

Article

## Staff Experience of Pain Management: An Improvement in Palliative Care

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**Abstract:** Palliative care involves helping patients to achieve best possible quality of life by alleviating symptoms and suffering. The aim of the study was to describe and analyze staff member's experience of working with evidence-based guidelines for pain management in palliative care. The study comprised a total of eight group interviews and 93 narratives from 22 staff members, all of who worked in palliative care. Data was analyzed using manifest qualitative content analysis and deductive perspectives according to SOC (sense of coherence). Three categories, "Awareness of Pain Management", "Participation in Pain Management", and "Safety at Pain Management", were identified. The result showed an increased awareness of the value of a deeper understanding of policy documents and local guidelines. A key factor in improvement work was that team members were given the opportunity to repeat and continuously reflect on their performed work together within the team in dialog form. Teamwork may contribute to a better knowledge and understanding of how to develop high quality in healthcare by learning from each other in everyday work and by using evidence-based practices. Consistency in the working group could improve healthcare by using the espoused theory and theory-in-use for develop procedures and guidelines at work.

**Keywords:** quality improvement; palliative care; pain rating; reflective learning; sense of coherence (SOC)

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## 1. Introduction

In 2008, there were approximately 12.7 million cancer cases worldwide, and approximately 7.6 million of these were fatal [1]. When a disease no longer is curable, treatment becomes palliative. Palliative care includes helping patients to achieve best possible quality of life by alleviating symptoms and suffering. The evidence based guideline for pain management in palliative care differs due to different countries policies and regulation [2]. In palliative care, pain is a common symptom, which could be described by four dimensions: physical, mental, social, and existential; it is also somatic, visceral, or neuropathic in nature [3–5]. According to the International Association for the Study of Pain [6], pain is a subjective experience and this is why staff has difficulties to describe, evaluate, or estimate patient's pain. Good quality care can prevent or alleviate suffering for patients by assessing symptoms and providing psychological and social support from staff (individual and collective) to the patients and their families. Optimal selection of pain management requires a detailed analysis of pain and flexible use of methods and skills from an interdisciplinary team, characterized by a holistic view based on patient's whole situation (comprehensive view). The sum of its parts has to be described individually due to the context where mental, physical, social, and existential problems are included [7–9]. However, there is a need for a system to identify pain, initiate appropriate treatment and monitor treatment to achieve optimal pain management. Pain management could be described by an interdisciplinary approach due to improving quality of life of patients with pain. A pain management team includes several health professionals and requires the coordinated efforts of a management team [10–12]. Chronic pain is a problematic reality due to that pain is a person's private experience; a truly patient-centered approach is necessarily. The patient's pain situation could be established by formulating advice to patients through a logic description developed through face-to-face relations [13,14]. One characteristics of working in a team is the desire to achieve common goals where different skills are seen as a complement to each other [15,16]. How a team develops is affected by many components, such as employees' trust, motivation, openness and mutual respect for each other. Even visions, norms, culture at work (work ethics), and the team member's knowledge is seen as important for high quality of care. Furthermore, feedback through well-developed communication between team members facilitates the ability for health professional to think critically and understand the values created for the patient, a key factor for achieving patient safety and person-centered care [5,15,17–19].

Leadership affects the working place and its quality of care according to the relationship between the manager and the staff by given the opportunity to do a good work. Leaders in healthcare that work for system improvements develop patient safety and achievement for high quality of care. Therefore, continuous improvement of healthcare gives actors within healthcare system, for example staff, opportunities to make improvements [17,20,21]. To achieve improvements, staff members need an effective learning environment to continuously achieve goals within healthcare [18]. Dialog helps to exchange ideas, views, and arguments and create equal understanding of each other's arguments; double-loop learning (learning by reflection) could be developed, which encourages participation to improve care processes. Double-loop learning could be individual or organizational and attempted to achieve or modify goals on different occasions in the light of experience [17,20–23]. By using reflection in work, knowledge could be developed through a broader perspective, which helps staff to think creatively [17,24,25].

