focus groups was performed. A pilot interview with brainstorming session was initiated with two managers and two nurses of the ward, to identify a first view on the success formula, resulting in a topic list. The topics are the aspects from the excellent care model (V&VN, 2009), See Table 1, supplemented by the team culture.

In three focus groups, divided by work experience, participants were asked about their views on working in their ward. Each focus group took place in a separate room on the ward, lasted approximately 1.5 hr and was moderated by the learning and development consultant of the ward (MS). The coordinating researcher (DS), currently employed as Evidence-Based Practice consultant, but also a former nursing student and nurse on the ward, observed each focus group and made field notes. The moderator did not mention the topics until the respondents felt they had covered all the important areas. Audio recordings were made and then deleted after transcription. All files are stored in REDCap after processing and preserved for 15 years.

Table 1. Model of Excellent Care (V&VN, 2009).

Supportive structures	Nursing strategy
	Quality of leadership
	Structures for nursing governance
	Professional development
	Focus on outcomes
Optimal work environment	Working with skilled colleagues
	Professional relationship with physicians
	Professional autonomy
	Support from immediate supervisor
	Control over professional practice
	Career development
	Staffing
	Patient-oriented care culture
Quality of care	Patient outcomes
	Nurse-sensitive indicators

Research Question

What factors contribute to the success of the urology ward in retaining its nurses?

Each focus group interview started with the question: Why is it that you love working here?

Sample

A sample size of 4–6 nurses for each focus group was sought for (Holloway & Galvin, 2023). A nurse from the pilot group (AD), with 16 years of work experience on the ward and great insight into fellow nurses, purposefully selected fourteen nurses who can articulate well how they see their situation.

Inclusion/Exclusion Criteria

Participants had to be registered nurses, working on the urology ward, with a work experience of either <1, 1–5, or >5 years.

Institutional Review Board Approval, Informed Consent

Acceptance of the Medical Ethical Review Committee was obtained on the 24th of November 2023. Participants were invited to participate by the coordinating researcher (DS) via e-mail, accompanied by the informed consent letter and a URL to obtain e-consent. Approval and consent were collected and managed using REDCap electronic data capture tools hosted at (Harris et al., 2019; Harris et al., 2009).

(Statistical) Analysis

Baseline characteristics are work experience on the ward, as well as age and gender. Work experience and age are shown as months: median (IQR) and are calculated by using REDCap (Harris et al., 2019; Harris et al., 2009), and gender is shown as female: n (%).

Interviews were recorded, transcribed, and analyzed according to Braun & Clarke's method for thematic analysis (Braun & Clarke, 2012). Only the researchers had access to the source data. Each interview was anonymized and uploaded into ATLAS.ti (ATLAS.ti Scientific Software Development GmbH, 2023), which was used for qualitative data analysis. Two researchers (AD and DS) performed coding and discussed the codes with the third researcher (MS), along with the field notes, until consensus.

Emerged themes are presented, substantiated by quotes. Respondents are pseudonymized and their quotes have been translated from Dutch to English.

Results

To identify what makes the urology ward a success in maintaining nurses, three focus groups took place. Four nurses visited each focus group. Two nurses were not able to participate, due to scheduling issues.

Sample Characteristics

The overall median work experience on the ward was 24 months, with an interquartile range (IQR) of 15–79.5. The median age was 24.5 (24–29). All respondents were female. All interviews took place in December 2023, for approximately 1.5 hr per interview. See Table 2.

Research Question Results

Respondents declared several aspects affecting the success of their ward considering nurse retention. Four themes emerged from the focus groups, of which two in regard to the Dutch Model for Excellent Care (MEC): supportive structures and optimal work environment. Two new themes emerged: the specialty of urology and the team culture. These themes, followed by three subthemes each, are elaborated.

Supportive Structures

Supportive structures are essential in delivering high-quality care. First, several *structures for nursing governance* are present on the ward. One effective way to enhance nursing governance is using a Continuous Improvement Board. This visual tool helps teams to systematically track and implement improvements in their work processes. Other examples are expert teams based on organ systems, self-scheduling, and daily evaluations. As Gaby explains:

> We then discuss with each other like, how did everything go today, what are we proud of or what did not go well, and how can we prevent or improve things next time

Second, team chiefs actively ask their nurses about their wishes for personal and *professional development*. Potential possibilities are shared and growing and learning

Table 2. Baseline Characteristics.

