How nurses and nurses work environment affect patients’ experiences with quality of care: a qualitative study.

R.A.M.M. Kieft,
Msc, Nursing Policy Advisor, Dutch Nurses’ Association, PO Box 8212, 3503 RE Utrecht, The Netherlands, r.kieft@venvn.nl

B.J.M. Brouwer de,
Msc, Nursing Policy Advisor, Dutch Nurses’ Association, PO Box 8212, 3503 RE Utrecht, The Netherlands, b.brouwer@venvn.nl

A.L. Francke,
1/ NIVEL, Netherlands Institute for Health Services Research, PO Box 1568, 3500 BN Utrecht. a.francke@nivel.nl
2/ EMGO+/VU medical center, Amsterdam, The Netherlands. Van der Boechorststraat 7, 1081 BT Amsterdam

D.M.J. Delnoij,
Professor of Transparency in Healthcare from the Patient's Perspective, Tranzo, Tilburg University, PO Box 90153, 5000 LE Tilburg, The Netherlands, d.delnoij@uvt.nl
Abstract

Background
To evaluate and improve quality of care, healthcare organisations are monitoring patients' experiences. Because nurses are spending a lot of time with patients, they have a major impact on patients' experiences. To improve experiences of patients with quality of care, nurses need to know what factors within the nurse work environment are of influence. The main focus of this research is to comprehend Dutch nurses' views on how their own work and work environment contribute to positive patients' experiences.

Methods
A descriptive qualitative research design was used to collect data. Four focus groups were held consisting of 6 to 7 registered nurses, respectively operative in mental healthcare, hospital care, home care and nursing home care. A total of 26 nurses participated through purposeful sampling. The interviews were audio taped, transcribed and subjected to thematic analysis.

Results
The nurses mentioned several essential elements to improve patients' experiences with quality of nursing care: clinical competent nurses, collaborative working relationships, autonomous nursing practice adequacy of staffing, control over nursing practice managerial support and finally patient centred culture. Beside these facilitating elements, they mentioned inhibiting factors, such as cost-effectiveness policy and transparency goals for (external) accountability. Nurses experience pressure to increase productivity and report a high administrative workload. According to them these factors will not improve patients' experiences with quality of nursing care.

Conclusions
According to nurses, a diverse range of elements affect patients' experiences with quality of care. And when these elements are incorporated into daily nursing practice, nurses believe it will result in more positive patients' experiences with nursing care. However, nurses act in a healthcare context in which they have to reconcile cost-efficiency and accountability with their desire to provide nursing care based on patients' needs and preferences. Nurses experience a conflict between these different approaches. Therefore it is necessary that nurses gain control over their own practice to improve patients' experiences.

Keywords
Patients experiences, quality improvement, nurses, nurse work environment.
Background

Worldwide patients’ experiences increasingly have been monitored to get information about obtained service and quality of care of healthcare [1]. Patients’ experiences can be defined as a reflection of what actually has happened during the care process and therefore provides information about the performance of healthcare workers [2]. It refers to the process of care provision [3]. In many countries, assessing patients’ experiences is part of a systematic survey programme, not only in the United States [4], but also in many European countries [5]. In the Netherlands the Government developed and implemented a national performance framework for comparing quality of health care. The national performance framework contains a set of quality indicators, among which patients’ experiences. The Consumer Quality Index (CQI) is thereby used as measurement standard [6].

Assessing patients’ experiences with quality of care not only provide information about the actual experiences, an assessment also displays which quality aspects patients regard as most important [7]. Many studies have been performed to analyse what patients consider essential within healthcare [8-10], of which the Picker Institute Europe [11] exposed eight general quality aspects [include box 1 here]. The quality aspects are mostly reflected in questionnaires to monitor patients experiences, such as the CQI [12] or the Consumer Assessment of Healthcare Providers and Systems (CAHPS) [4]. Patients are asked which aspects in receiving care are of importance and what their actual experiences have been [13].

Patients’ experiences have been identified as an indicator for evaluating and improving quality of care [3, 14]. When organisations assess patients’ experiences, professionals can use the results for internal quality improvements. It demonstrates that professionals sincerely use patients’ experiences and preferences for adjusting their own practice and make their contribution to patient outcomes visible [15].