In a learning organization, components that promote high quality of care health and good working environment for staff, are described as communication strategies and leadership skills [17,25]. A learning organization is comprised of systems thinking, personal mastery, learning in groups, mental models, and shared vision [25]. The personal elements comprised of the individual's ability and willingness to learn, and their ability to expand and develop a vision, are examples of the high quality of palliative care. Moreover, a learning organization is good at problem solving, trying new ways of thinking by learning from experiences to distribute and absorbing knowledge in operations by using participation as a phenomena [17,25,26]. A model that can be used in learning processes in healthcare is a sense of coherence, SOC [27–29]. A salutogenic approach includes three categories: comprehensibility, manageability, and meaningfulness, which could be used to achieve health by using human success factors for problem solving [27,28,30,31]. SOC can be used in learning processes as an educational model or guidance for health promoted work around a change process [27]. Furthermore, a staff member's ability to influence their work situation depends on how their skills are utilized and developed, which in turn affects the work environment which could be described by comprehensibility, manageability, and meaningfulness at work [15,25,29]. Manageability is also a matter of strengthening the patient's autonomy to ensure that the patient receives tools to manage their specific situation by creating hope and promoting quality of life based on each unique individual's need. However, there is a lack in studies about teamwork according to evidence-based caring, and this is why it is interesting to improve knowledge in the area to improve quality of care within palliative care [2]. Therefore, the aim of the study was to describe and analyze staff members' experience of working with evidence-based guidelines for pain management in palliative care.

## **2. Experimental Section**

### *2.1. Design*

This study was a qualitative study to broaden the understanding of staff members', as concerns evidence-based guidelines for pain management in palliative care and effects on the teamwork. Qualitative research requires insightful and artful interpretation and is dependent on trustworthiness, transparency, verification, reflexivity, and in this study it is participant-driven [32].

### *2.2. Setting*

The study was set up to improve pain management in palliative care within one healthcare districts in the Northeast of Sweden covering 177,000 inhabitants. The palliative care within the settings is done by multi-disciplinary teams with approximately 125 employees who are divided into nine teams including physicians, physiotherapists, occupational therapists, nurses, dieticians, social workers, service staff, medical secretaries, and managers. An improvement project to reach pain measurement to at least 80% of all palliative patients had started in April 2012 and ended in February 2013.

### *2.3. Data Collection*

Two teams with a total of 22 staff members, who worked with palliative care in patient's own homes, were selected. The study comprised a total of eight group interviews with the team members

(Table 1). All interviews were carried out according to team meetings in a room according to the units working place, and were conducted by the first author. The questions were based on a thematic guide, with specific fields of questions concerning staff's experiences of teamwork, communication, guidelines about pain management, technical equipment, time-schedules, quality improvement, and future needs. The group interviews lasted between 30 and 120 min, and were documented first by hand (first five interviews) and then tape recorded (last three interviews), and then transcribed verbatim. In addition, a total of 93 narratives from the same team members (Tables 1 and 2) were collected at the end of every meeting (eight) within the improvement project where staff were asked to write down their reflections. The narratives included the staff members' expectations and lessons learned within the team according to the on-going improvement project about evidence-based guidelines pain management in palliative care for all patients. All data (interviews and narratives) had been used in the analysis as a whole. The data collection took place from September 2012 to February 2013.

**Table 1.** Description of the informants.

<b>Professions</b>	<b>Numbers (team south)</b>	<b>Numbers (team north)</b>
Physicians	2	2
Physiotherapist	1	1
Occupational therapist	0,5 (shared between the two teams)	0,5 (shared between the two teams)
Social worker	0,5 (shared between the two teams)	0,5 (shared between the two teams)
Nurses	6	8
Total	10	12

**Table 2.** Description of data collection.

<b>Meeting time</b>	<b>Number of meeting</b>	<b>Data collection</b>
September 2012	3	3 interviews and 20 + 14 + 7 = 41 narratives
October	1	1 interview and 6 narratives
November	1	1 interview and 10 narratives
December	1	1 interview and 13 narratives
January	1	1 interview and 13 narratives
February	1	1 interview and 10 narratives
Total	8	8 group interviews and 93 narratives

The interviews started with background questions and reflection on the on-going improvement project at the unit as when, where and how do we work with pain management and ended with final questions to catch the staff member's experiences according to the on-going improvement project about pain management in palliative care. Each group interview started with a discussion about the improvement project and evidence-based guidelines. Questions such as: "Could you tell me about X?" and further questions based on the informants' answers were asked to describe and analyze their experiences of pain management in palliative care. Examples of situations as pain rating and the specific local goal at the unit, clarifications where are we know and further elaborations, as every meeting started with a reflection about the status of the improvement project were requested. The data collection focused on staff members' experience of working with evidence-based guidelines for pain management in palliative care.

