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Registered nurses' experiences about organisational culture and its impact on the neonatal continuum of care in KwaZulu-Natal, South Africa

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Abstract

Culture could influence clinical practice within the neonatal continuum of care (NCC). To examine the influence of culture on clinical practices within the NCC, participant observation and semi-structured interviews were undertaken to gather data over a twelve-month period from a purposive sample of registered nurses (*n*=21) at a tertiary institution and community health centre in the eThekwini District of KwaZulu-Natal, South Africa. Based on thematic data analysis, the nurses' cultural practices in the NCC were identified as including communication culture, insensitivity, work overload, and resource limitations. Understanding these cultural practices is essential for transformation of nursing services in the NCC to ensure good quality care delivery. For effective operations and transitions within the NCC, practical changes are required to facilitate quality nursing care. The study shows how organisational culture can influence the care of a neonate within clinical practice related to the cultural dynamics of nursing within the NCC. Since nurses are responsible for ensuring that patients receive good quality nursing care, awareness of their cultural patterns and behaviours will empower them to transform their current practices to achieve effective NCC.

Keywords: Culture, clinical practices, influence, neonate, registered nurses.

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Introduction

Culture influences the neonatal continuum globally, continentally, and locally. In healthcare, culture may represent shared ways of thinking, feeling and behaving within a work environment which can influence how nursing care is rendered to patients within a given setting. Mannion and Davies (2018) stated that organisational culture is often identified as the primary culprit in healthcare scandals. Adopting a positive culture with good quality healthcare could yield desirable health outcomes for patients. The continuous high mortality rate, the lack of infrastructure dedicated solely to neonates, the critical shortage of staff

specialised in the care of neonates, and the continuous occurrence of hospital-acquired infections are some of the challenges that ultimately influence organisational culture. Culture covers how things are arranged and accomplished, as well as how are they are talked about and justified, these include the stories and narratives about what is done and why, and the presuppositions that underpin these.

Consequently, organisational culture impacts patient outcome as it refers to the values and behaviours that contribute to the organisation's unique social and psychological environment (Kalaichelvi *et al.*, 2017). Simply stated, organisational culture is "the way things are done around here" (Deal & Kennedy, 2000). Additionally, culture includes the organisation's vision, values, norms, systems, symbols, language, assumptions, beliefs, and habits (Needle, 2004). This, in turn, can affect patients' health outcomes, which is of significant concern, especially to neonates who are vulnerable beings. The World Health Organisation (WHO) referred to the mortality rate as one of the most important metrics within any health organisation and stated that the lower this number, the better healthcare professionals had done their job (WHO, 2018). This is consistent with the findings of Braithwaite *et al.'s* (2017) study, which showed that positive organisational cultures were consistent with positive patient outcomes such as a reduction in the mortality rate, reduced hospital-acquired infections, and increased patient satisfaction. In contrast, a negative culture prevails when the healthcare team is hierarchical and team members do not act respectfully, which indirectly impacts patient care.

The objective of the healthcare professional is to safely transit the infant from the Neonatal Intensive Care Unit (NICU) to her parent's home. To achieve this, the healthcare professional must strive for a state of complete physical, mental, and social well-being and not just the absence of disease or infirmity (WHO, 2015). All healthcare workers are required to provide continuous care by putting their theoretical knowledge into practice that aids in the transition process, thus resulting in improved health outcomes for both the infant and the family (Kenner & McGrath, 2004). Valizadeh *et al.* (2013) conducted a qualitative study which identified factors that are involved in the transition process of an infant from NICU to home. A total of sixteen nurses and doctors who worked in NICU were interviewed, and the results showed that a safe transition can be ensured by good training that guarantees the needs of the infant are met. In addition, well-structured and good policies should also be implemented, which can decrease organisational barriers. Valizadeh *et al.* (2013) also suggested that the application of developmental care can improve an infant's transition.

The physical environment in the workplace, normalised behaviours, and leadership styles also contribute to the organisational culture. Physical artefacts, arrangements, and associated activities can be mobilised to realise positive or

negative health outcomes (Mannion & Davies, 2018). According to Hahtela *et al.* (2017) improved or constructive health outcomes for a patient is associated with positive characteristics within the work environment and adequate staffing. Increased staffing reduces the incidence of healthcare-related problems such as pressure sores, injuries, and patient falls (Driscoll *et al.*, 2017). Conversely, a healthcare sector overburdened with huge patient demands, a shortage of staff, and a limited or lack of equipment is likely to have adverse health outcomes (Moyimane *et al.*, 2017). When a culture of incivility exists at a health facility, nurses become more disruptive, which may be a result of attempting to meet significant patient demands under challenging circumstances. Thus, organisational culture seems to influence the comprehensive delivery of healthcare within the continuum of care.

