Self-Leadership in a Critical Care Outreach Service for Quality Patient Care

Carine Prinsloo

https://orcid.org/0000-0001-7435-6788 University of South Africa eprinsc2@unisa.ac.za

Abstract

The deterioration of patients in general wards could go unnoticed owing to the intermittent monitoring of vital data. The delayed or missed recognition of deteriorating patients results in serious adverse events in general wards. These challenges have resulted in the development of a critical care outreach service. Australia was the first country to establish critical care outreach services in 1990. In South Africa, critical care outreach services were implemented in 2005 at a private hospital in Pretoria. The researcher has noticed certain phenomena supported by literature such as the hesitancy of nurses working in general wards to escalate a patient to a critical care outreach service, and incorrect interpretation of modified early warning scores which could cause delays in patients being referred to outreach nurse experts. In this study, nurses' (professional, staff and auxiliary nurses) experiences in respect of their selfleadership in critical care outreach services were explored. To this end, a qualitative phenomenological research approach was followed. Focus groups were held with the nurses (all nurse categories) working in a South African private hospital which provides critical care outreach services. It is recommended that nurses be granted access to training sessions, workshops and information to provide appropriate nursing care. Nurses should be encouraged to focus on the positive outcomes of providing nursing care and to "applaud themselves mentally" when they have successfully assisted or cared for their patients. Nurses also need to identify and correct negative assumptions about their competence.

Keywords: critical care outreach, patient deterioration, quality patient care, self-leadership



Introduction and Background

The monitoring of vital data of patients admitted to general wards is generally limited to the intermittent measuring of observations and several hours can pass between measurements, resulting in patient deterioration going unnoticed (Vincent et al. 2018, 325). The effective observation of ward patients is key in identifying any deterioration in patients (Van Galen et al. 2016, 7). There is increasing support for the notion that early detection and response to physiological deterioration can improve patient outcomes (Adam, Osborne, and Welch 2017, 5). By contrast, the delayed or missed recognition of deteriorating patients contributes to serious adverse events in general wards, given that abnormal vital signs are observable up to 48 hours before such adverse events (Preece et al. 2012). McQuillan et al. (1998, 1857) conclude that most patients receive suboptimal care before their unexpected admission to intensive care, which increases patient mortality. This resulted in the development of critical care outreach services (CCOS).

A diversity of CCOS models has been developed around the world to optimise patient care. Australia was the first country to establish CCOS in 1990 and named them medical emergency teams (Baxter 2006, 613). America followed with the implementation of rapid response teams in 1996 and England introduced patient-at-risk teams in 1997 (Marsh and Pittard 2012, 78). Canada introduced CCOS in 2006 (Upadhye, Rivers, and Worster 2007, 34) and New Zealand in 2009 (Manchester 2015, 12). These CCOS models were known under different names, varied in size and scope and were nurse-led or physician-led. These diversity models all contain common elements that enable the tracking of vital observations using an early warning score (for example, the modified early warning score (MEWS)) as a referral algorithm which enables nursing staff in general wards to undertake timely, suitable and personalised interventions. Globally, several studies were done about CCOS on patient outcomes, but these studies lack quality research on the effectiveness of CCOS (McNeill and Bryden 2013, 1662). Carter (2008, 52) did a study in one of KwaZulu-Natal's hospitals on the feasibility of a CCOS service and concluded that such a service could create an opportunity to improve the quality of care rendered to patients in general wards.

CCOS was introduced to general wards at a private hospital in Pretoria in 2005, and in 2007, the researcher joined the CCOS as an outreach nurse expert. The CCOS consisted of professional nurses who were ICU-trained and were called by nurses (all nurse categories) working in general wards when these nurses were concerned about a patient or if the patient's vital data fit the calling criteria. Initially, the CCOS (one outreach nurse expert) was only available from 07:00–19:00 every day and in 2010 the service was extended to a 24/7 service resulting in one outreach nurse expert available during the day and the night shift. Nurses working in general wards were trained on the vital data calling criteria, initially called quick response parameters that focused on the identification of abnormal vital data to call the outreach nurse expert.

In November 2012, the calling criteria were changed to MEWS, which aimed at the early detection of a patient's deterioration. After patients' vital data were measured a score was allocated according to the MEWS algorithm which indicated what actions the nurse needs to take. In this hospital, if the patient's MEWS were higher than three, the nurse needed to call the outreach nurse expert. The outreach nurse expert with her ICU knowledge and skills assesses the patient, guide the nurse in the ward by providing appropriate nursing interventions to be implemented to prevent the patient from further deteriorating, and enlighten the patient treating doctor. If needed, the outreach nurse expert escalates the deteriorating patient to the resuscitation team if the patients' condition requires such action. CCOS support and empower nurses in general wards when caring for their patients.

