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**INTENSIVE CARE NURSES' CONCEPTIONS OF A CRITICAL PATHWAY
IN CARING FOR AORTIC-SURGERY PATIENTS:
A PHENOMENOGRAPHIC STUDY**

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SUMMARY

The aim of the present study was to identify and describe intensive care nurses' different conceptions of a critical pathway in caring for patients that have undergone aortic-surgery. Individual semi-structured interviews with eight specialist registered nurses at a Swedish intensive care unit were conducted and phenomenographically analysed. Three descriptive categories, with a total of five sub-categories, constituted the outcome-space of how the pathway was conceived of in caring: as a guide open to individual patients needs (clinical judgment governs caring and patient autonomy governs caring), as an instrument to promote patient safety (a source of knowledge, a planning tool and a reference standard) and as a source of support for professional confidence.

In accordance with current literature, the nurses in the present study identified a number of advantages in applying the pathway in caring even if they were also conscious that the use of a pathway can give rise to unreflective standardization. The nurses' conceptions indicate that the pathway prescribed for managing patients who have undergone aortic surgery is supportive and facilitates patient safety without jeopardizing respect for the patient's individual care needs. This insight may be used to influence a thoughtful dialogue about the practice of pathways in intensive care.

KEYWORDS

Critical pathways; Caring; Intensive Care; Aortic Aneurysm

INTRODUCTION

Critical pathway (CP) is an approach for organizing the care process of a defined group of patients during a defined period of time. It aims to improve quality of care, reduce risks, enhance patient satisfaction and enhance efficiency (De Bleser et al. 2006).

The implementation of CPs has increased worldwide in recent years (Vanhaecht et al. 2006). In Sweden CP-approaches are under development and rapidly spreading in different settings (Olsson et al. 2009). The CP for aortic-surgery patients, which was in use at the intensive care unit (ICU) where the present study was conducted, describes the sequence of events that should occur on each day of an ICU-admission. Taking care of aortic-surgery patients requires anticipation of actions crucial for quality and optimal outcome, e.g. monitoring, prevention and treatment of hemodynamic-, ventilation-, bowel problems and pain (Bryant et al. 2002). The CP authorizes nurses to perform most actions without additional direction from a physician. It also addresses interventions related to the patients' need for information about postoperative care and need for psychosocial support. A previously conducted study in the same setting showed that postoperative actions, e.g. removal of the nasogastric tube and intake of oral nutrition, which are assumed to result in more effective rehabilitation, were performed earlier in the postoperative course after the implementation of the CP (Lyckner et al. 2010). This finding is consistent with studies of CP implementation in other settings (Barker et al. 1999; Murphy et al. 2007; Ronellenfitsch et al. 2008). However, achieving quality of care is more complex than defining effective actions to be taken. Caring for aortic-surgery patients, as well as other ICU-patients, involves providing expert physical care in combination with fulfilling emotional needs (humanistic care) in order to meet patients' individual needs. From the ICU-nurses' perspective, caring can be described as a process that combines emotions and professional knowledge, competence in technology, medical knowledge and nursing actions. Nurses must work to balance state-of-the-art technology with integrated and comprehensive care and harmonize objective signs with demands upon their subjectivity (Almerud et al. 2007; Wilkin and Slevn, 2004).

Concerns have been raised that the increasing use of CPs implies a reductionist approach that does not address the patient's individual needs and undermines the individual care professional's

ability to exercise clinical judgment and professional autonomy (Hunter and Segrott, 2008; Pinder et al. 2005). Uncertainty still exists about the impact of CPs on caring and there have been relatively few studies addressing how care professionals respond to and use CPs (Hunter and Segrott, 2008). Our assumption is that people act in relation to a phenomenon according to how they perceive it. Therefore the aim of the present study was to identify and describe ICU-nurses' different conceptions of a CP in caring for patients that have undergone aortic-surgery.

