Small Patients, Big Challenges: Exploring Child-Centred Approaches in Prehospital Emergency Care

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I dedicate this thesis to my two wonderful daughters, Julia and Alva. Never stop being curious, and continue learning throughout your life. I love you forever.

//Dad

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Abstract

Background: Children require special attention in healthcare because of their unique developmental requirements. As such, ambulance nurses can perceive calls regarding children as challenging and difficult to handle. At the same time, ambulance nurses also often need to contend with a child's anxious parent, an experience that can seem like having to deal with multiple patients instead of just one. Regardless, nurses are expected to be sensitive and attentive to the child patient's wishes and allow them to participate in their own care. According to the United Nations Convention on the Rights of the Child, children are entitled to be heard in matters concerning them. This is also expressed in child-centred care, which emphasises the importance of a child's perspective in care. It is, therefore, of interest to explore the care of children in a prehospital context. **Aim:** This research sought to contribute to knowledge that can support the development of child-centred approaches in prehospital emergency care. The overall aim was to gain a deeper insight into how care encounters between ambulance personnel and children are perceived by both ambulance personnel and parents, as well as to explore the strategies used by ambulance personnel to manage these situations. **Method:** To achieve a deeper understanding of the research topic, a qualitative design was chosen, with data being collected through interviews. Studies I and II were both conducted in three regions and included 17 ambulance nurses. Data was analysed using qualitative content analysis for Study I and reflective thematic analysis in Study II. Study III covered five regions and included 12 parents, with the resultant data being analysed using deductive content analysis. Study IV was carried out in five regions and included 10 child representatives. Phenomenography was used to analyse the collected

data. **Findings:** The overarching findings of the studies were that there is a need for a child-centred approach in prehospital care, wherein children's emotional and developmental needs are met. Such an approach can develop a sense of participation in the children and foster trust between them and ambulance personnel. True caring requires ambulance personnel to use empathy, adaptability and teamwork. They also have to deal with challenges such as emotional stress and insecurity among ambulance personnel, particularly when they lack experience with children. Strictly following protocols without considering children's needs may hinder child-centred care, risking unequal care and a failure to meet legislative demands. However, creativity in the care encounter with adaptability towards the children's developmental levels—through play, honest communication and other strategies—can foster safety and participation. Allowing children to be heard and considered creates a sense of autonomy in them and fosters trust between them and ambulance personnel, strengthening care quality. The physical design of ambulances often presents limitations but can be overcome with minor adjustments. Even in emergencies, maintaining clear, empathetic communication ensures dignity and support for children and families. **Conclusion:** These studies underscore the importance of a holistic, child-centred approach in the prehospital setting, but organisation and/or individual barriers pose challenges to their implementation. Professional, sensitised preparedness is essential for ambulance personnel, and it must be supported by additional education involving hands-on training. The ability to adapt is crucial when caring for children. Empathetic, candid communication by ambulance personnel can address children's medical and emotional needs, encouraging their participation in the care process. Such a compassionate, child-centred approach begets trust from the children

and their families while also upholding their dignity, even during emergencies. When supported, children are more likely to be able to participate in their care.

Summary in Swedish

Bakgrund: Barn är individer som kräver särskild hänsyn inom hälso- och sjukvården på grund av deras utvecklingsmässiga skillnader. Ambulanspersonal kan uppfatta uppdrag som rör barn som utmanande och svåra att hantera. Samtidigt tenderar ambulanspersonal ofta att ha oroliga föräldrar närvarande med barnet, vilket ofta upplevs som att ha flera patienter istället för en enda. Trots detta finns det förväntningar på att vara lyhörd för barns önskemål och att göra dem delaktiga i sin vård. Enligt Förenta Nationernas konvention om barns rättigheter har barn rätt att bli hörda i frågor som berör dem. Detta uttrycks också i barncentrerad vård, som betonar vikten av barnets perspektiv i vården. Det är därför av intresse att utforska vården av barn i en prehospital kontext. **Syfte:** Denna forskning syftade till att bidra med kunskap som kan stödja utvecklingen av barncentrerade arbetssätt inom den prehospitala akutsjukvården. Det övergripande målet var att få en djupare förståelse för hur vårdmöten mellan ambulanspersonal och barn upplevs av både ambulanspersonal och föräldrar, samt att utforska de strategier som ambulanspersonal använder för att hantera dessa situationer. **Metod:** För att nå en djupare förståelse valdes en kvalitativ design och data samlades in genom intervjuer. Studie I och II genomfördes i tre regioner och inkluderade 17 ambulanssjuksköterskor. Studie I analyserades med kvalitativ innehållsanalys och Studie II med reflexiv tematisk analys. Studie III genomfördes i fem regioner och inkluderade 12 föräldrar. Denna studie analyserades med deduktiv kvalitativ innehållsanalys. Studie IV genomfördes i fem regioner och inkluderade tio barnombud och analyserades med fenomenografi. **Resultat:** Det övergripande

resultatet från studierna visar att det finns ett behov av ett barncentrerat förhållningssätt i prehospital vård där barns emotionella och utvecklingsmässiga behov tillgodoses. Ett sådant förhållningssätt kan skapa en känsla av delaktighet hos barnen och skapa tillit mellan barnen och ambulanspersonalen. Sant vårdande kräver att ambulanspersonal använder empati, anpassningsförmåga och teamarbete. Det finns utmaningar, såsom emotionell stress och osäkerhet bland ambulanspersonal, särskilt när de saknar erfarenhet av att vårda barn. Strikt följande av protokoll utan att beakta barns behov kan försvåra barncentrerad vård, vilket riskerar ojämlik vård och bristande efterlevnad av lagstadgade krav. Anpassningsförmåga och kreativitet i vårdmötet utifrån barns utvecklingsnivåer – genom lek, ärlig kommunikation och andra strategier – kan skapa trygghet och delaktighet. Att låta barn bli hörda och tagna i beaktande skapar en känsla av autonomi och tillit, vilket stärker vårdkvaliteten. Den fysiska utformningen av ambulanser begränsar ofta vårdmöjligheterna, men dessa hinder kan övervinnas med små åtgärder. Även i akuta situationer kan tydlig kommunikation och empati säkerställa värdighet och stöd för barn och familjer. **Slutsats:** Dessa studier betonar vikten av en holistisk och barncentrerad vård i den prehospitala miljön men organisatoriska och/eller individuella barriärer utgör barriärer för dess implementering. För ambulanspersonal är emotionell och professionell beredskap avgörande, vilket behöver stödjas genom ytterligare utbildning och praktisk träning. Förmågan att anpassa sig vid vård av barn är viktig. Genom att använda empati och ärlig kommunikation kan ambulanspersonal tillgodose både barnens medicinska och emotionella behov, och uppmuntra deras delaktighet i vårdprocessen. Detta medkännande och barncentrerade tillvägagångssätt säkerställer att barn och deras familjer upplever

förtroende och värdighet, även under akuta situationer. När barn får stöd är de mer benägna att ha möjlighet att delta i sin vård.

List of papers

I. Näsström M, Junehag L, Häggström M, Holmström-Rising M. (2023). An emotional journey when encountering children in prehospital care: Experiences from ambulance nurses. International Emergency Nursing 2023;66. https://doi.org/10.1016/j.ienj.2022.101239

II. Näsström, M., Junehag, L., Häggström, M., & Holmström-Rising, M. (2023). A reflexive thematic analysis of ambulance nurses´experience of facilitating child-centered care. International Emergency Nursing, 70. https://doi.org/10.1016/j.ienj.2023.101324

III. Näsström, M., Junehag, L., Holmström-Rising, M., & Häggström, M. Parental Perspectives on Child Participation in Prehospital Emergency Care: Adherence to Article 12 of the United Nations Convention on the Rights of the Child. MANUSCRIPT

IV. Näsström, M., Junehag, L., Holmström-Rising, M. & Häggström, M. Children´s Participation in Prehospital Care: A Qualitative Study of Child Representatives' Perspectives. MANUSCRIPT

Preface

During my career, spanning over 20 years, I have worked primarily in the field. Starting as an emergency medical technician in the ambulance service, I went on to become a registered nurse and then an ambulance nurse in prehospital emergency care. Later, I became a police officer. I met people in their homes or out on the streets, trying to help them solve their problems. The common thing between working as a police officer and an ambulance nurse is that meeting children in the course of one's duties can be challenging and sometimes even emotional. As human beings, the innocence and fragility of a child can touch our very core, awakening protective instincts. That was also the case for me. However, establishing a relationship with a child does not just happen by itself; it demands considerable ingenuity and experience. I experienced this while watching my senior colleagues, learning as I created my own template for connecting with children. Those moments when one forms a connection with a scared, hurting child can feel like winning the lottery. Thus, it was with great interest that I embarked on a new journey, researching such encounters between ambulance personnel and children, the very same kind that had puzzled me earlier. Hopefully, it sheds some light on how to ease the perceived challenges for emergency personnel when dealing with child patients, thereby helping improve the care of children.

Introduction

As patients, children require special attention and consideration from healthcare professionals. They depend on adults to recognise them as competent participants in their care and listen to their needs. The United Nations Convention on the Rights of the Child (UNCRC) (UNICEF, n.d.) highlights this important responsibility of the adult community. In nursing, the metaparadigm can guide this crucial work. A holistic view of the child that safeguards their dignity and autonomy while promoting their health and well-being by addressing their physical, psychological and social needs is essential to their development. It is also important to consider the environment and context of the child's world, as these factors can affect their health. Efforts should be made to adapt and improve these conditions whenever possible. Experiences, as well as memories, can affect children throughout the care chain and life. Finally, nursing care must be delivered with respect, empathy and compassion, tending to the child's physical and spiritual needs. The overarching focus of this thesis is the care encounter between ambulance personnel and children in a prehospital context, where parents also play a vital role.

Background

Nursing and Caring

In the prehospital context, ambulance personnel must navigate both the medical and caring aspects of their role while adapting to unpredictable environments. Theoretical nursing frameworks provide valuable guidance in balancing these responsibilities, ensuring that care extends beyond technical interventions to address the holistic needs of children and promoting a meaningful,

responsive care encounter that supports children's physical and emotional well-being.

The concepts of nursing provide significant direction to the care nurses deliver within the prehospital context as well as healthcare in general. Fawcett (1984) outlines the four elements of the metaparadigm of nursing and explains how they interrelate. **Person** refers to the individual, family or recipient of care, in this case, the children. A holistic perspective is required to understand the whole person, considering physical, emotional and spiritual dimensions. Accordingly, ambulance personnel must consider all aspects of a child's needs. The **environment** encompasses both the external and internal factors that affect a person. Ambulance personnel must be able to deal with the prehospital environment—which can sometimes be challenging due to climatic and ambient conditions such as inadequate lighting or extreme weather—to ensure patient comfort. The physical surroundings, social structures and internal states that influence overall health and well-being may also be factors. **Health** is regarded as a dynamic and multidimensional state that includes wellness, illness, and the children's perception of their situation and condition. A person's definition of health can be examined objectively and/or subjectively; this means that ambulance personnel need to adapt the care while being attentive to children's needs and wishes. **Nursing** involves the actions and processes undertaken to promote, maintain or restore health, including those of ambulance personnel when they care for and treat children. Fawcett argues that understanding these elements, as well as how they connect, can serve as a grounding for nurses, guiding them in their clinical work, research and/or educational work (cf. Fawcett, 1984).

Several nursing theorists—for example, Katie Eriksson—distinguish between the concepts of nursing and caring. Nursing has both

instrumental and technical dimensions, considering the patient's practical and medical needs. It involves concrete measures to alleviate the patient's affliction, promoting well-being. Caring comes from compassion that aims to mitigate suffering on a deeper level. It is the caring relationship that is central, requiring the caregiver to be present in the encounter (Eriksson, 2001, 2015a). The current research focused on caring due to the interest in the care encounter, as reflected in the relationship created between the ambulance personnel and the child.

Children and the Ambulance Service

The rights of children

Children receiving emergency care in prehospital settings can be regarded as more vulnerable patients, necessitating special attention. Ensuring their voices are heard while prioritising their best interests is crucial, especially in potentially high-stress environments such as the ambulance service. The various legal frameworks established in Sweden to protect children's rights in healthcare recognise this.

In November 1989, the United Nations adopted UNCRC, proclaiming that children have the right to be heard and respected. Subsequently, in June 2018, the Swedish Parliament incorporated the UNCRC into Swedish law to bolster children's rights through legislation (UNICEF, n.d.; SFS 2018:1197).

The Health Care Act (SFS 2017:30) stipulates that all healthcare must prioritise the best interests of the child. Furthermore, the Patient Act (SFS 2014:821) reinforces this requirement, stating that healthcare decisions must consider the best interests of the child. It also emphasises the obligation to ascertain, as far as possible, children's

opinions on their current care. Children's opinions should be given appropriate weight considering their age and maturity.

Children, a group with complex developmental levels

It is important to recognise that children are diverse; significant variations exist within this group. "Child" refers to individuals from newborns to 18-year-olds (UNICEF, n.d.), and consequently, differs vastly within the group in terms of physical and cognitive development. Acknowledging these differences is crucial for ensuring children's distinct needs are met as they progress through different stages of development.

Infancy (birth to 2 years)

Infants develop rapidly, often doubling their weight in four months. They start with reflexive motor skills, such as blinking and sucking, while some reflexes, such as rooting, fade quickly. In their first year, infants transition from dependency to mobility, learning to turn, crawl and walk. Newborns see and hear but focus only at 20 to 25 centimetres. Initially communicating through crying, they later evolve to use vocalisation and movements (Hwang & Nilsson, 2019).

At around 9 to 10 months, infants may develop stranger anxiety, making separation from parents challenging, which ambulance personnel should recognise. It is best to approach them slowly and evaluate from a distance while a caregiver holds them. Given the underdeveloped state of their muscles, which makes them vulnerable, infants depend on parents for warmth, food and care. They have a high metabolism that increases their need for oxygen and nutrients. They are also at heightened risk of hypothermia due to their large heads and body surface area. Toddlers retain traits from

infancy, such as a relatively large head and reliance on abdominal muscles for breathing (Fuchs & McEvoy, 2022).

Pre-school age (3 to 7 years)

Between ages three and seven, children undergo major developmental changes. A three-year-old has short limbs, a large head and a rounded body, while by age six their proportions resemble those of adults. They quickly develop motor skills—running straight, jumping, throwing and catching by age four—and can often perform activities such as riding a bike or swimming by the end of this stage. Initially thinking only in a "here-and-now" mindset, they start grasping time concepts like "yesterday" and "tomorrow". They also develop emotional regulation, expanding their emotions and learning to manage reactions like laughter and crying. Although more self-aware and expressive, they may still respond spontaneously to experiences (Hwang & Nilsson, 2019).

Children aged three to five are creative but often struggle to distinguish reality from fantasy. Common fears include losing control, death, darkness and abandonment. When caring for them, honesty is crucial, particularly regarding painful procedures. Providing truthful information beforehand can reduce anxiety, and familiarising little children with medical equipment through demonstration with dolls or parents can help ease their fears (Fuchs & McEvoy, 2022).

Early school years (7 to 12 years)

Children's development stabilises during these years, with steady improvement in physical abilities. They typically grow about six centimetres in height and gain two kilograms in weight annually, also developing better body control, engaging in more complex play and participating in organised sports. They begin to grasp logical

principles, enhancing their problem-solving skills. Their language improves and they become more self-aware, recognising their identity. Interaction with peers may lead to fluctuations in confidence levels, sometimes even engendering a sense of inadequacy (Hwang & Nilsson, 2019).

Children at this age are talkative and able to grasp cause and effect. They understand their bodies and like being involved in their care. Main fears include separation, loss of control and pain, and they may struggle to express their feelings. By age eight, their anatomy resembles adults, and they still appreciate involvement in their care. Offering choices, like which arm for an intravenous cannulation, helps them feel in control. Honesty and providing information, even when they may not ask, is crucial (Fuchs & McEvoy, 2022).

Adolescence (13 to 20 years)

Adolescence is a transformative stage marked by rapid physical, social and psychological changes. Notable differences exist within this age group, especially between 13-year-olds and 18-year-olds transitioning to adulthood. During these years, adolescents enhance memory, improve problem-solving and develop critical thinking. Their social skills and sensitivity increase, making them more aware of social cues, while also experiencing social awkwardness (Hwang & Nilsson, 2019).

During adolescence, young people feel invincible and engage in risky behaviours, often preferring friends over family. Yet it is crucial to respect their privacy and earn their trust, as they may struggle despite seeming mature. Providing them with information and addressing their fears is essential (Fuchs & McEvoy, 2022).

Knowledge regarding these developmental differences and needs can guide ambulance personnel in caring for children and reducing

stress. Insight into the differences makes it more likely that they can adapt their approach to each child in need of care from the ambulance service.

Children in need of care by the Ambulance Service

There is a discrepancy in the statistical reporting of the patient registry maintained by the Swedish National Board of Health and Welfare. Currently, these registers do not include data on patients under 18 years of age who are transported to hospitals by ambulance, as minors may be taken to various care facilities such as Emergency Rooms, Paediatric Wards or Child Care Reception Units. This omission makes it difficult to determine the actual frequency of paediatric ambulance transport. However, earlier research (Carlson et al., 2015; Hewes et al., 2022; Jeruzal et al., 2019; Jewkes, 2001) suggests that approximately 10% of ambulance calls involve children.