Nurses' performance is directly linked to a healthcare facility's organisational performance (Lee and Ko 2010, 840). Kim et al. (2016) confirm that nurses' personal leadership skills affect the quality of the nursing care they deliver, and to improve this, they strongly recommend education in self-leadership. Neck and Houghton (2006, 270) define self-leadership as a process through which individuals control their own behaviour, in effect influencing and leading themselves by using specific sets of strategies. Among these are strategies which are behaviour-focused, involve natural rewards and revolve around constructive thought patterns (Neck and Houghton 2006, 270). Behaviour-focused strategies consist of self-observation, self-goal setting, self-cueing, self-reward and self-correcting feedback - all of which are aimed at promoting constructive behaviour and discouraging actions which can be deemed unconstructive (Neck, Manz, and Houghton 2017). Natural reward strategies refer to employees' positive views of tasks that need to be completed, which usually involve a belief in, commitment to, or enjoyment of, their work for its own value (Shek et al. 2015, 346). Constructive thought patterns identify dysfunctional beliefs and attitudes among employees, and the need to replace them with positive beliefs, self-talk or mental imagery, which involves visualising success (Neck and Manz 2013).

Leaders in organisations are expected to continuously improve their skills by practising self-awareness, self-confidence, self-regulation and self-motivation (Hollenbeck, McCall, and Silzer 2006). Several scholars claim that leadership also requires self-leadership (Manz and Sims 1991, 18; Pearce 2007, 357; Reichard and Johnson 2011, 34; Rosenbach, Taylor, and Youndt 2018, 55).

For Neck and Houghton (2006, 283), self-leadership has a positive impact on individual and organisational outcomes, which is supported by, and evident in, increased commitment, job satisfaction, creativity and positive affect. Prussia, Anderson and Manz (1998, 535) state that self-leadership creates a heightened sense of competence, self-control, meaningfulness and task-related responsibility.

Research Problem

The researcher, who was an outreach nurse expert at the time of the study on which this article is based, took note of certain phenomena, which were supported by the literature: (1) where CCOS systems were implemented in hospitals, there was still a marked hesitancy on the part of ward staff to refer patients to the outreach nurse expert (Radeschi et al. 2015, 92); (2) as Sandroni and Cavallaro (2011, 797) mention, ward staff referred only 30 per cent of patients who were admitted to ICU without prior planning for such an eventuality to the outreach nurse expert; (3) Van Galen et al. (2016, 8) identify difficulties in respect of the way in which vital data observations are taken, with staff not using early warning scoring tools correctly, nurses being uncertain about referring patients to outreach nurse experts, and staff's non-compliance with protocols – all factors which cause delays in patients being referred to outreach nurse experts.

Jeddian et al. (2017, 258) highlight two of the negative outcomes (in a CCOS) for nurses as factors associated with an increased workload and the unwillingness of nurses working in general wards to take responsibility for patient care. The nurses working in the ward, and their ability to respond timeously and to refer patients who are at risk of deteriorating (or are already deteriorating) according to the MEWS referral algorithm to outreach nurse experts, confirms the importance of self-leadership in a CCOS scenario.

Research Purpose

The purpose of the research on which this article focuses was to understand nurses' experiences of their self-leadership in a private hospital in Pretoria, South Africa, in which a CCOS is currently implemented.

Definition of Terms

Critical care outreach service: the Intensive Care Society (2015) defines CCOS as an approach that functions at hospital level to manage patients who are at risk of deteriorating or who are already deteriorating. It provides for their timely admission to an ICU when needed, and offers guidance on patient nursing care and follow-up, and the teaching and sharing of critical care skills among nurses in general wards. In this research, the CCOS is described as an ICU-trained nurse-led service in which patients in general wards who are at risk of deteriorating or who are starting to deteriorate are identified by nurses (all nurse categories) working in general wards. These nurses use the MEWS, with personalised interventions subsequently being applied according to the needs of the patient in question, in combination with the teaching of nurses working in general wards by outreach nurse experts.

Outreach nurse expert: The South African Nursing Council (SANC 2012) defines a clinical nurse specialist (CNS) as a person with a specialised qualification, in-depth knowledge and expertise that enables her/him to focus on facility care and to work closely with medical officers on a consultative basis. In this research, an outreach nurse expert is a CNS with critical care skills who guides nurses to attend to patients who are at risk of deteriorating or who are already deteriorating in the general wards of a hospital.

Research Design

A qualitative, exploratory, descriptive contextual design was deemed appropriate for this research. The experiences of nurses in the CCOS were explored and described to obtain insight into the self-leadership they exercise within this context. A semi-structured interview guide was used to conduct a total of eight focus group discussions (FGDs) with 50 participants that lasted between 45 and 75 minutes. The coding of the transcribed data, as obtained from the participants, was guided by open coding on Atlas.Ti, using the computer-assisted NCT (noticing things, collecting things, and thinking about things) analysis approach (Friese 2019, 108).

Study Setting

The research took place at a private hospital in Pretoria, with a bed capacity of approximately 500, 6 ICU units, 2 high-care units, and a level-2 emergency department. The CCOS was established in 2005 at this hospital to serve patients in 9 general wards (medical (2), orthopaedic (2), surgical (3), oncology (1), and paediatric (1)).

Study Sample

The accessible population in this study consisted of 203 nurses working in general wards at the hospital in question. For the focus groups, the inclusion criteria were as follows: nurses from all three levels of nursing qualifications who worked in general wards and that referred patients to an outreach nurse expert. Excluded were nurses who were not permanently employed at the private hospital as they were not familiar with the CCOS, ward managers, and also nurses working in ICU, high care and the emergency department because they did not make use of the CCOS as it was implemented in general wards.