METHOD

Design

To identify and describe ICU-nurses' different conceptions of a CP in caring for patients that have undergone aortic-surgery a design based on the phenomenographic approach was used. The approach rests on the assumption that the meanings people ascribe to phenomena in the world vary. A further phenomenological assumption is that, since people act according to how they perceive a phenomenon, the real significance and meaning of a phenomenon is built upon how people conceptualize it. The aim of phenomenographic studies is therefore to discover the qualitatively different ways in which people experience and view various phenomena in the world around them. Conception is thus a central concept and refers to people's unreflected thinking about a phenomenon, how they experience, perceive, apprehend, conceptualize or understand it. The conceptions identified through the approach originate from individual interviews, but descriptions are made on a collective level. The categories of descriptions represent the different ways in which a phenomenon is perceived and the relationships between the categories are depicted in the outcome space of the study (Marton, 1981, 1994).

Setting

The study was carried out at a 6-bed general ICU at a county hospital in central Sweden. At the site, a CP for postoperative care of aortic-surgery patients had been in use since 2007. The CP

describes the sequence of events that should occur during the patient ICU-stay, and authorizes nurses to perform interventions without directions from a physician.

Participants and Data Collection

Nine out of 34 employed registered nurses with experience in caring for aortic-surgery patients were selected by the head nurse of the ICU to ensure variation with respect to gender, age and work experience. The selected nurses received a letter from the first author with information about the study and an invitation to participate. One of the nurses declined the invitation, while 8 nurses gave their informed consent and were included in the study: 2 males and 6 females, 26-57 years of age, all were specialized in intensive care and had from 1-40 years' professional experience at the ICU.

Individual semi-structured interviews were conducted by the first author during the nurses' working time in a quiet room at the ICU. The same entry question was used in all interviews, 'Can you please tell me about how you use the CP in caring for a patient that has undergone aortic-surgery?' The interviews then continued in the form of a dialogue. To capture the conceptions of the phenomenon the following areas were targeted for discussion: the CP's impact on caring, the patient's individual needs, patient-participation, care-relationship, clinical judgment, inter-professional cooperation and possible risks with the CP. The number and content of supplementary questions were dependent upon the answers obtained. The interviews lasted for 18-39 minutes. All interviews were audio recorded digitally and transcribed verbatim by the interviewer.

Data Analysis

The transcribed protocols from the interviews were phenomenographically analysed based on the seven steps suggested by Dahlgren and Fallsberg (1991): Familiarization, Condensation, Comparison, Grouping, Articulating, Labelling and Contrasting. First, the protocols were read and re-read carefully to get acquainted with the content. Once the content felt familiar, the most significant statements made by each nurse were identified and central parts of the dialogue were

extracted and compared with statements from the other nurses. Statements which appeared to be similar were placed together and the essence of the similarities within each group was articulated and categories were denoted and labelled. Finally, the categories were contrasted, with regards to similarities and differences, and structured to constitute the outcome-space of the study. To be as faithful as possible when describing the nurses' conceptions of the CP in caring for patients that have undergone aortic-surgery, the analysis-process went through several runs in which the different steps to some extent were carried out simultaneously. The primary analysis was conducted by the first author and thereafter reflective discussions between all authors were carried out until consensus about the results was reached. Translated excerpts from the interviews are provided to illustrate the relevance of the categories.

Ethical Considerations

Ethical Approval was granted by the Regional Ethical Review Board of Stockholm, Sweden (2009/963-31/5) and approval to recruit participants was given by the manager of the Department of Anaesthesiology at the hospital. The nurses received written and verbal information about the study and were also informed that participation was voluntary. The audio recorded interviews and information about the participants were stored separately in locked cabinets at the ICU.

RESULTS

Three main descriptive categories, with a total of five sub-categories, constituted the outcome-space of the intensive care nurses' different conceptions of the CP in caring for patients that have undergone aortic-surgery. The three main descriptive categories were: a guide open to individual patient needs (with the sub-categories; clinical judgment governs caring and patient autonomy governs caring); an instrument to promote patient safety (with the sub-categories; a source of knowledge, a planning tool and a reference standard); and a source of support for professional confidence (Table 1).