The most common reasons for paediatric ambulance care include traumatic injuries, respiratory problems, poisoning and seizures (Harve et al., 2016; Hedström et al., 2012; Hegenberg et al., 2019; Lerner et al., 2014). Traumatic injuries resulting from falls, traffic accidents or collisions are a leading cause of morbidity and mortality among children (Critchley & Quigg, 2019; Larsson et al., 2024).

Pain management challenges

Managing children's pain can be seen as a challenge for the ambulance service. Children's perception and expression of pain are shaped by their developmental level, previous experiences and the reactions of those around them (Tsao et al., 2024; Whitley et al., 2019). Research indicates that children are less likely to receive analgesia compared to adults, especially in cases of medical pain other than from traumatic injuries (Jennings et al., 2015; Murphy et al., 2014).

This is often because ambulance personnel struggle to differentiate between pain and distress, leading to uncertainty in pain assessment and management (Lord et al., 2016; Rahman et al., 2015). Many ambulance personnel express the need for additional training to improve their paediatric pain management skills, which can reduce fear while enhancing their competence in prehospital care (Downs et al., 2022; Gunnvall et al., 2018; Holmström et al., 2019).

Challenges in the transport safety of children

Safe transport of children in ambulances presents significant challenges. Ambulance personnel may feel inadequately trained to properly secure child patients, sometimes due to unfamiliarity with the paediatric restraint equipment (Ciarletta et al., 2024; Cochran-Caggiano et al., 2023). Some ambulance services have a prevailing culture of avoiding physical restraint, lest it cause distress. On the other hand, being seated on a parent's lap significantly increases the risk of serious injury or fatality to the child patient in the event of an accident (Johnson et al., 2006; O'Neil et al., 2014). Emergency responders must balance the need to comfort young patients with the imperative of safe transport, which only highlights the need for standardised protocols and better training (Stoklosa et al., 2023; Öberg et al., 2015).

Non-transport of children

It is becoming increasingly common for the ambulance service to not transport all patients who request assistance. Many are examined and treated at home if they choose to remain there or advised to seek higher levels of care without being transported by the ambulance service.

This situation can be concerning, as Blake-Barnard and Whitley (2024) note, because the public often perceives the primary role of the ambulance service as transporting patients to hospitals, which, when not performed, can lead to frustration among patients and their families. Their study also highlighted a potential lack of support from higher medical authorities. What was worse, protocols did not permit ambulance personnel to leave patients at home, even when they believed that remaining at home would be the best option for the patient. In fact, Oulasvirta et al. (2019) found that approximately 46% of the children cared for by the ambulance service were not transported to the hospital and instead received treatment at home. The decision to leave the children at home did not result in any need for intensive care later, nor was there an increase in mortality rates. The study did identify several factors associated with an unscheduled visit to the hospital after the children were left at home, including young age, early morning incidents, and dispatch codes indicating "dyspnoea" or "vomiting/diarrhoea". However, there were no indications of any deterioration in the child's clinical status at the hospital compared to the examination conducted by the ambulance service.

Parental presence in care encounters in prehospital care

The parent–child relationship is one of life's most essential and enduring bonds. It shapes emotional security and social development and engenders well-being (Nomaguchi & Milkie, 2020). In Swedish legislation—the Children and Parents Code (SFS 1949:381)—parents have obligations and rights. Parents are responsible for ensuring their children's well-being and fulfilling their needs. They have a right and an obligation to decide on all matters regarding their children and a right to be informed about them (SFS 1949:381). Parents are essential

in providing physical and emotional support, particularly when their children are distressed. Their presence during care encounters reassures the child and influences parental well-being, as caregiving can bring stress along with fulfilment (Nelson et al., 2014). Parenting is shaped by broad social, economic and institutional contexts, which can either facilitate or hinder parental involvement in care situations (Nomaguchi & Milkie, 2020). In an emergency, parents often navigate complex emotions; relief that professionals are taking over, but also anxiety about their child's condition and their own role in the situation (Jepsen et al., 2019).

The care the ambulance staff provide usually occurs at home, which creates a natural connection between the children, their parents and the ambulance team. Parents are usually present when their children need care from the ambulance service, and this involvement is generally a positive experience for them. They appreciate participating in their children's care and interacting with ambulance personnel (Jepsen et al., 2019; Jeruzal et al., 2019; Suserud, 2005).

Previous research (Holmberg et al., 2016) has highlighted the importance of building a trusting relationship between ambulance personnel and the significant others of patients during care encounters. Significant others often face a dilemma: they want to be present and supportive of the affected individual, but they also experience distress. When ambulance personnel arrive, significant others may feel a sense of relief as they are momentarily relieved of their responsibilities and can catch their breath. However, they can also feel isolated if the focus is primarily on the patient. In contrast, when ambulance personnel take the time to listen to their concerns, significant others feel respected and acknowledged (Holmberg et al., 2016). The sense of relief experienced when the ambulance personnel arrive and the feeling of being in a safe and welcoming environment

is pronounced for the significant others present. This creates a caring atmosphere (Rantala et al., 2020). Feeling unburdened when ambulance personnel arrive can bring a sense of relief and empowerment. However, if this expectation is unmet, it may lead to feelings of powerlessness and rejection. It is essential for the significant others to feel that they are not abandoned and that they can be relieved of the responsibility of caregiving (Rantala et al., 2016). To avoid negative emotions, ambulance personnel must focus on person-centred care for the patient with and to their significant others (Rantala et al., 2020).

Previous research on caring for children in prehospital care

Ambulance personnel find encounters with children challenging. Research indicates that ambulance personnel experience higher stress when responding to these calls. Moreover, they tend to respond more quickly to emergencies involving children than adults (Jeruzal et al., 2019; Schnegg et al., 2016). Caring for children can be especially demanding during the pre-verbal stage or when the child has an existing health condition. Ambulance personnel often feel unsure about the appropriate pharmaceutical dosages for children and may find it difficult to communicate effectively with both the children and their parents. Since calls involving paediatric care are relatively fewer, ambulance personnel may feel inexperienced in this area, which limits their opportunities to gain valuable experience (Breon et al., 2011; Gunnvall et al., 2018; Holmström et al., 2019; Murphy et al., 2016; Nordén et al., 2014). Guise et al. (2017) found in their study that the stress and anxiety that ambulance personnel experienced concerning children-related calls tended to create situations where mistakes could be made. They found that sympathy and identification with the children were the foremost factors in creating

stress, followed by notions of the child's innocence and the feeling of having the child's life and future in their hands (Guise et al., 2017). Such stress can lead to mistakes in the care. The ambulance personnel describe difficulty in assessing if children are critical and can perceive that they do not have the competence to do so. This perceived lack of competence can delay treatment and care (Colldén Benneck & Bremer, 2019). The stress and insecurity experienced by ambulance personnel during emergency calls may also result in a conscious decision to withhold treatment and care for the child, even when such care is essential. These choices can lead to the omission of necessary treatment, which could result in maltreatment and pose a health risk to the children involved (Cushman et al., 2010; Guise et al., 2015).

The Pre-hospital Context

Development of The Swedish Ambulance Service

It is important to understand the historical development of the present ambulance service in Sweden to comprehend its current role and responsibilities. Evolving regulations, education and professional requirements have transformed the ambulance service from a basic transport system to an advanced prehospital care provider. This historical perspective provides a valuable context for understanding ambulance personnel's roles and responsibilities.

In 1964, guidelines were established for care at the patient's location. This was followed by the introduction of voluntary education programs for ambulance personnel and, by the late 1970s, a mandatory seven-week course, leading to new training programs of one to two semesters (Bremer, 2014).

Earlier, non-registered ambulance personnel could administer pharmaceuticals under doctors' delegation, as an exception to the Swedish National Board of Health and Welfare rules requiring registered healthcare workers. However, discussions in the mid-1990s aimed at aligning ambulance practices with the broader healthcare system led to a change in 2005 that restricted pharmaceutical administration to registered personnel only (Bremer, 2014; Socialstyrelsen, 2020; Suserud, 2005).

Ambulance nurses not only provide medical and pharmaceutical care but also stay updated on research and lead prehospital work (Suserud, 2005). This shift highlighted the need for ambulance personnel to become registered nurses as the service progressed into the next chapter of its evolution (Bremer, 2014).

Ambulance Nurses

As the demand for nurses in the ambulance service increased, so did the expectation to provide these nurses with education in prehospital emergency care (Bremer, 2014). In Sweden, there are two essential steps to becoming an ambulance nurse. First, a student must complete a three-year nursing program to become a nurse. After achieving this qualification, some universities require candidates to gain work experience before applying to specialist nurse courses at an advanced level. The Prehospital Emergency Care course lasts one year, resulting in a master's degree and a postgraduate Diploma in Specialist Nursing (Wireklint Sundström & Ekebergh, 2013).

Ambulance nurses must possess a wide range of knowledge and skills and be capable of applying them in various settings. Encountering a patient in their home or at an accident site presents different challenges compared to an intra-hospital environment,

where resources and support are readily available at hand (Suserud, 2005).

Working in a team

Cooperation in a team is a core competence for nurses, including ambulance nurses. In unpredictable environments, they need to cooperate within the team and with patients and significant others (Riksföreningen för Ambulanssjuksköterskor, 2022). The work of an ambulance team occurs in a complex and dynamic environment. The team comprises two professionals, with the specialist nurse as the leader, supported by either a nurse or an emergency medical technician. This arrangement ensures a balance between individual responsibilities and teamwork, where each team member must possess high clinical competence and decision-making capabilities (Hörberg et al., 2017a; Jepsen et al., 2024). Experience and trust are vital for safe and effective teamwork. A team with open communication and a supportive attitude is more functionally efficient, with a high level of patient safety (Hörberg et al., 2017a).

Every work shift is a blank page

Going to work in the ambulance service often means facing the unexpected. This environment attracts people who thrive on diverse challenges and enjoy flexible working conditions that test their capabilities and limits. However, it is essential to approach these situations with humility. Plans made before arriving at the scene can quickly become irrelevant, and a receptive attitude is necessary to adapt to any changes in the patient's condition (Ahl et al., 2005). It is important to approach medical treatment without preconceived notions. Even with extensive knowledge and skills, there is a need to understand the social aspects of care. Effective communication and

humour can be valuable resources during patient interactions (Grimell & Holmberg, 2022).

In these situations, the ambulance personnel need to prepare themselves before arriving at a call. They receive information from the Emergency Medical Dispatch, which includes details gathered by the operator about the patient and the circumstances. This report helps the ambulance nurses develop a plan in advance; however, they need to be prepared that the situation may change upon arrival (Sundström & Dahlberg, 2012). The prehospital context entails swift changes in the situation. Information received en route may not reflect the actual condition of the patient. The patient's condition, the surroundings and resources can change, rendering the preparation and the experience more challenging (Hörberg et al., 2019). The unique challenges in prehospital care require ambulance personnel to work in uncertain and dynamic environments where they need to make rapid assessments. They must balance clinical efficiency and emotional sensitivity (Sundstrom et al., 2019). Therefore, they are always ready to adjust their plans quickly. Every call has inherent uncertainty, so the ambulance personnel must adapt to the circumstances and the patient's needs. What is common is for ambulance personnel to maintain a sense of control in otherwise unpredictable situations (Sundström & Dahlberg, 2012).

Caring in the Ambulance Service

Although ambulance service healthcare is normally associated with emergency medicine, trauma care and swift interventions, caring remains a fundamental yet sometimes under-recognised aspect of the work. Despite its central role, caring is not always explicitly acknowledged or discussed among ambulance personnel. However, recent research has increasingly highlighted the significance of caring in the prehospital setting.

For patients who encounter the ambulance service, surrendering and placing their lives in someone else's hands may be their only option. The care they receive helps alleviate their anxiety, offering relief from both the weight of responsibility and physical symptoms. When ambulance personnel convey calmness—both verbally and non-verbally—and create a sense of companionship with the patient, trust may be established (Holmberg et al., 2014). Abelsson and Lindwall (2017) found in their study of ambulance nurse students that viewing the patient as a unique individual and respecting their reality promotes dignity. Acknowledging and understanding the other person is essential for creating a trusting care encounter. According to Carnesten et al. (2021), caring can be understood as having two essential aspects. First, it entails trust in oneself. Second, it necessitates earning the patient's trust. Experience aligns with competence to cultivate confidence in handling situations. The quality of caring interactions is enhanced when ambulance personnel work together effectively as a team (Carnesten et al., 2021). Ambulance personnel may need to navigate medical, legal and humanitarian demands in stressful situations, leading to ethical dilemmas. Where the patients' or significant others' expectations of care cannot be met, ambulance personnel are called upon to make ethically sound decisions, considering the patient's situation (Sundstrom et al., 2019).

In ambulance service healthcare, there is generally an emphasis on trauma, emergency medicine and time-critical treatments. This focus can make the aspect of caring less noticeable in the ambulance service (Wireklint Sundström et al., 2019). There is often a perceived divide between medical and caring practices. Ambulance personnel tend to prioritise medical knowledge and skills over those related to caring. In acute situations, medical needs tend to take precedence, so that caring is minimal or even bypassed because of time constraints. As a

result, ambulance personnel may overlook adopting a holistic view of the patient, causing the patient to feel that the care they are receiving is impersonal or even less trustworthy. This can lead to a negative emotional experience for the patient (Holmberg & Ohlson, 2022).

The ambulance environment during transport can be noisy and uncomfortable, making verbal communication difficult. Nevertheless, there is often a sense of closeness between the ambulance personnel and the patient, both physical and emotional, so that the nurses can provide comfort through touch or just eye contact. Their effort is to convey a sense of comfort and trust by being attentive and responsive to the patient's needs (Ahl et al., 2005; Suserud, 2001, 2005; Svensson et al., 2019). In a study by Rantala et al. (2019), ambulance personnel regarded themselves as being patient-centred by mostly caring for only one patient at a time, which allows them to focus on the patient's situation and involve them in the process. In the patient's home, they could establish a deeper understanding of the patient's needs by observing the environment around them. They could also provide care that went beyond protocol, by talking to a patient with psychosocial problems or ensuring that a patient received the right level of care, instead of routinely transporting everyone to the ER (Rantala et al., 2019). Likewise, in Jacobsen et al.'s (2024) study, ambulance personnel described person-centred care as being respectful of the patient's autonomy and dignity. They also highlighted the opportunity to gather information from multiple sources to gain broad insight into the patient's needs. On the other hand, even if ambulance personnel strived to involve the patient in the care, there could be challenges in balancing medical protocols and acute treatment (Jacobsen et al., 2024).

Creating a room for caring

The prehospital environment differs from traditional healthcare settings, with care often being delivered in diverse and often unpredictable locations. Unlike a controlled hospital environment, in these scenarios, ambulance personnel must navigate varying conditions while delivering both medical and emotional support.

In the context of healthcare facilities, examination rooms and treatment areas are specifically designed and optimised for caring and medical treatment (Bremer & Wireklint Sundström, 2019). Ambulance personnel's work environment stretches from a person's home to the street outside. This entails caring in front of significant others or bystanders, which can affect the caregiver's ability to work undisturbed, as well as the patient's perceived safety and integrity (Sundstrom et al., 2019). The ambulance is a care environment in the ambulance service. However, it is rare for ambulance personnel to bring patients into the ambulance vehicle immediately. In most instances, they first assess, treat and provide care for patients in their homes, in public places or at accident sites. Therefore, ambulance personnel must create a caring atmosphere for the patient, even outside a designated treatment room (Bremer & Wireklint Sundström, 2019).

The physical conditions on site—such as lighting, noise, the weather or curious spectators—pose significant challenges for ambulance personnel. These factors are often beyond their control, requiring them to be adaptable and resourceful in order to create a caring environment for the patient. Moreover, it is not just the physical conditions that affect the patient’s sense of being cared for; the presence and attention of the ambulance personnel also play a crucial role. They can create trust by being attentive and safeguarding the patient’s integrity (Bremer & Wireklint Sundström, 2019).

What is typical for ambulance personnel is their approach to the work, with a comprehensive understanding of the context at each site. While their primary focus is on the patient, they also pay close attention to the surrounding environment. By being observant and attentive to the patient, their family and the overall setting, ambulance personnel can gather valuable information to provide assistance. Although the patient remains the central focus, ambulance personnel maintain a clear perspective of the larger picture. This approach allows them to optimise their efforts and achieve their goals efficiently (Campeau, 2008).

Central Concepts

Care Encounter

The care encounter between ambulance personnel and children is inherently more complex than other, typical patient–caregiver interactions. Rather than being a two-way exchange, it involves three active participants: the child, the parents and the ambulance personnel.