## 2.4. Data Analysis

The interviews and narratives were analyzed using manifest qualitative content analysis, suggested by Egberg *et al.* [33], as a step-by-step procedure. Written words were used (from the interviews and the narratives) as the basis for the analysis. Texts were read to acquire a first impression of the content. The manifest analysis addressed questions about experiences of working with evidence-based guidelines for pain management in palliative care. The analysis (Table 3) was performed in the following steps: (1) Transcripts were read and re-read to obtain an understanding of and familiarity with the text; (2) Meaning units (words, sentences or paragraphs) corresponding to the content areas were selected by using a deductive approach according to Antonovsky [27], SOC (a) comprehensibility, (b) meaningfulness, and (c) manageability; (3) Each meaning unit was condensed into a description of its content and labeled with a code; (4) Subcategories were identified and grouped into three categories; and (5) *Awareness of Pain Management*, *Participation in Pain Management*, and *Safety at Pain Management*.

**Table 3.** Example of description of analysis of content into subcategories that formed a category.

Meaning unit	Condensed content	Coding	Subcategory	Category
We have to write it down (pain rating). It is just as important as the sign that we are given a drug... and that I have asked about the pain every time	Documentation of pain rating every time	Important to document the pain	Comprehensibility of pain rating	Awareness of Pain Management

The emerging findings are illustrated in informant quotes.

## 2.5. Ethical Considerations

Ethical approval and permission for the study was obtained from the managers of the palliative care units. No ethical approval was used due to Swedish rules and guidelines [34] when staff is included in the data collection. Respect for the individual was a main concern during the study. All informants were informed about voluntary participation and consented to participate in the study, knowing their right to withdraw at any time, and that their answers would be kept confidential. One example is that no names are used as the results are described in three categories without identification of single staff members. Another part was the interest of the informant's experiences by working participant driven as a researcher. Respect for the informants' integrity and autonomy was thereby shown. Ethical guidelines for human and social research have been followed throughout the study [34].

## 3. Results and Discussion

### 3.1. Results

Three subcategories "Awareness of Pain Management", "Participation in Pain Management", and "Safety at Pain Management" were identified describing team members understanding of evidence-based guidelines for pain management in palliative care. The categories are presented in Figure 1.

**Figure 1.** Show the results three categories.

### 3.1.1. Awareness of Pain Management

The category “Awareness of Pain Management” describes staff members’ experiences of comprehensibility in work with pain management. Awareness was described by informants as an increased understanding regarding the meaning of various pain management instruments to perform pain rating in order to achieve better pain relief. Informants point out that improvement work has clear their eyes what have been done in the encounter with the patient as a clearer picture of what team members are doing in meeting with the patient, a kind of comprehensibility in work. Staff members argue that professional pride occurs through the visualization of daily work in the encounter with the patient in order to increase the comprehensibility of palliative care.

Staff describe that they estimate the patient’s pain in a better manner as regards pain rating with numbers, which is used more frequently, as compared to before the improvement work started. Informants highlight that the improvement work had led to awareness and comprehensibility for the team members to handle the pain management when the documentation is made using numbers compared to body text. When patient’s pain intensity is described and documented by numbers, it is described as giving them awareness regarding rendered painful measures as some informants describe it:

*“It will be different when you see a number than that it says that the patient has pain, says NRS 4 so you can see it very clearly, feels natural to write it... you’ve got this target, is it more than four, it becomes an action otherwise with body text it is so subjective writing have much or little pain... It’s much easier to shoot at it... now I just had to commit the misconduct or else... it shows it differently when we have numbers... It a little text and is very objectively described by the patient... it is very easy for us others to follow”.*

Furthermore, informants describe comprehensibility regarding the meaning of the verbal rating scale (VRS) and highlight the importance of documentation of pain, which were expressed as follows:

*“We will document the entire time they estimated, as it is important to how we sign a drip and is just as important to document, eventually it becomes a habit... That we do not think about pain rating because the patient estimates no pain, sometimes we do not write it all down... but it is of course important. Just thinking that the patient is not in pain and it need not be written. Indeed, many patients are estimated by VRS who have expressed that they are not in pain”.*