	Work experience in months: median (IQR)	Age in years: median (IQR)	Female: n (%)
Focus group "short"	12 (8.25–15)	23 (21.8–24.5)	4 (100)
Focus group "medium"	24 (17.5–31.5)	24 (24–24.3)	4 (100)
Focus group "long"	65 (52.5–174)	29.5 (29–37.3)	4 (100)
Total	24 (15–79.5)	24.5 (24–29)	12 (100)

together is valued. Not only do nurses attend courses, but they also take part in expert teams and play a role in organizing clinical classes. Unfortunately, training opportunities are not endless, but with nurses attending different types of training, new knowledge is brought in and shared between them. Ulani elucidates:

> There is space to grow, and we are heard. (…) People are asked if they like doing certain activities. (…) I think you learn a lot anyway, and we also learn from each other.

With Betty mentioning that she feels heard, she refers to the third subtheme *quality of leadership*. Not only does the team feel heard, they also feel trusted. The team chiefs let nurses take ownership in their professional practice. That is also seen by Umi, who explains:

> They are very open, and simply state that they are easily approachable. And of course, sometimes a more intense conversation needs to be held with the team. That is also good, because I mean it keeps you sharp (…) and we know that too, you see.

Optimal Work Environment

The urology ward excelled in the area of an optimal work environment. The respondents mentioned all eight subthemes according to the MEC. The three most frequently appointed subthemes are characterized.

It is self-evident, according to the respondents, that they are *working with skilled colleagues*. Sufficient staffing, with different types of colleagues, is important. Different types of people complement each other: young graduates, older colleagues, as well as colleagues with different backgrounds or types of education. People have their own knowledge and experience, and they all bring something valuable. They learn from each other and take on an active role in sharing their expertise. Sarah, as a younger nurse, confirms:

> Well, for example, the older colleagues provide trainings, which offers us a lot. And in expert teams, for example, we are the ones who come up with new ideas, because we think more out-of-the-box. And then the older colleagues think: ah yes, I had not thought of it that way!

Working together not only exists within the nursing discipline. It is a multidisciplinary act, in which the *professional relationship with physicians* is vital. Important facets are open communication, mutual trust, taking responsibility and establishing policy together, as a team. These items result in larger autonomy of nurses, as explained by Danielle:

> There is a lot of trust towards each other. Lots of trust towards the doctors, but also towards us, yes. And we, on our ward,

have a great sense of responsibility, it is our patient (…) we do not have to call about everything. (…) we trust each other (…). And then when you do call, we also feel safe to be able to do so.

Heather said "it is our patient," showing responsibility. Moreover, it is also a sign of *professional autonomy*, which allows individuals to make decisions in the best interest of their own patients. Many structures on the ward lead to professional autonomy, such as the expert teams. Team leaders also play a role, because they challenge nurses to come up with their own ideas and plans. Furthermore, showing and sharing individual successes works as a spreading wildfire, as Eva states:

> Well, if they experience that something succeeds, then (…) you want to go and try something new, you want another success (…) then you'll get excited taking up something new again

The Team Culture

Right at the start of all focus groups, respondents brought up the great team of colleagues. They referred to *feeling seen*. This goes beyond helping each other, or asking how things are going. Really looking out for each other involves genuine personal interaction: sharing how you feel or what is going on in your private life. There is room to indicate when people are not feeling well, and others respond with interest and understanding. As a result, people experience a sense of security, dare to share personal stories, and feel seen. An example that contributes to this feeling is that the team sends personal birthday cards, with a personalized message that goes beyond just congratulations. Joanna states:

> Truly being able to be yourself. If you arrive one day (…) not feeling well. Then the team really supports you. (…) we really take care of each other, look after each other. We also know what is going on in each other's lives.

Feeling seen is only possible in a *good ambiance*. The ambiance is sociable and there is a sense of friendship. People are serious when needed, but there is also room to joke around. There is laughter, as well as security, lead to job satisfaction. This goes beyond mutual contact but also affects the contact with students and patients. Olivia explains:

> How often do people say, very often, people who come to our ward say, well, I really like the ambiance here, it makes me feel all convivial. And that also enables others to joke around with us as well

Nancy used to work at the ward as a student, before graduation. She follows:

As a student you are a part of the team as well, not just a student. (…) You can collaborate, you are asked for your opinions, you can share your insights

Being and feeling part of the team, results from *equality.* Equality is about contact from human to human, with respect for the variety of functions, roles, experience, or knowledge. Members of the team work together and everybody participates. There is some sort of hierarchy, but people do not feel that way. This is associated with good communication and personal interest. An example is that the team leader works in the same uniform as the team of nurses. Grace expresses:

Equality. If someone just started, that does not mean they are less than you are. We both execute the same work, and if one does not get the job done, yes, then you help each other.