Because nurses spend a lot of time with patients [16], they affect patients’ experiences with care [17]. Research showed that the nurse work environment is a determining factor. It seems that when patients have positive experiences with nursing care, nurses also experience a good and healthy work environment [18-20]. A healthy work environment can be defined as a working setting in which nurses are able to both meet the goals of the organisation and gain personal satisfaction in their work [21]. A healthy work environment fosters a climate in which nurses are challenged to use their expertise, skills and clinical knowledge. Furthermore, nurses working in such an environment are being encouraged to give excellent nursing care to patients [21]. Kramer and Schmalenberg showed in their research that several aspects are related to the work environment [22]. They identified eight ‘essentials of magnetism’ by Grounded Theory that defines the nurse work environment and influence quality of nursing care. From the perspective of nurses, the following eight essentials are crucial in a work environment to provide high quality of nursing care [22]:

- Clinical competent nurses
- Adequacy of staffing
- Nurse-physician relationship
- Autonomous nursing practice
- Nurse manager support
- Control over nursing practice
- Support for education
- A culture that values concern for patients
Relation between nurse work environment and patients’ experiences with quality of care

The American Nurses Credentialing Center (ANCC) started the Magnet Recognition Program in the early nineties. This program is building upon the study of McClure et al [23] in 1983 and is focused on improving patient care, safety and patients experiences by creating a good and healthy working environment for nurses. Research has shown that patients experiences in healthy working environments are significantly better [24-26].

The relationship between the nurse work environment and patients experiences also has been investigated in a cross-sectional study in 430 hospitals by Kutney-Lee et al [18]. The researchers used data about patients experiences from the national CAHPS survey. Nurse work environment was measured with the PES-NWI tool and included items about, for instance, nursing leadership and nurse-physician relationships. 20,984 staff nurses were included. The nurse work environment had significant relations with all ten CAHPS measures, meaning that the quality of the work environment has an influence on patients’ experiences with quality of care.

This finding corresponds with the cross-sectional study of McHugh et al [19] in which 428 hospitals participated and 95,499 registered nurses. For their research, data from the PES-NWI and CAHPS were used. The researchers concluded that nurses’ dissatisfaction with their work environment was associated with significant lower patients’ experiences.

In the ‘RN4Cast’ project [20] 61,168 hospital nurses and more than 131,000 patients in Europe and the United States were questioned in a cross-sectional survey. The aim of this immense study was to determine whether nurse work environment affected patient care. The PES-NWI has measured the perception of nurses of their work environment. Patients overall satisfaction has been ‘measured with the national CAHPS survey. The perceptions of nurses and patients were found to be consistent, which means that both patients and nurses had more positive experiences in hospitals with better work environments.

Although a relationship between the nurse work environment and patients’ experiences with quality of care does exist, it is not clear how this relationship is formed and characterized from the perspective of Dutch nurses, and which aspects in daily practice influence patients experiences. Could these aspects somehow be linked to the ‘essentials of magnetism’? Little is known about the underlying mechanisms and how these result in better patients experiences. The main focus of this research is to comprehend Dutch nurses’ views on how their own work and work environment contribute to positive patients experiences.

Methods

Aim of study
The aim of this study is to understand how the nurse work environment is related to positive patient experiences from the perspectives of nurses themselves.

Research question
The central research question is: According to nurses, which elements of nurses’ work and work environment influence patients’ experiences with the quality of nursing care?
Sub questions are:
- Are these elements related to the eight essentials of magnetism?
- What is the mechanism by which these elements lead to better patients experiences?

Research design
The main focus of this research is to comprehend the perspective of nurses regarding their own role in achieving positive patients experiences. Therefore a qualitative phenomenological
approach was justified, because it explores areas about which little is known or to gain an understanding about specific areas. It refers to experiences, feelings and behaviours of people [27, 28].