They also describe an awareness of restriction in how they previously performed the work, interacted with the patient and how the documentation functioned in relation to pain rating. The use of a different measurement tool, such as ESAS (Edmonton Symptom Assessment System), showed that tool with a number is an estimate in itself as one informants expressed like:

*“If the patient estimated one of ESAS, the patient has actually expressed their pain”.*

Moreover, the informants highlight that patient’s view of his pain manifests itself in pain estimation in a clear way when they documented the results. They highlight that during the process of improvement, a small number of patients reported pain over 4 (out of 10) on the measurement scale. Informants stress that in the end of the process of improvement there was a discrepancy between how caregivers performed pain rating in relation to evaluation and monitoring of patient’s pain. Staff members highlight therefore the awareness of to spend time on assessment instruments partly from the patient perspective, not from the professional perspective, which were described by an informant as:

*“I just have to think about that pain 0 is a value in itself. It’s important to write it down so we can follow the process and that we can get statistics that the patients did not have pain, that’s something to be proud off”.*

Informants point out the awareness and comprehensibility when they noted that the patient was pain free or not, due to their documentation. Informants highlight that initially it felt strange to document when the patient was pain-free, as previously pain was only documented, not pain-free results. They also stress that rating scales can be used for symptoms such as other areas of caring activities, one informant describe it as:

*“We must continue to estimate that patients get better pain-relief and to make it appear that we are actually good at this... It may be that if we become better at pain rating we may be better at other things too... oral health, we are not good at it and maybe we get better in other tasks too”.*

Another example that was stressed about awareness of pain management was when a team concluded that they did more in the encounter with the patient than they had documented. Informants also highlight the importance that all palliative care patients have an individual care plan including pain management, which is not always fulfilled, and why there is a need for structuring the work by documenting all patient problems through care plans. They stressed that the pain rating was more frequently discussed in team conferences nowadays then before improvement work started, which were described as comprehensibility:

*“We still fumble with what to do with pain estimates but we had started talking more about them, which is fine, we learn together as a team.”*

Moreover, afternoons were described by the informants as a time when the majority of tasks should be used for documentation, meetings, and so on, which contributes to the experience of inadequacy which affect the comprehensibility of all tasks at work. They describe a lack of respect between professions, caused by stress and fear of forgetting to convey important information. Comprehensibility was described when informants have the possibility seeing the whole picture together with help from other staff members. For example, informants highlight a need to consult the physician in the afternoon after their visit to patients. They stress an opportunity to get an overview of different tasks so that every individual employee could comprehend to absorb to keep updated and informed in their own area of operation. Informants highlight therefore that it is seem more effective working in an interdisciplinary team with different knowledge areas to use.

Another aspect that was stressed by the informants was that the process works more smoothly when the procedures are being followed. They stated an awareness to update the local guidelines to work with procedures in their daily work due to doing the right things and have the ability to hand over to other team members. The informants highlight the awareness of being responsive in the meeting with the patient in order to understand the pain dimension and to be able to provide adequate treatment alternatives. The significance of continually reminding each other in the team of pain rating and its implications for the patient's well-being is stressed by the informants.

Informants point out difficulties in pain management when staffs observe that a patient seems to be unaffected, but the same patient describes a high level of pain. Staff describes a complex situation due to pain management that has connection to patient's activity level, and it impacts on the pain. However, intelligibility was achieved when the informants described an understanding due to comprehensibility of the patient's overall pain situation and not only one single situation. They disclose that presence according to pain estimation is needed to continuously work with pain management on a regular basis. One informant described it as:

*“If you work with it (instructions), you become reminded and then eventually it becomes a habit, a routine.”*

### 3.1.2. Participation in Pain Management

The category “Participation in Pain Management” describes staff members' experiences of meaningfulness of learning within the team from daily work through an open dialog in the workplace together with the patient. By using team collaboration gives possibilities to support and help each other at work according to palliative care, and especially pain management. The informants emphasize the importance of open dialog for increased learning activities, which develop meaningfulness and participation within the team regarding their experiences in order to achieve a greater understanding of each other, to improve care in pain management procedures. They stress that conceptual analysis is important for achieving learning agreement due to revealing values to the team members through identification of words and how they are interpreted by the team. Physical contact is described as valuable to give and get feedback on work performance for deeper learning for the local guidelines. They stress that the initial moment of the status report was the engagement that contributed to participation and a feeling of meaningfulness in work with the patient and their pain procedures, one informant expressed it as:

