



Ambulance nurse's experience to relieve pain in patients with addiction problems in Sweden

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ABSTRACT

Background: Pain is a personal and subjective experience. Prehospital emergency nurses (PEN) should work on the basis that all people are equal and entitled to the same care regardless of gender, age, disability or social status. The objective of treatment in health care is that all the pain to be alleviated. People with addiction problems often seek emergency care and pain is a frequent symptom. Research shows that medical staff often under treats pain and treat patients with addiction differently.

Aim: To describe PENs' experiences of relieving pain in patients with addiction problems, otherwise called Substance Abuse Syndrome.

Method: The study is designed with a qualitative approach with semistructured interviews. Eight PENs were interviewed and the material was analyzed according to a manifest content analysis.

Result: The study's main finding is that the PENs wanted to give all patients equal care but often experienced uncertainty in the care of addicts. Many of the perceived emotions created a doubt in what situations would be resolved. Lack of information and knowledge about addiction and their own feelings and values of addicts made it difficult to decide what was right or wrong treatment. The difficulty was further increased when the unclear guidelines and lack of support meant that the treatment still perceived to be different.

Conclusion: Pain management of patients with drug addiction can be characterized as a complex task that requires a high level of skill. PENs often encounter this population in their work. Several factors lead to their experiencing these care situations as difficult to manage. Treatment guidelines are perceived as unclear and giving weak support as to how patients with addiction and pain should be treated. To handle this, PEN sought support in their decision-making from colleagues in ambulance care and the Emergency Department. Their conclusion was that treatment would be different every time, and that patients with addiction and pain were all treated differently. Despite advances in treatment options, patients will continue to be under-treated. Unfortunately, it is not just better knowledge of pain physiology and pharmacology that is the solution. Knowledge about and attitudes to pain and addiction must be corrected before any behaviour can be changed. The results of this study will hopefully make knowledge more nuanced and raise awareness of shortcomings in order to optimize care and treatment in the prehospital environment.

1. Introduction

Pain is always a personal and subjective experience. A person's perceived pain is something that healthcare professionals cannot objectively evaluate or compare with their own or other patients' pain estimation [1]. Pain is defined according to the International Association for the Study of Pain (IASP) as: 'Pain is an unpleasant sensory and emotional experience associated with tissue injury or threatening tissue injury or described in terms of such harm' [1], (p.13). Prehospital Emergency Nurses (PENs) must work on the basis that all people are equal and entitled to the same care regardless of gender, age, disability or social status [2]. The objective of pain treatment in healthcare is to alleviate all the pain. People with addiction problems often seek emergency care. Pain is a frequent symptom for them. Research shows

that medical personnel often treat patients with addiction differently, among other things undertreating their pain [3–7].

The Swedish National Board of Health and Welfare (2015) distinguishes three different concepts of abuse: use, addiction and dependence. Defining the boundaries between these is difficult and in the field of addiction, a classification system called Diagnostic and Statistical Manual of Mental Disorders (DSM-5) is therefore used. In this system, addiction and dependence diagnoses have been replaced by the overall concept of Substance Abuse Syndrome (SAS). The seriousness of the abuse is analyzed according to different criteria and then classified according to a scale of 1–5 where 1 is mild addiction and 5 severe addiction.

Although knowledge about pain treatment in nursing, anatomy, physiology and pharmacology is adequate, many patients experiencing