Sample size, composition and data collection
To gain a deeper understanding of the influence of the nurse work environment on patients experiences, we formed four focus groups. The purpose of the focus groups was to elicit ideas, thoughts and perceptions from nurses [27] about patients experiences and the influence nurses have to improve patients experiences. We recruited participants by purposeful sampling. Therefore the following criteria were determined:
- Participants must be employed as a registered nurse or certified nursing assistants.
- Participants must have at least two years of nurse work experiences.
- Participants are operative in mental healthcare, hospital care, home care or nursing home care.

Nurses are active in various settings and every setting has its own specific dynamics. By getting insight into these perspectives, possible different views could be compared with each other. In addition, an overall view of the total health care system could be obtained.

The organisations recruited are participating in a Dutch program ‘Excellent Care’ which is based on the eight essentials of magnetism and focuses on creating a dynamic, inspiring and innovative nurse work environment to improve quality of care. Each organisation has a program director. We asked the program directors to recruit nurses for the focus groups. A total of 26 registered nurses participated. Each focus group consisted of 6 or 7 registered nurses, respectively operative in mental healthcare, hospital care, home care and nursing home care. Nurses described their perceptions and views with respect to their own area of expertise.

Every focus group discussion was led by two researchers. One researcher facilitated the interview, the other had an observing role and monitored the process. After each focus group interview, researchers evaluated and critically reflected on the process in order to examine the quality of the meetings. With this investigator triangulation, eventual possible different views were dissected.

The researchers used an interview guide with pre-defined topic areas (box 2). The sequencing of questions depended on the process of the group and responses of the informants. Duration of each focus group was approximately two hours. The researchers explained the procedures, and introduced the topic to be debated. When the informants discussed certain topics, researchers kept a non-directive approach because of the dynamic of the group and different perspectives that were being examined. When certain views were polarised, the researcher stimulated the discussion by introducing a new question or topic. All conversations were digitally recorded and typed out in order to improve transferability.

Ethical considerations
This was a qualitative study in competent subjects without any intervention. The study did not involve any form of invasion of the study participant's integrity, and in such cases no approval by an ethics committee is required in the Netherlands (according to the Medical Research Involving Human Subjects Act (see ccmo-online.nl). All respondents received written and verbal information about the aim and content of the study. Study participation was voluntary. Data were analysed in an anonymous way and results were non-traceable to individual professionals.
Date analysis
Transcribed data were open coded and categorised. Several themes were extracted by
organising and ordening the categories. During the analytical process interview fragments
were constantly compared. Also the literally transcribed interviews were reviewed several
times to check whether elements might have been overlooked. We presented the final analysis
to the participants and asked them to comment on the contents. This member check helped us
to determine whether we have adequately understood and interpreted the data. The analytical
procedure and findings have been discussed within the research team to improve the quality
of analysis. A computer program MaxQDA supported the coding ordering analyses.

Results
The sample consisted of 26 registered nurses, of which 6 males and 20 females. The mean age
of the participants and the length of nursing experiences varied per focus group, as shown in
box 3 below.

[include box 3 here]

Participants formulated several facilitating elements which are, according to them,
fundamental to improve patients’ experiences with quality of care. They also mentioned
inhibiting factors as cost-effectiveness and transparency and accountability goals. These
factors prevent them from practising their work to improve patients’ experiences.

[include box 4 here]

Both facilitating elements as inhibiting factors will be elaborated below.

Facilitating elements

Clinical competent nurses
The participants stated that nurses need to have competencies to act professional. These
competencies are, according to them: social skills, expertise & experience and priority setting.

1. Social skills
Participants stated that social skills are an important competence to generate a trustful care
relationship. Participants indicated correct behaviour and attitude, tranquillity, taking time for
patients, and listening and having empathy, as essential nursing competences. According to
them these social skills bring about a sense of commitment to the patient and constitute a
major part in meeting the expectations of the patient.

Nurses must have competences to build up and maintain good relationships with
patients. For patients nursing care is about being heard and seen. Knowing that you
are in safe hands. You remove fear and uncertainty. You give a patient confidence and
hope in return. You offer him several options from which he can choose. Someone who
is dependent, and do not know what will happen, is more suspicious and anxious
(respondent 21, focus group hospital).