A guide open to individual patient needs

This category describes the conception of the CP as a guide that is used flexibly in the act of caring, on the basis of the individual patient's needs. The nurses' perception was that although aortic-surgery patients share a number of needs, caring is rooted in the perspective that every patient is a unique human being with his or her own needs. The category includes the sub-categories; clinical judgment governs caring and patient autonomy governs caring.

Clinical judgment governs caring. The CP was conceived of as a frame and a guiding principle; the nurses did not feel governed by it or feel it was to be followed scrupulously in caring. The nurses perceived both an obligation and a right to think independently despite having a CP to follow. They felt that they followed the CP, but that it was their clinical judgment of the individual patient's needs that governed their caring act:

“One follows up on up the individual.....//...It's not the case that I simply put the paper down in front of him and start caring, I am as I always have been with the patients I work with...//...I strongly trust in my experience and such” (nurse B).

If the nurses determined that a proposed intervention defined in the CP was not suited to an individual patient's needs they made exceptions and adjusted their care to the unique patient. A risk was noted, namely that the patient's unique needs would be neglected if a nurse blindly

followed the CP. This risk was regarded as being especially high for inexperienced nurses who might find it difficult to place the patient within the bigger picture. But even in such cases, the nurses perceived that the guidance the CP provided outweighed the risk:

“If something else arises that the patient has or suffers from or is in need of, or something that is not covered in this [CP], then you have to, well, you shouldn’t miss it because you have a template and then follow it to a T and then think you are done, but there are perhaps other points that are not covered for this particular person” (nurse F).

Although the nurses spoke of a risk of blindness to variations they did not feel the CP precluded a holistic view. They perceived themselves to be “control freaks” (nurse A) who constantly considered all the patient’s needs without being narrow-minded as a result of the CP.

Patient autonomy governs caring. The nurses’ conception of the CP was that caring nevertheless involves nurse-patient cooperation and the patient’s response determined how they acted in different caring situations:

“I am nonetheless in communication with the patient...//...If it doesn’t work for the patient to get up, if it [the CP] says that the patient is to sit on the edge of the bed in the evening and this absolutely doesn’t work, then we do it a little later...//...So that, it is more like a source of support for me, that this is ok to do right now, according to the routines. But if it doesn’t work for the patient, then I have to tweak it a bit and still maybe not abandon it, rather I use it nonetheless” (nurse H).

By informing the patient and thereby enabling him/her to participate and express wishes, the nurses felt that the patient’s autonomy governed caring, even though the CP defined management procedures. That the patient is informed is a prerequisite for patient participation and for the patient to exercise self-determination, according to the nurses. In order to motivate the patient to take an active role in their rehabilitation, the nurses continuously informed the patient about what

interventions needed to be made and why. However, if the patient resisted the interventions recommended in the CP, the nurse adjusted caring to respect the patient's preferences. As nurse C states: "You can't force them but one can explain why [something is necessary]". Patients' participation in caring was considered important, but the degree of participation was perceived to be dependent on the individual patient's status and wishes. One conception of the CP was that it facilitated the possibility to provide patients with unified information prior to taking actions, in turn making it easier for the patient to participate in caring. Another conception was that the patients, irrespective of whether a CP was applied or not, seldom participated on the first postoperative days. As nurse E states "In a way it feels like they hand themselves over to us".

An instrument to promote patient safety

This category describes the nurses' conceptions of the CP in caring according to the sub-categories: a source of knowledge, a planning document and a reference standard. The CP was conceptualized as an instrument that promotes patient safety in caring.

A source of knowledge. The CP was conceived of as a source of knowledge that provides understanding of aortic-surgery patients' needs, which is useful in caring. This was looked upon as especially useful when a nurse had limited previous experience in caring for aortic-surgery patients:

"I have learned how one treats patients who have undergone aortic surgery...//...it becomes a teaching device really...//...a story about post-operative care" (nurse F).