The continuum of care is expected to positively impact neonatal health outcomes by reducing maternal and neonatal mortality, ensuring the provision of services in an integrated manner, being economically cost-effective, and avoiding replication. However, in many contexts, including South Africa, essential services that a neonate requires within the continuum of care are not always deliverable due to a lack of infrastructure, resources, supplies, equipment, and sometimes skilled healthcare providers (Kruk *et al.*, 2018). As defined by Kerber (2007), the continuum of neonatal care comprises family and community care, outpatient services provided across the lifespan, including through adolescence, pregnancy, childbirth, postpartum, and childhood.

While organisational culture invariably affects health outcomes, there is evidence that different aspects of organisational culture can interact and influence the outcomes of patient care. The physical environment can affect nurses' behaviour, thus creating a micro-culture within the system after normalisation. Over time negative perceptions can lead to compromised health outcomes (Henker *et al.*, 2018). For example, contextual stressors, such as poor lighting, poor ventilation, and noise, can increase the level of stress resulting in disruptive behaviour (Schwei *et al.*, 2017). According to Mannion and Davies (2018), an unpleasant work environment is a risk factor for disruptive behaviours. Normalised and disruptive behaviours are expressed through what is done and how it is discussed and justified.

The purpose of this study was to assess the influence of organisational culture on nurses' practices in the NCC in the eThekwini District of KwaZulu-Natal province, South Africa. Specifically, the study was designed to answer the following questions:

(i) What is the culture of nursing within the NCC?
(ii) How does culture affect the quality of service within the NCC?
(iii) What can be done to improve the culture of nursing within the NCC?

Methodology

Design

A qualitative, descriptive research design was used in which informants were guided to reflect on existing practices linked to neonatal care in various health institutions (organisations) and across the health system. The qualitative method was chosen to develop a rich understanding of the phenomena and offset the limitations of quantitative research (Busetto *et al.*, 2020).

Study settings and participants

Registered nurses employed in a tertiary institution, and a community health centre (CHC) in the eThekwini District, KwaZulu-Natal, South Africa, were surveyed. The researcher contacted these health facilities' outpatient neonatal units, neonatal intensive care units, and maternity outlets. A purposive sample (n=21) of registered nurses involved in the neonates' care in these areas was selected. The purposive selection was also based on the consent, knowledge, and experience of the participants about neonatal care. Participants were asked to provide a "thick description" of their work cultures and explain how they view, maintain, and improve them to ensure that good quality care is delivered.

Procedure

Data collection commenced after permission was obtained from the necessary authorities. A participant information sheet was distributed to all the registered nurses who subsequently gave signed informed consent before the interviews were conducted. The nurses were eager to participate in the study and appreciative of the opportunity to share their experiences related to neonatal care and the services provided. Observations were guided by use of an observation guide that enabled the researcher to observe specific practices and procedures. During observations, the researcher asked participants on duty questions to clarify observed practices and procedures. All the observed data was captured in field notes.

Semi-structured interviews were also conducted using open-ended questions designed from a review of the literature (Spradley, 1980). The questions were used to generate descriptions of perceptions of neonatal quality care. The relevance and clarity of the questions were considered continuously during the interviews. All interviews were audio-recorded with the nurses' permission to facilitate further analysis. The researcher also took field notes during the interviews and observations. The researcher further sought information from participants on their perceptions of quality care and neonatal care during purposeful conversations. The interview schedule developed, as suggested by Spradley (1980), is presented in Table 1.

Each interview lasted about 45-minutes. Methodological triangulation was used so that multiple realities could be explored to provide a holistic description and to ensure validation of the information provided (Bekhet & Zauszniewski, 2012).

Table 1: Sample questions used based on Spradley's Participant Observation and Interview Questions

Participant Observation	Interview
Descriptive	***Grand Tour***
What does a typical day look like when caring for a neonate?	Can you describe a typical workday in respect of taking care of a neonate within your ward from the time you arrive on-duty until the end of your shift?
Focused	***Descriptive***
Are plans for the day implemented as discussed on a ward round?	When you think about your time working with neonates, what experience stands out for you?
Selected	***Structural***
What challenge does the nurse have when implementing plans for the day?	What is the most important thing you ensure when taking care of a neonate?
	Contrast
	Are the instances when you are unable to render the care needed? If so, why?