The care encounter is the interaction between a caregiver and the care recipient. It is an exchange of knowledge and the creation of a relationship while giving care. In their concept analysis of the "caring encounter" within caritative caring, Holopainen et al. (2017) identify three key characteristics: mutuality, presence and uniqueness. They emphasise that both nurse and patient are active participants in this encounter. This mutual involvement can, for the patient, create a sense of being seen, understood and empowered to engage in decision-making. The nurse's reflective, empathic and professional approach is crucial for enhancing the quality of the patient's

participation. This participation can build trust, provide emotional comfort and promote a sense of dignity for the patient.

Tuckett (2005) considers the care encounter as an interplay of communication and control. Participation is grounded in the ethical principles of beneficence and non-maleficence. Regarding communication, nurses decide what information should be shared with patients. Patients value honesty and autonomy, which can sometimes conflict with nurses' protective communication aimed at avoiding harm. In contrast, participatory communication respects patients' autonomy and creates collaborative interaction. Nurses are responsible for ensuring that patients actively participate in their care.

Nåden and Eriksson (2002) describe encounters as central to the art of nursing. They describe encounters as profound meetings between the nurse and the patient, characterised by mutual presence and a genuine connection. Encounters that achieve such a connection transcend interactions performed as a routine; they entail a humanity that can benefit health and well-being. They emphasise the nurse's ability to be authentically present and to engage in “being” rather than merely “doing”. This presence of the nurse requires openness, empathy and a willingness to enter into the patient's lived experience.

Holopainen et al. (2017) and Tuckett (2005) highlight participation as central to meaningful care. Holopainen et al. (2017) focus on the relational and existential aspects of participation and the importance of mutuality and being truly present when performing care. Tuckett (2005), on the other hand, emphasises ethics and communication as essential aspects of achieving genuine participation, particularly in settings where power dynamics and control are prominent. This, together with what Nåden and Eriksson (2002) suggest, can lead to a

comprehensive understanding of care encounters as participation through a relational and ethical construct, transforming routine care into meaningful and inclusive care.

Participation

To be an active participant in one's care means to have influence and be included in decisions. The term "participation" originates from concepts such as sharing and collaboration. Originally, it implied active engagement in various activities. In healthcare, participation has evolved to emphasise the importance of allowing patients to be involved in decisions about their health and lives. This right is supported not only by legislation but also by ethical principles (Eldh et al., 2008, 2010).

In healthcare, participation refers to the active involvement of patients in the decision-making processes and care that affect their health. Such participation entails collaboration, a shared decision-making process, and an exchange of knowledge between patients and healthcare professionals. By ensuring this involvement, the healthcare personnel respect patients' autonomy and personalise the care provided. From the healthcare perspective, it is essential to recognise patients as partners in their care, enabling them to make informed decisions (Eldh et al., 2008, 2010; Frank et al., 2009). Participation is distinct from terms like compliance or adherence, which imply a passive acceptance of directives. It entails the care personnel actively listening to patients, informing them, and collaborating in setting goals and strategies (Castro et al., 2016; Eldh et al., 2010).

The benefits of participation are that patients value being informed and recognised for their personal knowledge. They are empowered to engage in their care (Castro et al., 2016; Eldh et al., 2010; Nilsson et al., 2019). It also represents a shift from a paternalistic view of patients,

creating a relationship built on trust, mutual respect and open communication (Frank et al., 2009; Larsson et al., 2007; Nilsson et al., 2019). Effective participation comes from an environment of caring relationships. Patients feel respected, acknowledged and supported, which increases their willingness and ability to participate (Larsson et al., 2007; Nilsson et al., 2019). Several barriers can hinder participation. Time constraints, lack of continuity in care and inadequate communication can significantly impair involvement. Additionally, the culture within an institution, prevailing hierarchies and insufficient resources may also limit opportunities for participation (Eldh et al., 2010; Frank et al., 2009; Nilsson et al., 2019).

Harry Shier (2001) developed the model "Pathways to Participation," which organisations can use to evaluate the possibilities for a child to participate. The model is based on UNCRC. It can visually guide organisations as to the level of participation they can achieve, with level three being the minimum level for compliance with the convention (see Figure 1). The model can be used as a practical tool by anyone working with children. If one were to answer a question with a "no", the most important follow-up question would be to ask, "Should we be able to say yes?" If so, does the organisation have the capability to make changes, and are they prepared to handle the consequences of such change? The model can be useful in creating a plan for the improvement of children's participation in an organisation if the organisation is willing (Shier, 2001).

Levels of participation	**Openings**	**Opportunities**	**Obligations**
5. Children share power and responsibility for decision-making	Are you ready to share some of your adult power with children?	Is there a procedure that enables children to share power and responsibility for decisions?	Is it a policy requirement that children and adults share power and responsibility for decisions?
4. Children are involved in decision-making processes	Are you ready to let children join in your decision-making processes?	Is there a procedure that enables children to join in decision-making processes?	Is it a policy requirement that children must be involved in decision-making processes?
3. Children´s views are taken into account	Are you ready to take children´s views into account?	Does your decision-making process enable you to take children´s views into account?	Is it a policy requirement that children´s views must be given due weight in decision-making?
2. Children are supported in expressing their views	Are you ready to support children in expressing their views?	Do you have a range of ideas and activities to help children express their views?	Is it a policy requirement that children must be supported in expressing their views?
1. Children are listened to **(Start here –>)**	Are you ready to listen to children?	Do you work in a way that enables you to listen to children?	Is it a policy requirement that children must be listened to?

Figure 1. Presentation of Shiers Pathways to Participation. Beginning at level one, the organisation then moves upwards in the model.

Promoting patient participation in emergency care can be challenging. The frenetic nature of this environment often limits effective communication and collaboration. Healthcare professionals frequently prioritise immediate clinical needs, making it difficult for patients to engage in their care. This focus on urgent decisions is especially noteworthy when caring for critically ill patients, where the urgency may overshadow patient participation. As a result, a dominant care process can emerge, where healthcare professionals may unintentionally seek to maintain control in high-pressure situations (Frank et al., 2009).

However, when patients participate in emergency care, outcomes could improve, especially when the care aligns with their wishes and needs. Involvement in the process makes patients more likely to feel satisfied with their care, as they are heard and valued. Additionally, participation creates a stronger relationship between patients and care providers, building trust and reducing anxiety during emergencies (Frank et al., 2009).

Child-Centered Care: A Guiding Principle

In this thesis, I have chosen child-centred care (CCC) as a guiding principle to view the care encounter with children. CCC is an up-and-coming framework in paediatric healthcare that shifts the focus from traditional family-centred care to prioritising the child's needs and rights and listening to the child's voice (Coyne et al., 2016). Coyne et al. (2016) emphasise the importance of this change in the view on children's perspectives, arguing that although family-centred care has recognised the family as a central unit in a child's care, it can sometimes inadvertently overlook the individual child's voice and rights (Coyne et al., 2018; Soderback et al., 2011).

Family-centred care can create unequal relationships where healthcare professionals and parents, as adults, take charge of the decision-making. This dynamic can hinder the child's perspective, leading to choices that do not fully reflect the child's wishes or needs. In contrast, CCC addresses this imbalance directly by ensuring that the child's voice is heard and considered throughout the care process (Coyne et al., 2016; Soderback et al., 2011).

Coyne et al. (2016) emphasise the importance of healthcare conforming to UNCRC. The convention emphasises the importance of allowing children to be participatory. When healthcare professionals adopt a child-centred approach, they respect these rights by viewing children as active participants in their care encounters. By doing so, they will recognise the children's competence, value their input and consider their perspectives in healthcare decisions according to their developmental levels. A collaborative and inclusive approach from healthcare professionals can create a meaningful encounter for the children (UNICEF, n.d.; Coyne et al., 2016; Soderback et al., 2011).

The change in thinking regarding children, moving from family-centred care to CCC (Coyne et al., 2016), could lead to significant changes in paediatric care. This approach aligns with UNCRC (UNICEF, n.d.) by focusing on collaboration with children. It promotes a more empowering form of care, potentially increasing children's participation in healthcare decisions. Naturally, this innovation may challenge healthcare professionals to embrace greater creativity and adaptability in placing children at the heart of care.

Rationale

Children as patients can be seen as extra vulnerable and exhibiting developmental diversity, necessitating specialised knowledge and attentiveness from those caring for them. Caring for children in prehospital settings can present several challenges. Despite existing legislation that mandates a holistic approach to their care, research indicates that children often receive inadequate pain relief, and in some instances, even examination and treatment may be overlooked. There are indications that previous research in the prehospital context has, to some extent, focused on nursing interventions and medical science. However, in Swedish research, there has been an upsurge in studies regarding caring and the relations between ambulance personnel and their patients. In line with this orientation, this thesis focuses on caring and its relational aspects. Given the previous research findings, important questions arise regarding the emotional, relational and participatory aspects of caring for children in prehospital care from the perspectives of ambulance personnel and families, as well as equity of care and the ethical and relational dimensions associated with caring for children. Additionally, children can carry positive and negative emotions from a care encounter, which may affect them later in life. While studies have highlighted the difficulties perceived by ambulance personnel in providing care to children, there is a need for further understanding of the interactions in the care encounter between ambulance personnel and children.

The Aim of the Doctoral Thesis

This research sought to contribute to knowledge that can support the development of child-centred approaches in prehospital emergency care. The overall aim was to gain a deeper insight into how care encounters between ambulance personnel and children are perceived by both ambulance personnel and parents, as well as to explore the strategies used by ambulance personnel to manage these situations.

Research questions:

- What challenges and emotional responses do ambulance personnel experience when caring for children in a prehospital context, and what strategies do they employ to manage these situations?

- How are children's needs recognised, addressed, and fulfilled during prehospital care encounters according to ambulance personnel and parents?

The included studies' aims are:

I. describe how ambulance nurses feel and manage their emotions before, during and after a care encounter with a child;
II. describe ambulance nurses' experiences of facilitating child-friendly care encounters;
III. explore parents' perspectives on children's participation in their prehospital emergency care; and
IV. explore child representatives' conceptions of children's opportunities to participate in prehospital emergency care.

Method

To achieve the overarching goal of the research, a qualitative research design was chosen. The design is suitable for delving into the dynamics of individual interactions and uncovering insights from others' experiences (Patton, 2015; Polit & Beck, 2021). Since the project was dedicated to exploring the care encounters between ambulance personnel and children, gaining a comprehensive understanding of their experiences was vital.

Three key participants are present in a care encounter involving children: the child, the parent or caregiver, and the ambulance personnel. Accordingly, ambulance personnel, parents and ambulance personnel with a role as child representatives were included in these studies (see Figure 2). While each participant plays an important role, the ambulance personnel bear professional responsibility for the care provided. These individuals must navigate interactions and ensure collaboration among all participants, even though such teamwork is not rehearsed or predetermined; instead, it emerges spontaneously in the moment. All three participants' perspectives must be considered to enhance understanding of children's prehospital care encounters and identify meaningful improvements. Unfortunately, the perceptions and experiences presented in this thesis reflect adults' views of children's care encounters rather than the children's perspectives. As such, these are second-hand accounts of children's experiences as interpreted and conveyed by adults. Although the original plan was to include children cared for by the ambulance service, challenges in participant recruitment necessitated a revision. The four studies presented in Table 1 illuminate the dynamics of the care encounter and contribute valuable insights to the conclusions.

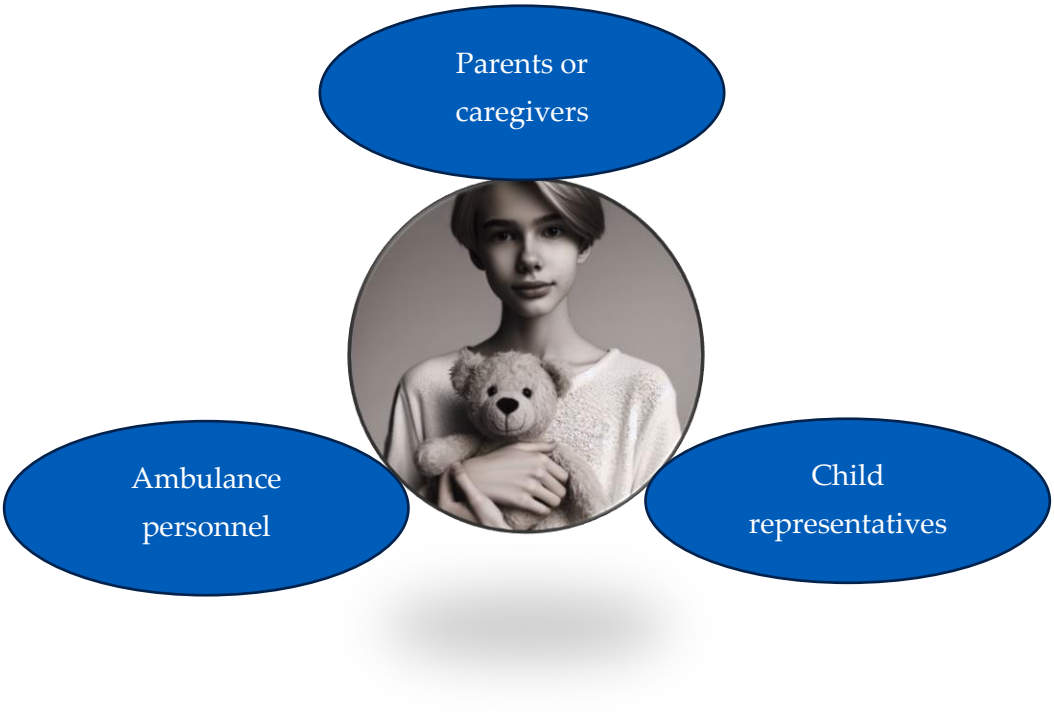

Figure 2. Overview of the included participants (AI-generated picture of child)

Table 1 Overview of the four studies in the project

Paper	Aim	Participants	Data Collection	Analysis method
I	To describe how ambulance nurses feel and manage their emotions before, during and after a care encounter with a child.	17 ambulance nurses	Semi-structured individual interviews, 2020/04-2020/05	Qualitative content analysis, as described by Graneheim and Lundman (2004)
II	To describe ambulance nurses´ experiences of facilitating child friendly care encounters.	17 ambulance nurses	Semi-structured individual interviews, 2020/04-2020/05	Reflexive thematic analysis, as described by Braun and Clarke (2022)
III	To explore parents' perspectives on children's participation in their prehospital emergency care.	12 parents	Semi-structured individual interviews, 2023/05-2023/06	Deductive content analysis, as described by Elo and Kyngäs (2008)
IV	To explore the Child Representatives' conceptions of children's opportunities to participate in prehospital emergency care.	10 child representatives	Semi-structured individual interviews, 2024/03-2024/05	Phenomenography

My Ontological, Epistemological and Methodological Journey

At the beginning of this journey to becoming a researcher, I did not ponder over the philosophy of science. I was primarily focused on solving the problem at hand. However, as my journey progressed, insights into the world of knowledge emerged, and I found myself reflecting on my ontological and epistemological standpoints. I believe that knowledge is created in the interactions between individuals, though at the same time, there must be a practical use of the knowledge.

Hence, the overall research and the component studies are guided by constructive pragmatism in an effort to balance the depth that comes from interpretations with practical applicability. This dual perspective recognises that knowledge is co-constructed through interactions and, at the same time, evaluated for its practical usefulness in answering research questions and given a real-world application (Biesta & Burbules, 2003; Morgan, 2007; Nørreklit et al., 2006).

From my ontological perspective, this research is inspired by constructivism, recognising that reality is not a singular truth but instead socially constructed by experiences and interactions between individuals (Guba & Lincoln, 1989; Lincoln & Guba, 1985). Multiple interpretations of reality can exist, and knowledge is created through dialogue between individuals rather than existing independently (Patton, 2015; Polit & Beck, 2021). This aligns with the qualitative inquiry, where meaning emerges from the participants' subjective experiences.

However, pragmatism also inspires this research, which employs a more flexible ontological approach. Reality is shaped by actions and

practical consequences (Morgan, 2014). Pragmatism does not indulge in philosophical distinctions between objectivity and subjectivity. Pragmatism instead focuses on what works in practice to generate meaningful insights (Creswell & Plano Clark, 2017). The pragmatic influence creates interpretive research findings that are applicable to improving professional practice and decision-making (Creswell & Poth, 2017; Morgan, 2007).

From my epistemological standpoint, this research embraces a constructivist view, acknowledging that knowledge is created between me as a researcher and the participants in an interactive process (cf. Guba & Lincoln, 1989). However, even here, my pragmatic approach is visible because of my conviction that knowledge needs to be assessed on its ability to answer research questions; that is, the methodological choices have been driven by their effectiveness in answering the research questions at hand rather than strictly adhering to any one paradigm (cf. Morgan, 2007; cf. Patton, 2015).

The methodological choices of this research align with constructive pragmatism, as it integrates different qualitative methods to explore meaning and ensure practical applicability. The methods bring the depth of constructivism and the action-oriented nature of pragmatism. See Figure 3.