Sample Selection

After obtaining permission to conduct research from the ethics committee of the university, the private hospital group and the hospital management, homogenous purposive sampling (Gray 2017, 227) was done according to each level of nursing

qualification, as defined in the Nursing Act (RSA 2005). The participants were approached by the unit managers and invited to participate in the study; this allows participants to stay anonymous if they refuse to participate. Verbal and written information was disseminated regarding the research, and all the participants had to sign consent forms before participating. All the participants were informed of their ethical rights, including the right to withdraw at any time without fear of repercussions.

Data Collection

The researcher made use of a highly recommended independent moderator to lead the FGDs as most of the participants were known to the researcher and the researcher wanted to prevent the participants from feeling uneasy if the researcher leads the FGDs. The researcher found the moderator suitable to conduct FGDs as she had a PhD degree in research methodology and is an expert in qualitative research. A preliminary focus discussion (pilot) was held with the professional nurses to provide the moderator with an opportunity to confirm the wording of the questions. This was done to advance discussions about self-leadership in such a way as to achieve the objective of the research. The pilot focus group reported that the questions were easy to understand, and indicated the time required for the discussions. The FGDs were held in English as the hospital communication policy indicated that all communication had to be in English thus ensuring no communication barrier during the FGDs. After that, one participant from each of the nine generals wards was invited to participate in an FGD (notably, all of them had the same level of qualification). Table 1 provides a breakdown of the nursing qualification levels and the number of participants in the eight FGDs.

Table 1: Focus group sample

Focus group	Nursing qualification level	Number of participants
1 (pilot)	Professional nurses	5
2	Staff nurses	6
3	Auxiliary nurses	6
4	Auxiliary nurses	5
5	Professional nurses	6
6	Staff nurses	7
7	Staff nurses	9
8	Auxiliary nurses	6
Total		50

The FGDs were held separately for the participants from each qualification level to make such groups homogenous – the reason being that each nursing qualification level has a unique scope of practice. The FGDs were held during both the day and night shifts to ensure that the experiences of both groups would be reflected in the data. The semi-structured FGDs started with one open-ended question, namely, "How is it for you to

lead yourself in the current CCOS in the ward where you are placed?" and followed with probing questions. The FGDs lasted between 45 and 75 minutes. Audio recordings of the FGDs were made, and the researcher observed participants and made field notes during the FGDs.

Data Analysis

After each FGD the data were transcribed verbatim; any personal data that could identify a participant were removed to preserve his/her anonymity (Hennink, Hutter, and Bailey 2011, 215). The pilot FGD data were useful and were included in the data analysis. The data analysis was done using the computer-assisted NCT analysis approach (Friese 2019, 108). It is a systematic method for preparing data, creating a project file, coding the data and sorting and structuring them to discover patterns and relationships (Friese 2019, 108). During the data analysis, the researcher made observations when reading through the transcribed data and field notes, and these observations were subsequently captured by making notes or assigning preliminary codes to them. Collecting things was done by undertaking repeated readings of the data collected, and highlighting similarities. Next, the identified items were allocated preliminary codes, or codes were renamed in instances in which an item did not fit under a particular heading. The thinking process involved considering the items that had been noted and coded to find patterns and relationships in the data from which to create categories and subcategories (Friese 2019, 108). After that, the credibility of the coding was checked by an experienced coder.

Ethical Considerations

Ethical clearance for this research was obtained from the Higher Degrees Committee of the Faculty of Community and Health Sciences and the Senate Research Committee of the University of the Western Cape (ethical clearance number 12/7/6) and the Research Operational Committee of the private hospital group (approval number UNIV-2013-007B).

Trustworthiness

To support the trustworthiness of this undertaking, the techniques listed by Tappen (2016, 155) were followed. Credibility was obtained through the prolonged engagement and persistent observation during the in-depth FGDs. Persistent observation enabled the researcher to watch, listen, question and record the participants' behaviours, expressions and interactions, and to take into consideration the social setting, location and context in which they were situated (Hennink, Hutter, and Bailey 2011, 17). During these interactions, the researcher spent time answering any pertinent questions which the participants had. Dependability was enhanced by digitally recording the FGDs. The researcher adhered to the interview guide (piloted during an FGD) to confirm that the

participants understood the questions and that the questions provoked suitable discussions.

An audit trail (Tappen 2016, 160) was compiled of the research process, the researcher's thoughts and any related decisions made. Confirmability was achieved through member checking the accuracy of the identified themes, and the researcher's interpretations and conclusions. A thick description of the research setting observed processes and FGDs was done to achieve transferability. The participants and research setting were thoroughly described, so that the effectiveness of the researcher's reporting on the evidence could be established for others.

Discussion of Results

Three categories, each with subcategories, emerged from the data analysis: an outreach service as essential to delivering care to at-risk patients, the assistance or support and guidance received from the patient outreach service team, and the challenges when calling on patient outreach experts (see Table 2).