*“Had you (improvement leader) selected a month from the beginning we would probably protest; now we actually choose to extend the time and know what is important and meaningful”.*

The informants describe that clarity of the work is dependent on team members who are equal and valuable through her/his specific knowledge area. Furthermore, a positive effect for the patient occurs when the team does the same things and asks the same questions in the context of pain rating. Informants' stress that participation in the pain management occurs according to meaningful pain rating and why the patient can understand the nature of pain management. One example of participation in pain management is when the patients spontaneously express their pain through numbers before staff had asked about the pain intensity, which was express like:

*“Since many of us are asking the same thing and have an equivalent instrument so it will be less confusing for patients too... If you asked them before, it was as if they had never heard the question. Now it’s very natural for them to say, yes I have a five or a three”.*

One advantage that arises from the informants was the increased participation among patients about pain when staff working uniform and use the same assessment instruments equally. The informants highlight the value in asking for the patient’s experience regarding their pain management as:

*“The advantage is what the patient himself thinks of it; I’ve got better, worse, what did I have, what is it and how was it.”*

Informants describe a need to improve work with pain rating by evaluate patients estimated pain. They express the need for analyzing the underlying factors to understand patient’s pain, which increase the staff member’s willingness to follow local pain management procedures. Informants point out the importance of that all team members do pain-analyses, especially physicians, due the value of the opportunity to learn and gain understanding of existing practices in care. The informants describe that participation in the process increase when discussing how comments were made in measurement tools and documented in the patient’s record. The comments were the basis for the discussion within the team, regarding the patient’s symptoms and the pain’s origins, which gave greater clarity and meaningfulness for team members to use evidence based measurement tools, as in the following quotes:

*“Now it that it’s typed comments in ESAS in a different way than before, there is something to discuss ... the patient has received chemotherapy and is tired ... needs to have logical explanations, otherwise we sit and speculate about something in the team meeting”.*

Informants also stress that the change leader’s role is valuable in the sense that the staff received feedback on their work by someone who was positive, demanding, and, simultaneously, working. Informants also stress that is it important to have a positive and meaningful leadership in an improvement work so the team has the possibility to manage the change process by increased participation in the change process. Feedback from both change leader and team members regarding the teams’ work was described by the informants as a key motivator for participation within an improvement work. Staff emphasizes meaningfulness when they perceived positive and clear results though it was not expected.

Furthermore, they express a need to share the improvement work with their managers to reach participation throughout the whole unit. Additionally, informants highlight the importance to encourage each other in the change process and to develop pride and meaningfulness in their work, which was demonstrated by the improved results of pain management. They emphasize their own decisions about the ability to estimate the pain and then documenting it as:

*“There was not, we decided and here we have the result” ... “To continue working in this way, so it becomes a habit or a routine based on various good local instructions for the benefit of patients and the business”.*

Participation in the improvement work with pain management was described by informants to be at the forefront through clear procedures and uniform approach that increase the meaningfulness of pain management within the team. Participation and understanding of colleagues work within the team was

described as an important part of work to improve practices in pain management. Staff members emphasize the value of working deepened with the patient and their relatives, and developing procedures together which create meaningfulness in work. Informants highlight the importance of feedback about pain management from colleagues and managers, as a receipt and tool for deeper understanding and comprehensibility regarding working with palliative care to be able to focus to perform high quality care. They highlight that there are more available opportunities and interventions for patients when the care is more specialized through different professions within the team. They stress that palliative care units could be seen as an investing for the future. The palliative register is another tool that was highlighted, which provides feedback to the team's work in the encounter with the patient. Informants also stressed that measurements and visualization due to pain management within the improvement project were described as important and improved staffs understanding of daily work, it were described as:

*“When we see the result in black and white, what's good and not so good ... if you can't measure you can't know”.*

### 3.1.3. Safety at Pain Management

The category “Safety at Pain Management” describes staff members' experiences of manageable pain management where every team member contributes to a good working environment; otherwise it could be a threat to patient safety. Lack of routines for communication and documentation responsibilities could lead to lack of available information to all staff, regardless of additional service time. They also highlight the continuous pain rating using validated pain rating instruments, contributing to safe care for the patient and relatives.