Method	Constructivist Elements	Pragmatist Elements
Qualitative Content Analysis (Graneheim & Lundman, 2004)	Uses interpretation of meaning in text, recognising that multiple realities exist based on individual's experiences	Allow a systematic coding and structuring of data to create practical insights applicable to real-world settings
Reflexive Thematic Analysis (Braun & Clarke, 2022)	Views themes that are generated by the researcher rather than discovered, aligning with the notion that meaning is co-constructed	Thematic analysis is adaptable and can be used pragmatically to answer research questions with an applied outcome
Deductive Content Analysis (Elo & Kyngäs, 2008)	Existing theoretical frameworks shape the interpretation of data, meaning that knowledge is structured but still open to contextual meaning	The deductive approach enables a structured analysis driven by an intention of practical problem-solving
Phenomenography	It aims to capture the variation of individual conceptions and how they create meaning in different ways	Practical implications come from understanding differences in how individuals conceptualise a phenomenon and using it in an applied setting

Figure 3. Constructivist and pragmatist elements connected to the included methods.

By combining these methods, this research acknowledges that knowledge is socially constructed and context-dependent, while also prioritising actionable insights. This approach, rooted in constructive pragmatism, enables research that is interpretively rich and practically applicable, ensuring that the findings are meaningful

within the study's context and relevant to broader professional practice (Morgan, 2014; Nørreklit et al., 2006).

Pre-understanding

My background has several components that are important for self-awareness. I have a bachelor's degree in nursing and a master´s in Prehospital Emergency Care. My clinical experience includes working in the emergency department and as an ambulance nurse in the ambulance service. This experience has given me both personal insights into the challenges of caring for children and the opportunity to take part in colleagues' experiences. I have dealt with the feelings of not being ready or not knowing enough when going on a call regarding children, which has influenced my curiosity to learn more about this project. However, I was still conscious that I should not project my experiences onto any participants. I have also worked as a police officer, which has given me other worldviews that have influenced my development. Viewing ambulance personnel from an outsider's perspective but still possessing insights into the work has added a fresh dimension to my experience. In both of my careers, I have worked closely with those in need, creating an understanding of the situation in the course of an exchange. Furthermore, the work in the ambulance service or police authority necessitates a pragmatic stance. I needed to assess every situation swiftly, find the best solution and make it work. This constructual and practical approach has shaped me and my research.

This knowledge and experience have created a foundation on which I conducted my research. Reflexivity, as Patton (2015) describes, is the conscious consideration of assumptions that may have a negative impact on the research process. It has been important for me to avoid

affecting the research negatively and produce sound research. This reflexivity has been on an individual level, wherein I have considered my background and the possible effect that it may have on the analysis and interpretations. When creating interview questions and guides, being aware of such reflexivity is important. Having insights into the context of the research can influence the process. By being aware of such knowledge, I have taken the help of colleagues with similar experiences as well as those with experiences from other contexts to strive to avoid letting my preconceptions influence the research. Even in cases where the method requires using one's knowledge, reflexivity has guided the analysis to not let such knowledge overpower the analysis. Moreover, reflexivity has been an essential part of the research group, where discussions with supervisors have acted as a means to openly discuss pre-knowledge and ensure that the awareness of such knowledge does not create research that is not grounded solely in the experiences narrated by the study participants.

Ethical Considerations

The studies conducted focused on the care of children needing prehospital care, and thus, there was a risk that I, as a researcher, could awaken troubling memories among the participants. Therefore, the decisions made in the research process were carefully reflected upon and discussed to ensure that their impact would be positive. After all, the research community is responsible for upholding an ethical approach to all research.

This project has received ethical approval from the Ethics Committee (no. 2017/222-31). When interviewing healthcare professionals, I could argue that there is a professional obligation within the

profession to participate in research that advances the field. However, the ethical integrity of such research must be ensured. When I planned to interview ambulance personnel about their experiences caring for children—an area that, according to previous studies, can provoke strong emotional responses—I had to be prepared for any potential reactions. The research team in the project was experienced in managing individuals in crises and ready to assist by referring participants to appropriate help if needed. However, no such need arose.

Parents were also interviewed and asked how they perceived the care encounter between their children and ambulance personnel. Again, an ethical question arose, regarding inviting parents with children who had been seriously injured or ill. Given that participation was voluntary and it was important to offer concerned individuals the opportunity to participate in such research, I reasoned that no exclusion criteria were required regarding parents with seriously injured or ill children. Parents could themselves decide on whether to register their interest in the study. As mentioned earlier, the research group was prepared to assist in case of any troublesome emotions. However, no such need arose.

In my research, many legislations and ethical guidelines needed to be considered. The World Medical Association's (WMA, 2024) Helsinki Declaration provides valuable guidance for me as a researcher on upholding ethical values in my work. The core of any research project should be to do good and avoid harm. Although the Helsinki Declaration primarily focuses on medical research, its principles also apply to other fields of study.

Throughout this research project, ethical considerations were integrated into the process, following the Helsinki Declaration and

Swedish legislation. A fundamental principle guiding this work has been respect for human dignity, autonomy and the rights of all participants. Consistent with the scientific and ethical principles outlined in the Helsinki Declaration (WMA, 2024), this research was conducted with a comprehensive understanding of and adherence to research standards.

A cornerstone of ethical research is the principle of informed consent, which ensures that participation is entirely voluntary and that individuals can make informed decisions about their involvement. This research project prioritised transparency and participant autonomy in alignment with both the Helsinki Declaration (WMA, 2024) and the Swedish Act on Ethical Review of Research Involving Humans (SFS 2003:460). All participants received written and verbal information about the studies, including the purpose of the studies, the details of their participation, their right to withdraw at any time without consequence, and the way their data would be managed.

Ensuring data security and confidentiality was also a key ethical responsibility. The General Data Protection Regulation (GDPR) 2016/679 provided a legal framework for the secure storage and handling of personal data. The university's IT information security coordinator was consulted to comply with these regulations, which ensured that all data management practices met legal and ethical standards. By upholding these ethical commitments, the research team maintained integrity, transparency and respect for participant rights, reinforcing the ethical foundation of the studies.

The Swedish Research Council emphasises the importance of good research practices within the research community. This means that a research project should benefit society and be conducted responsibly,

which underscores its potential to generate new knowledge and improvements for humanity (Swedish Research Council, 2024).

The Swedish Research Council also mentions the basic principles that researchers have to follow and promote:

Reliability ensures the quality of research being done, reflected in the design, method, analysis and utilisation of resources (Swedish Research Council, 2024). Reliability in the present project was ensured by clearly describing the choice of methods and a thorough description of the analysis, giving the reader a chance to follow the analytical process and a description of how the research group's different competencies were utilised and strengthened in the constituent studies.

Honesty entails developing, implementing, reviewing and reporting research in an open, fair, complete and objective manner (Swedish Research Council, 2024). The included studies in the current project are presented with the ambition of clearly presenting the research process. Further, the methodological discussions are seen as a way to show the open, fair and objective stance of the studies conducted. The research has been reviewed during the process, internally and externally, to also make sure that it is sound.

Respect for colleagues, participants and society is vital to research (Swedish Research Council, 2024). The participants who gave their time to share their stories were treated with respect and attentively. Their willingness to contribute to the research was vital, and the trust they reposed in the researchers was regarded with the utmost respect. They were well informed before giving their consent to participate, and their stories, as well as their personal information, are and will be kept confidential. By doing so, the research community respects the participants and the laws that guide research

in our society. Respect between colleagues is important because there must be an open climate of discussion, disagreement and understanding of different views in the research process. It must be the research that is debated, not the researcher.

Responsibility for the research, from the initial idea to publication, is important for researchers. It is the responsibility of researchers to manage, organise, educate, supervise and mentor (Swedish Research Council, 2024). The component studies of this research project were conducted towards the presentation of a doctoral thesis, with experienced researchers supervising the process to ensure the doctoral students' responsibility towards the research community.

Settings

The research delves into the interactions between children and ambulance personnel, emphasising that these encounters can happen at any time and location. Unlike traditional healthcare settings, the ambulance service operates in diverse environments, ranging from the familiar warmth of a child’s home to a playground or the bustle of a city street.

The studies included here were conducted in a Swedish context, where the ambulance service interacts with approximately 1.3 million patients annually, from newborns to the elderly (Sveriges Kommuner och Regioner, 2023). In Sweden, an ambulance must be staffed by at least one registered nurse, preferably one with additional prehospital emergency care education. This specialist education is obtained through a one-year master's program, which confers the title of ambulance nurse and a master's degree. An ambulance nurse is required to stay updated on research and provide nursing care,

including the necessary examinations and treatments. Typically, they work alongside an emergency medical technician or another registered nurse (Socialstyrelsen, 2020; Suserud, 2005). In Sweden, an emergency medical technician is an assistant nurse with an additional 40 weeks of training in emergency care (Hörberg et al., 2017b).

What is significant in these scenarios is not the location but the relationship that develops between the child and the ambulance personnel. The relationship created during these moments is vital, as it could influence the quality of care for the child.

Descriptions of the participants' context for each study are provided below.

Studies I & II

These studies were conducted in three regions of Sweden, which vary in size (18,191 km² to 49,443 km²), population (132,731 to 284,717), daily ambulance activity and hospital emergency capacity. Despite these differences, all three regions contain both rural and urban areas, so transportation times for the ambulance service vary from minutes to hours.

The ambulance services in the three regions employ approximately 550 personnel. There are 36 ambulance stations dispersed throughout the regions, three county hospitals with higher care capacity and six community hospitals with lower care capacity.

Study III

The study was conducted across five regions in Sweden, which differ in size (ranging from 11,302 km² to 49,443 km²), population (from 132,731 to 1,427,499), daily ambulance activity and hospital emergency capacity. These regions are a mix of rural and densely populated urban areas.

Study IV

The study was conducted across five regions in Sweden, which differ in size (ranging from 5146 km² to 28,193 km²), population (from 203,476 to 1,427,499), daily ambulance activity and hospital emergency capacity. These regions have a mix of rural and densely populated urban areas.

Participants and Procedures

Studies I & II

Participants were recruited from the ambulance services in three regions of Sweden. Each region's operations manager granted permission for the studies. Initially, information was provided to prospective participants through a written document and a short film in which the first author introduced himself and the project and explained what it means to participate in a study. This information was included in an email sent to all ambulance personnel. Consent was obtained from all who participated.

Of the 17 individuals who participated in the interviews, seven were females and 10 males, aged 30 to 53 years (m = 41 years). Their experience in the ambulance service ranged from 5 to 26 years (m = 13.8 years). Sixteen ambulance nurses had completed a specialist nurse course that led to a master's degree and a postgraduate diploma in Specialist Nursing. Two of the participants had also taken shorter courses in paediatric care, and one had worked for five years in a paediatric ward before joining the ambulance service. For an overview, see Table 2. In the summary of findings, all participants are described as ambulance nurses.

Table 2 Study I & II Participants' demographics

Participating ambulance nurses	
Gender	7 Females / 10 Males (n=17)
Age	30 – 53 years of age (m=41)
Years in the ambulance service	5 – 26 years (m=13)
Level of education	1 Registered Nurse 16 Specialist Nurses (Prehospital emergency care, Anesthesia, Public health, Emergency care, Cardiac care)
Participants with shorter courses in pediatric care	2
Participants with experience from pediatric ward	1

Study III

Participants were recruited through social media advertising and posters displayed at a regional hospital's emergency department and child ward. Each head of department granted permission to put up these posters. The posters included a QR code that allowed participants to register their interest in the study and access information about the study and the participation process. A snowball recruitment (Polit & Beck, 2021) enabled further progress, where parents referred other parents to the study. Ultimately, 12 participants expressed interest in the study, provided consent and

were interviewed: nine females and three males, aged 31–51 (m = 40.5), see Table 3.

Table 3 Study III Participants' demographic

Participating parents	
Gender	9 Females / 3 Males (n=12)
Age	31 – 51 years of age (m=40,5)
Relationship status	9 In relations 3 Living alone
Country of origin	12 Sweden
Level of education	8 University 4 Upper Secondary School
Occupation	11 Working 1 Studying

Study IV

An inquiry was sent to the operations managers of all 21 regions' ambulance services in Sweden to determine whether they had personnel designated as child representatives. Thirteen operations managers responded to the inquiry, and seven confirmed they had child representatives. Five operations managers permitted the researcher to contact these child representatives, providing their

email addresses. An invitation and an information letter were sent to the child representatives. Those willing to participate used an online form connected to the university's servers to register their interest and provide informed consent. In a further attempt to attract additional participants, an online advertisement was posted on social media, but this did not yield any more participants. Eventually, ten child representatives were interviewed: eight females and two males, aged between 32 and 60 (m = 46.2). Please refer to Table 4 for more details.

Table 4 Study IV Participants' demographic

Child Representatives	
Gender	8 Females / 2 Males (n=10)
Age	32 – 60 years of age (m=46,2)
Years in the Ambulance Service	5 – 30 years (m=15,55)
Years as Child Representative	1,5 – 15 years (m=8,25)
Profession	2 Emergency Medical Technicians 1 Registered Nurse 7 Registered Nurses with specialist education in Prehospital Emergency Care

Data Collection

Semi-structured Interviews

I opted to conduct interviews due to their effectiveness in acquiring and collecting perspectives in qualitative research. This allowed me, as a researcher, to create new knowledge from the narrative (cf. Polit & Beck, 2021). All interviews in the studies were carried out using a semi-structured format due to my research questions revolving around certain areas of interest (cf. Brinkmann & Kvale, 2015). An interview is a form of social interaction that centres around conversation. The individual being interviewed and two main factors influenced the questions: 1) the purpose of the study; and 2) the research questions guiding it. The questions included in an interview protocol can be considered sub-questions of the study and should be framed in such a way that they are easily understandable for the interviewees (Creswell & Poth, 2017). The purpose of a qualitative research interview is to understand themes from another individual's perspective. Therefore, semi-structured interviews were used in the included studies, as the research questions focused on specific phenomena. Polit and Beck (2021) describe semi-structured interviews as allowing a researcher to concentrate on specific topics during the discussion. While one comes prepared with a clear set of questions, we remain open to varying responses. This structured approach enables us to guide the conversation towards the areas of interest while allowing for flexibility in the discussion (Polit & Beck, 2021). This interview approach was deemed suitable for the aims and research questions of the component studies.

Studies I & II

The data collection for studies I and II was carried out during the same interview. An interview guide was created to capture the

continuum of ambulance personnel's experiences, starting at the call and ending after the handover (see Figure 4).

Interview Questions Studies I & II	Study
Can you describe how you react when a call regarding a child comes in?	I
What emotions go through you en route?	I
Can you describe how you make the child involved in the care encounter?	II
During the care encounter, how do you feel?	I
Please tell me how you make the parents involved in the care.	II
How do you prepare a child for transportation?	II
How can children and parents be involved in the care during transportation?	II
During transportation, what is happening to you emotionally?	I
How do you hand over a child at the hospital?	II
How does it feel for you when arriving at the hospital?	I
How do you end the care encounter with a child and family?	II
Afterwards, how do you reflect on your work effort?	I

Figure 4. Interview guide, studies I and II. The questions were asked following the timeline from call to handover, on the assumption that would make it easier for the participants to share their narrative.

As the conversation progressed along this timeline, questions about I) the ambulance personnel's emotions regarding their care encounters with children alternated with II) questions about how they created a child-friendly care encounter, see Figure 5. This approach allowed the ambulance nurses to discuss their work processes in a familiar and natural manner, smoothly transitioning between the two main areas of interest. This process was tested with two pilot interviews with experienced ambulance personnel before commencing the data collection. These interviews were not included in the data set because

the ambulance service did not employ the two pilot participants at the time of the interview.

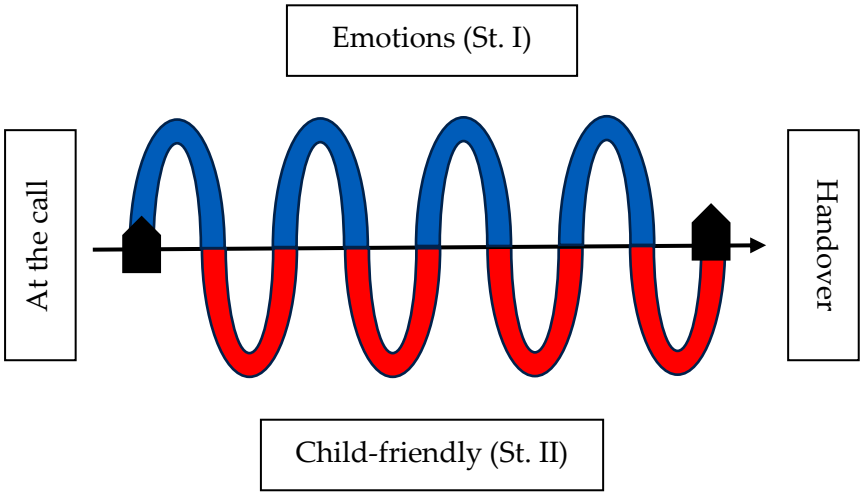

Figure 5. Visual overview of the interview process, moving between the two areas of interest, in studies I and II.

Study III

An interview guide (Figure 6) was created to explore parents' perceptions of their children's care encounters with ambulance personnel. The guide emphasises their possibilities of being included and participating in their children's care based on the findings in studies I and II and the participatory aspects of UNCRC. The interview was conducted with an exploratory orientation and the collected data analysed using deductive qualitative content analysis.