Data analysis

Data collection and analysis took place simultaneously. Discovering cultural themes and creating a cultural inventory was distinct to the analysis phase (Speziale & Carpenter, 2007). Guidelines for thematic analysis were used to analyse most data, following five detailed steps:

(i) All audio recordings were transcribed.
(ii) Names of participants were removed from all audio-recorded interviews and fieldnotes.
(iii) Electronic data were password-protected, and raw materials and data were kept secure.
(iv) Interview transcripts were meticulously studied in conjunction with fieldnotes - all transcripts were read and reread, and codes were created. The coding process stimulated the researcher's curiosity about other possible connections, explanations, and meanings, which identified rich points that led to further research and consideration.
(v) Codes that describe the cultural themes. This process involved classifying the data and identifying cultural patterns within the NCC (Creswell, 2012).

Trustworthiness of the study

Audit trails strengthened trustworthiness through prolonged interviews, credibility, and dependability, and results were verified and corroborated by the researcher (Cresswell, 2012). Confirmability was ensured by requesting the participants to approve and validate the findings. To be able to determine transferability to similar settings, thick descriptions of data were developed. The

researcher maintained high ethical standards throughout the study by ensuring that findings were accurately represented.

Ethical considerations

Ethical approval was obtained from Humanities and Social Sciences Research Ethics Committee at the University of KwaZulu-Natal (Reference No.: HSS/0279/018D). Gatekeepers' permission was obtained from the healthcare facilities where data were collected. Before the semi-structured interviews were conducted, participants voluntarily gave signed informed consent and agreed that the interviews be audio-recorded.

Ethical principles of anonymity and confidentiality were observed throughout the study by excluding the identity of participants from the data collection instrument and transcripts. In reporting excerpts from the participants' statements, they were referred to as either registered nurse (RN), Tertiary Institution or CHC, so that their identities could be concealed. The principles of beneficence and non-maleficence, through identification of benefits of the study and potential risks including their mitigation, were adhered to.

Results

The research questions were answered based on the data analysis. Data collection and analyses were performed concurrently. A demographic overview of participants is provided in Table 2.

As seen in Table 2, five participants (24%) were male, while the rest (76%) were female. The majority of participants (67%) were over 40 years old and had more than ten years of work experience (57%) in neonatal and maternal care facilities. The sample included a mix of professional nurses (14%) and nurses with specialties in midwifery and neonatology (33%), primary healthcare (24%), and critical intensive care (29%).

Themes were developed from participant observation and semi-structured interviews and, reported as cultural guidelines (Table 3).

Table 2: Demographic profile of interviewees

Demographics	Frequency	%
Gender		
Male	5	24
Female	16	76
Age		
20-29	1	5
30-39	6	29
40-49	8	38
50 years and above	6	29
Healthcare Facility		
Hospital	15	71
Clinic	6	29
Category		
Professional Nurse	3	14
Midwifery and Neonatology	7	33
Primary Healthcare	5	24
Critical Intensive Care	6	29
Years working in the unit		
1 year	1	5
1 to 5	4	19
6 to 10	4	19
11 to 15	7	33
16 years	5	24

Table 3: Themes from participant observations and semi-structured interviews

Themes
Communication culture
Culture of insensitivity
Culture of work overload
Culture of resource limitations

Theme One: Communication Culture

Communication culture refers to both verbal and non-verbal communication. *Participant Observation:* Communication at the end or the start of a shift was extensive, although occasionally rushed, depending on the time the colleague arrived on-duty. Nurses who were unable to interact with the neonate's parent in their native language felt irritated at times and would seek interpretation from their colleagues. Additionally, it was noted that nurses just listened to and received instructions from doctors during doctor's rounds - practice referred to as the "hierarchy culture." The clan culture characteristics were seen at the CHC, where nurses modified their voice tone subconsciously according to the mother's age. While older mothers were greeted warmly, nurses were a little impatient with younger mothers.

Support seemed to play a pivotal role in emergency cases such as resuscitation. It was noted that regardless of which bedspace a nurse was assigned if a resuscitation

occurred, all nurses assisted and supported the professional nurse assigned to that bedspace for the day. Additionally, it was noted that regardless of the ward or shift, nurses preferred to have their tea and lunch breaks with other staff members of the same race.

Semi-structured interview: According to some participants, the reason they did not engage during doctor's rounds was lack of understanding. In particular, a nurse commented as follows:

"I do not always understand what doctors say on ward rounds and also feel a bit uncomfortable to ask the doctor to clarify what they said" (RN, Tertiary Institution).

Participants agreed that if they did not hear correctly, they would simply refer to their notes to determine what had to be done. The other issue that came up throughout the interviews, was referrals. Several nurses voiced frustration with the difficulty of booking an ambulance to deliver a patient to a particular health area. Unless the nurse knew someone on duty, there was always a problem. Sometimes ambulance availability depended on who nurses knew, rather than on the patient's condition.