2. Expertise and experience
Participants mentioned three key aspects related to expertise, which are knowledge, technical
skills and communicative capabilities. The first key aspect related to expertise means that,
according to the participants, nurses must have substantive knowledge related to nursing
profession. Participants indicated that nurses should maintain and follow existing developments and new insights. According to participants, nurses must continually invest in nursing knowledge and education. In their view nurses ought to correctly offer state-of-the-art interventions of activities in line with the agreed nursing policy.

As a second key aspect related to expertise, participants indicated, that nurses must have technical skills. As a result patients receive effective and safe care. The last aspect is mentioned by participants is that nurses must have communicative capabilities. The participants indicated that nurses serve as the spokesperson for patients who are often in a vulnerable position. They stated that nurses are easy accessible and can act as a link between the patient and other disciplines. According to participants nurses can use the right substantive arguments on behalf of patients’ interests or needs. Participants mentioned that this expertise is important for patients because it is related to quality of care.

If you can answer a care-related question, it gives the resident a certain peace of mind. It signals: she knows what she's talking about. I notice that residents really appreciate when I share knowledge, and offer them information - which at that time they themselves don’t have yet. Only then residents can make choices about their own care (respondent 15, focus group nursing home).

In addition to substantive expertise, participants stated that nursing experience is also of influence. According to them a junior nurse has too little experience to respond creatively to sometimes complex care situations. However, according to participants, junior and senior nurses can learn from each other: they should work as a team and collectively pursue their common objectives. In their view experience is gained in practice. According to participants, this can be characterized as ‘expertise’.

When you suspect someone is contemplating suicide, you need to know how serious this is. Is it just a cry of “I'm not feeling well” or are these serious thoughts. Has the patient already made plans, does the patient have a death wish, or is it an impulsive thought? In that sense you need to reflect on the signals very well. You can only learn this in practice (respondent 1, focus group mental health care).

3. Priority setting

As stated by participants different activities can occur simultaneously during the daily care of patients. According to them, nurses should assess what care is needed and then flexibly coordinate diverse actions with each other. In the view of the participants prioritization is about the organisation of nursing care. Patients need nurses with clinical experience in order to coordinate care. What choices are made, what is urgent and important? Those choices influence patients experiences.

Prioritization is very important. It means that you have to coordinate the daily care and decide which activities take priority. Residents sometimes have to wait for help. If you are in a hasty mood, you transmit that feeling to residents. It shows immediately. The restlessness affects the other residents (respondent 18, focus group nursing home).

It means, as stated by participants, that patients sometimes have to wait before they are taken care of, or that nurses are not immediately accessible for questions or problems. According to participants, patients do not always obtain the right and needed care, especially if the workload is high.
Collaborative working relationships
According to the participants, it is important to build and maintain collaborative working relationships with all disciplines, including their own discipline. In the view of participants, collaborative working relationships means that all involved disciplines interact and operate complementary to each other, with mutual respect based on knowledge and expertise. They stated that all disciplines need to discuss and influence patient care from their own expertise. Participants believe that problems sooner will be solved when ideas and thoughts reciprocal are being exchanged. In their view, it is about sharing information and communication. As stated by the participants, communication and aligning with each other is needed so that no conflicting information will be given, and uniformity in care or treatment is provided. This generates, according to the participants, tranquillity and clarity towards patients.
Participants believe that collaboration and communication affect how patients experience quality and effectiveness of care.

*We have a patient who is very compulsive. We made agreements about how to approach and handle this patient. We continually need to communicate with each other, physicians, psychologists, nurses. Clear communication is so important and I miss that sometimes. When you have good relationships it is easier to review and discuss the policy pursued. Not only it will increase your knowledge, it is also helpful in the communication towards the patient and his family. It is easier to explain why the current policy has been deployed (respondent 5, focus group mental healthcare).*

Autonomous nursing practice
In all focus groups, participants stated that the scope of practice for which they are accountable, is of influence on patients experiences. The scope of practice, according to them, means that nurses can control their own work related to patient care. It means, in the view of the participants, that nurses can make independent decisions about patient outcomes based on clinical judgements. The participants therefore believe it is essential to monitor and measure outcomes, as long it is directly related to patient care. However, participants indicated that they did not have insight in obtained care results from assessments.