Table 2: Categories and subcategories

Category	Subcategory
An outreach service as essential to	Viewing positive outcomes/quality of
delivering care to at-risk patients	patient care/patient satisfaction as
	essential
	Knowledge of patients' health
	conditions
Assistance and guidance received from	Management of the MEWS
patient outreach nurse experts	Support for nurses who ask for
	assistance
	Teamwork as a critical component of
	healthcare
Challenges when calling on patient	The role of ward nurses as part of the
outreach experts	team
	A need for outreach experts to
	facilitate a positive outcome for a
	deteriorating patient

Category 1: An outreach service as essential to delivering care to at-risk patients

Subcategory: Viewing positive outcomes/quality of patient care/patient satisfaction as essential

A CCOS facilitates the early detection and management of ward patients who are deteriorating. When the study participants were asked about CCOS, they expressed the way in which that approach, along with the outreach nurse experts, helped them to provide nursing care to deteriorating and high-risk patients that was beneficial to patients. As four of the participants stated:

I think the patients . . . they also feel that comfort, when they know there is someone else that can assist them as well. (FG2; P1)

... we want the patient to be stable, so that is why we are monitoring all the observations, everything, and then – if the patient is stable – then we no longer do the outreach. The focus is on the patient [being] stable. (FG5; P2)

We [do] not hav[e] more deaths, because of the outreach services; we rarely see death[s] in the wards. [From] what I have seen, I can say the outreach service is very good. They improve life, really. (FG6; P4)

My concern is to take care of the patient, to make sure that the patient's condition is okay. If I see the patient is complicating and [his/her] condition is [. . .] unstable, then I have to report to the sister. (FG8; P1)

The participants showed self-leadership when they acted on their impulse to call the outreach nurse expert to help with a deteriorating or at-risk patient. This involved the outreach nurse expert offering advice and assisting the nurses with patient management. The outreach nurse expert thus empowered the ward nurses by supporting them in managing the patients, thereby creating feelings of self-efficacy in those nurses and enabling them to experience nursing care as more satisfying – this constituted a natural reward for their efforts. Natural reward strategies, which encompass positive experiences and views that can be linked to an employee's responsibilities, manifest themselves as that individual believing in, is committed to, or enjoying the actual work (Shek et al. 2015, 346). In addition to natural rewards strategies, the participants reported behaviour-focused strategies involving goal setting, such as taking care of patients and calling on the outreach nurse experts – these actions positively influenced their behaviours.

The achievement of goals provides immense personal satisfaction (Neck, Manz, and Houghton 2017). The participants reported seeing CCOS as a beneficial service, helping to improve patient outcomes. Arguably, the nurses "applauded themselves mentally" as a form of self-reward for achieving goals in delivering quality nursing care. Self-reward as a behaviour-focused strategy was apparent when the nurses successfully assisted or

cared for their patients, and, as a result, experienced feelings of satisfaction. Hendijani et al. (2016, 252) and Neck, Manz, and Houghton (2017) confirm that self-reward positively influences self-motivation.

Subcategory: Knowledge of patients' health conditions

The participants reported that they needed to take responsibility for their patients, and to have the requisite knowledge to provide adequate nursing care.

I think we must take responsibility; we must make sure; we must know our patient. Whatever condition changes, you must know, and even the medication you give the patient, you must also explain, know it. We learn from our actions. (FG1; P4)

You need to know about your patients, you need to know about blood tests. If you read [a blood test result], what does it say? If you see a doctor doesn't want to read [it], you see the patient looking queasy [...], nauseous, you make all the observations, then you've got to be clever and awake enough with the blood tests. At least pick them up, then you [will] see 'the potassium is high' [...] 'the CRP is high'. (FG3; P5)

I think you have to know your patient and know their diagnosis because if you know your patient, for example, let me say you are working from 1 to 4, and then there are 10 patients . . . (FG4; P7)

Neck, Manz, and Houghton (2017) view natural reward strategies as helping to create feelings of competence and self-determination, which in turn strengthen performance-enhancing, task-related behaviours. Nurses use self-determination as a dimension of the natural reward strategy by taking responsibility for providing adequate nursing care to their patients and being knowledgeable of a patient's diagnosis and the nursing care needed. Having the appropriate knowledge to provide adequate nursing care creates feelings of competency and self-efficacy among nurses. Natural reward strategies are perceived as a means of attaining those positive feelings that come from knowing you have what it takes to understand a patient's condition and can do something to help him/her (Amundsen and Martinsen 2015, 317; Neck, Manz, and Houghton 2017).

Category 2: Assistance and guidance received from patient outreach nurse experts

Subcategory: Management of the MEWS

Vital data monitoring is the core of any nursing care being offered to patients. The MEWS, which is a track-and-trigger tool that uses a patient's vital data, was developed to identify patients who are at risk of deteriorating or who are deteriorating. When the participants were asked about the MEWS, they explained the way in which the scoring system guided them when selecting the appropriate nursing behaviour in a specific scenario:

The MEWS score, it tells you what to do. You must call the outreach and, to be safe, on the safety side – for yourself, for the patient . . . especially the patient. (FG1; P2)

... the MEWS score? It makes our life [...] easier. [...] you can see at the chart that when the patient's MEWS score is [...] 5, you can see that this patient is really in serious trouble, so you need to activate an outreach sister so she can come. (FG5; P1)

... now we [have] the MEWS, the MEWS score chart, they have done the chart for our MEWS. If the observations are like this, you can call the outreach. If [they are] like this, you have to inform the doctors. So that chart help[s] us a lot. The MEWS chart, because you can see if the observation is like this, it means it is abnormal, so the outreach must be informed or the doctor must be informed. (FG6; P1)

Nurses demonstrate self-leadership through self-determination when assessing patients. They use the MEWS as a cue to determine their next action when providing nursing care. They set behaviour-altering goals for themselves, using concrete tools such as the MEWS to help focus their attention on goal attainment (Ross 2015, 77). In this case, the participants reported being able to provide appropriate nursing care to prevent deterioration among their patients. According to Neck, Manz, and Houghton (2017), goals are effective when used in combination with self-rewarding and self-cueing strategies which motivate individuals to achieve those goals.