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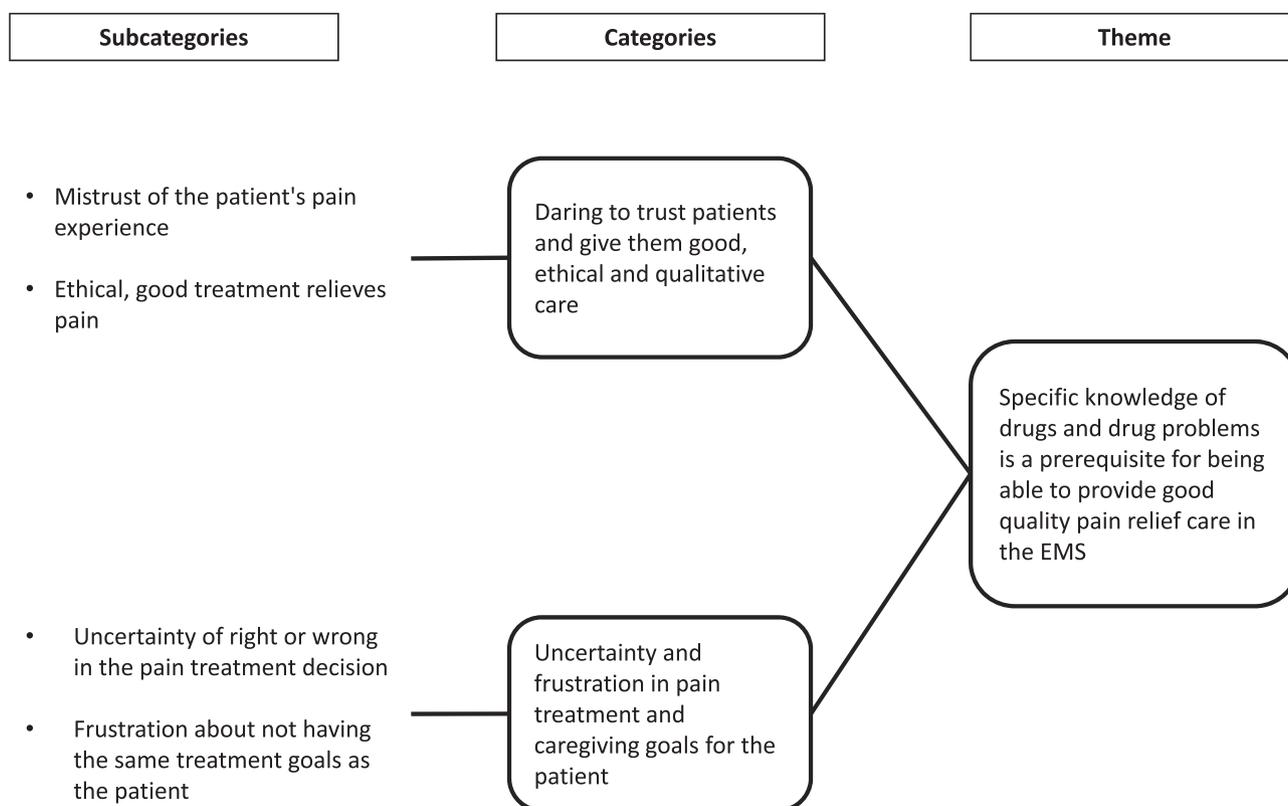


Fig. 1. Summary of the subcategories, categories and the main theme.

pain are undertreated, notably patients showing addiction. Studies from emergency departments show that health professionals' attitudes to and knowledge of addiction and the addicted patient lead to these people often being met with prejudice and receiving a lower quality of care and treatment [3–7]. The ambulance service often comes into contact with people with SAS. Today there is not much research focusing on problems in the Emergency Medical Services (EMS) of treating pain and addiction. Knowledge of how PENs experience these healthcare situations is also limited.

2. The study

2.1. Aim

The aim of this study has been to describe PENs' experiences of relieving pain in patients with addiction problems, otherwise called Substance Abuse Syndrom (SAS).

2.2. Methodology

2.2.1. Study design

The study design is descriptive with a qualitative approach using semi-structured interviews and inductive content analysis [8]. Induction is a philosophical approach for deriving conclusions from empirical experiences [9].

2.2.2. Setting

The study was carried out in Västernorrland County in Sweden during 2016. Sweden had approximately 10 million inhabitants, with 245,572 living in Västernorrland County [10]. The county has nine medium-sized ambulance stations with approximately 180 employees. A medium-sized ambulance station is defined as a station with at least two ambulances active around the clock. There are three personnel categories in the EMS in Sweden: Emergency Medical Technicians

(EMTs), Registered Nurses (RNs) and Prehospital Emergency Nurses (PENs). PENs are responsible for the medical management of patients. PENs must complete a specialist ambulance nurse education requirements course of 60 credits including at least 30 credits with in-depth studies in Caring Science. The criterion for entering this programme is a Bachelor of Science Degree in Caring Science/Nursing. Since 2007, courses have been available to acquire deeper knowledge in Prehospital Emergency Care, leading to a one-year Master's Degree and a post-graduate Diploma in Specialist Nursing, Prehospital Emergency Care Programme [11].