The Specialty of Urology

Respondents are unanimously positive about the specialty of urology. It is an attractive specialty, which adds to the factors for the success of the ward. To commence, a variation in reasons for admission, such as larger or smaller surgeries, but also non-surgical admissions, leads to a *variation in work*. Some patients are more complex, others are not. Some patients only stay for the day, while others stay for several days. Hospitalizations for longer than a week are rare. Ivy confirms:

I think we quite have care that, surgical care and so on. We sometimes have very large ORs, Brickers, we also just have quick, quick going care. We don't have people lying here for two weeks (…) sometimes, not often.

Since most admissions are surgical, they are carefully scheduled. This leads to a *workload* that is carefully distributed throughout the week. Little to no surgeries are planned in the weekends and holidays. As a result, nurses are less often scheduled for working those weekends and holidays, which provides more shifts that are regular. Luna is fond of this fact:

Because we have so many of those scheduled surgeries, we need less staff in the weekends. So we, I, work way less weekends then in my previous…, I think that's *quite chill*

Moving on, most patients on the ward are relatively young and fit. This *type of patient* is perceived as enjoyable to work with. Mentioned aspects are less care for activities of daily living, resulting in fewer patients requiring heavy lifting and more self-reliant patients. Patients are not only relatively young and fit, but also, most of them are men. Yara would even say they are fun:

I do like the patient category, (…) the men, they are just humorous, and you have really nice conversations with them. (…) I just think that our category of patients is a bit younger, you can still have great conversations with them, and I like that a lot. Even if it is only for a short time, so I sometimes regret that. But when we have the big ORs that are lying around for a longer period of time, yes, I really enjoy that.

As shown, the following themes and subthemes became apparent:

1. Supportive structures: nursing governance, professional development and quality of leadership.
2. Optimal work environment: working with skilled nurses, a professional relationship with physicians and professional autonomy.
3. Team culture: feeling seen, good ambiance, and equality.
4. Specialty of urology: variation in work, workload, and the type of patient.

Discussion

This study aimed to identify the "success formula" of the urology ward, regarding maintaining their nurses. Based on the four themes and twelve subthemes that emerged, nurses need to meet their professional as well as personal needs.

Most participants were under the age of 29, which is considered generation Y or Z. Work values vary between generations, as Stiglbauer et al. (2022) researched. They found significant changes from baby boomers to generations X, Y, and Z: a decrease in the need for clarity, and an increase in the values for money, career, development, stimulation, and relating (Stiglbauer et al., 2022). Similarly, the current research found themes including career development opportunities, striving to develop knowledge, skills and competencies, and good social relationships.

In line with the MEC (V&VN, 2009), supportive structures and an optimal work environment became apparent as important themes right away. Quality of care was not mentioned as such; however, nurses did explain the importance of professional development and growing and learning together. They also pointed out the importance of contact with patients. Both skilled employees and quality of communication impact the experiences of patients and therefore quality of care (V&VN Excellente Zorg, 2019).

The new themes that emerged are team culture and the specialty of urology. Team culture is not surprising, since this subject was present in the topic list. However, there was no need for the moderator to mention this subject, because all focus groups brought it up right after asking the opening question. The specialty of urology did emerge as a completely new theme, with subthemes focusing on the type of work and patient.

Each theme is considered individually, starting with *supportive structures*. Nursing governance, professional development, and quality of leadership are inseparably connected. Attracting and retaining nurses, as well as job satisfaction, are influenced by the support of managers (De Brouwer, 2019). Clearly, nursing leaders are indispensable in creating positive work environments that retain an empowered and motivated workforce. Leadership styles have a significant influence on job satisfaction. Transformational leadership has a great positive correlation with job satisfaction (Specchia et al., 2021). Aspects of transformational leadership include individualized consideration (Hunn, 2024) and intellectual stimulation (Blumenthal et al., 2024). Those aspects are in line with the results that were found, where nurses emphasized the importance of feeling heard and trusted as individuals, both personally as well as professionally.