Increased use of the local instructions for pain was described by the informants, which provides value for patients in terms of good symptom relief, which contributes to quality of life. Staff described satisfaction and manageability when the team performed relief of pain through evidence-based guidelines, which also involved the patient within the decision processes about pain management. The value of using the right assessment tools was highlighted by the informants, for example FLACC (Face, Leg, Activity, Cry, Consolability), NRS (Numeric Rate Symptom Scale) and ESAS. The team members describe it as improved quality of care due to the documentation that shows patient's freedom of pain according to the use of validated instruments for measuring pain.

Informants expressed a need for routines in work to use time and resources in the best way to secure manageability in procedures of pain management. Staff members stress that focusing on pain rating resulted in changed working routines. At the same time, they highlight the significance of repetition to get the action moving towards habit, focusing on one instruction at a time to achieve manageability, which were express by following quotes as:

*“Perhaps concentrating on something and focusing on one area at a time, the next time will be something else and look at how we work with this ... I think it is important to focus on one thing ... we have a lot we can learn from what we already have and how we can become good... with a routine it becomes obvious ... you cannot have 18 different things to deal with at the same time”.*

Informants express inadequacy requirements in relation to existing resource, and why there is a need for balance between demands and resources available in the form of personal and organizational elements. Time is described as an important factor in dealing with ensuring quality improvements, for which necessary procedures and operations are available for the caregivers as the quote:

*“Improvement work takes time to get mentally, and then once you do, it did not take longer”.*

The informants illustrate that good procedures are developed in local instructions or guidelines, but they are many in number. They express difficulties to live up to them, which in turn creates more stress, and why reminders are mentioned as useful tools to secure work with pain management. Furthermore, it is valuable for the informants with verbal feedback instead of using email due to accumulation without possibility to read them all. Informants describe that the majority of the tasks contribute to an accumulation of work that leads to a feeling of inadequacy and problems with priorities and lack of safety at work. Informants claim that the administrative steps in work affect the workload in a negative direction, rather than feeling manageable, it leads to the postponement of tasks, alternatively absent as:

*“How we document is less important for now, we go around crowing solutions to keep it up with it when you cannot think about how and what documents... If you get stressed, you're in a hurry there is a risk that you go back to the old routines... Sometimes it not won't work.”*

Furthermore, staff members point out that the working environment for patients and staff could be improved when staff members work from the same approach and on equal terms. The informants describe manageability and an increased understanding of the working structure regarding work performed through regular feedback. Both positive and negative feedback will provide a better overview of the operations and improve safety in pain management, which was described by one informant as:

*“Of course it is always important with feedback all the time on what you do, otherwise I know why we do this and then you lose why do we do it here, so continuous evaluation is good.”*

Informants highlight that different professions in the team help each other to achieve manageability through a better structure to avoid errors. This is particularly important when the team includes a large number of members and why assignments easily can be missed. The informants highlight the importance of the individual employee's responsibility to follow local guidelines and keeping abreast with updates to provide the best possible care for the patient. They stress that one way to handle it is to set aside 15 minutes per day for reading and updating information and assessment. Moreover, informants argue that colleagues do not always know that a local guideline exists and the content of the instructions, this was described as:

*“You cannot run your own race just because you feel like it”.*

The informants describe a complexity associated with documentation due to a fragmented work situation with multiple interrupted tasks. They also described a frustration and a threat to patient safety when they not are able to document their work directly in the patient record related to the visit to a patient, and why argument that a laptop could gain time and improve quality assurance. According to the informants, there is a risk that important information gets lost when the final documentation is done

later on. They also describe a need for a peaceful and manageable work environment during the execution of a secure documentation and communication transmission, one informant described it like:

*“We are so stuffed with information from relatives and patients so we will capture that moment and then we need and requires an infinite silence to get it down on paper”.*

Furthermore, informants point out that healthcare has to focus on the new operating structure, which has consequences for the entire operation. They argue that more rational and evidence-based care improves patient safety using scales and guidelines within pain management, one informant describe like:

*“The value of that objective estimation + documentation as possible = good for the patient AND for the team”.*

The content of manageability is described by the informants as security in the pain management process, as well as staff professional pride and custom development. The informants describe the important of manageability through a learning process within the team, which could develop a secured work within pain management. Informants also stress that manageability and security in work arises when staff members have deepened their knowledge regarding the current routine for pain management.