2.2.3. Sample

Inclusion criteria for participation in this study were that PENs had been active in the EMS setting for at least two years, with experience of relieving pain in patients with addiction problems/SAS. For the selection of the eight PENs included, strategic purpose sampling was used [12]. This means that the authors selected PENs who were readily available and deemed fit for the purpose of the study. Polit & Beck [9] state that the actual number of participants in a study is not the most important factor, but rather it is information saturation that is of interest. Information saturation is defined as the point at which data collection does not result in any new information, and thus that further data collection is superfluous. Both men and women aged between 25 and 60 years participated. This age spread helped to maximize the content-richness of the participants' narratives about the phenomenon according to the aim of the study [13].

2.2.4. Data collection

Data collection began with written consent for the EMS from one of the operations managers. Thereafter, telephone contact was made with the unit managers and they selected the PENs who met the inclusion criteria. The semi-structured interviews, carried out in Swedish, were conducted individually in tranquil and secluded environments selected by the PENs [9]. Each interview was recorded with a digital recorder

and started with a short presentation of the study's aim, after which the researcher first asked the main question: 'Can you tell me about a situation where you are faced with relieving pain in a patient with substance abuse?' After the main question, the interviews in this study developed using follow-up questions such as 'Can you elaborate?' and 'How did you feel?' This was to help PENs stay focused on the experience and on the purpose of the study. Finally, the answers were summed up and the PENs were asked if they wanted to contribute any additional information or comments.

2.2.5. Data analysis

Data was analyzed using content analysis, with an inductive approach according to Graneheim and Lundman [8]. The recorded interviews were listened to several times. Furthermore, the text was read in order to find meaningful units, i.e. sentences that had communal meaning which could be linked to the purpose. Each meaningful unit was compressed to reduce the amount of text without losing the meaning and was then named by one or more words that formed a code. Graneheim & Lundman [8] state that it may be advantageous not to make meaning units too small or too large since too close a text analysis can affect the understanding of the whole in a negative way. No meaning units had to fit into several subcategories. The codes led to subcategories and based on these subcategories, categories were created. Based on these categories, a theme was created to highlight the underlying, latent message of the text. The theme was the common thread that recurred in several categories to create and articulate the whole of the text [8,14]. Quotes from the interviews were used to underpin and reinforce the result. An authorized English translator has edited the quotations to ensure that nothing of importance has been omitted or misinterpreted.

2.2.6. Ethical considerations

Ethical approval was obtained from the Regional Ethics Committee at the Karolinska Institutet, Stockholm [15], (no. 2016/727-31/5). The study's design fulfilled the ethical principles for research prescribed by the International Council of Nurses [16].

3. Findings

The findings identified one theme derived from two categories associated with four subcategories (Fig. 1).

Specific knowledge of drugs and drug problems is a prerequisite for being able to provide good quality pain relief care in the EMS.

The theme showed that PENs experienced several factors that made patients with substance abuse a challenging and difficult patient group regarding pain relief. The theme reveals the essence of how PENs experienced the phenomenon: *Specific knowledge of drugs and drug problems is a prerequisite for being able to provide good quality pain relief care in the EMS.*

PENs must *dare to trust* patients and give them good, ethical and qualitative care, but there are factors that make this ambition difficult to fulfil. Dealing with this patient group with their specific problems revealed that PENs not only lack information and knowledge about the patients' addictions but also about the drugs that are currently available on the street. Lack of knowledge about different drugs and the effects of these drugs impacts negatively on PENs' treatment and pain relief of patients. PENs also experienced that in some cases they did not have the same treatment goals as the patients. This created conflicts in the relationships between PENs and patients. To solve this problem, PENs created pain relief strategies to ensure the patients' continued care. The theme was derived from two categories: 'Daring to trust patients and give them good, ethical and qualitative care' and 'Uncertainty and frustration in pain treatment and caregiving goals for patients'. These categories are presented below with their associated subcategories illustrated by quotations.