Mutual trust is not only important for nurses and their managers. In an *optimal work environment*, trust is vital in the professional relationship with physicians, resulting in professional autonomy. Costa et al. (2024) add onto this finding, by stating that an allyship between nurses and physicians must be generated, while dismantling power hierarchies, in order to ensure sustainable staffing.

Moving onto the *team culture*, working as equal members is important for nurses. While power hierarchies are fading away, respect for one another's roles and functions remains. There is a significant relationship between nursing teamwork and job satisfaction (Bragadóttir et al., 2023). Familiarity among team members plays a crucial role in this process. Cameron and Quinn (2006) recognize these as aspects of the "Clan Culture," or a family-type organization, in which concern for people, teamwork, and participation are fundamental. However, reaching a "Clan Culture" takes time and effort.

The fourth theme was the *specialty of urology*, with subthemes focusing on the type of work and patient. While this theme was not anticipated in advance, surgical wards have been researched in light of job satisfaction before. Cautiously worded, Serafin et al. (2019) described it as a not particularly unsatisfying context. However, the factors that contributed to the specialty being appealing, are no surprise. Workload plays an important role in nurses' intention to leave the profession (Galbany-Estragués et al., 2024). Also, the nurse-patient relationship plays an important role in nurses' job satisfaction (Xu & Fan, 2023). Both factors are linked: a carefully distributed workload enables nurses to work on their relationships with their patients.

Looking at the subject from another perspective, Lang et al. (2022) researched reasons for workers to leave the health and welfare industry. They found workload, a non-supportive manager, a strong hierarchy, and not feeling heard to be the most important aspects for healthcare workers in the Netherlands. Moreover, Lemmelijn and Van Schaaik (2023) specified their results to nurses in the region of Utrecht. Their participants left their job but not always the health and welfare industry. Development opportunities and workload are the most reported reasons. It is noteworthy that the factors identified as motivating nurses to stay are similar to those that led them to leave their position. This alternative viewpoint serves to corroborate the findings.

Strengths and Limitations

Several forms of triangulation were applied to ensure data quality. Firstly, three focus groups with purposefully selected respondents provided a great insight into the reasons and motives of nurses to keep working on the ward. The groups complemented each other well. The content overlap confirmed the insights formed while reaching data saturation. Secondly, the researchers each contributed to a deeper understanding of the material, based on their different backgrounds and job experiences on the urology ward. This ensured the accuracy and reliability of the data gathered. Thirdly, carefully coding with two researchers (AD and DS), and then discussing codes with the third researcher who moderated the interviews (MS), ensured that the information was processed and understood thoroughly.

When comparing the sample to the whole population, a few items stood out. To begin with, only females were interviewed. A male perspective unfortunately lacks, but the team of the urology ward consists of 57 nurses, of whom only one is male. Additionally, the age of the participants was relatively low. However, 50% of the whole population on the ward is 29 years of age or younger. Others are 30–34 (19%) and 35 years or older (31%) (St. Antonius Hospital, 2024). Therefore, based on gender and age, the sample is a representative presentation of the population. Work experience on the other hand, was not evenly distributed across the population. However, it should be noted that the focus groups were intentionally divided according to this variable, which resulted in a different distribution of the sample.

An outlier has been identified in the "long" group. One nurse was older and worked on the ward longer than the others did. For privacy reasons, detailed figures are not given. However, both work experience and age exceed 1.5 times the IQR. Deleting these outliers would not be appropriate nor feasible, since this nurse did participate in a purposefully selected focus group. Nonetheless, when excluding these unique data points from the analysis, the median (IQR) work experience of the "long" group would be 54 (51–65), and the age would be 29 (29–29.5). The overall work experience would become 18 (15–42), and age 24 (24–27.5).

Due to planning difficulties, the desired work experiences deviated slightly from the initial plan. Instead of <12, 13–60 and 60 > months, the groups were ≤15 months, 16–47 months, and ≥48 months. However, the groups were still

divided based on consecutive work experience, with no overlap, as intended.

As planned, the moderator did not mention the topics until the respondents felt they had covered all the important areas. What became apparent is that the nurses mentioned almost all MEC themes by themselves, without prompting from the moderator. This shows that the selected sample was able to provide a great reflection on their own experiences.

Implications for Practice

This study aimed to provide practical insights and opportunities for other wards. As previously uncovered by V&VN (V&VN, 2009), supportive structures and an optimal work experience are vital in involving, securing, and sustaining nurses. New insights are the importance of feeling seen, good ambiance, equality, variation in work, a carefully distributed workload, and the role of the patient in job satisfaction.