Interview Questions Study III
Tell me about the meeting between the ambulance personnel and your child.
How did the ambulance personnel inform your child? Did he/she understand? Did you understand?
How did the ambulance personnel cooperate with your child?
From your perspective, were your child's opinions and wishes heard by the ambulance personnel?
From your perspective, did you perceive your child as feeling safe during the care encounter?
What, in your opinion, made your child feel safe (or not safe)?
How did the ambulance personnel cooperate with you?
Did you feel safe with the care given by the ambulance personnel?
How would you describe your child's transport to the hospital?
From your perspective, how was your child's arrival at the hospital?
To conclude, is there anything that you think could be improved or changed to elevate the care encounter with children further?

Figure 6. Interview guide study III

Study IV

An interview guide (Figure 7) to explore the child representatives' conceptions of children's possibilities of participating in their own care was constructed. The guide focused on barriers, possibilities and improvement opportunities for children's participation, according to the child representatives.

Describe the challenges related to children's participation in their care in the ambulance service
Describe the opportunities children have to participate in their care in the ambulance service
Describe the opportunities you see for developing children's participation in the ambulance service

Figure 7. Interview guide study IV

Data Analysis

Study I, Inductive Qualitative Content Analysis

The first study, focusing on the emotional aspects of the ambulance personnel when caring for children, was conducted using individual semi-structured interviews with 17 ambulance nurses and the collected data analysed using inductive qualitative content analysis, as described by Graneheim and Lundman (2004).

Qualitative content analysis strives to analyse the content of narrative data and to identify themes and patterns within the data. It demands a breakdown of data into smaller units, later coding these units and creating categories or themes (Polit & Beck, 2021). The reduction of the data and the effort to identify consistencies and meanings define qualitative content analysis (Patton, 2015).

During the qualitative content analysis of the data, as described by Graneheim and Lundman (2004), I read the interview transcripts several times to gain an initial grasp of the content. Moving forward, a selection process of meaning units relevant to the study aims was performed. The meaning units were sentences or paragraphs relevant to the aim (cf. Graneheim & Lundman, 2004). When using an inductive approach to the data, the selection is data-driven, moving

from a small to a larger understanding. It is a search for patterns revealed in the data. When doing so, I focused on the similarities and differences in the data (cf. Graneheim et al., 2017). These meaning units were then condensed, i.e. shortened while maintaining the core of the meaning units. When the core was established, I labelled the meaning units with codes which captured the core in its context. From these codes, I started to group them into categories. Graneheim and Lundman (2004) describe creating categories as the core of qualitative content analysis. A category mainly refers to the manifest content of the data. The category represents the thread that runs through the codes and should be internally homogeneous and externally heterogeneous (cf. Graneheim & Lundman, 2004). By doing so, I moved from the concrete data to an abstract and theoretical understanding (cf. Graneheim et al., 2017).

Study II, Reflexive Thematical Analysis

The second study, which focused on how the ambulance nurses created a child-friendly care encounter, was analysed using reflexive thematic analysis, as described by Braun and Clarke (Braun & Clarke, 2006, 2014, 2019, 2022). The method was chosen because of the possibilities for me to move from the semantic to the manifest, which was crucial due to the research question at hand.

Many qualitative studies claim no particular discipline or methodological roots. These can be referred to as descriptive qualitative studies or generic qualitative inquiry. The thematic analysis relies on the similarity principle and the contrast principle. The similarity principle is that the researchers search for information with similar content or meaning. The contrast principle is the effort to find out how they differ from each other and to establish a distinction between the themes (Patton, 2015; Polit & Beck, 2021). Not all research has to be conceptualised within a specific tradition. There

can be a more practical research approach where skilfully asked questions and data analysis can provide the research community with valuable insight (Patton, 2015).

Throughout the analysis, I followed the six steps outlined by Braun and Clarke (2022). When beginning my thematic analysis, the interviews were carefully read several times. Listening to the audio recordings from the interviews several times also proved beneficial. With pen in hand, I made small notes of different patterns and possible codes that came to mind while reading and listening. My analysis moved between the semantic and the manifest perspective while I moved back and forth through the data. When I considered the notes to be sufficient, they were grouped into words, phrases and content. During this process, subthemes started to develop, while I repeatedly returned to the data to ensure validity. Similar subthemes were then grouped into themes and checked against the study's aim, reviewing and temporarily naming the themes. The theme names were then finalised and the writing ultimately began. Unlike other qualitative methods, in thematic analysis, the research group's and my different contextual experiences did not strive for consensus on the results. Instead, we utilize our differences to foster reflexivity and conduct a more nuanced data analysis (cf. Braun & Clarke, 2006, 2014, 2022).

Study III, Deductive Qualitative Content Analysis

In the third study, 12 parents were interviewed using semi-structured interviews, focusing on the parents' perspectives on their children's possibilities of participating in their care. Deductive qualitative analysis, as described by Elo and Kyngäs (2008), was utilised. The basis for the deductive analysis was Shier´s model of Pathways to Participation (Shier, 2001), from which a structured matrix was created, see Figure 8.

As mentioned earlier, qualitative content analysis strives to analyse the content of narrative data and identify themes and patterns within the themes (Polit & Beck, 2021). However, when applying a deductive approach to the analysis, the researcher begins with an existing theory or other relevant research findings. The codes are defined before the analysis and expand during the analysis (Polit & Beck, 2021). Deductive analysis examines the data to illuminate predetermined concepts or theories (Patton, 2015). The purpose of the study determines the use of deductive content analysis. Elo and Kyngäs (2008) mention that the starting point of deductive content analysis lies in preparation.

During the preparation phase, I got acquainted with the data and immersed myself in it, reading it several times. This was to achieve a sense of the whole, the "what is going on". Moving on in the analysis, the next step was organising. When using a deductive approach, I created a structured matrix. This matrix allowed me to review and code the data according to the categories. Given that the analysis used a structured matrix, only the data that fit the matrix were chosen. The codes and the categories were predetermined, and thus the deductive content analysis moved from the general to the specific (cf. Elo & Kyngäs, 2008).

Level of participation	Openings	Opportunities
Children are listened to.	Are the AP ready to listen to children?	Do the AP work in a way that enables them to listen to children?
Children are supported in expressing their views.	Are the AP ready to support children in expressing their views?	Do the AP have a range of ideas and activities to help children express their views?
Children's views are considered.	Are the AP ready to take children's views into account?	Does the AP decision-making process enable them to consider children's views?
Children are involved in decision-making processes.	Are the AP ready to let children join their decision-making process?	Is there a procedure that enables children to join decision-making processes?
Children share power and responsibility for decision-making.	Are the AP ready to share some of their adult power with children?	Is there a procedure that enables children and adults to share power and responsibility for decisions?

Figure 8. Structured matrix inspired by Shiers Model of Participation. AP: ambulance personnel

Study IV, Phenomenography

The fourth and final study aimed to explore the conceptions of child representatives in the ambulance service regarding the phenomenon of children's possibilities of participating in their care, and to this end, ten child representatives were interviewed.

Researchers can use phenomenography to study how participants conceive of or understand a phenomenon. Phenomenography allows the researchers to understand the collective differences of a phenomenon, and the outcome enables them to present these holistically (Bayuo et al., 2023). This method distinguishes between the first-order perspective—the actual phenomenon—and the second-order perspective, that is, how the phenomenon is perceived and conceptualised, focusing on the latter. The researchers strive to understand the qualitative differences between the participants' thoughts about a phenomenon. The analysis sorts the perceptions

emerging from the data into description categories (Polit & Beck, 2021). The perceptions of ways of conceiving a phenomenon and the differences in this are the base of the phenomenographic analysis. It is an interest in the various ways of conceiving the world and the phenomena within (Åkerlind, 2012; Marton, 1981; Marton & Booth, 1997). Marton and Booth (1997) note that phenomenography is not a method, despite having methodological elements. It is rather an approach to identify, formulate and handle specific research questions (Marton & Booth, 1997). Larsson (1986) describes the analytical process of representing variations in conception as *"reading and reflecting, reading and reflecting"*. It is a notion to not just settle for the preliminary results but rather critically scrutinise the categories to discover deeper dimensions that demand new formulations and categories. The core of the analysis is comparing answers within the data (Larsson, 1986).

The analysis began with me reading the data and reflecting on the content over and over. With a pen in my hand, I made notes in the margins of the interview transcripts upon coming across interesting points relevant to the research question. After going through the notes several times and comparing, slowly an initial definition of conceptions could be formulated. These initial definitions were discussed within the research group, and once again, the data was re-read and reflected upon to capture the genuine conceptions the participants expressed (cf. Larsson, 1986; cf. Uljens, 1989). The basis of my analysis was to discover the part of that data that referred to different phenomena, not as to the sequence of the data, but rather the content of the referential meaning (cf. Svensson, 1997). Once the definitions of the conceptions became clear, I could begin grouping them into preliminary categories. These categories were then compared to the entire data set to identify similarities and differences. This process was repeated several times, continuously

returning to the data, reflecting on the outcome and discussing it within the group. When the final descriptive categories had been formulated, the outcome space of the analysis could finally be described (cf. Larsson, 1986; cf. Uljens, 1989).

Findings

This section presents the results of the studies, as well as a synthesis of the findings.

Study I

The findings resulted in three themes: Feeling worried and insecure, Emotional surge, and Ending the care encounter.

Feeling worried and insecure

Due to their lack of experience, some of the ambulance nurses felt insecure when caring for children. This uncertainty intensified when they received a call, so they had to seek reassurance within the team. They found calls regarding children particularly challenging because children's vastly differing developmental stages make caring for them more complex. Many ambulance nurses felt a heightened sense of responsibility, fearing they might overlook something critical. Those without personal or professional experience with children felt especially unprepared, while parents among the ambulance nurse participants often felt more composed but also emotionally affected.

En route to the patient, their anxiety remained high, with a perceived awareness that they needed to perform at their best. They described feeling tense and on edge, particularly when responding to critical

cases. They would feel relieved if the injuries were minor, whereas a report of a severe condition, such as a child being unresponsive, triggered more stress and fear. Upon arrival, they had to care for the child and manage the parents' emotions. They worried about whether the parents would trust them and how to handle situations where emotions were running high. Self-doubt about their capabilities added to the pressure. Team dynamics played a crucial role; having an experienced and familiar colleague offered reassurance, whereas working with a less experienced partner left them feeling more alone and uncertain.

Emotional surge

The ambulance nurses described how their emotions were affected by their first impressions of the scene and how they managed these emotions. Upon arrival, before seeing the child, they felt reassured if they heard crying, as it indicated that the child had some strength, which was considered positive. Silence, however, heightened their stress and fear that the child might be critically ill. Once they assessed the situation, some ambulance nurses shifted into their professional roles, focusing on their tasks, which helped them feel more in control. On the other hand, some admitted to masking their uncertainty and pretending to be confident despite feeling insecure. Parents among the ambulance nurse participants often felt more comfortable handling children due to personal experience. On the other hand, they also found it emotionally challenging when the patient was the same age as their own child.

Dealing with powerlessness and frustration was a recurring struggle. The ambulance nurses found it difficult when children resisted examination, as they wanted to help but could not break through the child's fear and distress. Unwanted parental interference, such as

answering for the child, often caused irritation. In contrast, younger children who could not communicate made the participants feel more distant and more focused on the parents than the patient. Older children were easier to engage with, leading to a smoother care encounter. Language barriers added another layer of difficulty, making communication with both the child and the parents more challenging, often leading to feelings of frustration and detachment.

Ending the care encounter

When handing over a child at the emergency room (ER), ambulance nurses often experienced mixed emotions, balancing a sense of responsibility with the need for closure. They felt protective of the child and wanted to ensure a smooth transition with the ER staff. If their input was overlooked or if they disagreed with the ER team's approach, they felt frustration and disappointment. Saying goodbye to the child and family provided a sense of closure, but when this was not possible due to the urgency for care, they felt detached and left out.

After the care encounter, participants reflected on their actions, often experiencing conflicting emotions. Successfully treating a child brought relief, but if the treatment was administered against the child's will it left them uneasy. In cases that did not end in a positive outcome, they felt both pride in their efforts and sadness for the family. These emotions had to be processed, sometimes through discussion with colleagues or external support. If they failed to connect with the parents, they felt they had not fully succeeded in their role. However, when they left the ER knowing the child and family were reassured and grateful, there was a deep sense of satisfaction and pride.

Study II

The data analysis revealed one overarching theme, Caring with the child in centre, with three themes: Adapting to follow the child's lead; Being reliable by balancing the trust; and Stepping back and supporting.

Caring with the child in centre

The overarching theme shows the ambulance nurses' continuous movement through the themes, keeping the child at the centre of the care. See Figure 9.

Adapting to follow the child´s lead

The ambulance nurses emphasised the importance of adapting their approach to each child, carefully observing the patient's reactions and adjusting one's behaviour accordingly. The participants used creativity to spark the child's interest, engaging them with toys, posters on the walls or familiar objects to establish a connection. Finding common ground, such as referencing their own children's interests, helped build a connection. Sometimes the participants would use medical equipment as a tool for interaction, allowing the child to explore it to reduce fear and encourage a sense of togetherness.

The ambulance nurses adjusted their body language to appear less intimidating by crouching to the child's level, making eye contact and speaking softly. They allowed children to set the pace in a higher sense than with adult patients, understanding that forcing the encounter could be counterproductive. When time permitted, they patiently waited for the child to feel comfortable, sometimes using indirect observation before initiating contact. Including the child and

their parents in the interaction created a sense of security and collaboration, leading to the establishment of a trusting relationship.

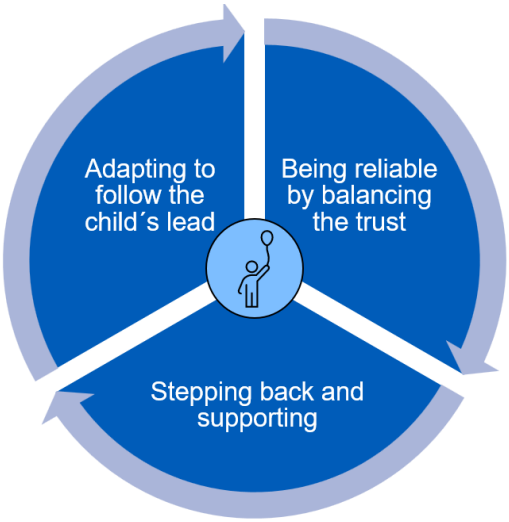

Figure 9. A presentation of the movement between the themes and how the ambulance nurses keep the child in the centre.

Being reliable by balancing the trust

The ambulance nurses emphasised the importance of maintaining trust with the child by being honest, direct, and respectful. They believed that lying or downplaying procedures could permanently damage trust and make future care encounters more difficult. Instead, they ensured that the child felt heard and valued, reinforcing their autonomy whenever possible. Clear communication with parents was equally crucial, as children were sensitive to their parent's reactions. Any uncertainty or hesitation from parents could influence the child's response to care.

However, in acute situations where immediate care and treatment were necessary, the priority shifted from communication to action. In these cases, the ambulance nurses acted decisively as the child's proxy, making choices in the child's best interest, even if it meant overriding the child's autonomy. They recognised the ethical balance between safeguarding trust and performing essential medical procedures.

In non-emergency situations, they carefully weighed the risks of certain interventions. For example, they sometimes chose not to insert an intravenous cannula if it was not immediately necessary, prioritising the child's comfort and long-term trust over procedural convenience. Instead, they prepared the child with numbing patches to make the procedure less distressing when performed later at the ER. Their approach demonstrated a deep commitment to both the child's well-being and the preservation of a trusting relationship.

Stepping back and supporting

The ambulance nurses emphasised their role in supporting rather than taking over, allowing the parents and child to be as involved as possible, themselves stepping in only when necessary. Their goal was to create a calm, trusting environment, guiding and preparing the child and parents to feel included in the care process. By creating a sense of teamwork—where the ambulance nurses provided medical expertise, parents contributed their knowledge of the child and the child shared what worked best for them—they aimed to make the experience feel like teamwork rather than something imposed.

When possible, the ambulance nurses encouraged the parents and child to perform simple tasks themselves, such as handling inhalation treatment or oxygen masks, and they only observed and offered

guidance. If emergency care was not required, they advised families on home care, but when needed, they ensured a smooth transition from home to the ambulance. Allowing the children to explore the ambulance before transport helped ease their anxiety.

Preparing the child and parents for the ER transition was also a key focus. The ambulance nurses would explain what was going to happen upon arrival, describing the number of staff involved as well as the procedures ahead, to prevent uncertainty or likely apprehensions. Walking into the ER together reinforced the sense of support, with ambulance nurses striving to transfer trust by personally introducing the child and parents to the receiving nurse. More time was devoted to making a child feel safe and comfortable during this handover than with adult patients, as the participants recognised that a positive healthcare experience could have lasting effects on a child's perception of medical care.

Study III

The analysis of the data on parents' perceptions of their children's participation in their care is presented below according to Shier's levels of participation.