The CP was referred to as a good guide and as educational material for less experienced nurses. It was used to communicate knowledge in mentoring situations and to refresh experienced nurses' memories when caring for a patient that had undergone aortic-surgery after she or he had had a long break from working with such patients. The CP was referred to as an "encyclopaedia" (nurse H) and a "cheat sheet" (nurse B) or crib sheet one can refer to when questions or problems arose in different caring situations. This was described as simplifying the nurses' work and facilitating

patient safety.

A planning tool. By visualising interventions that should be performed, and thus making all care professionals aware of them and able to anticipate crucial actions, the CP was viewed as enhancing the rehabilitation process and ensuring uniform high standards of caring:

“That is, we are all different individuals of course, who work here, and everyone cares for, takes care of their patients in THEIR way. But a CP means, of course, that at least it takes place in the same tempo or it happens, you know, there is an attempt that it should take place uniformly. So that regardless of who comes in the door it does not influence what type of care they receive. So yes, of course I think that it is good” (nurse D).

The CP was conceived of as a planning tool to make the caring process more uniform. In turn, this was seen as beneficial for the patients as, in contrast to working without a CP, the extent to which they were left to the individual care professional’s competence is reduced. The nurses also conceived the CP as a checklist that they used to ensure that no planned interventions were forgotten and to evaluate the rehabilitation process:

“then you try to see , yes, the tendency, what has changed maybe, from the beginning. And how this has influenced the patient, [his or her] well-being and healing and such, with help from the CP” (nurse G).

By checking with the interventions and goals in the CP the nurse was able to see how far the patient had progressed in the rehabilitation process. The nurses used the CP with nurses-aids to organize personal care for the patient and with physicians as a template to organize their rounds. However, the nurses also expressed that the CP was regarded as a “nurse thing” (nurse D), which the other professions involved in caring do not use to an extent that would be beneficial for the patient. Another experience was that the pathway implied that the nurse could handle caring more independently. As the nurse did not need to wait for a decision from the physician, caring could be more quickly adapted to the patient’s needs. This enhanced the rehabilitation process to the

benefit of the patient and simplified work for nurses and physicians.

A reference standard. The CP was conceived of as promoting patient safety in caring by serving as a reference standard when a nurse lacked experience and knowledge of the common postoperative recovery course for aortic-surgery patients. The nurses stated that a deviation from a standard course of recovery could be due to a complication resulting from the surgery, which then required special interventions, an adjustment in caring or consultation with a physician:

“I read, you know, and the more I read the more I learn about how it should be, or what it should look like, and that of course gives me a lot, it gives me a whole lot. Because it also means that the next time I might more easily recognize when something is not as it should be. Because then you have, you have attained a bit of knowledge about how it will be, or perhaps I should say how it ought to be” (nurse D).

The nurses perceived that using the CP as a standard to refer to gave them the ability to identify variances in the individual patients’ postoperative courses of recovery that required extra attention.

A source of support for professional confidence

This category describes the conception of the CP as a source of support for professional confidence in caring. The nurses’ expressed that “to know that you have a document behind you” (nurse D) gives you self-confidence in relation to the patient and in relation to other types of professionals involved in the caring:

“I feel more confident when I have it. I have something to go by. I can stand by what I say, I know that it is supposed to be this way...//...I just think it makes me strong” (nurse H).

The CP was conceived of as supportive, giving the nurse a sense of security in caring situations.

Furthermore, the nurses explained that the support they derived from the CP facilitated advance information that could be shared with the patient and ensured that he or she received uniform information. This led to the patient feeling more assured in the caring situation. The nurses began caring processes on the basis of the CP and informed patients about the planned activities and goals that would take place gradually over stages, but normally they did not inform the patient that they actually used a pre-adopted plan. Views among the nurses diverged over whether or not it was beneficial for the patient to know that a CP was being used. One opinion was that patients would feel safer if they knew. Another view was that detailed information about the whole CP could create a sense of too much pressure on the patient and make him or her feel unduly worried in the event that their status required deviation from the plan. Common to all the nurses was a perception that clear information leaves patients feeling assured. A further perspective was that a confident nurse is able to make the patient feel assured in the caring situation:

“Because then I think that you can feel more secure, and then the patient also feels secure. Rather than it being sort of like you take on a patient and you are a bit unsure about things, which are the most important things to look at, and then you have it to help you, a CP” (nurse G).