Subcategory: Support for nurses who ask for assistance

Outreach nurse experts empower nurses by providing guidance, support and assistance when caring for patients. The study participants voiced their need for support from outreach nurse experts:

There is somebody that you can call if you really need help or support for a patient, because we all are RNs [registered nurses], and most of us actually know, really. We know what to do when we are worried about a patient, but it is always nice to have somebody that you can call, that has a little bit more knowledge and can support you. (FG1; P4)

So it is very, very important for [the] outreach sister to be there and to guide [us], because if you don't know what signs to look for, the outreach sister can always say, 'Look out for this, look out for that.' So, she is a very important guide for us. (FG4; P1)

We have to call an outreach sister so that she can guide us here if we can do this. (FG4; P7)

If nurses focus on the pleasant aspects of their work, such as seeing a patient recover from illness and discharged to go home, tasks will be naturally rewarding. Neck and Houghton (2006) believe natural reward strategies involve building pleasurable aspects into any given task. Such strategies can include positive insights into and practices associated with tasks which need to be accomplished. Nurses can apply these strategies

by seeking out enjoyable tasks, or by modifying their insights into certain tasks so that they increase their levels of self-control, motivation and fulfilment (Shek et al. 2015, 346). Besides, nurses can make use of an intrinsic reward system to help them find something positive in even routine tasks. Empowering activities, such as the guidance nurses receive from outreach nurse experts, create intrinsic rewards, and feelings and thoughts of self-competence. In turn, such feelings increase motivation (Stewart, Courtright, and Manz 2011, 189).

Subcategory: Teamwork as a critical component of healthcare

Teamwork is regarded as a complex social activity in which a group of people work supportively to achieve a task or goal and this creates an environment for nurses to explore current or different work practices and to confront their own beliefs and attitudes that strengthen their practice (Nelsey and Brownie 2012, 199). The literature links effective teamwork in nursing with high-quality patient care (Marguet and Ogaz 2019, 172). Nurses working in the wards and outreach nurse experts can work together as a critical care outreach team to care for their patients. The participants viewed such teamwork as follows:

It's teamwork, it's all about teamwork. Immediately when you work [and] you hear [the] emergency bell... (P5: 'You run!')... we attend [to] that emergency bell. (FG1; P3)

So, if you make your colleagues happy and you help them [. . .] you can ask them. I very seldom sit. You know, I always help them, and then they trust you. If something goes wrong or they think something [is going] wrong, they go to you and they ask [for help]. (FG3; P4)

In many ways, teamwork is in itself naturally rewarding but dysfunctional teams that lack unity hinders work performance, increase group conflict and decrease job satisfaction (Carver and Candela 2008). Nelsey and Brownie (2012, 199) argue that team effectiveness could be limited owing to the lack of knowledge of individuals' roles and responsibilities in the team. On the other hand, Rosengarten (2019, 36) mentions that successful working in teams can be instrumental in turning unmanageable situations for one person into a positive experience for a team. Working as a team to provide nursing care for patients generates an enjoyable working atmosphere (Maryville University 2018) and teamwork is associated with higher levels of job satisfaction, a higher quality of care and improvements in patient safety (Marguet and Ogaz 2019, 172). The support, guidance and advice that nurses receive during teamwork are naturally rewarding and keep them motivated.

Category 3: Challenges when calling on patient outreach experts

Subcategory: The role of ward nurses as part of the team

Nurses need to be equipped with knowledge so that they have a detailed understanding of the nursing care their patients need (James and Ella 2016, 181). Some participants admitted that they did not always have the necessary knowledge:

... but the people who are doing the observations, who are reporting, they don't have enough information about what they are doing. (FG1; P2)

Some of the nurses, they don't do the score right, they know they [are] going to call outreach, so if you saw the score is 4 . . . some, they reduce it. (FG8; P7)

I can't deny that [the] outreach sister always [. . .] sometimes I [got] the MEWS score right, but she [corrected] me [on] some of the MEWS scores. Sometimes I do neurological, and then I [don't] count the MEWS score of [the] neurological observations. [If] you find that the score is 14, [. . .] then you have to count it. [You might get a] patient who is confused and then it is another point, it must be added there. (FG6; P2)

Through self-observation as a behaviour-focused strategy (Neck, Manz, and Houghton 2017), the participating nurses confirmed that they sometimes lack the necessary knowledge to manage deteriorating patients. By calling the outreach expert nurse to help them with a deteriorating patient, nurses gain knowledge through observing the outreach expert as a role model and taking part in providing the nursing care needed for the deteriorating patients. When working as a team with the outreach expert nurse, the experience and personal understanding of nurses working in general wards when taking care of deteriorating patients are enhanced. Moule, Aveyard and Goodman (2016) claim that nurses develop knowledge through experience and personal understanding. Nurses need to change their behaviour and motivate themselves to call the outreach expert nurse, to equip themselves with knowledge which is appropriate for understanding exactly what nursing care their patients require.