*We participate in an annual national prevalence survey. We have to fill out a lot of forms. It is an administrative burden and takes a lot of time. Time we cannot spent to patient care. We get a pile of papers, screen patients and register them. It does not contribute to quality of care because we never get any feedback. And what does one measurement tell us? It does not inform us whether we are doing well or not. I do not believe that (respondent 12, focus group home care).*

According to the participants there is no policy to improve patients experiences based on the obtained information from assessments. Participants could not indicate whether the deployed interventions actually are leading to desired nursing care results, including patients experiences. Participants feel less autonomy to influence this process.

Adequacy of staffing
Participants stated that the amount of nurses available influences how patients experience quality of care. The participants could not indicate which amount they consider to be sufficient. However, participants think that sufficient nurse staffing is also linked to team composition or staff mix. For instance they indicated, the relative proportion of registered
nurses to student nurses, or the amount of different nurse qualification levels in one team. Participants stated that several tasks and assignments have been transferred to nurses with a lower qualification in order to work as efficiently as possible and to achieve a higher productivity. As a result the participants believe that nursing care is, in general, increasingly developing in the direction of task-centred care in which different working methods are applied. According to them this affect patients’ experiences with regard to quality and effectiveness of nursing care.

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_Nurses provide care within certain theoretical frameworks that are designed to increase self-reliance and self-management of the patient. Nurse Assistants have a more practical focus and take over patient care at a point when they should not. These two different ways of working are confusing for patients. And we think 'how can it be that the patient is made so nervous?' and afterwards we notice two contradictory ways of working (respondent 3, focus group mental healthcare)._*

As stated by the participants sufficient nurse staffing determines whether the wishes and needs of patients are met. According to them, insufficient deployment of nursing staff has a direct and negative impact on the experience of patients.

_I work alone in a group. For example, when I am in the bathroom with a patient, the other patients are alone. So I have to keep my eyes and ears open and must respond to what occurs. And that is not always easy. I constantly think: I must check if everything is all right. Because I am responsible for the other patients. I always leave the bathroom door partly open, so I can see and listen to what is going on in the living room. I provide patient care too hastily. My patients obviously do feel that (respondent 17, focus group nursing home)._*

**Control over nursing practice**

The participants stated that control over nursing practice means that nurses are involved in nursing policy or nursing issues. In their view nurses are not always in charge and can not always make their own decisions about nursing issues. Participants felt this affects the quality of nursing care.

_In the past, I always made my own schedule. Now we have planners and they do not have any experience with care. Efficient planning is more important than patient-centered planning. It does not matter whether it suits the patient. The patient should be scheduled later if it fits better in the planned route (respondent 9, focus group home care)._*

They stated that if nurses were more involved in the development of nursing policies, it will influence patient care positively. It means, according to them, that they can reflect and discuss nursing issues related to quality of patient care, which benefits quality of care.

**Managerial support**

Participants indicated that a manager has to pay attention to the team spirit and unity. In their view a manager must be able to handle conflicts. She also must be visible and approachable. Participants believe that a manager should ask the opinion of nurses, therefore, in their opinion, regular contact is important.
A manager, according to the participants, must be able to create the right conditions and must have logistical sense to ensure continuity of care. They stated it refers to arranging sufficient personnel, replacement of staff, and succession planning. Participants find that managers critically examine the deployment of personnel. According to them the nursing staff mix has drifted towards a model where lower-educated nurses are substituted for higher-educated ones. They noted that Management is tied to a system dominated by controlling costs. Thus in their view, nurses may desire a specific care for a patient, while Management connect care to a maximum number of minutes based on budgetary considerations. According to them nurses regularly experience a tension with Management in shaping the care that meets the expectations of patients.

*We want to provide certain care, but that is at the expense of something else. If we do one thing, we can not do another. For instance, we plan 30 minutes for patient care. When a patient wants to go outside for a walk, this will cost him 10 minutes of this total time. So we really have to negotiate with the patient or his family. This leads, of course, to lots of misunderstanding. I understand that feeling (respondent 13, focus group nursing home).*

**Patient centred care**

According to participants, the focus of nurses is the provision of patient centred care. They define this as nursing care focussed on the patients’ needs and preferences and with the aim to increase patient self-management and to encourage improved health and recovery. As said by participants, nurses are the first points of contact for patients. In their view, they are often with the patient for 24 hours / 7 days a week (except for home care) and gather large amounts of information about them. They think that direct contact with patients is crucial to build and maintain a relationship of trust. Participants believed that high quality nursing care is achieved when patients feel heard and understood, consider themselves in safe hands and are aware that their care problems have been noticed. This will, according to them, result in positive patients’ experiences.