The nurses perceived that the knowledge and professional confidence they derived from the CP was communicated in their relationships with patients, thus resulting in the patient feeling safe in the caring situation.

DISCUSSION

Methodological aspects

The strength of the phenomenographic approach (Marton, 1981, 1994) in nursing research is that it provides understanding and knowledge about variations in how phenomena are conceptualized (Sjöström and Dahlgren, 2002). One possible disadvantage is that the phenomenon is taken out of its context (Friberg et al. 2000). Through repeated readings of the transcribed protocols and reflective discussions between all authors in the analysis-process, we have avoided drawing conclusions on the basis of de-contextualized statements.

The number of participants was limited, but the strategic choice assured that different views of incidences were captured and different ways of conceptualizing the phenomenon were revealed. The first author, a clinically active intensive care nurse with personal experience of the pathway and aortic-surgery patients, conducted all the interviews. There might be a risk that the nurses designed their answers to fit with what they thought the interviewer wanted to hear and that the interviewer, due to a pre-understanding, took things for granted and held back on asking more probing questions. However, the nurses were ensured that there were no right or wrong answers and they were encouraged to express their thoughts and experiences as thoroughly as possible. We have no doubt that the collegial relationship promoted a sense of confidence in the informants, which was reflected in open and truthful answers. In our opinion the interviews contained relatively short questions with rich, spontaneous and relevant answers, which are predictors of the quality of the interviews (Kvale and Brinkmann, 2009). Given that pre-understandings were harnessed and reflected upon, we consider the interviewer's pre-understandings of the domain an asset that facilitated our ability to analyse conceptions in their proper context.

The credibility of the study is based on a clear presentation of interview-questions, interview-procedure and analysis-process. Excerpts from the interviews are provided to support the relevance of the conceptions reported on. The categories constructed by the authors are considered to be truthful to the empirical material but we make no claims that they represent an

absolute truth. The categories are qualitatively different but not contradictory. The individual nurses all had more than one way of conceiving of the phenomenon and most of the nurses expressed conceptions that were representative of each of the three descriptive categories, which demonstrates the complexity of the phenomenon.

Holistic care

The findings of this study provide insight into how ICU- nurses conceive of a CP in caring for patients that have undergone aortic-surgery. The most striking result that emerged was that the CP was conceptualized as a guide that is open to individual patients' needs in caring. This could seem to be contradictory given that CPs are designed to standardize patient management and thereby may conflict with values based on providing individualized care (Hunter and Segrott, 2008). Although a CP can be seen as an alternative way of organizing care, it nonetheless incorporates a traditional approach to caring (Barker et al. 1999; Rayner, 2005). The nurses' conceptions in the present study correspond with the holistic description of ICU-caring that is given in previous studies (Almerud et al. 2007; Wilkin and Slevn, 2004). In contrast to concerns that are raised in literature about CPs representing a reductionist approach and having a potentially negative impact on care professionals' autonomy (Hunter and Segrott, 2008; Pinder et al. 2005), the nurses conceived that caring, also when the CP is used, continues to be governed by clinical judgment and patient autonomy. The nurses acknowledged that there exists a risk of neglecting individual needs if the CP is followed scrupulously. However, they also conveyed that the culture at the ICU studied, where nurses traditionally have responsibility for caring for the whole patient, assured a holistic and individualized approach in caring.

The way CPs are designed varies across institutions (Currie and Harvey, 2000; Olsson et al. 2009) and the acceptability of variations appears to differ across settings (Hunter and Segrott, 2008). The supportive framework for the CP at the ICU studied here states that the nurses are obliged to assess patients' needs and continuously evaluate the suitability of proposed interventions in relation to the individual patient. As Currie and Harvey (2000) point out, CP should be open for interpretation, the plan can be changed, but the reasons for deviating from the plan must be clearly recorded.