Children are Listened to

Parents observed that the ambulance personnel were highly attentive to children, actively listening and engaging with them as the primary focus of care. The ambulance personnel showed equal dedication to children of all ages, including those with limited verbal skills, ensuring that the child felt heard and valued. Parents appreciated that the ambulance personnels' focus was on their children as the actual patients, rather than on them as the parents.

Parents could note a structured approach from the ambulance team, where one member concentrated on the child while the other handled practical aspects of care. This division of roles reassured parents, providing both emotional support and efficient medical attention. Communication was directed at the child, even when relayed through parents, thereby reinforcing the child-centred approach while keeping parents well-informed.

Parents valued how the ambulance personnel remained calm and composed upon arrival, which helped settle the child by creating a sense of security. The ambulance personnel would introduce themselves, speaking gently and allowing the child to process the situation at their own pace, which ensured a less stressful experience. This patient approach made it easier for children to express themselves and cope with the care encounter.

Small talk and attentiveness to verbal and non-verbal cues further demonstrated the ambulance personnel's sensitivity, their adaptability. Parents acknowledged how the ambulance personnel adjusted their approach based on the child's responses, leading to a personalised and reassuring experience for the child.

Children are Supported in Expressing Their Views

Parents observed that the ambulance personnel, by continuously adapting their communication approach, created opportunities for the children to express themselves. This sensitivity began at home and continued throughout transport to the emergency room. The ambulance personnel were particularly attentive to children who were shy or frightened, finding ways to make them feel secure without forcing interaction.

Parents were appreciative of the ambulance personnel's creative efforts to establish a connection with the child, such as using a teddy bear as an icebreaker or accommodating a child's music preferences. Such a gentle, personalised approach allowed children to express themselves at their own pace, fostering a sense of comfort and trust. The ambulance personnel's adaptability in finding common ground was seen as crucial in building rapport with the child.

Honest and direct communication was another key factor in gaining children's trust. Parents valued that the ambulance personnel did not rely on distractions or false reassurances but instead provided a clear, truthful explanation of what was happening. This transparency ensured that the children felt informed and prepared, reducing fear and uncertainty.

In encounters involving children with disabilities, ambulance personnel made deliberate efforts to adapt to each child's unique communication needs. The parents noted that the ambulance personnel actively sought guidance from them or care staff, learning how the child typically expressed their needs. This effort to interpret body language and non-verbal cues was greatly appreciated, as it demonstrated a commitment to truly understanding and responding to each child's unique way of communicating.

Children's Views are Considered

Parents shared that the ambulance personnel would actively consider children's views during care encounters, collaborating with the child to ensure they felt involved and secure. Allowing children to make small choices, such as where to sit during treatment or whom to sit next to them in the ambulance, helped them feel empowered and

comfortable. This flexibility was reassuring for both the children and their parents.

The ambulance personnel consistently worked to include children in the decision-making process, explaining procedures and seeking the child's permission before administering treatment. They adjusted their approach based on the child's comfort, ensuring that care was delivered in a way that respected their preferences whenever possible.

Some situations required securing the child for transportation, which could lead to discomfort or distress. Parents acknowledged that the ambulance personnel mitigated this by ensuring that a parent remained close by, providing reassurance. When children hesitated to accept treatment, the ambulance personnel would patiently explain its purpose and effects, allowing the child time to adjust and comply at their own pace.

Study IV

The outcome space shows three hierarchical categories: The attitude and experience of the ambulance personnel are crucial to children's participation; Contextual differences create or hinder participation; and The physical environment of the ambulance affects participation, see Figure 10. The conceptions derive from the child representatives' narratives and reflect their experiences as advisors to colleagues and in their clinical work alongside colleagues.

The Attitude and Experience of the Ambulance Personnel are Crucial to Children's Participation

The attitude and experience of ambulance personnel play a crucial

role in ensuring children's participation in their care. Child representatives emphasised that while all ambulance personnel provide necessary medical treatment, their willingness or ability to engage with children determines whether the care encounter is truly child-friendly. They explained that some ambulance personnel may sometimes primarily focus on emergency care—examining, treating and transporting patients—leaving little room for children to be actively involved in their care. In such a scenario, without an understanding of children's unique needs, opportunities for participation are limited.

The child representatives also highlighted that a professional or personal lack of experience with children can be a barrier for ambulance personnel in creating a child-friendly care encounter. They noted that recent changes in hiring standards have resulted in ambulance personnel with less experience in paediatric care, which increases stress for the personnel and reduces their ability to communicate effectively with young patients. Without familiarity with child development, ambulance personnel may struggle to create a care encounter that allows the child to be heard.

However, the child representatives observed that when ambulance personnel took the time to listen, engage and build trust—such as through play or simple conversation—children were more likely to express their needs and feel comfortable. Such interactions lead to more personalised and effective care and create positive healthcare experiences for children, which could have lasting benefits throughout the course of their care.

Contextual Differences Create or Hinder Participation

The ability of children to participate in their care is partly influenced by their age and the situation's urgency. Child representatives reckon that infants and toddlers have limited opportunities for participation due to their developmental stage and lack of verbal communication. In these cases, decisions are mostly made by the adults—both parents and ambulance personnel—who collaborate to ensure the best care. The primary focus is on gaining parental trust and cooperation, as their reassurance can help create a sense of security for the child.

As children grow older and develop verbal skills, their ability to participate increases; hence, the child representatives emphasised that ambulance personnel should actively engage with them to create a child-friendly care encounter. However, the child representatives added that in emergencies, ambulance personnel may be required to act quickly, prioritising medical intervention over children's objections. The child representatives emphasise that ambulance personnel do attempt to communicate and involve the child when possible; but urgent cases such as a severe fracture or serious illness may require immediate action, sometimes precluding time being spent in negotiation.

For older children, the child representatives argued, ambulance personnel should take the time to build a trusting relationship through clear communication and information sharing. However, when urgency dictates, the focus shifts from engaging the child to securing the parents' trust, so that the ambulance personnel can perform the necessary treatments efficiently. In such cases, parental reassurance is crucial in helping the child cope with the situation.

The Physical Environment of the Ambulance Affects Participation

The physical environment of the ambulance is primarily designed for adults, lacking child-friendly features that could make the experience more engaging and comforting for young patients. Child representatives described the sterile, function-focused setting as practical but uninspiring for children, with medical equipment that does not feel tailored to them. They suggested that minor adjustments, such as colourful bandages or even a picture on the ceiling, could help create a more inviting atmosphere and improve children's perception of the care encounter. However, they acknowledged that weight restrictions and hygiene regulations limit how much the ambulance environment can be adapted.

While the ambulance itself may not feel child-friendly, child representatives noted that it can still create curiosity. Many children are fascinated by sirens and flashing lights, which could be used to engage them. Ambulance personnel who creatively incorporate elements of play—such as blowing up a glove like a balloon or letting children "listen" to a teddy bear's heartbeat with a stethoscope—can help children feel more at ease and involved in their care.

They emphasised the importance of using available resources creatively. They argued that ambulance personnel's willingness and ingenuity in engaging children—whether through simple play or small gestures—can significantly impact how children experience care and whether they feel included in the process.

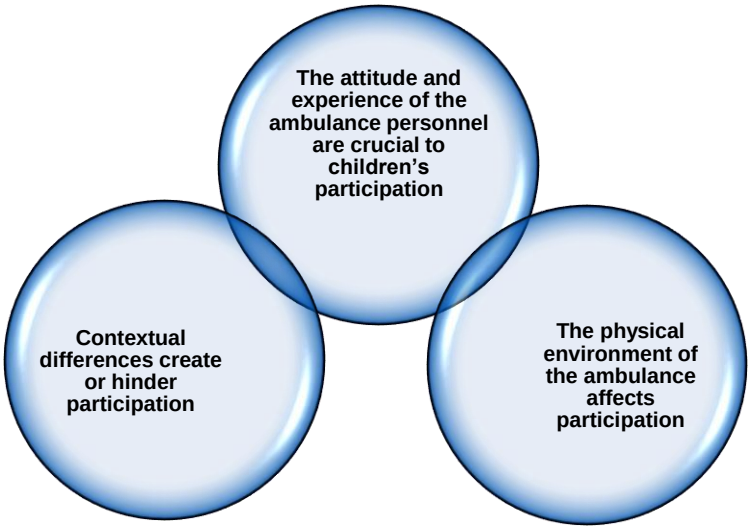

Figure 10. The outcome space has three hierarchical descriptive categories.

Synthesis of the findings

The overall findings of this research have yielded some valuable insights. To provide a CCC encounter, ambulance personnel must manifest emotional readiness, adaptability, empathy and teamwork (I, II, III, IV). The results also underscore the importance of a supportive environment and team dynamics to meet the challenges of paediatric care (I, II, III, IV).

The results of the included studies are synthesised and presented below.

What challenges and emotional responses do ambulance personnel experience when caring for children in a prehospital context, and what strategies do they employ to manage these situations?

Challenges and emotional responses

Ambulance personnel often feel anxious and uncertain when responding to calls regarding children (I, IV). These emotions can vary in intensity depending on the nature of the call, as children in critical condition particularly heighten stress (I). The likelihood is even higher when ambulance personnel lack experience or familiarity with paediatric patients. There could be feelings of being overwhelmed, especially when faced with critically ill or injured children. In such cases, the emotional burden could be made worse by a sense of responsibility to ensure that nothing is overlooked (I, IV). The uncertainty arises from a perceived lack of experience in caring for and treating children. The stress due to lack of experience can derive from a lack of training and/or not having children of their own. Ambulance personnel with children can use their parenthood experience in the care encounter with children. Additionally, the broad spectrum of developmental and physiological diversity among children presents a challenge in comprehending various vital signs and treatment protocols (I, IV). Such factors can lead to insecurity and inconsistency in care. This uncertainty about how to interact with and treat children can lead to ambulance personnel prioritising emergency care protocols over child-centred communication even where this is not warranted, which can result in the child's emotional and psychological needs being overlooked (IV). Experience—whether professional or personal—plays a crucial role in preparing ambulance personnel to manage these care encounters (I, II, IV). Parents'

presence at the scene adds another layer of emotional complexity. The ambulance personnel must attend to both children and their parents in distress. For the ambulance personnel, the parents can constitute important team members but may also be an annoyance if they do not strengthen the team by their calmness, instead disrupting the efforts to create a relationship between ambulance personnel and the children or not displaying trust towards the ambulance personnel. This possibility leads to a perceived pressure among ambulance personnel to earn the parents' trust, which can then be transferred to the children (I, II, IV).

There may also be frustration and powerlessness among the ambulance personnel. When they cannot break through to the frightened and crying children, the ambulance personnel could feel frustrated by the conviction that although they are there to do good they are unable to. The challenge in treating and caring for younger children who resist and cry when being treated deepens the frustration and powerlessness of being unable to perform the care. Likewise, when parents dominate the care encounter by taking over the conversation and not allowing communication between ambulance personnel and children, it hinders the ambulance personnel from the important aspect of creating a relationship (I, II).

Strategies to manage the situations

However, these challenges can be dealt with by enhancing team trust within the ambulance team. Working with a trusted, experienced colleague makes it easier to handle stress. If they doubted their capability, the ambulance personnel would take guidance from their colleagues and complement each other during the care encounter (I).

When arriving at the scene, there was a need to prioritise the children. Hence, the ambulance personnel set aside their emotions and transitioned into a professional role, focusing on the children. The professional role became a calming and reassuring safe zone where ambulance personnel could work. However, there could be a need to hide the insecurity within, a self-imposed detachment from emotional aspects, displaying a conviction that implied they were calm and ready to act. Regardless of strategy, the children were their primary concern (I, II).

The ambulance personnel strived to be flexible, creative and patient, recognising that children's reactions can differ vastly depending on their age, individual development and the situation. They were attentive to the children's signals and constantly adjusted their approach to the children. If there was no need, they did not rush the care encounter and treated the children as their main priority, i.e. the ambulance personnel addressed the children, showing that they were the primary focus and that they, the ambulance personnel, had time for the children (II, III, IV). The ambulance personnel often relied on easy but effective measures such as play, humour or small talk to establish a relationship and ease the child's anxiety. The ambulance personnel also made sure to come down to the children's level, to place themselves at eye height instead of looming over the children. They lowered their voices and used simple talk to address the children (II, III, IV). Children were included in the care by using the medical equipment, inviting the children to examine it and giving them small tasks such as holding a stethoscope or listening to a parent's heartbeat (II, III).

Communication was used as a stressbuster to build trust and cooperation (II, III). It was important for both ambulance personnel and parents that the communication was directed towards the

children, and the parents received information by listening to the conversation between ambulance personnel and children (II, III, IV). Parents appreciated such communication by the ambulance personnel and it instilled in them gratitude for the ambulance personnel's engagement with the children (III). With pre-verbal children, the communication was directed more towards the parents, although the ambulance personnel continuously explained and talked to the younger children, still focusing on them (II, III). Parents perceived that the ambulance personnel balanced direct communication with reassurance for children and parents, which led to a clear picture of the situation, without anyone feeling overwhelmed (III).

How are children's needs recognised, addressed, and fulfilled during prehospital care encounters according to ambulance personnel and parents?

Recognising the children's needs

The ambulance personnel recognise children's needs using a combination of observation, adaptability and sensitivity towards the children they meet. The findings show that they are attentive to signals from the children, both verbal and non-verbal. They assess the children's reactions to their presence and adjust their approach accordingly. They are observant of signs of fear, distress, curiosity and interest; through these signs, they strive to create trust and ensure the children feel safe (II, III). The ambulance personnel recognise that children's developmental levels vary and so adapt their approach to the best of their knowledge. Younger children, particularly infants and toddlers, naturally have a limited capacity to participate in any decision-making regarding their care. Therefore,

parents become vital in the process, contributing their knowledge of their child and being involved in the decision-making. On the other hand, older children are given more opportunities to express their wishes and participate more actively in their care when possible (II, III, IV).

Addressing and fulfilling children's needs

Ambulance personnel address and fulfil children's needs during care encounters in several ways. They use age-appropriate communication tailored to each child. When the ambulance personnel engage in small talk and play with the children, they connect with them at their level, creating a safe environment that alleviates fear and transforms the encounter into a supportive care experience (II, III). In such a safe care encounter, the children have a greater opportunity to voice their thoughts and be heard. When children are allowed to make small decisions, such as where to sit or to explore medical equipment, they can achieve a sense of control in the situation and feel comforted (II, III, IV).

The ambulance personnel deliberately used parents as intermediaries between themselves and the children. Given their knowledge of their children, parents could help calm and communicate with the children, especially with pre-verbal children. If the children were scared, ambulance personnel would encourage the parents to comfort the children and place the children close by the parents (II, III, IV). As mentioned earlier, the ambulance personnel would strive to gain the parents' trust, and by doing so, they would work together to care for the children (II, III, IV). The ambulance personnel would include the parents in information sharing and decision-making regarding the care, which calmed the parents and eased their concerns (III).

They also provide emotional reassurance by involving the parents—who serve as the children's safe zone—in the care while being attentive to and acknowledging the children's feelings. The parents' involvement in the care encounter is vital for fulfilling the children's need for support. The ambulance personnel actively engage parents, encouraging them to interpret non-verbal cues and, importantly, to provide comfort and act as a spokesperson for non-verbal children. The children's need for safety can be met by parents holding or comforting them during examination and treatment. This collaborative dynamic helps the child feel safer and reassures parents by including them in the care (II, III, IV).

This teamwork between ambulance personnel, parents and children is important for the care encounter. Within the ambulance team, they use cooperation and shared expertise to assess and care for the children. Due to the heightened stress levels that may be present, a high-functioning team enhances the ability to recognise and address children's needs quickly and effectively (I, IV). In addition, ambulance personnel build a partnership with the parents and establish a sense of trust and shared responsibility for the children's well-being. When ambulance personnel empower parents with information and respect their opinions, the care encounter can provide a cooperative, positive experience. The ambulance personnel also include children in the team. By encouraging them to participate in decisions regarding their care, asking questions and striving to engage them in the process, the ambulance personnel seek to address the children's needs and offer them a measure of fulfilment as a team member (II, III, IV).

Even in nerve-racking situations, the ambulance personnel try to fulfil the children's need for information and inclusion. When

treatment is urgent, they continuously inform the children of what is happening and regarding their decisions, so that the patient will feel safe and reassured (II, III). In less urgent situations, the ambulance personnel focus on emotional reassurance and participation, allowing children to be active participants in the care encounter in a way that respects their feelings and autonomy (II, III, IV).

The ambulance personnel need to be emotionally and professionally prepared. Caring for children sometimes seems to create emotional reactions like insecurity and heightened stress (I, IV). However, these challenges could be reduced by enhancing team trust and providing ongoing training.

The ambulance personnel often rely on easy but effective measures such as play, humour or small talk to establish a relationship and ease the child's anxiety. For example, engaging with toys, drawing attention to other subjects that could be interesting or using medical equipment for interaction can help children feel more comfortable (II, III, IV). The studies also emphasise the value of honesty in communication; children seem to respond better when treated with transparency and respect. By carefully observing each child's unique signals and adjusting their methods accordingly, ambulance personnel can create a sense of safety and participation during care encounters (II, III, IV).