*We listen to the patient and talk to him. We immerse ourselves in his background. What is important, how does he cope and handle care problems. Based on this knowledge, we present the patient with a number of options so that he can decide upon a solution for his care problems (respondent 8, focus group home care).*

**Inhibiting factors**

The participants talked about inhibiting factors that prevent them from practising their work to improve patients’ experiences. The mentioned inhibiting factors were cost-effectiveness and transparency and accountability goals.

**Cost-effectiveness**

Participants stated that organisation policy is focused on efficient and effective deployment of people and resources. They mentioned the transfer of tasks to nurses with a lower qualification to work as efficiently as possible and to achieve a higher productivity. In their view care is more and more standardized. At the same time participants noted that care has become increasingly complex. According to them patients are generally older and simultaneously have multiple age-related co morbidities. The participants experience an increasing workload and work-associated pressure.
In recent years, patients turnover has increased. It means that patients will be discharged quicker. As soon as they recover, they are sent home. However patients sometimes also have chronic disorders. I sometimes think it is irresponsible [to send these patients home so quickly]. Patients do get less attention because the work pressure is high (respondent 22, focus group hospital).

Transparency & accountability goals
Participants reported an increasing registration charge to account for quality and costs of care. They experience a high administrative workload.

So many forms. Entering the data means double registration load. We use different programs. We first have to register in program X. Then we have to register our measurements and enter all kinds of codes in another program. Log in and log out. The registrations and coding are needed for the Government and Insurers. It is not always patient related and does not inform us about the health status of patients (respondent 23, focus group hospital).

The registration charge is, according to participants, out of balance. This means, so they said, that monitoring and registration is not aimed at improving nursing care. Participants believe it more serves an external accountability goal to inform insurers and the Government. Participants experience little authority to change this policy. According to them, monitoring care results must help nurses to improve their own practice. For them, it means that nurses can reflect and discuss nursing issues related to quality of patient care, including the results of patients experiences.

Discussion

We interviewed 26 nurses working in various Dutch healthcare settings to understand their views on how their own work and work environment contribute to positive patients experiences. Using an open approach, we obtained insights into the perceptions of nurses and described what they said. The participants stated that a diverse range of elements are essential to provide high-quality nursing care. When these elements are incorporated into daily nursing practice, the participants expect it will result in more positive patients’ experiences with nursing care. The elements are: clinical competent nurses, collaborative relationships, autonomous nursing practice, adequacy of staffing, control over nursing practice, managerial support, patient centred care.

One of the sub questions was to verify whether the identified elements were related to the eight essentials of magnetism as defined by Kramer & Schmalenberg [22]. We found that all elements fit. The essential of magnetism ‘nurse-physician relationships’ is, in our opinion, not totally applicable in a modern healthcare system. Although physicians, as a discipline, are represented in all settings, also other disciplines, such as psychologists, social workers or physical therapists, are part of a healthcare team. The participants stated that a good relationship must be based on equivalent communication and collaboration not only with physicians, but with all involved healthcare workers. The participants stated that concern of patients’ well-being must be the common aim for all involved disciplines and that communication and collaboration must support this shared goal. Therefore we replaced ‘nurse-physician relationships’ to ‘collaborative working relationships’.

Competing policies in the nursing setting
The other sub question was to understand what the mechanism is by which these elements lead to better patient experiences. By analysing the data it became clear that nurses operate in a complex healthcare context. These different views control the manner in which nurses can practise their job. We noticed that nurses are confronted with organisation policies focussed on cost-efficiency, transparency and accountability goals. According to the participants it has led to a more productive care system. It also became clear that nurses flourish within a patient-centred care approach. A patient-centered care system supports individual patients in their need to make decisions and participate in their own care. It means that organisations have to facilitate a culture where nurses can professionally support patients by practicing high-quality nursing care [29].