3.1. Daring to trust patients and give them good, ethical and qualitative care

This category shows that PENs experienced pain relief in patients with substance abuse problems as a big professional challenge. The challenge and difficulty lie in daring to trust patients, making correct assessments and giving them the right treatment and good, ethical and qualitative care. This category sums up PENs' feelings of how important these encounters were for being able to continue administering quality care. Trusting the patients' descriptions of their pain experiences was considered important but several factors made this assessment difficult to manage. This category is presented with two associated subcategories: *Mistrust of the patient's pain experience* and *Ethical, good treatment relieves pain*. The subcategories are presented below with illustrative quotations.

3.1.1. Mistrust of the patient's pain experience

The findings showed that PENs often felt mistrust towards addicted patients' pain experiences. Patients with visible injuries were however never subjected to mistrust, but given immediate and adequate pain relief, unless they expressed a wish to refrain from opioids. Nonetheless, in the absence of clear signs such as deformities, wounds and vital parameters proving the experience of pronounced pain sensations in patients, PENs found it difficult to trust them. This was described by one informant:

I go very much on body language and parameters, I mean they're sitting there and talking fluently and saying they have VAS 10 on the pain scale, but they have normal blood pressure and normal pulse and no dilated pupils, so there is nothing physiologically that indicates that they're in pain at all.

Patients who were precise in their specification of analgesic and dosage when it came to pain relief medication gave PENs the feeling that they were probably seeking drugs. Patients who were not drug seeking did not specify which medication they wanted. They only said that they wanted something for the pain. PENs often perceived patients who frequently and regularly contacted the EMS on account of undiagnosed pain as drug seekers. PENs felt that these patients manipulated their willingness to help and became difficult to handle, as though these patients were playing games with them. One informant described a typical situation:

We've ended up in situations where we meet people who, well, fake an emergency just to get hold of drugs. Of course they never get given drugs.

Many PENs pointed out that all patients in pain had the right to relief of their suffering irrespective of whether they were addicts or not. They argued that this was a right everyone had, but several pointed out that in cases of known substance abuse, it was not always clear cut. In cases of known substance abuse, they experimented with administering other types of treatment or being more restrictive in administering drugs. They felt that addicts should be offered care, but that pain-relieving drugs were not a solution. One informant stated:

I assess them like all other patients and I think that's what one should do. I think no matter what we know or think we know, with patients complaining of pain, we should alleviate [their pain] if we can.

3.1.2. Ethical, good treatment relieves pain

Relieving pain meant primarily providing pain relief medication, but all the PENs pointed out that it also included other measures. Very important other measures were building trust and providing security and reassurance for the patient in a calm encounter with friendly service the aim of which was good, ethical and qualitative care for the patient. Another measure involved awareness of the patient's lived experience. Just being there and showing respect for the patient's

experiences and vulnerable situation could result in a calmer patient with less pain. The healthcare environment is often perceived as messy and noisy, so creating a peaceful and secure environment enabling PENS and patients to have a dialogue in a calm, clear and friendly manner promoted patients' involvement in their own care. Dialogue may also be effective in distracting patients from their pain. If there was any physical damage, a change in position or allowing the patient to determine which position felt more comfortable, less painful, could be effective alternatives to pain relief medication. Despite certain mistrust, PENS asserted that it was still important for all patients to be treated equally on the basis of symptoms, regardless of whether they were drug addicts or not. Based on the short treatment sessions while in the care of the EMS, PENS should treat all people equally and non-judgementally. One informant told us:

I can listen to the patient and, like, try to calm the patient down and give the patient time and just be there, so to speak. It may relieve the pain and maybe the situation will be different after a while, but otherwise when you say pain relief, I think of the medications we have. First and foremost.