Theme Two: Culture of Insensitivity

Cultural insensitivity refers to nurses' attitudes and behaviour within the workspace. This included nurses being insensitive or desensitised to noise and procedures within the clinical area. Nurses became numb to any form of noise.

Participant Observation: The researcher observed non-responsiveness amongst the nurses when there was a noise from either alarms or telephones. Cognitive and psychomotor challenges were observed in intensive care units, high-care wards, general wards and CHCs. For instance, it was found that nurses at the NICU either responded slowly or not at all to beeping alarms. When they did, it was just to silence the alarm without investigating why it had sounded in the first place. While these factors are critical to monitor and follow in the NICU or Intensive Care Unit (ICU), they were frequently overlooked. Telephones continued to ring, and even though nurses were not always busy, they did not react to phone calls several times. In addition, vital parameters were not set to the standards necessary for a child. Following ward rounds, fluid intake was not regulated properly. Despite being exposed to pathogens daily; nurses and other healthcare staff did not always follow proper handwashing procedures.

Semi-structured interview: Nurses admitted that they had become desensitised to noise such as monitors bleeping, ringing phones or loud speaking staff members. In this regard, a nurse shared her experience:

"…. Sometimes we are guilty of just putting the alarm on silent without looking at what the issue is about; however, if there is an emergency, we are intuitive and react to it with urgency" (RN, Tertiary Institution).

The nurses stated that they frequently went with the flow and attempted to get through the day despite the obstacles they experienced due to staff shortages, lack of resources, and at times, hostile attitudes from patients' family members.

Theme Three: Culture of Work Overload

The culture of work overload refers to meeting the daily needs of patient output, despite the staff shortage.

Participant Observation: This was observed in all clinical areas. The nurse-mother-patient interaction was also affected, since the nurse did not always have time to listen to the mother's concerns, despite the fact that the nurse was accountable for completing all shift-related responsibilities. The culture of work overload, appears to contribute towards the feelings of irritation, worry and emotional exhaustion. Nursing staff, for example, always found time to take breaks regardless of how busy the hospital was, and this seems to be ingrained in the departmental culture. Occasionally, all nurses would exit the consultation rooms at the same time for a break. In hospitals, nurses took even longer tea and lunch breaks than required, despite the challenges of staff shortage and work overload.

Semi-structured Interview
The practice and mindset of coping with insufficient resources was also reflected by some of the nurses during the interviews:

"…. We admit patients despite it only being a 16-bed unit. You cannot refuse care to a patient, so sometimes we are overcrowded with patients. The nurse-patient ratio does not apply in this place. You work, work and work, and when there are no supplies to meet the intervention, you must make a way, else you will be held responsible" (RN, Tertiary Institution).

The nurses complained vehemently about heavy workload and admitted that they felt 'burnt out' and frustrated because no matter how short-staffed they were, while on duty, they still had to ensure that tasks were completed.

Theme Four: Culture of Resource Limitations

The culture of resource limitations is related to the previous theme, where nurses, through constant shortage of supplies and equipment, had to find ways to deliver the required care.

Participant Observation: The researcher observed that while most wards were equipped with personal protective equipment (PPE), it was poorly utilised, resulting in continued infection control concerns. It was also noted that the majority of wards were full, and that bed space was scarce within wards. Daily, CHCs were crowded to capacity. Overcrowding and a scarcity of inventory were ingrained in the organisational culture of these facilities. Although inadequate equipment appeared to be something nurses frequently complained about, they still had to make a plan and deliver health care.

Semi-structured interview themes: In addition to the staff shortage, nurses stated that lack of resources was a significant obstacle. One of them commented as follows:

"…. Equipment…. that is always an issue. We see peadiatric patients and neonates, but we do not have a ventilator or emergency equipment size that will suit the neonate. We have to improvise no matter what. That is the only way you can get the job done" (RN, CHC).

The health facility did not have appropriately sized resuscitation equipment in its outpatient wards.