The desire to standardize yet also allow for individualized caring can leave the nurses with an uncomfortable paradox to manage (Hunter and Segrott, 2008). However, the nurses in the present study conceived of an individualized approach as a fundamental commitment they make and appear comfortable with adjusting care measures to the individual patient's needs and autonomy. Patient participation was conceived of as important. Consistent with other studies (Frank et al. 2008; Lemonidou et al. 2003), information was regarded as a prerequisite for patient participation and patient autonomy. Even if ICU-patients often hand themselves over to the care professional, the CP was conceived of as contributing to uniform information and thereby facilitating patient participation, a finding consistent with other studies (Barker et al. 1999; Currie and Harvey, 2000; De Luc, 2000).

Hunter and Segrott (2008) state that exercising clinical judgment is essential for providing individualized care and in their literature review they raise concerns over the increasing use of CPs, which they claim can challenge nurses' clinical autonomy. However, the nurses in the present study, in accordance with other studies (Barker et al. 1999; Sinuff et al. 2007), did not conceive of the CP as a challenge to their clinical autonomy. They conceived both an obligation and a right to think independently and to use their clinical judgment in caring.

That the nurses felt comfortable with the CP is further verified by the conception of the CP as a source of support for professional confidence. The nurses reported a sense of security they derived from the CP, which they in turn described as something that was communicated in their relationships with patients and in the way they were able to make the patient feel assured in the caring situation. That care professionals' confidence, skills and satisfaction benefit patients in the form of a good caring environment, a sense of security, trust and tranquillity is confirmed by patients as well as care professionals in previous literature (Carnevali and Thomas, 1993; Del Barrio et al. 2004; Furåker et al. 2004; Ronellenfitsch et al. 2008; Von Essen and Sjöden, 2003).

Concerning the issue of whether it is beneficial for the patient to know that their care is being managed according to a pre-adopted plan, views were divided. Some nurses held that detailed information about the whole CP could lead to too much pressure on the patient and leave the

patient unduly worried in the event it was necessary to deviate from the pathway, a concern also discussed by Ronellenfitsch et al. (2008). In contrast, other nurses' conceptions were that the patients would feel more confident and reassured if they knew that a CP was used, which is consistent with patients' conceptions that were revealed in a study by Barker et al. (1999). This issue needs to be further explored and patients need to be consulted so that their experiences can be utilized in the practice of CPs.

Quality of care

CPs are generally accepted as an effective quality system (De Bleser et al. 2006; Ronellenfitsch et al. 2008; Vanhaecht et al. 2006), and the present study corresponds with this as the CP was conceptualized, among other ways, as an instrument for patient safety. Other authors have highlighted that CP can support the implementation of national and local guidelines into clinical practice and help care professionals to keep in touch with the latest scientific evidence (Currie and Harvey, 2000; Ronellenfitsch et al. 2008). In accordance with other studies (Barker et al. 1999; Currie and Harvey, 2000; Furåker et al. 2004; Sinuff et al. 2007), the nurses conceived of the CP as a source of knowledge in caring. A CP implies that a care plan is visualized, which promotes continuity (Barker et al. 1999; Currie and Harvey, 2000; Dahm and Wadensten, 2008) and benefits patients in the form of more security (Furåker et al. 2004). The nurses regarded the CP as a planning tool that helped them organize and ensure uniform high standards of caring, rather than leaving the patient to the individual nurse's competence as would otherwise be the case. The nurses also referred to the CP as a checklist to refer to in order to ensure that everything that is planned is performed. This verification that interventions have been carried out promotes patient safety (Barker et al. 1999; Socialstyrelsen, 2005). The nurses' statements also revealed that cooperation with other professionals in caring for the patient to some extent was governed by the CP. Some of the nurses viewed the CP as a cross-professional tool that they used together with the nurses-aid and the physician. Other nurses perceived of the CP as a "nurse thing" and suggested that it would be beneficial to caring if the other professional groups involved in caring for the patients used it to a greater extent, a conception also found by Dahm and Wadensten (2008). CP can facilitate communication and cooperation between care professionals (Barker et al. 1999; Renholm et al. 2002). However, there are also concerns that the remapping of

professional boundaries, which might come with the implementation of CPs, may lead to conflicts that could have a negative impact on caring (Hunter and Segrott, 2008; Pinder et al. 2005). The present study did not reveal any signs of such a conflict. Further studies with informants from other professions may contribute to a wider understanding of this issue.