These findings have implications for managers, as well as nurses themselves. The efforts of managers are essential since they have a great influence in the preconditions of the workplace. Managers need to keep in mind that nurses need to be met in their professional as well as personal needs. However, nurses also need to put in effort to work in a partnership with their managers as well as physicians.

There is growing emphasis on the importance of nurse governance and autonomy. Nurses are required to look at their profession differently. Moreover, the profession as a whole needs to take responsibility. The message for nurses therefore is to take control over their professional practice. Speak up and contribute to the decisions that directly influence the quality of care provided at the bedside, as well as the departmental and hospital-wide levels.

Future research should focus on how to achieve a cultural change and the role of the manager in this achievement. For example, the immersion of the manager in the team, and the duration of their work experience on the ward, are interesting items to explore further. Furthermore, investigating other specialties, with differing levels of job satisfaction among nurses, would provide a more broad insight into the success factors of a workplace.

Conclusions

This study aimed to uncover the "success formula" of the ward, to provide practical insights and opportunities for other wards. It became evident that nurses are uniquely positioned to provide invaluable insight into their needs. They illuminated the crucial importance of fostering a work environment that prioritizes both professional as well as personal needs.

Grant nurses the wings of decision-making, while nurturing their needs, and witness healthcare excellence unfold effortlessly.

ORCID iD

D.A.E. Spoolder https://orcid.org/0000-0002-8831-8317

References

ATLAS.ti Scientific Software Development GmbH (2023). Atlas.ti (Version 23.1.1.0). Retrieved from https://atlasti.com.

Blumenthal, M., Van der Heijden, B., Dautzenberg, R. L., & Boot, C. R. L. (2024). Transformational leadership and employability among support staff workers with long tenure. *Work*, *78*(3), 807–815. https://doi.org/10.3233/wor-230371

Boniol, M., Kunjumen, T., Nair, T. S., Siyam, A., Campbell, J., & Diallo, K. (2022). The global health workforce stock and distribution in 2020 and 2030: A threat to equity and 'universal' health coverage? *BMJ global Health*, *7*(6), e009316. https://doi.org/10.1136/bmjgh-2022-009316

Bragadóttir, H., Kalisch, B. J., Flygenring, B. G., & Tryggvadóttir, G. B. (2023). The relationship of nursing teamwork and job satisfaction in hospitals. *SAGE Open Nursing*, *9*(1-12), 23779608231175027. https://doi.org/10.1177/23779608231175027

Braun, V., & Clarke, V. (2012). *Thematic analysis*. American Psychological Association.

Buchan, J., & Catton, H. (2023). Recover to rebuild. In *Investing in the nursing workforce for health system effectiveness* (pp. 4). International Council of Nurses.

Cameron, K. S., & Quinn, R. E. (2006). *Diagnosing and Changing Organizational Culture*. Jossey-Bass.

Costa, D. K., Valley, T. S., & Friese, C. R. (2024). Addressing the nursing workforce crisis through nurse-physician collaboration. *JAMA Internal Medicine*, *184*(5), 463–464. https://doi.org/10.1001/jamainternmed.2024.0183

De Brouwer, B. (2019). *Essential elements of an excellent nursing practice environment*. [Sl]:[Sn].

Galbany-Estragués, P., Giménez-Lajara, M., Jodar-Solà, G., Casañas, R., Romeu-Labayen, M., Gomez-Gamboa, E., & Canet-Vélez, O. (2024). Exploring nurses' experiences: Abandoning the profession and migrating for improved opportunities. *Applied Nursing Research*, *77*, 151787. https://doi.org/10.1016/j.apnr.2024.151787

Harris, P. A., Taylor, R., Minor, B. L., Elliott, V., Fernandez, M., O'Neal, L., McLeod, L., Delacqua, G., Delacqua, F., Kirby, J.,

& Duda S. N. (2019). The REDCap consortium: Building an international community of software platform partners. *Journal of Biomedical Informatics*, *95*, 103208. https://doi.org/10.1016/j.jbi.2019.103208

Harris, P. A., Taylor, R., Thielke, R., Payne, J., Gonzalez, N., & Conde, J. G. (2009). Research electronic data capture (REDCap)–a metadata-driven methodology and workflow process for providing translational research informatics support. *Journal of Biomedical Informatics*, *42*(2), 377–381. https://doi.org/10.1016/j.jbi.2008.08.010

Helder, C. (2023). *Nieuw arbeidsmarktprognose zorg en welzijn*. Den Haag Retrieved from https://open.overheid.nl/documenten/ronl-c7873aa5c5b60fd2ae921e5082ac79f14033e5c6/pdf.