Each view is defensible on its own, but collectively they contradict each other. The context in which nurses act is almost paradoxical, which means that nurses have to offer patient-centered care in a standardised and productive care system.

In the Dutch context healthcare insurers, the Government and healthcare providers are responsible and accountable for good quality of care. However, their focus differs. Healthcare insurers annually make agreements with healthcare providers about which care will be delivered. These agreements are defined in a healthcare procurement [30]. Individuals who legally live in the Netherlands are obliged to buy an individual health insurance [31]. To make well-considered choices, individuals need to be informed about the quality of care as provided by healthcare workers. Healthcare insurers are therefore driven by accountability goals, because they need to determine whether healthcare organisations or professionals meet the minimum standard of performance, as agreed by the healthcare procurement [32]. The Government is the supervisory authority to look after a proper functioning of the health care system and therefore is responsible for the transparency process [33]. In the Netherlands a national performance framework for comparing quality of health care is developed and implemented under supervision of the Government [34]. The national performance framework contains a set of quality indicators and related measurements, including patients experiences [6, 35]. Healthcare insurers and Government collect data for external accountability goals [36]. Healthcare providers and professionals themselves are also responsible for good quality of care. Their aim is more internal driven to improve quality of care and make their contribution to patient outcomes visible [37, 38]. However, our research showed that nurses do not receive feedback on their scores and they are not aware that they could – and even should – use these registrations to monitor and improve the quality of their work.

It could be argued that a dominance of cost-effective policy and transparency controls the manner in which nurses can practise their job and that this is of influence on patients’ experiences with care. Ancarani [39] showed that patient satisfaction was negatively associated with managerial controlled wards with a pressure to produce. Open, collaborative, innovative wards and wards focused on welfare and involvement of nurses, with supervisory support and training were positively associated with patient satisfaction. This confirms that the environment in which nurses operate influences patients’ perspectives with quality of care. This corresponds with the findings of our research in which participants stated that the dominance of policies focussing on cost-effectiveness and transparency lead to more pressure to produce and to a high administrative workload. The participants experience less authority to influence this policy.

**Strong nursing practice**

To incorporate the identified elements into nursing practice, cost-effectiveness, transparency and patient-centered care policy need to be connected. For example, registration and monitoring of outcomes should not only be used to quantify achievements against
transparency goals, but also for overall nursing quality improvement. Nurses can decide which issues are of importance to improve patient care.

To connect the different policies, participation and commitment of both nursing management and nurses is required. Nurses need to be challenged to shape their own environment and create a strong nursing practice [40]. It will result in more positive patients experiences [41].

Limitations of this study

The study has some limitations. The purposive sampling procedure decreases the generalizability of the findings. We performed four focus groups. Each focus group consisted of 6 or 7 registered nurses, respectively operative in mental healthcare, hospital care, home care and nursing home care. At one hand we gained a broader insight in the perspectives of nurses. The scope of the study was in fact broad and extensive. On the other hand every sector has specific dynamics and context. Therefore one focus group per sector might be limited. However, we reached data saturation as new information did not appear and similar themes emerged within the focus groups.

In this study we explored nurses’ views on the relation between work environment and patients experiences. This study was limited to nurses, but to fully understand the nuances of this relation, it might be interesting to also analyze patients’ view.

Conclusion

The central question of this study was: “According to nurses, which elements of nurses’ work and work environment influence patients’ experiences with quality of nursing care?”

The obtained knowledge from this research has resulted in a better understanding of how nurses regard their own role in achieving positive patients experiences. From the viewpoint of the interviewed nurses, several elements are essential in relation to patients’ experiences with quality of nursing care: clinical competent nurses, collaborative working relationships, autonomous nursing practice adequacy of staffing, control over nursing practice managerial support and finally patient centred culture. These elements correspond to the so-called ‘essentials of magnetism’. Provided that these elements are incorporated into the nursing practice, it will most likely result in more positive patients’ experiences with nursing care.