The studies also highlight the limitations of the physical environment of ambulances, which are generally designed for adult care. There can also be a perceived lack of equipment that is child-sized. Simple modifications, such as colourful distractions or equipment for children, may enhance their experience, creating a more welcoming and supportive environment (IV).

The studies also reflect the balance between urgency and empathy in paediatric care. In critical situations, the main focus is on saving the children's lives (II, IV). This sometimes results in a perceived need to bypass the usual efforts of creating participation, as urgent measures become the priority. However, even in such cases, ambulance personnel seem to strive to preserve the essence of CCC by maintaining clear communication with parents and ensuring that children feel supported even during and after the gravest of situations (II, IV).

The studies highlight that ambulance personnel often reflect on their experiences after caring for patients, particularly children. After handing a child over to emergency room staff, they may feel pride, relief and concern. They reflect on whether they have made a meaningful connection with the child and family and if their care was effective and empathetic. These reflections underscore the emotional complexities of paediatric care and the importance of team support, helping personnel process their experiences and improve care delivery (I).

Discussion

The aim of this research was to contribute to knowledge that can support the development of child-centred approaches in prehospital emergency care. The overall aim was to gain a deeper insight into how care encounters between ambulance personnel and children are perceived by ambulance personnel and parents, as well as to explore the strategies used by ambulance personnel to manage these situations. This discussion explores the interaction between ambulance personnel and children in the care encounter, emphasising CCC as a guiding principle. The included studies

highlight the importance of CCC in ensuring that children can be active participants in their prehospital care encounters. However, barriers such as non-caring care and lack of experience and training among ambulance personnel can hinder CCC and limit children's participation.

The risk of non-caring care: A deviation from Child-Centered Care

Despite the often commendable dedication demonstrated by ambulance personnel, the findings indicate there is a risk of non-caring care in the prehospital setting. If children's emotional and psychological needs are overlooked and the ambulance personnel perform the care following mainly the protocols, the risk of non-caring care is quite real. The research findings (IV) indicate that if the ambulance personnel are not able or interested in adapting to the child's level and needs, the care may not be with a child-centred focus. If the care only follows protocol strictly without flexibility as to the individuality of each child, there is a risk of unequal care, which can lead to children experiencing exclusion and distress.

According to Article 12 of the UNCRC, children have the right to express their views in all matters affecting them. These views must be given due weight according to the child's age and maturity. If ambulance personnel fail to engage children in their care encounters, they risk violating the children’s rights by excluding them from the care. The principle of non-discrimination in Article 2 of the UNCRC also mandates that all children receive equal care, regardless of their age, background or communication abilities (UNICEF, n.d.). A non-caring care that fails to recognise children's needs may inadvertently contribute to unequal healthcare, violating this fundamental right. In addition, the Swedish Patient Act (SFS 2014:821) further emphasises that all patients shall be informed and involved in decisions regarding their care to the extent possible. If ambulance personnel fail

to do so where it concerns a child, they risk providing unequal care that does not follow legislation.

Eriksson also describes the concept of "non-caring care", which encapsulates a troubling reality: care that lacks genuine compassion and emotional warmth. Non-caring refers to a mechanical, technocratic or instrumental approach to care that lacks genuine human compassion. It may occur when the caregiver is not fully committed or when organisational barriers hinder true caring (Eriksson, 2015b). From the patient's perspective, lack of care can even be perceived as abandonment. When care is provided without compassion, it negatively impacts not only the patient but also the caregiver. The caregiver risks losing their moral integrity and sense of professional fulfilment (Eriksson, 2015a). This phenomenon manifests when providers of care overlook the dignity and individuality of those they are caring for, transforming what should be a tending and supportive interaction into a mechanical, impersonal task.

Ford et al. (2018) emphasise that CCC encourages viewing not only adults but children, too, as active participants in their care (Ford et al., 2018). However, if the ambulance personnel do not adapt their approach to the child's developmental level or needs, the care may become more of a task-oriented chore rather than a relational effort, leading to its becoming a mechanical, impersonal experience for the child (cf. Eriksson, 2015b).

The findings (studies I, II, IV) indicate that ambulance personnel who perceive themselves as lacking sufficient training or experience with paediatric patients may struggle to provide a consistently high level of care, or as Stålberg et al. (2018) found, healthcare professionals struggled to balance clinical priorities with relational engagement when it came to CCC (Stålberg et al., 2018). CCC requires that

ambulance personnel go beyond the protocols and establish a holistic connection with the children to safeguard their dignity and autonomy (Coyne et al., 2018). According to Kilkelly (2019), legislations such as the UNCRC mandate that healthcare must view children as independent rights-holders with a right to be actively involved in their care and decisions affecting them (Kilkelly, 2019).

If ambulance personnel are primarily focused on meticulously following established protocols, they risk overlooking the specific needs of children. Such a narrow approach can create a care experience that disregards vital relational and contextual elements essential for compassionate CCC. Davison et al. (2021) found that children have positive experiences from the care encounter when healthcare professionals include them in the discussions and care. When healthcare professionals exhibit empathy, clear communication and the ability to listen, children perceive this positively. On the other hand, if the children sense a lack of communication and are excluded from conversations and the possibility of influencing their care, they perceive the encounter as negative (Davison et al., 2021). Rantala et al. (2019) and Jacobsen et al. (2024) show that ambulance services structured solely around urgency can hinder person-centred care. Their studies reveal that strict protocol adherence may overshadow patients' individual needs, promoting a standardised rather than adaptable approach. Moreover, Rantala et al. (2019) note that ambulance personnel fear appearing soft if they prioritise emotional engagement over efficiency; such apprehensions could discourage meaningful interactions, especially in non-emergency cases (Rantala et al., 2019). This detachment breeds the risk of care providers neglecting compassion in favour of routine and standard practices.

Wiman and Wikblad's (2004) study examining the concepts of caring and uncaring in emergency departments found a predominance of

uncaring behaviours among the observed nurses. Uncaring behaviours included disinterest, insensitivity and a lack of compassion. The study also highlighted instances of instrumental behaviour, where task orientation was prioritised over building interpersonal connections. Such behaviours can reduce patients to mere objects rather than recognising them as individuals (Wiman & Wikblad, 2004). As in Jepsen et al.'s (2019) study, where parents perceived ambulance personnel as insensitive or nonchalant towards them, the cause may lie in the non-caring phenomenon.

Eriksson (2015a) argues that non-caring care can exacerbate suffering by failing to recognise the individual's humanity. In scenarios where ambulance personnel concentrate solely on clinical assessment, treatment and transportation logistics, they may inadvertently alienate the children they are caring for. While the technical aspects of care may be executed flawlessly, this approach can leave children with lingering feelings of fear, powerlessness and distrust.

Although established protocols and routines are critical in ensuring patient safety and consistency in care delivery, they cannot be a substitute for the profound relational and ethical commitment essential for providing meaningful and individualised prehospital care. Taking the time to engage with children authentically not only enhances their sense of security but also nurtures an environment where their voices and concerns are genuinely heard and valued. Wiman and Wikblad (2004) found that caring behaviours arose when nurses were genuinely concerned for the patient and were truly present. They were morally responsible, open and perceptive of the patient's voice (Wiman & Wikblad, 2004).

Hence, ambulance personnel must go beyond protocols to engage with the child as a unique individual. This requires creativity,

patience, and a view of children as active participants in the care encounter.

These findings highlight the importance of adapting care to meet children's needs, and they also serve as a cautionary reminder of the ethical implications of failing to do so. The concept of "non-caring care" provides insight into the understanding that prioritising protocols over presence can unintentionally increase suffering and inequality. Achieving CCC requires a deliberate and compassionate adaptation of the approach to care.

Participation as a pillar of CCC

Participation and inclusion are essential in the care encounter with children and are central to CCC. The studies (II, III, IV) indicate that when children are empowered to express their views, even in minor decisions, it could inculcate a sense of autonomy and security in them. Quaye et al. (2019) found that children can be active in their care when given the opportunity, although that opportunity depends on the healthcare professionals' ability to facilitate it (Quaye et al., 2019). One must remember that participation is not merely about inclusion; in healthcare, it is a fundamental right of the child (Kilkelly, 2019). For example, allowing children to choose where they sit or letting them explore the ambulance environment could make them feel included and respected. Parents often serve as proxies if children cannot express themselves, as when they are very young or non-verbal, ensuring that their needs and preferences are still central to the care process. This collaboration between ambulance personnel, children and parents strengthens trust and enhances participation in the care encounter. Children possess their own values and dignity, which ambulance personnel must respect and protect.

CCC's practical expressions are evident in the ambulance personnel's respect for the autonomy and individuality of children. Quaye et al. (2019) found that children can show a high level of engagement, both verbally and non-verbally. However, the level depended on how well healthcare professionals created these opportunities to participate (Quaye et al., 2019). Abelsson and Lindwall (2017) describe that dignity in prehospital care is preserved when ambulance personnel are genuinely present with the patient. When they can meet the patient at their level and respect their wishes, they can safeguard the patient's dignity. However, it takes courage to do so (Abelsson & Lindwall, 2017).

The findings indicate that ambulance personnel use humour, toys and other playful interactions with children to create a sense of connection during care encounters. Studies have shown that play, humour and small gestures can positively impact children's comfort levels and enhance participation (Coyne et al., 2016; Quaye et al., 2019). In paediatric care, play is seen as an expression of health and well-being, serving as a bridge between clinical and relational care (Ford et al., 2018). By using these strategies, ambulance personnel can create opportunities for participation for the children. Play may also develop a sense of normalcy and curiosity, helping the child feel more comfortable. After all, playing is an instinct and an expression of health. As such, it is a natural part of paediatrics and a means to good health (cf. Eriksson, 2015b).

Additionally, ambulance personnel could nurture the children's inner world through play, allowing them to process their experiences safely and empoweringly. In the context of CCC, play can also be significant, as ambulance personnel adapt their approach to suit the developmental stage of the child (Coyne et al., 2016). Such actions

serve as a bridge between clinical care and relational interaction. Moments of play should not be viewed merely as a distraction; instead, they should be seen as intentional acts that acknowledge the children's perspectives and help create an environment where their voices can emerge naturally.

Teamwork as a foundation for CCC

CCC is not an individual effort. It requires collaborative teamwork within the ambulance personnel's team, with parents and children, which is also essential in creating CCC. There are indications in the present findings (III, IV) that the attitude and experience of ambulance personnel could affect the child's participation in their care. If there is openness to engaging with children, skill in adapting care and the approach, and comfort in interacting with children, the ambulance personnel could perhaps be more successful in creating a positive and child-friendly experience.

One component of teamwork is the exchange of knowledge. The learning that occurs during the care encounter between ambulance personnel, parents and children is significant. Eriksson (2015b) describes learning as development, a constant change. It can have different purposes and goals and may vary in intensity. Learning is an interactive process between self and others. Natural learning is closely linked to playing (Eriksson, 2015b). All participants in this encounter can benefit from the learning aspect. Ambulance personnel can gain insights into each child's verbal and non-verbal cues, enabling them to tailor their care accordingly. Learning also extends to the parents present during these encounters, as they know and understand their child's unique voice and needs. This understanding can guide the ambulance personnel in providing better care. For the child, learning occurs through honest and direct communication with the ambulance personnel, which can demystify examination and

treatment. Children can better understand the care process when given the opportunity to receive information and examine equipment. From the perspective of the CCC (Coyne et al., 2016), learning could also increase children's participation by creating a more profound sense of partnership between them and the ambulance personnel. Such partnerships can lead to mutual learning experiences, creating natural opportunities for children to participate in their care.

Bagnasco et al. (2018) highlight that trust is a cornerstone of paediatric care, forming the foundation for meaningful interactions and patient cooperation (Bagnasco et al., 2018). As the findings show (I, II, III, IV), trust needs to exist within the team, between the ambulance personnel and between them and the parents and children. Trust is a critical component of prehospital care. It is essential for interactions with children and building relationships between ambulance personnel and parents. Eriksson (2015b) described that to create a caring relationship, there must be mutual trust between the caregiver and the patient and that for the patient to feel comfortable about exposing their vulnerability, there needs to be a presence that creates trust (Eriksson, 2015a).

The commitment of ambulance personnel to honest and direct communication, especially when dealing with children, reflects their dedication to truthfulness and respect for children's autonomy and dignity, which is vital for teamwork. This openness enhances predictability and reliability, which are crucial for establishing trust. Possibly, when children feel acknowledged as active participants in their care, it creates both trust and a sense of inclusion. Trust becomes the basis for a child's involvement, allowing them to feel safe enough to express their thoughts, make choices and engage actively in their care. Trust can lay the foundation for children's participation as it

makes them feel safe to make their voices heard. Through this approach, ambulance personnel embrace caritative ethics, emphasising the importance of compassion in their interactions. In Arman and Rehnsfeldt's (2006) study, they emphasise ethical responsibility in caritative care. They describe the authentic presence and the creation of trust in the encounter as important ethical factors (Arman & Rehnsfeldt, 2006). By showing respect for the children´s vulnerability and needs, the ambulance personnel display an ethical approach to their care.

In paediatric care, ethical competence is essential, which requires both practical knowledge and moral responsibility. Ethical challenges often arise from the vulnerability of children. Their limited ability to express their wishes or fully understand their medical situation can create a significant burden for healthcare personnel, who may find themselves torn between adhering to protocols and addressing the needs of the patient (Bagnasco et al., 2018). As mentioned above, in terms of CCC, trust is also important, such as the triadic relationship between children, parents and ambulance personnel. In their study of Family-Centred Care in acute hospital settings, O'Connor et al. (2019) found that parents have a dual role in the encounter as advocates for their children and collaborators with healthcare personnel. Open communication and a shared commitment to the child's well-being can enhance trust between parents and healthcare personnel. The authors found that children's trust in the healthcare personnel was closely linked to how well their perspectives and voices were acknowledged in the care encounter. If healthcare personnel mainly focused on adult inputs, children could feel alienated and lose trust. Healthcare personnel needed to balance the perspectives of children and parents. When personnel acted with empathy and presence and involved children and parents, they successfully created trust. Conversely, if they appeared distant or authoritative, it decreased the

trust necessary for caring (O'Connor et al., 2019). Therefore, trust is vital when ambulance personnel team up with parents and children to create an environment of reassurance and competence, which may elevate children's sense of security.

Adapting to create child-centred care

The ability to adapt to children's developmental and emotional needs is a cornerstone of CCC. Ambulance personnel must be flexible, creative and patient, recognising that children's reactions can differ vastly depending on their age, individual development and the situation. When ambulance personnel take the time to adapt their approach and engage creatively with children, they prioritise the child's emotional and developmental needs. They demonstrate a willingness to meet the children where they are, making comfort and safety essential factors in the care they provide.

There can be systemic challenges in creating a child-centred environment, due to the adult-oriented design of ambulances. However, by addressing these challenges and leveraging the creativity and compassion of ambulance personnel, it is possible to transform a sterile setting into a space that promotes inclusion and participation for children. By carefully adapting their methods to suit each child's developmental stage and emotional state, ambulance personnel adopt a holistic view that considers the child's physical and spiritual needs. They effectively tend to the child's needs by remaining calm and using gentle communication. This approach aligns with the principles of CCC, emphasising that children are active participants in their care (Coyne et al., 2016; Quaye et al., 2021). When the ambulance personnel balance their clinical responsibilities and relational sensitivity, they enhance the care experience. Simple actions, such as allowing children to choose where to sit or giving

them the option to examine equipment, can provide a sense of control in a difficult situation. By enabling a degree of empowerment for the child in the care process, ambulance personnel uphold the responsibility to respect the child's dignity and maintain a child-centred focus on participation.

To conclude, adaptation is not just about responding to children's behaviours. Rather, it is co-creating a care experience that respects their developmental stage, emotional state and rights in a truly holistic way. As Eriksson (2015b) so eloquently puts it, *"To tend means to dare, perhaps sometimes to go beyond what is given and fully formulated, but it means above all to dare to go outside oneself, to show with various small actions that one really cares about the other"*.

Methodological Considerations

Throughout this research, the concept of trustworthiness has been considered. Trustworthiness consists of four criteria: credibility, transferability, dependability and confirmability (Lincoln & Guba, 1985).

Credibility is the assurance that the results genuinely reflect the participants' perspectives and experiences. Credibility is important in creating trust that the presented research in fact captures what it is claimed to have investigated (Lincoln & Guba, 1985). Throughout the process of the component studies, there has been ongoing discussion within the research group about the findings, ensuring that these align with the participants' narratives. Additionally, the findings from each study were presented at an internal peer review seminar, which strengthens their credibility. In study IV, the findings were

shared with some participants, allowing them to comment on the outcome space. The constituent studies published as part of this project were also subjected to peer review to ensure their credibility.