3.2. Uncertainty and frustration in pain treatment and caregiving goals for the patient

This category describes how the PENS often experienced uncertainty in the care of drug addicts. Their emotional uncertainty often led to doubts as to how health situations could be resolved. This category is presented with two subcategories: "*Uncertainty of right or wrong in the pain treatment decision*" and "*Frustration about not having the same treatment goals as the patient*". The subcategories are presented below with illustrative quotations.

3.2.1. Uncertainty of right or wrong in the pain treatment decision

The results showed that PENS experienced uncertainty in pain treatment decisions concerning drug addict patients. The problem was not the encounter with this patient group in itself, but concerned what pain treatment to administer. Many felt a sense of not knowing what was right or wrong. PENS normally considered that pain relief medication was the best way to relieve pain, and not being able to administer pain relief medication was perceived as wrong. PENS reported that they abstained from or were more restrained in giving medication in cases where they suspected that the patient was already taking other drugs. The uncertainty was that they did not know which interactions could occur between the drugs. Lack of knowledge about different drugs and the impact of drugs led to increased uncertainty. One of the informants described this:

It's partly that you are more restrictive with medications especially in, above all in cases where they are already under the influence of something. For example, among drug users taking other tablets, you don't know what interaction there may be between the medicines. So obviously you are more careful in giving drugs just for that particular reason.

Several PENS also described the anxiety and fear of making a former drug addict get addicted again: "*Then for example former addicts who are drug-free, you don't want them to feel 'high' on these medicines*". This PENS was relieved when the patient abstained from pain relief medication. PENS were generally relieved when their own responsibility was removed from them. The fear that medical treatment might do more harm than good enhanced their feeling of needing to act correctly. They referred to patient autonomy and the right to refuse the medical treatment offered.

PENS' doubts increased when they experienced poor or inadequate support from the EMS medical treatment guidelines. Often when dealing with doubts and uncertainty, they searched for support and guidance from other professionals. One of the informants said:

If I really need to, I can always contact a doctor to get support and further discuss the case and how to proceed.

Getting support made it much easier for them to handle and resolve the care situation, feeling that they did not have to be alone in making their choices. One informant reported:

Call a doctor and get support from the ED and ask there. I can describe the patient's problems and how I feel, so if they (ED) can pick up anything on him (previous journal notes), get a prescription from there, a direct order, affects what I, how I should relate to the patient.

3.2.2. Frustration about not having the same treatment goals as the patient

It was frustrating for PENS not to have the same treatment goals as their patients. PENS saw that patients sometimes felt that the goal was achieved when pain relief medication had been administered and patients indicated that there was no need to go to the hospital. One informant reported:

But it doesn't feel right, going and giving him as high doses as he wants, in this case morphine and then leaving, that's not the way we usually work, it doesn't feel OK, you feel frustrated and that isn't any good for the patient or for us.

PENS felt they must have a plan and strategies for patients who had previously been in prehospital care situations where they had received pain relief medication and afterwards refused to be transported to the hospital. A strategy that reduced the frustration was when the PEN chose not to relieve pain in the patient's home, but instead administered pain relief medication in the ambulance during transport to hospital. In this way, PENS could help patients to the continued care that they felt patients were in need of. They considered such calls not to be ambulance missions but the responsibility of primary care. One PENS said:

There was no support from the treatment guidelines or primary care [...] it felt like we were maintaining an abuse, at the same time as the patient needed to have pain relief for their condition, but another organization should have the operative responsibility.

On the occasions a PEN often returned to the same patient, it created an untenable situation for the nurse. PENS felt that their treatment goal was not consistent with these patients' wishes and goals. Furthermore, they knew that people in pain with a recognized drug addiction often saw the EMS as a solution to their abuse problems. PENS understood that they had to handle these situations differently. As things were, some tried to meet patients' desire for pain relief and gave pain relief medication, while others abstained, which many times complicated their work. This created conflicts in the patient relationship concerning how pain was to be treated.