### 3.2. Discussion

The aim of the study, to describe and analyze staff member's experience of working with evidence-based guidelines for pain management in palliative care, was achieved. The result of the study can be described as a better understanding of its meaning and content of pain management in palliative care by using numbers as a measurement, and especially zero for no pain. Improved dialog within the team in conjunction with the screening of symptom assessment tools contributes to a broader perspective with deepened knowledge by improvement work about the use of pain rating tools, pain rating and pain management [34]. Staff highlights the possibilities of using numbers instead of body text due to pain management to achieve a greater understanding of better pain relief related to a uniform approach within the team [15,16]. The obstacles that emerged through the use of local guidelines was that time was needed to ensure adequate pain localization and analysis due to common goals, use of evidence-based measurement tools and equal documentation strategies regarding pain management [11]. Comprehensibility, meaningfulness, and manageability within the team work were showed throughout the improvement work according to awareness of pain management, participation in the process, and safety at work [16,18,22].

Through improvement work, staff has had the opportunity to learn from tasks in daily work by participation with the patient and their relatives regarding evidence-based guidelines for pain management [35,36]. The enhancement space occurred by studying how the work is done through measurement, visualization and feedback on the results [5,17,36–39]. It was stated that an increased awareness meant that a pain rating was performed even when the patient was pain free. Another positive change that emerged was that the staff member's awareness of the importance of objectively documenting all forms of pain rating increased to have equal documentation strategies that everybody in the team could understand [16,18]. The improvement work has visualized the need both to ask about the pain but also to document the results in the same way by numbers instead of body text or no documentation at all if the patient estimates pain at zero (no pain at all). Lack of knowledge of the

meaning and content of the relevant procedures and instructions is something that complicates health professional's trust and use of guidelines [21,40,41]. Lugtenberg *et al.* [41] describes a knowledge gaps according to recommendations for care. To develop sustainable progress in healthcare, staff and their leaders could be focusing on shortcomings as a success factor for improvement work [20,21].

Staff stated in the current study that they had not considered that when a patient expressed painlessness, this would be something for the documentation. Other causes of no documentation of pain relief was the lack of time and available computer in the meeting with a patient, which had been highlighted before according to systematic documentation structures [36,42]. However, an assumption might be that participation captures the issues of pain management by experiences as meaningfulness in work by the team's members [18,20]. By using information in a context makes it comprehensible in working situation and how the importance of the sense of context could be experienced by comprehensibility, meaningfulness and manageability [27,28]. The salutogenic focus could be useful as a complement to the pathogenic-oriented perspectives in healthcare were staff stress the importance of reward but they experiences diversity characterized by flexibility or stability [43]. According to this diversity, team work is one way to improve work by using differences within a working group as a force to move on in a change process.

The result showed positive experiences due to the change leader's role in the content of the improvement work, which could be described as a force that improved the change process due to possibilities and obstacles in the improvement work. The significance of a leader's role due to a change process is also highlighted by research [20,21,44,45]. Documentation through numbers instead of body text leads to a clearer indication for the staff what action has to be taken. However, there is a risk in using numbers in pain management, as documented data about the nature of pain could be lost, and the cause of pain ignored [9]. Therefore, it is important to continuously improve the documentation system for pain localization, character, *etc.* to develop a holistic understanding about the patient's pain and to provide adequate treatment [8,9,46,47]. Palliative care could be described as a reflection on a nature perspective with respect for the patient's view, where pain is a person's private experience, a truly patient-centered approach [13,14]. An assumption could be that teams do not have the same clear feedback on pain management from the patients perspectives could be at risk for mistakes in their pain management. The increased related documentation using patient's own pain estimation resulted in a clear and visible estimation of pain for staff in healthcare [29,48]. Furthermore, staff that achieved a greater understanding by sharing pain rating together with the patient resulted in better pain relief for the patient. Moreover, Chang *et al.* [10] highlighted almost the same results and stressed the importance of education, participation and ownership by the patient, in connection with his pain management, in order to achieve an effective pain management as possible. It is also highlighted the importance of using modern technology in the dialog between patients who stay in their homes, and health care professionals, to reach patients' participation in the context of pain detection and pain management [2].