Another challenge in respect of the role of some ward nurses, as part of the team, is their lack of confidence to be assertive and to use their knowledge. This was confirmed by one of the participants:

I think it is also a question of assertiveness. A lot of the ENs [enrolled nurses] and ENAs [enrolled nursing assistants] come over as not be[ing] assertive and not knowing. [...] It's not that they [don't] know what they are doing, they are so scared of the doctors and they are not assertive. They don't tell him, 'Doctor, this is my name. I am going to walk with you. Tell me what you need, tell me what I must do for the patient.' They are not like that. They tend to withdraw and avoid the situation. (FG2; P2)

The study participants identified a need to make use of constructive thought pattern strategies, by employing positive self-talk to identify and replace dysfunctional assumptions. Nurses need to be empowered so that they can substitute incorrect assumptions and learn the way in which to be assertive and confident when performing certain activities in a team.

Subcategory: A need for outreach nurse experts to facilitate positive outcomes for deteriorating patients

Outreach nurse experts support ward nurses concerning the nursing care they offer to patients who are at risk of deteriorating. The participants regarded the availability of an outreach nurse expert as a safety net, noting:

We really need outreach sisters as well. Sometimes there are two professional nurses in the ward, there [are] 38 patients and we get, say, seven or eight outreaches – we can quite cope with that. But I think, especially at night, you've got one professional nurse and the ward is full and, as you say, five or six patients, then [. . .] it is very difficult to make sure that all those patients are okay. It helps if you know the outreach sister will come and just assess them as well. (FG2; P3)

I think one outreach in this big hospital is really not enough. An example: they are calling her for outreach, it's in high care . . . I mean, code blue in high care. Another code blue is activated in the ward, but she is still busy with that code blue. What is happening with that other [second] code blue? At this stage, must she leave the first code blue and go to the second code blue? Must she leave the second code blue and continue with the first code blue? I think, really, we need a second one. (FG4; P6)

The participants were positive about the availability of an outreach nurse expert to provide support when faced with a patient with an elevated MEWS. Arguably, the nurses thus built uplifting or confidence-boosting elements into the task of caring for patients. Applying natural reward strategies and identifying the pleasant aspects of any task, therefore, help the nurses to focus, and this gives rise to stronger intrinsic motivation and self-determination (Furtner, Rauthmann, and Sachse 2015, 107). Routine or challenging tasks, therefore, become naturally rewarding, because of the positive aspects associated with such tasks.

Conclusion and Recommendations

The results of this research indicate that CCOS nurses mainly use natural reward strategies in addition to focusing on the pleasant aspects of their work. Empowering activities create feelings of self-efficacy and thoughts of competence in them, which serve to increase their motivation. The participating nurses also reported making use of behaviour-focused strategies such as goal setting. The MEWS is used as a cue to determine the nursing activity (behaviour) needed to accomplish the goal of providing appropriate nursing care and preventing patients from deteriorating. Another behavioural focus strategy which the nurses used was self-observation, as they realised that they sometimes lack the knowledge to provide patients with the appropriate nursing care. It is recommended that nurses have access to training and workshops, and be granted the necessary means to gather information on what nursing care diverse patients need. Nurses should be encouraged to focus on the positive outcomes of providing nursing care and to "applaud themselves mentally" when they have successfully assisted

or cared for their patients. Nurses also need to strive to identify and replace any negative assumptions about themselves and their tasks, to boost morale.

Limitations of the Research

This research was conducted at a private hospital in Pretoria that has a CCOS, thereby limiting its application to other public and private hospitals in South Africa that do not have a CCOS.

Acknowledgements

The author acknowledges the financial assistance of the National Research Foundation, along with the academic support for obtaining the PhD degree that she received from the University of the Western Cape.

References

- Adam, Sheila, Sue Osborne, and John Welch. 2017. *Critical Care Nursing: Science and Practice*. 3rd ed. Oxford: Oxford University Press. https://doi.org/10.1093/med/9780199696260.001.0001.
- Amundsen, Stein, and Øyvind L. Martinsen. 2015. "Linking empowering leadership to Job Satisfaction, work effort, and creativity: The role of self-leadership and Psychological Empowerment." *Journal of Leadership and Organizational Studies* 22 (3): 304–323. https://doi.org/10.1177/1548051814565819.
- Baxter, Alan D. 2006. "Critical Care Outreach Comes to Canada." *Canadian Medical Association Journal* 174 (5): 613–615. https://doi.org/10.1503%2Fcmaj.050627.
- Carter, C. A. 2008. "From ICU to Outreach: A South African Experience." South African Journal of Critical Care 24 (2): 50–55.
- Carver, Lara, and Lori Candela. 2008. "Attaining Organizational Commitment across different Generations of Nurses." *Journal of Nursing Management* 16 (8). https://doi.org/10.1111/j.1365-2834.2008.00911.x.
- Friese, Susanne. 2019. Qualitative Data Analysis with Atlas. Ti. 3rd ed. Thousand Oaks: Sage.
- Furtner, Marco R., John F. Rauthmann, and Pierre Sachse. 2015. "Unique Self-Leadership: A Bifactor Model Approach." *Leadership* 11 (1): 105–125. https://doi.10.1177/1742715013511484.
- Gray, David E. 2017. Doing Research in the Business World. London: Sage.