4. Discussion

The results show that PENS experienced drug addicts seeking pain relief as a difficult patient group to handle. They did not find the encounter itself a problem, but it was more difficult to find a good way of easing pain. PENS felt uncertainty regarding what was right or wrong treatment. Alleviating pain was for them strongly associated with pain relief medication and the question they asked themselves was if this was safe for their patients. Several factors contributed to their hesitation as to their treatment options. One was pronounced uncertainty surrounding the interaction of drugs and pharmaceuticals. It was difficult to know if the patient was taking drugs and if so which. Bluth & Pincus [17] describe pain control as under constant change, both legal and illegal activities. The substances change constantly, both the content and the strength, leading to their forming quite different drugs that can cause different effects. This creates a very difficult situation for PENS trying to make accurate assessments and administer correct

treatments without experiencing uncertainty. Previous research by Krokmyrdal & Andenæs [18] has shown that eighty-eight percent of nurses considered themselves as having insufficient knowledge about the treatment of pain in patients with opioid dependence. Van Boekel, Brouwers, van Weeghel & Garretsen [19] described in their study health professionals as generally having little knowledge of drug abuse and feeling that they lack the specific knowledge and skills for the treatment of this population. This is consistent with this current study. Previous research by Krokmyrdal & Andenæs [18] demonstrated that nurses felt uncertainty simply because of their lack of knowledge in assessing and treating pain. The study stated that nurses' competence was based more on experience than on evidence-based knowledge. Nurses' knowledge about pain management continues to be inadequate and poor knowledge levels prevent nurses from administering good pain relief to patients. Knowledge is the key to better pain relief and better pain relief leads to fewer negative experiences [20].

Another result shown here is that PENs felt that addicts were treated differently from non-addicts. All PENs commented that they wanted to believe patients who complained of pain, pointing out that people who were injured had a right to treatment. The Swedish Society of Nursing (2016) describes care as being conducted on the basis of a person-centred approach where the focus is to see and acknowledge the whole person and not just the symptom. Everyone is entitled to the same care. The Health Care Act [2] also decrees that all individuals must be cared for and treated equally regardless of social background. PENs saw this as an important and fundamental value included in the nursing profession. The results agree well with Travelbee's nursing theory [21] that describes how important it is that nurses care for patients' suffering and see the patients for whom they are. In meetings with patients, nurses must avoid interpreting patients on the basis of their own personal experience. Jakobsson [22] describes healthcare regulations as stating that nurses must record patients' pain and provide treatment based on what patients say, not on what nurses believe, even though nurses may mistrust patients' stated experiences of pain. Furthermore, Jakobsson [22] relates that it is a common problem for people in pain often to be mistrusted and badly treated. Caregivers either underestimate the pain or mistrust the person completely. It is a big problem that subjective symptoms can neither be proved nor disproved, but the caregiver must completely trust what the patient says. Trusting the patient is a prerequisite for successful treatment. To be mistrusted can cause the patient to become depressed and lose hope of being helped, or even a worsening of the pain.

PENs reported that long work experience increased their clinical skills, enabling them to identify and evaluate aspects that were not stated or clearly visible. This did not appear to mean that they gave drug addicts better care or pain relief medication. Van Boekel et al. [19] describe how easy it is for healthcare professionals to involve their own experiences and values concerning alcohol and drugs in the care of the addict. Nurses' views on addiction and people with drug abuse are often moralizing and stereotyped, and can adversely affect the care that these patients receive. Healthcare professionals must recognize their own prejudices and deal with them, in order to provide fair treatment [23].

It was clear in the findings that PENs experienced it as being hard to believe patients with substance abuse if no visible damage or abnormal parameters could be observed. Therefore it felt right to abstain or to be restrictive and give small doses of pain relief medication. Grant, Grace & Doberman [24] describe nurses as believing that patients with an addiction exaggerated their pain, lying when they described the effect of painkillers and distorting their perception of pain. This suggests that the nurses' attitudes to such patients tended to be negative. Nurses showed inadequate skills and knowledge that contributed to inadequate pain management since they did not believe in the patients' pain as perceived and described.

Our findings showed conflicting results. On the one hand, PENs stated that they felt they were more restrained in giving pain relief medication to patients with drug problems in those cases where they

suspected that the patients were already taking other drugs. But on the other hand, PENs felt that good treatment was given to all regardless of whether there was an abuse problem or not. This study does not investigate the reason(s) for this. However, it would be interesting to look more deeply into this phenomenon in future studies.