CPs can increase autonomy in expressing and utilizing nursing skills (Renholm et al. 2002; Ronellenfitsch et al. 2008), a conception also found in the present study. The nurses' views were that the CP led to a more efficient rehabilitation for the patient, which is consistent with findings from a retrospective review of patient records performed at the same ICU by Lyckner et al. (2010). Another conception that emerged was that the CP is a reference guide for understanding a standard course of postoperative recovery. Nurses with limited experience of aortic-surgery patients used the CP as a reference against which they compared the individual patient to enable them to identify when a patient's recovery had taken an unpredicted course. Patients that have undergone aortic-surgery are fragile due having undergone major surgery and at high risk of developing complications (Bryant et al. 2002) and, as the nurses in the present study stated, it is crucial for patient safety that the nurse pays attention to this. An experienced nurse has multiple experiences from caring for previous patients to use as a basis for comparison (Carnevali and Thomas, 1993). When a nurse has limited experience of the patient population, he/she may be relegated to a novice level of performance if the goals and caring plan are unfamiliar (Benner, 1984). CPs are sometimes referred to as "the novice's salvation and the expert's knowledge bank" (Forsberg and Edlund, 2003) (31, p.43, translation author's own). This is verified in the present study when the nurses referred to the CP, as a source of knowledge that is most beneficial in caring when a nurse has limited experience of aortic-surgery patients. However, as the nurses in the present study, as well as other authors, point out (Currie and Harvey, 2000), a continuous dialogue about the practice of CPs is essential to maintaining a culture that allows the nurses to retain their holistic approach, professional skills and clinical judgment and thereby minimize the risk of neglecting individual patient needs in caring.

CONCLUSION

The present study reflects an interest in investigating the impact of CPs within the complex reality of caring. The outcome-space makes it possible to understand the conceptions of the phenomenon although further studies from the perspectives of other professions, patients and relatives would provide an even better picture. The ICU- nurses' conceptions of a CP in caring for patients that have undergone aortic-surgery can be described as a guide that is open to individual patient needs, an instrument for patient safety and a source of support for professional confidence. In accordance with current literature, the nurses in the present study perceived many advantages with using the CP in caring even if they were also conscious that it could give rise to unreflective standardization. The nurses' conceptions indicate that the CP is supportive and facilitates patient safety without jeopardizing respect for the individual patient's needs in caring. Knowledge of how a CP can be conceptualized by those who use it in caring is useful in the development and implementation of future CPs. These insights may be used to influence a thoughtful dialogue among students, care professionals, managers and patients about the practice of CPs in caring.

CONFLICT OF INTREST STATEMENT

There are no conflicts of interest of any kind.

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IMPLICATIONS OF CLINICAL PRACTICE

- This study may be used to influence a thoughtful dialogue among students, care professionals, managers and patients about the practice of CPs in caring.
- The outcome-space makes it possible to understand the ICU- nurses' conceptions of a CP in caring for patients that have undergone aortic-surgery.
- Knowledge of how a CP can be conceptualized by those who use it can be useful in the development and implementation of future CPs.

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Table 1: The outcome space of the intensive care nurses' different conceptions of the critical pathway in caring for patients that have undergone aortic-surgery.

<i>Descriptive categories</i>	<i>Sub-categories</i>
A guide open to individual patients needs	Clinical judgment governs caring
	Patient autonomy governs caring
An instrument to promote patient safety	A source of knowledge
	A planning tool
	A reference standard
A source of support for professional confidence	