- Hendijani, Rosa, Diane P. Bischak, Joseph Arvai, and Subhasish Dugar. 2016. "Intrinsic Motivation, External Reward, and their Effect on Overall Motivation and Performance." *Human Performance* 29 (4): 251–74. https://doi.org/10.1080/08959285.2016.1157595.
- Hennink, Monique, Inge Hutter, and Ajay Bailey. 2011. *Qualitative Research Methods*. London: Sage.
- Hollenbeck, George P., Morgan W. McCall, and Robert Frank Silzer. 2006. "Leadership Competency Models." *Leadership Quarterly* 17: 398–413. https://doi.org/10.1016/j.leaqua.2006.04.003.
- Intensive Care Society (website). 2015. Accessed 14 March 2017. https://baccn.org/files/7514/2962/3098/.
- James, Oyira Emilia, and R. Ella. 2016. "Knowledge Practice Outcome of Quality Care among Nurses in University of Calabar Teaching Hospital." *Journal of Education and Training Studies* 4 (11): 179–93. https://doi.org/10.11114/jets.v4i11.1926.
- Jeddian, A., A. Lindenmeyer, T. Marshall, A. F. Howard, L. Sayadi, A. Rashidian, and N. Jafari. 2017. "Implementation of a Critical Care Outreach Service: A Qualitative Study." *International Nursing Review* 64 (3): 353–362. https://doi.org/10.1111/inr.12377.
- Kim, Se Young, Eun-Kyung Kim, Byungsoo Kim, Eunpyo Lee. 2016. "Influence of Nurses' Self-Leadership on Individual and Team Members' Work Role Performance." *Journal of Korean Academy of Nursing* 46 (3): 338–348. https://doi.org/10.4040/jkan.2016.46.3.338.
- Lee, Tae Wha, and Yu Kyung Ko. 2010. "Effects of Self-Efficacy, Affectivity and Collective Efficacy on Nursing Performance of Hospital Nurses." *Journal of Advanced Nursing* 66 (4): 839–848. https://doi.org/10.1111/j.1365-2648.2009.05244.x.
- Manchester, Anne. 2015. "Critical Care Outreach Keeping Patients out of Intensive Care." *Kai Tiaki Nursing New Zealand* 21 (7): 12–13.
- Manz, Charles C., and Henry P. Sims Jr. 1991. "Super Leadership: Beyond the Myth of Heroic Leadership." *Organizational Dynamics* 19 (4): 18–35. https://doi.org/10.1016/0090-2616(91)90051-A.
- Marguet, Melissa A., and Veletta Ogaz. 2019. "The Effect of a Teamwork Intervention on Staff Perceptions of Teamwork and Patient Care on a Medical Surgical Unit." *Nursing Forum: An Independent Voice for Nursing* 54 (2): 171–82. https://doi.org/10.1111/nuf.12311.
- Marsh, Sarah, and Alison Pittard. 2012. "Outreach: 'The Past. Present and Future'." *Continuing Education in Anaesthesia, Critical Care and Pain* 12 (2): 78–81. https://doi.org/10.1093/bjaceaccp/mkr062.

- Maryville University. 2018. "Top 5 Benefits of Teamwork in Nursing." Accessed 12 October 2018. https://online.maryville.edu/nursing-degrees/top-5-benefits-of-teamwork-in-nursing/.
- McNeill, G., and D. Bryden. 2013. "Do either Early Warning Systems or Emergency Response Teams Improve Hospital Patient Survival? A Systematic Review." *Resuscitation* 84 (2013): 1652–1667. https://doi.org/10.1016/j.resuscitation.2013.08.006.
- McQuillan, P., S. Pilkington, A. Allan, B. Taylor, A. Short, G. Morgan, M. Nielsen, D. Barrett, G. Smith, and C. H. Collins. 1998. "Confidential Inquiry into Quality of Care before Admission to Intensive Care." *British Medical Journal* 316 (7148): 1853–1858. https://doi.org/10.1136/bmj.316.7148.1853.
- Moule, Pam, Helen Aveyard, and Margaret Goodman. 2016. *Nursing Research: An Introduction*. 3rd ed. London: Sage.
- Neck, Christopher P., and Jeffery D. Houghton. 2006. "Two Decades of Self-leadership Theory and Research: Past Development, Present Trends and Future Possibilities." *Journal of Managerial Psychology* 21 (4): 270–95. https://doi.org/10.1108/02683940610663097.
- Neck, Christopher P., and Charles C. Manz. 2013. *Mastering Self-Leadership: Empowering Yourself for Personal Excellence*. 6th ed. New York: Pearson.
- Neck, Christopher P., Charles C. Manz, and Jeffery D. Houghton. 2017. *Self-Leadership: The Definitive Guide to Personal Excellence*. Singapore: Sage.
- Nelsey, Lorraine, and Sonya Brownie. 2012. "Effective Leadership, Teamwork and Mentoring Essential Elements in Promoting Generational Cohesion in the Nursing Workforce and Retaining Nurses." *Collegian* 19 (4): 197–202. https://doi.org/10.1016/j.colegn.2012.03.002.
- Pearce, Craig L. 2007. "The Future of Leadership Development: The Importance of Identity, Multi-Level Approaches, Self-Leadership, Physical Fitness, Shared Leadership, Networking, Creativity, Emotions, Spirituality and On-Boarding Processes." *Human Resource Management Review* 17 (4): 355–359. http://doi.org/10.1016/j.hrmr.2007.08.006.
- Preece, M. H., A. Hill, M. S. Horswill, and M. O. Watson. 2012. "Supporting the Detection of Patient Deterioration: Observation Chart Design Affects the Recognition of Abnormal Vital Signs." *Resuscitation* 83 (9): 1111–1118. http://doi.org/10.1016/j.resuscitation.2012.02.009.
- Prussia, Gregory E., Joe S. Anderson, and Charles C. Manz. 1998. "Self-Leadership and Performance Outcomes: The Mediating Influence of Self-Efficacy." *Journal of Organizational Behaviour* 19 (5): 523–38. https://doi.org/10.1002/(SICI)1099-1379(199809)19:5%3C523::AID-JOB860%3E3.0.CO;2-I.