This research revealed several factors that nurses find inhibiting when it comes to improving patients’ experiences with quality of nursing care. Current nursing policy is heavily focussed on cost-effectiveness and transparency for (external) accountability, which creates pressure to increase productivity and causes a high administrative workload. However, despite all the registrations that take place for external accountability, the participated nurses do not monitor care results to improve their own practice. The participants experience little authority to influence this. They believe it is important to reflect and discuss nursing issues related to quality of patient care, including patients experiences.

Recommendation

Further research is recommended to examine whether the elements of a healthy work environment are statistically related to patients experiences in the Dutch healthcare setting. In the Netherlands, patients’ experiences are measured with the Consumer Quality Index (CQI) [6].

Nurses’ perceptions on their work environment are measured using the Essentials of Magnetism Tool II (EOMII) questionnaire [42]. Further research should focus on the statistical relations between CQI and EOMII.
Abbreviations

ANCC, American Nurses Credentialing Center; PES-NWI, Practice Environment Scale of the Nursing Work Index; EOMII, Essential of Magnetism Tool II; CQI, Consumer Quality Index; CAHPS, Consumer Assessment of Healthcare Providers and Systems.

Competing interests

The authors declare that they have no competing interests.

Authors’ contributions

RK participated in the design of the study, carried out the focus groups, analyses and drafted the manuscript. BdB participated in the data collection (two focus groups) and revised the manuscript. DD participated in formulating the research questions, in the design of study, in the data collection and analyses (two focus groups) and helped to draft the manuscript. ALF participated in the design of the study and helped to draft the manuscript. All authors read and approved the final manuscript.
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Box 1: General quality aspects of healthcare that patients consider most important [7]:

1. Involvement in decisions and respect for preferences
2. Clear, comprehensible information and support for self-care
3. Emotional support, empathy and respect.
4. Fast access to reliable health advice
5. Effective treatment delivered by trusted professionals
6. Attention to physical and environmental needs
7. Involvement of, and support for, family and carers
8. Continuity of care and smooth transitions.
Box 2: Topic list

Questions:
- Which elements in daily nursing practice influence patients experiences?
- In what way do nurses effect experiences of patients?
- What are inhibiting or facilitating factors?

Topics:
- Clinically competent nurses
- Adequacy of staffing
- Nurse-physician relationship
- Autonomous nursing practice
- Nurse manager support
- Control over nursing practice
- Support for education
- A culture that values concern for patients
Box 3: Demographics of the participants

<table>
<thead>
<tr>
<th>Focus group</th>
<th>Age (mean)</th>
<th>Gender</th>
<th>Length of nursing experience (mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital care</td>
<td>34 years</td>
<td>3 male, 3 female</td>
<td>13 years</td>
</tr>
<tr>
<td>Mental healthcare</td>
<td>36 years</td>
<td>2 male, 4 female</td>
<td>16 years</td>
</tr>
<tr>
<td>Nursing home care</td>
<td>51 years</td>
<td>8 female</td>
<td>19 years</td>
</tr>
<tr>
<td>Home care</td>
<td>46 years</td>
<td>6 female</td>
<td>22 years</td>
</tr>
</tbody>
</table>
Box 4: facilitating and inhibiting elements

<table>
<thead>
<tr>
<th>Facilitating elements</th>
<th>Inhibiting factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical competent nurses</td>
<td>Cost-effectiveness policy</td>
</tr>
<tr>
<td>Collaborative working relationships</td>
<td>Transparency and accountability goals</td>
</tr>
<tr>
<td>Autonomous nursing practice</td>
<td></td>
</tr>
<tr>
<td>Adequacy of staffing</td>
<td></td>
</tr>
<tr>
<td>Control over nursing practice</td>
<td></td>
</tr>
<tr>
<td>Managerial support</td>
<td></td>
</tr>
<tr>
<td>Patient centred care</td>
<td></td>
</tr>
</tbody>
</table>
Additional files provided with this submission:

Additional file 1: Response to reviewers.docx, 49K
http://www.biomedcentral.com/imedia/1642063496112560/supp1.docx

Additional file 2: Track changes How nurses and nurses work environment affect pati, 91K
http://www.biomedcentral.com/imedia/1142053870112560/supp2.docx