Holloway, I., & Galvin, K. (2023). *Qualitative research in nursing and healthcare*. John Wiley & Sons.

Human Resources Department (2023). *Ziekteverzuim.*

Hunn, A. (2024). Embracing transformational leadership in nephrology nursing. *Nephrology Nursing Journal*, *51*(3), 225–229. https://doi.org/10.37526/1526-744X.2024.51.3.225

Lang, J., Koop, M., & Horwitz, Y. (2022). *Waarom verlaten werknemers de sector Zorg en Welzijn?* Retrieved from https://www.pfzw.nl/content/dam/pfzw/web/over-ons/nieuws/pdf/pfzw-juni-2022-waarom-verlaten-werknemers-de-sector-zorg-en-welzijn.pdf.

Lemmelijn, M., & Van Schaaik, A. (2023). *Van uitstroom naar behoud in de sector zorg en welzijn*. Retrieved from https://www.nivel.nl/sites/default/files/bestanden/1004400.pdf.

McClure, M. L., Pulin, M. A., Sovie, M. D., & Wandelt, M. A. (1983). Magnet hospitals. Attraction and retention of professional nurses. Task force on nursing practice in hospitals. American academy of nursing. *ANA Publ(G-160)*, *i-xiv*, 1–135.

McKibben, M. J., Kirby, E. W., Langston, J., Raynor, M. C., Nielsen, M. E., & Smith, A. B., … R. S. Pruthi (2016). Projecting the urology workforce over the next 20 years. *Urology*, *98*, 21–26. https://doi.org/10.1016/j.urology.2016.07.028

Serafin, L., Bjerså, K., & Doboszyńska, A. (2019). Nurse job satisfaction at a surgical ward - a comparative study between Sweden and Poland. *Medycyna Pracy*, *70*(2), 155–167. https://doi.org/10.13075/mp.5893.00768

Specchia, M. L., Cozzolino, M. R., Carini, E., Di Pilla, A., Galletti, C., Ricciardi, W., & Damiani, G. (2021). Leadership styles and nurses' job satisfaction. Results of a systematic review. *International Journal of Environmental Research & Public Health*, *18*(4), 5–8. https://doi.org/10.3390/ijerph18041552

St. Antonius Hospital (2020). *Meerjarenbeleidsplan 2020–2024. [Internal Report]*. Retrieved from https://intranet.antoniusziekenhuis.nl/meerjarenbeleid/meerjarenbeleidsplan-onze-aanpak.

St. Antonius Hospital (2021). *De mens achter de leider, aflevering 2: Marit de Bie* [Retrieved from https://antoniusfit.nl/post/podcast-de-mens-achter-de-leider-or-aflevering-2-marit-de-bie

St. Antonius Hospital (2022). *Medewerkertevredenheidsonderzoek. [Internal Report]*.

St. Antonius Hospital (2023). *Feedbackradar F2 Q3. [Internal Report]*.

St. Antonius Hospital (2024). *Strategische personeelsplanning. [Internal Report]*. MVK_7107.

Stiglbauer, B., Penz, M., & Batinic, B. (2022). Work values across generations: Development of the New Work Values Scale (NWVS) and examination of generational differences. *Frontiers in Psychology*, *13*, 1028072. https://doi.org/10.3389/fpsyg.2022.1028072

Twigg, D., Duffield, C., Thompson, P. L., & Rapley, P. (2010). The impact of nurses on patient morbidity and mortality - the need for a policy change in response to the nursing shortage. *Australian Health Review*, *34*(3), 312–316. https://doi.org/10.1071/ah08668

V&VN (2009). Model Excellente Zorg. Retrieved from https://www.venvn.nl/excellente-zorg/model/model-excellente-zorg/.

V&VN Excellente Zorg. (2019). Handboek Excellente Zorg. Retrieved from https://www.venvn.nl/media/a3uku4g2/handboek-excellente-zorg-2018.pdf

Xu, Y. W., & Fan, L. (2023). Emotional labor and job satisfaction among nurses: The mediating effect of nurse-patient relationship. *Frontiers in Psychology*, *14*, 1094358. https://doi.org/10.3389/fpsyg.2023.1094358