The findings show that PENs were not only able to use pain relief medication effectively, but that they also found that pain could be diverted to some extent by meeting patients with respect and conducting conversations in a quiet, friendly manner. This compares with a study by Morgan [5], describing how nurses tried to find alternative ways to relieve pain in drug addicts. Using diverting conversation and different caregiving actions, they tried to take patients' minds off their pain. Medical and prehospital personnel's prejudices regarding drug abuse and drug abusers are common and affect personnel's attitudes negatively. Providing good quality care to all patients involves seeing the individuals behind the drug abuse. This results in respect for patients' dignity and autonomy. It is important in the meeting with patients for PENs to strengthen the patients' autonomy and sense of dignity as a step towards helping people out of their addiction. Changing attitudes is difficult but not impossible.

5. Methodological considerations and limitations

The aim of this study has been to investigate ambulance nurses' experiences of relieving pain in patients with substance abuse problems. Based on the aim, a qualitative design was chosen. Polit & Beck [9] believe that the method is suitable when the purpose is to describe people's experiences of a phenomenon. Eight PENs, both men and women of different ages, were selected and included in the study for interviews. Henricson & Billhult [13] argue that a spread of the participants in age and gender enables the collection of as rich a set of interviews as possible on the phenomenon. Too narrow a spread in age and gender can provide results that lack variety. Furthermore, it is advantageous to use a smaller number of participants who have many different experiences compared to many participants who have little experience. On the other hand, there is a risk that the phenomenon will not have been explored in its entirety and that the result will not be transferable. We argue that this has not happened in this study, since the PENs in many aspects shared similar descriptions of their experiences, perhaps indicating that data saturation had been reached. Polit & Beck [9] believe that it is not the number of participants in the study that is important but the saturation that is interesting. Saturation means that data collection continues to a point where no new information is obtained and further data collection becomes superfluous.

The interviews started with an open question, based on the aim of the study. It was followed by support questions that aimed to get the informants to develop their story. Polit & Beck [9] argue that it is the researcher's responsibility to lead the informant but not to any particular conception, and the researchers can control the interview so that it is directed towards a description of the informant's experience. With this interview technique, the informants related their own unique stories and experiences of the phenomenon. However, despite this, the results showed that they were still consistent with each other.

The trustworthiness of the study was reinforced by the fact that three of the authors (RL, JN, VV) read the interviews independently of each other. The meanings were clustered into a meaning structure by these three authors and reflected on by the whole research team. This multi-professional team is a further guarantee for the analysis that has been carried out. Furthermore, three of the four authors work as PENs with experience of relieving pain in patients with addiction problems in the care of the EMS. It may be considered a weakness in the analysis that the authors have some prior understanding of the subject through their many years of experience in prehospital ambulance care. However, according to Polit & Beck [9], not all prior understanding can be removed, and a certain part will always be there during the work. The authors have also done their utmost to achieve a neutral and

credible result that is not coloured by their own opinions. This has been done by not reinterpreting the text, but keeping the analysis close to the material. Pre-understanding, however, has been seen as a strength, since the authors have insider knowledge of the phenomena that have been studied.

6. Conclusion

Pain management of patients with drug addiction can be characterized as a complex task that requires a high level of skill. PENs often encounter this population in their work. Several factors lead to their experiencing these care situations as difficult to manage. Treatment guidelines are perceived as unclear and giving weak support as to how patients with addiction and pain should be treated. To handle this, nurses sought support in their decision-making from colleagues in ambulance care and the Emergency Department. Their conclusion was that treatment would be different every time, and that patients with addiction and pain were all treated differently. Despite advances in treatment options, patients will continue to be under-treated. Unfortunately, it is not just better knowledge of pain physiology and pharmacology that is the solution. Knowledge about and attitudes to pain and addiction must be corrected before any behaviour can be changed. The results of this study will hopefully make knowledge more nuanced and raise awareness of shortcomings in order to optimize care and treatment in the prehospital environment.

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