- Radeschi, G., F. Urso, S. Campagna, P. Berchialla, S. Borga, A. Mina, C. Di Pietrantonj, and C. Sandronin. 2015. "Factors Affecting Attitudes and Barriers to a Medical Emergency Team among Nurses and Medical Doctors: A Multi-Centre Survey." *Resuscitation* 88: 92–98. https://doi.org/10.1016/j.resuscitation.2014.12.027.
- Reichard, Rebecca J., and Stefanie K. Johnson. 2011. "Leader Self-Development as Organizational Strategy." *Leadership Quarterly* 22 (1): 33–42. https://doi.org/10.1016/j.leaqua.2010.12.005.
- Rosenbach, William E., Robert L. Taylor, and Mark A. Youndt, eds. 2018. *Contemporary Issues in Leadership*. 7th ed. New York: Routledge. https://doi.org/10.4324/9780429494000.
- Rosengarten, Leah. 2019. "Teamwork in Nursing Essential Elements for Practice." *Nursing Management* 26 (4): 36–43. https://doi.org/10.1111/j.1399-6576.2008.01717.x.
- Ross, S. C. 2015. The Road to Self-leadership: Busting Out of Your Comfort Zone. Bingley: Emerald.
- RSA (Republic of South Africa). 2005. *The Nursing Act, 2005 (Act No. 33 of 2005)*. Pretoria: Government Printers.
- SANC (South African Nursing Council) (website). 2012. Accessed 14 March 2020. https://www.sanc.co.za/position_advanced_practice_nursing.htm.
- Sandroni, C., and F. Cavallaro. 2011. "Failure of the Afferent Limb: A Persistent Problem in Rapid Response Systems." *Resuscitation* 82 (7): 797–798. https://doi.org/10.1016/j.resuscitation.2011.04.012.
- Shek, Daniel T. L., Cecelia M. S. Ma, Ting Ting Liu, and Andrew M. H. Siu. 2015. "The Role of Self-Leadership in Service Leadership." *International Journal on Disability Human Development* 14 (4): 343–350. https://doi.org10.1515/ijdhd-2015-0455.
- Stewart, Greg L., Stephen H. Courtright, and Charles C. Manz. 2011. "Self-Leadership: A Multilevel Review." *Journal of Management* 37 (1): 185–222. https://doi.org/10.1177/0149206310383911.
- Tappen, Ruth M., 2016. *Advanced Nursing Research: From Theory to Practice*. 2nd ed. New York: Jones and Bartlett.
- Upadhye, Suneel, Emanuel P. Rivers, Andrew Worster. 2007. "Critical Care Response Teams: Potential Roles for Emergency Physicians." *Canadian Journal Emergency Medicine* 9 (1): 34–37. https://doi.org/10.1017/S1481803500014731.

Van Galen, Loise S., Patricia W. Struik, Babiche E. J. M. Driesen, Hanneke Merten, Jeroen Ludikhuize, Johannes I. van der Spoel, Mark H. H. Kramer, and Prebath W. B. Nanayakkara. 2016. "Delayed Recognition of Deterioration of Patients in General Wards is Mostly Caused by Human-Related Monitoring Failures: A Root Cause Analysis of Unplanned ICU Admissions." *Plos One*. https://doi.org/10.1371/journal.pone.0161393.

Vincent, Jean-Louis, Sharon Einav, Rupert Pearse, Samir Jabir, Peter Kranke, Frank J. Overdyk, David K. Whitaker, Federico Gordo, Albert Dahan and Andreas Hoeft. 2018. "Improving Detection of Patient Deterioration in the General Hospital Ward Environment." *European Society of Anaesthesiology* 35: 325–333 https://doi.org/10.1097/EJA.00000000000000798.