Discussion

This study was undertaken to evaluate the influence of organisational culture on nursing practices in the NCC in the eThekwini District of KwaZulu-Natal province, South Africa. Specifically, the study sought to examine the culture of nursing within the NCC, how the culture affects nursing practices in the health facilities and strategies that could be applied to improve the quality of care delivered to neonates. Four themes related to culture were identified, i.e., communication, work overload, resource constraints, and insensitivity. To communicate effectively with someone of a different race, culture, or creed, one must first understand how that cultural group communicates. Almutairi (2015) conducted a thorough assessment in which he identified and highlighted difficulties and concerns associated with the health workers' cultural and linguistic diversity in Saudi Arabia. Culture shock, difficulties acquiring cultural competence and lack of knowledge about non-Muslim nurses in Saudi Arabia, were identified as factors associated with cultural differences among the workers. Communication is a crucial element in providing high-quality health care services that could lead to patient or parent satisfaction, good client-nurse relationship, and health enhancement. Indeed, culture can act as both a facilitator and a barrier to communication (Busetto *et al.*, 2018). When there is a difference in the spoken language, one cannot establish effective communication, and moreover, non-verbal communication is culture specific. Sufficient knowledge of nurses in relation to patients' culture, language, customs, and beliefs can help them

communicate with patients without bias or prejudice (Norouzina *et al.*, 2016). There is not just a need to demonstrate the skills required to provide good quality care to a neonate, but it should also be expected of nurses to adequately care for the patient's cultural needs and that of the mother. For instance, some of the nurses in the present study chose not to ask questions or raise any issues on doctor's ward rounds as they felt that at times, "*It fell on deaf ears,*" depending on the doctor present.

Cultural insensitivity generally means that nurses become desensitised to everyday practices within their clinical areas, such as responding to alarms, answering telephones and sometimes carrying out routine hand hygiene practices. Alarm desensitisation or fatigue from frequent, false, or unnecessary alarms has resulted in serious events and even patient deaths (Johnson *et al.*, 2017). Alarm fatigue has been defined as sensory overload due to overexposure to an excessive number of alarms, resulting in either desensitisation to alarms or missed alarms (Sendelbach & Funk, 2013).

Nurses' recognition of and fatigue in relation to clinical alarms and obstacles in alarm management was investigated by Cho *et al.* (2016), where nurses reported feeling fatigued due to clinical alarms, and false alarms also presented barriers to proper treatment. Most concerning were situations when nurses sometimes disregarded significant alarms as false and thus failed to respond appropriately, which could compromise patient safety (Sendelbach, 2012). However, despite frequent alarms, vital sign limits, for example, were not always set according to the patients' physiological parameters. In addition, noise also affects the neonate physiologically and may adversely affect the growth and development of preterm infants (Smith *et al.*, 2018).

The culture of resource limitations refers to resources that are insufficient. The shortage of resources resulted in nurses feeling exhausted, demotivated, and morally distressed. Young *et al.* (2018) found that critical care nurses who work in the clinical area often felt powerless due to the challenges they faced working in the critical care environment. Johan *et al.* (2017) conducted a study that aimed to identify the causes of stress amongst nurses working in an ICU. Contributing factors included poor or inappropriate communication between doctors and nurses, lack of support and motivation, unexpected deaths and limited or no cooperation from colleagues and managers.

Strengths and limitations of the study

The study's findings indicate that focus should not only be on a neonate's physiological requirements, but also on the cultural influences of healthcare providers. However, the study has several constraints. First, the results of the study are not generalizable to other settings as it was conducted in only two health facilities. Nonetheless, the detailed descriptions of the data collection and analysis

process, as well as the sample size and triangulation of the data sources, were deemed adequate. Second, this study focused mainly on nurses within the healthcare system. The inclusion of other disciplines within the healthcare system, such as neonatologists and allied health professionals, may strengthen the findings of the study.

Conclusions

The findings of this study showed how organisational culture can influence the care of a neonate within clinical practice related to the cultural dynamics of nursing within the NCC. Since nurses are responsible for ensuring that patients receive good quality nursing care, awareness of their cultural patterns and behaviours will empower them to transform their current practices to achieve effective NCC.

Recommendations for Health Policy

The extent to which a patient or her mother 'gains access' to health care is mainly dependent on physical, organisational and cultural barriers that limit the effective utilisation of healthcare services. The utilisation of healthcare services is in turn dependent on the affordability, physical accessibility and acceptability of services and not merely the availability of supply. The current study draws attention to the fact that there are areas that would benefit from further research with respect to the NCC. The implementation of an efficient NCC will require a variety of infrastructure, skilled healthcare professionals and a well-established operational planning by managers and policy makers.

Despite the availability of healthcare services within the NCC, financial constraint, geographical location and long waiting periods were constraining factors for seamless accessibility to the facilities. Therefore, there is a need to craft alternative strategies and policies, programmes and supportive legislation to facilitate access to the NCC in antenatal and postnatal facilities. Furthermore, strategies to create and promote easy access to the NCC need to be adopted to accelerate the provision of care for neonates and improve clinical outcomes. Policies should be developed that would promote future research to explore the acceptability of neonatal services especially within different cultural contexts in South Africa.

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