Reflection through feedback between different actors within healthcare is one factor that could contribute to double-loop learning at the individual- as well as the team level and so contribute to improved quality of care. The results of the staff's selection of pain management is then characterized by a holistic view based on patient's whole situation due to the context where both mental, physical, social, and existential problems are included [7–9,23]. Increased learning could develop in a care unit during the improvement process when team members are given the opportunity to take pride in

their work. To increase the quality of care from a broader perspective around the existing instructions, staff members must have organizational possibilities for reflection and deeper learning according to relevant content for pain management [18,22]. In the mid- and later in the change process, the team worked spontaneously with continuously on-going dialog and discussion about several occasions using double loop learning as a model. Reinforcing learning methods, with the opportunity to reflect in the daily work together with team members increase staff members' adherence and understanding of evidence-based procedures [17,36,45,49,50]. Further, team members need to improve pain rating tools that detect patient's perception of their pain. There is a need to question patient regarding whether they were satisfied with pain management to be able to visualize the pain management. Nelson *et al.* [51] demonstrated the importance of finding out patient's experience of care to improve healthcare processes. Furthermore, clarifying by the law [52], a patient's right to be involved in healthcare is ensured with possibilities of taking part of the care plan and the specific decision as pain management based on respect for patient autonomy and integrity. Eriksson and Lindstrom [30] described that the value for the patients regarding power and participation in healthcare activities has a strong relationship to their quality of life, and this is why there is a further need to focus on sense of coherence.

The study shows the importance of deeply learning about procedures around existing evidence-based local guidelines for improved quality of care for patients and their families [11]. Through the dissemination of improvement methodology, both internally and externally, similar activities can be experienced and utilized to improve high quality of healthcare through working in processes [40]. The activity level of professionals regarding pain management increased when the pain rating was documented through numbers (especially zero) and to be able to follow the pain management over time. There are some similarities between how health-promoting factors for staff can be pursued in the workplace through the SOC, and the foundation of the learning organization, and improving knowledge due to holistic work and double loop learning, why this could be a future research area [17,25,29,37,39].

### 3.3. Limitations

The limitation of this study is the qualitative approach with a limitation of two teams, with 22 team members from one healthcare district. Qualitative methods could not be used to generalize the results. However, the trustworthiness of the results was ensured through a scientific systematic analysis using a well-documented methodology of a manifested qualitative content analysis according to an improvement process over six months using two different data collections, both eight group interviews and 93 narratives [33,53]. The choice of individual and collective qualitative methodology, and by using double loop learning for staff to work; they reflect and so modify individual and collective goals, may resulted in an improved research outcome. Another factor is that understanding interviews and narratives can inform implementing and the use of evidence-based guidelines due to pain management in order to improve healthcare. The study's validity could be discussed due to its limitation, and further studies are needed to develop knowledge about the experience of working with evidence-based guidelines for pain management in palliative care.

#### 4. Conclusions

The success factors from the improvement work was that team members were given the opportunity to repeat and continuously reflect, using double loop learning, at their performed work together within the team in dialog form, based on local guidelines and quality objectives. Furthermore, participation and feedback contribute to an understanding of how their work was meant in the meeting with patients. The opportunity for the team members was to learn from the way they worked in the encounter with the patient, a crucial factor in the improvement process. Staffs own words attained to success due to the on-going feedback at work where pain measurements were seen as important elements. The results also pointed out the valuable of regularly staff meeting where they have conversation about the improvement work in a positive and engaging meeting climate. By getting time by organizational structures in a learning environment regarding local guideline, could maintain the improvement work. Another key point was that pain management visualized staff work due to pain and palliative care.

This study may contribute to a better knowledge and understanding of how staff skills can be utilized in palliative care for making continuous improvements to enhance the patient and their relatives. Health professionals could develop high quality in healthcare by learning from each other in everyday work by use evidence-based practices. By using scheduled working hours where staff discuss improvements in work, similarities and differences in approach in relation to the guidelines could be visualized, which contributes to transparency and clarity in terms of impact on the work. Consistency in the working group could improve healthcare by using the espoused theory and theory-in-use for develop procedures and guidelines at work. In future research, it could be of interest to develop knowledge about patient and relatives experiences of pain management in the end of life.

#### Conflicts of Interest

The authors declare no conflict of interest.

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