Transferability is the quality that determines if findings can be applied in contexts different from the one researched (Lincoln & Guba, 1985). Qualitative research does not focus on generalisability; instead, it aims to give a rich description of a phenomenon (Polit & Beck, 2021). Still, it is common for the researcher to provide information so that others can decide whether it is transferable (Lincoln & Guba, 1985). I have strived for a detailed description of the research context and the participants in the included studies, to strengthen transferability. Although the prehospital context can be perceived as a specialised one, I do believe that the results presented can be helpful for others who interact with children in healthcare.

Dependability refers to whether the research is sound and consistent and whether others can follow and understand the research process (Lincoln & Guba, 1985). A transparent approach was upheld throughout the study process. The data collection and analysis are described in detail, and continual comparisons with the original data ensure that the findings faithfully represent the participants' experiences. This approach highlighted transparency in the methodologies, particularly regarding documenting the data collection and analysis procedures. By adhering to these principles, the dependability of the research findings has been strengthened.

Confirmability means whether the findings reflect the data and not the researcher's preconceived notions. The findings must be data-driven and tell a story that is true to the participants' narrative (Lincoln & Guba, 1985). Even though the researcher was the research instrument, I needed to be neutral and not let any pre-knowledge

interfere with the analysis. The data had to speak for itself. Accordingly, the use of reflexivity during the process has been a daily routine. I have reflected on what knowledge and values I bring to the analysis and have made myself aware of those. The ongoing discussions within the research group have been a great help, affirming that all findings can be linked to the original data, which enhances the findings' confirmability.

Reflexivity in Content Analysis in contrast to Reflexive Thematic Analysis

An important methodological consideration in this thesis is the differing role of reflexivity in the employed analytical approaches. In qualitative content analysis (Graneheim & Lundman, 2004), I was expected to adopt a neutral position, ensuring that categories emerge directly from the data without being influenced by pre-existing knowledge. In contrast, reflexive thematic analysis (Braun & Clarke, 2022) acknowledges that researcher subjectivity is integral to meaning-making. Here, reflexivity was encouraged, as themes were developed through an iterative, interpretative process where my theoretical, experiential and epistemological standpoint actively shaped the analysis.

This contrast reflects the epistemological flexibility within the research process. From a constructive pragmatist perspective (Morgan, 2007; Nørreklit et al., 2006), the methodological choices were made based on their ability to generate meaningful insights rather than adherence to a single paradigm. While qualitative content analysis ensured that participant narratives remained central and data-driven, reflexive thematic analysis allowed a deeper analysis with latent meanings in the data. Recognising this balance, steps were taken to maintain trustworthiness; in the qualitative content analysis, constant comparisons were made with the original data to avoid

over-interpretation, whereas in the reflexive thematical analysis, the thematical map and notes were used to document how reflexivity influenced theme development.

Challenges in Data Collection and Participant Recruitment

All research has its strengths and weaknesses, and it is important to address both for an honest and respectful research process. One weakness in this research is the failure to incorporate the children's experiences, creating a knowledge gap that could be vital for fully understanding the care encounter.

Once the project received ethical approval from the Ethics Committee (no. 2023-08172-02), I initiated the process of recruiting participants—children between the ages of 10 and 17 who had been cared for and transported by the ambulance service. Two regions in Sweden were involved, with two hospitals and four primary care facilities distributing the informational letters. Unfortunately, there was little response, and the study was paused.

To compensate for this, the decision to interview child representatives in the ambulance service came about. Naturally, this meant that, once again, it was adults who would speak up on behalf of the children, although in the hope that their unique views would contribute to exploring the care encounter between ambulance personnel and children.

Means of conducting interviews

Given each study's objectives and the overall aim of the research, interviews were deemed suitable for data collection. Using interviews, I, as the researcher, recognised each participant's unique voice as contributing to understanding the phenomenon (Polit & Beck, 2021). Most interviews in the studies were conducted via video conference (Zoom or Teams). Some were carried out over the

telephone, with a small number in person. The project began during the outbreak of COVID-19, amid the restrictions regarding social distancing. These restrictions created a need for interviews by phone or video conference. Once the restrictions were lifted, the decision on how the interviews were conducted was based on the participant's wishes and logistical convenience.

There are indications that in-person interviews offer deeper interaction and the possibility of richer data (Rahman, 2023). Phone interviews are a cost-effective data collection method that can overcome vast geographical challenges. This modus operandi can also reduce the risk of bias that may arise from body language, although it does entail some challenges, like sustaining the commitment from the participant throughout the interview and ensuring clear communication. However, when performed by a good interviewer, it is considered to be comparable to an in-person interview (Musselwhite et al., 2007).

Video conference interviews allow a modern and flexible alternative to in-person interviews. As with telephone interviews, the geographical challenges can easily be overcome. There is still a lack of intimacy when compared to in-person interviews, but video conferencing can offer a measure of social interaction, where those involved can see and react to one another's facial expressions, gestures and other visual signals (Khan & MacEachen, 2022). As Uleanya and Yu (2023) point out, the researcher needs to create a relationship with the interviewee to enhance the possibility of good data quality. They discuss the importance of building trust among those participating, to create an atmosphere that encourages the interviewee to speak openly (Uleanya & Yu, 2023). In the present research, the interviews provided rich content about the participants' experiences. They also appreciated the possibility of being allowed to

choose how the interview would be conducted. In fact, since the pandemic, the use of video conferences seems to be the new normal, and the participants are accustomed to the concept.

With experience from all three interviewing methods used, I found that the ability to see each other made the interview situation easier. I could see if the interviewees were mulling over an answer or if they seemed ready for additional questions. Nevertheless, my experience was that the interviews were not any less informative when conducted via telephone.

Conclusions

In conclusion, the findings from these studies collectively emphasise the importance of a holistic, child-centred approach in the prehospital setting.

Given the narratives of ambulance personnel and parents, the care encounter with children seems adapted to their needs. However, the findings show that there could be organisational and/or individual reasons for non-caring care. The expressed need for more education regarding children seems to have gone unheeded. If the ambulance personnel feel uncertain, they likely find it easier to follow the protocols and check the boxes. The organisation can address this by providing education or measures to deepen the personnel's experience. On an individual level, if the motivation for being in the ambulance service stems solely from the adrenaline rush of being part of trauma and medical emergency care situations, non-caring care may arise simply because the job is being performed in anticipation of the next trauma call. This factor is challenging to address, as change must come from within. Genuine caring, rooted in

presence and compassion, must come from the heart. On the other hand, all the participants in this research emphasised their genuine concern for children and their care in the prehospital context, of wanting it to evolve.

For ambulance personnel, emotional and professional preparedness is crucial. The adaptability of ambulance personnel in caring for children is a cornerstone of maintaining CCC. By employing empathy, adaptability and honest communication, ambulance personnel can address not only the medical but also the emotional and developmental needs of children, ensuring their participation in the care process. This aligns with the legislative and ethical aspects of care. This approach requires compassion, creativity and teamwork. It ensures that children and their families experience trust, safety and dignity, even in moments of extreme stress. When children feel this support, they are more likely to be active participants in their care and feel empowered, which is essential for experiences of health care to be positive and even better in the time to come. Please refer to Figure 11.

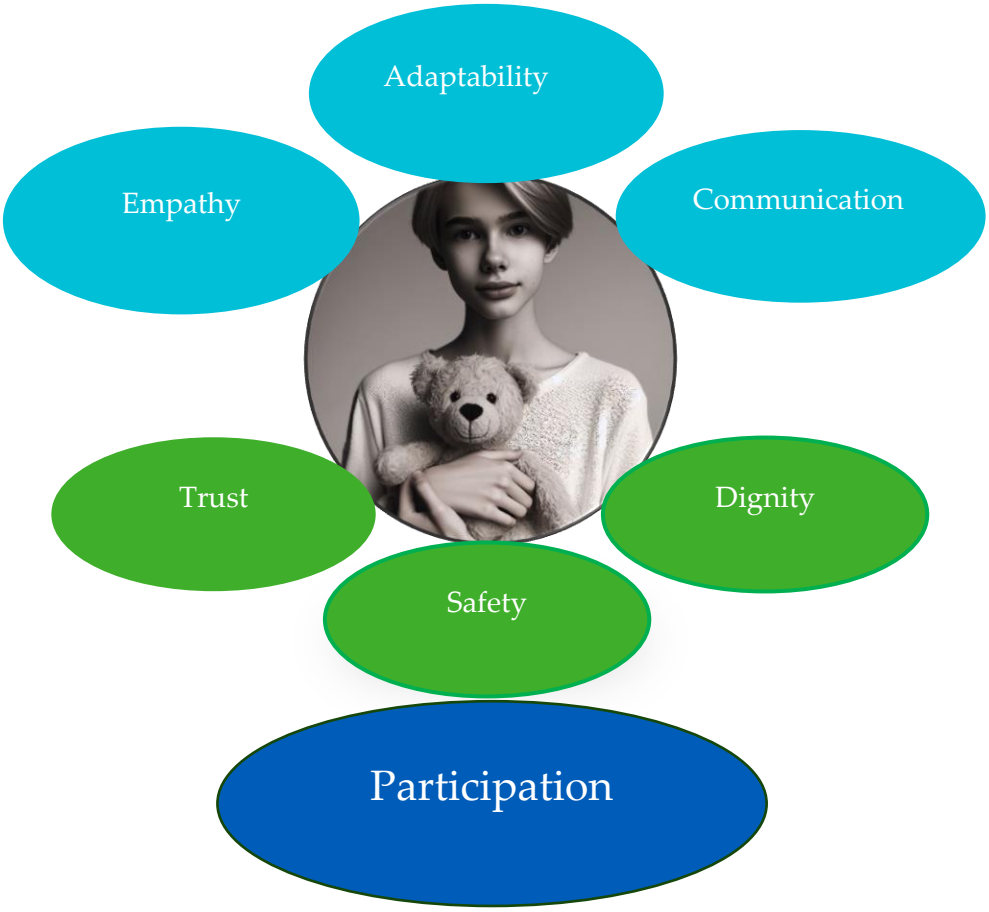

Figure 11. Overview of the synthesis of the included studies (AI-generated picture of child)

Suggestions for Future Research

This research and previous studies establish that caring for children in the prehospital context can be perceived as challenging for ambulance personnel. They convey a desire for more education and training in paediatric care and the possibility of gaining more experience.

However, this is the adult community's view on the care encounter. Little is still known about the children's experiences and perceptions of being cared for by ambulance personnel. Therefore, research should focus on gaining insights into children's prehospital care experience to fully grasp their perspective.

An intervention study where ambulance personnel receive additional education and simulation of paediatric care could also be of interest in reducing perceived stress among the ambulance personnel.

Clinical Implications for Ambulance Personnel

Looking beyond the expressed need for additional education and training, these findings highlight the importance of providing present, compassionate care in encounters with children. While such insights can be taught or shared through guidelines, genuine understanding often emerges only through personal reflection on one’s ethical and caring stance—and the decisions that stem from it.

Importantly, the findings emphasise the value of recognising children as competent participants in their own care, and of offering them opportunities—however small—to influence what happens to them.

The most significant clinical implication may be the realisation that even when ambulance personnel follow protocols and meet formal requirements, care encounters can still provoke fear, anxiety and uncertainty in the child if care is not delivered with empathy and a holistic perspective.

Nevertheless, these insights also highlight the potential for meaningful progress. By promoting reflective practice and reinforcing child-centred values within prehospital care, ambulance services can evolve in their care encounters with children. This creates clear opportunities to foster care encounters that are both medically effective and genuinely compassionate.

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References

Abelsson, A., & Lindwall, L. (2017). What is dignity in prehospital emergency care? *Nursing Ethics*, *24*(3), 268-278. https://doi.org/10.1177/0969733015595544

Ahl, C., Hjälte, L., Johansson, C., Wireklint-Sundström, B., Jonsson, A., & Suserud, B. (2005). Culture and care in the Swedish ambulance services. *Emergency Nurse*, *13*(8), 30-36. https://doi.org/10.7748/en2005.12.13.8.30.c1203

Arman, M., & Rehnsfeldt, A. (2006). *Vårdande som lindrar lidande: Etik i vårdandet* [Caring that alleviates suffering: Ethics in caring]. Liber.

Bagnasco, A., Cadorin, L., Barisone, M., Bressan, V., Iemmi, M., Prandi, M., Timmins, F., Watson, R., & Sasso, L. (2018). Ethical dimensions of paediatric nursing: A rapid evidence assessment. *Nursing Ethics*, *25*(1), 111-122. https://doi.org/10.1177/0969733016631161

Bayuo, J., Aziato, L., Wong, K. C. A., Su, J., Abu-Odah, H., & Wong, F. K. Y. (2023). Phenomenography: An emerging qualitative research design for nursing. *Journal of Advanced Nursing*. https://doi.org/10.1111/jan.15874

Biesta, G., & Burbules, N. (2003). *Pragmatism and educational research*. Rowman & Littlefield.

Blake-Barnard, A., & Whitley, G. A. (2024). Factors that influence child conveyance decisions made by prehospital clinicians. *Journal of Paramedic Practice*, *16*(2), 64-71. https://doi.org/10.12968/jpar.2024.16.2.64

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2014). What can "thematic analysis" offer health and wellbeing researchers? *International Journal of Qualitative Studies on Health and Well-being*, *9*(1), 26152. https://doi.org/10.3402/qhw.v9.26152

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, *11*(4), 589-597. https://doi.org/10.1080/2159676X.2019.1628806

Braun, V., & Clarke, V. (2022). *Thematic analysis: a practical guide*. SAGE.

Bremer, A. (2014). Specialistsjuksköterska med inriktning mot ambulanssjukvård. In S. Almerud Österberg & L. Nordgren (Eds.), *Att bli specialistsjuksköterska eller barnmorska-utbildningar för framtiden* (1 ed.). Studentlitteratur.

Bremer, A., & Wireklint Sundström, B. (2019). Vårdrum-Ett vårdande rum. In C. Elmqvist & S. Almerud Österberg (Eds.), *Akut omhändertagande av trauma-På skadeplats och akutmottagning* (2 ed.). Studentlitteratur.

Breon, A., Yarris, L., Law, J., & Meckler, G. (2011). Determining the paediatric educational needs of prehospital providers: part 2. *Journal of Paramedic Practice*, *3*(9), 510-514. https://doi.org/10.12968/jpar.2011.3.9.510

Brinkmann, S., & Kvale, S. (2015). *InterViews: Learning the craft of qualitative research interviewing* (3rd ed.). SAGE Publications.

Campeau, A. G. (2008). The Space-Control Theory of Paramedic Scene-Management [research-article]. *Symbolic Interaction*, *31*(3), 285-302. https://doi.org/10.1525/si.2008.31.3.285

Carlson, J. N., Gannon, E., Mann, N. C., Jacobson, K. E., Dai, M., Colleran, C., & Wang, H. E. (2015). Pediatric Out-of-Hospital Critical Procedures in the United States. *Pediatric Critical Care Medicine*, *16*(8), e260-e267. https://doi.org/10.1097/PCC.0000000000000505

Carnesten, H., Asp, M., & Holmberg, M. (2021). Caring approach for patients with chest pain – Swedish registered nurses' lived experiences in Emergency Medical Services. *International Journal of Qualitative Studies on Health and Well-being*, *16*(1), 1901449. https://doi.org/10.1080/17482631.2021.1901449

Castro, E. M., Van Regenmortel, T., Vanhaecht, K., Sermeus, W., & Van Hecke, A. (2016). Patient empowerment, patient participation and patient-centeredness in hospital care: A concept analysis based on a literature review. *Patient Education*

and Counseling, *99*(12), 1923-1939. https://doi.org/https://doi.org/10.1016/j.pec.2016.07.026

Ciarletta, J., Lillvis, D., Stoklosa, A., Kasper, B., & Bass, K. (2024). Safe Ground Transport of Pediatric Patients: A Qualitative Assessment of Best Practice Guidelines Implementation. *Prehospital Emergency Care*, *28*(2), 282-290. https://doi.org/10.1080/10903127.2023.2227249

Cochran-Caggiano, N., Till, S., Holt, C., Lang, N., Ata, A., Cerone, J., & Dailey, M. W. (2023). Children and Restraints Study in Emergency Ambulance Transport: An Observational Study and Analysis of Current Pediatric Ambulance Transport Practices. *Pediatric Emergency Care*, *39*(10), e66-e71. https://doi.org/10.1097/pec.0000000000002919

Colldén Benneck, J., & Bremer, A. (2019). Registered nurses' experiences of near misses in ambulance care – A critical incident technique study. *International Emergency Nursing*, *47*, 100776. https://doi.org/10.1016/j.ienj.2019.05.002

Coyne, I., Hallstrom, I., & Soderback, M. (2016). Reframing the focus from a family-centred to a child-centred care approach for children's healthcare. *Journal of Child Health Care*, *20*(4), 494-502. https://doi.org/10.1177/1367493516642744

Coyne, I., Holmström, I., & Söderbäck, M. (2018). Centeredness in Healthcare: A Concept Synthesis of Family-centered Care, Person-centered Care and Child-centered Care. *Journal of Pediatric Nursing*, *42*, 45-56. https://doi.org/10.1016/j.pedn.2018.07.001

Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry and research design: choosing among five approaches* (4th ed.). Sage Publications.

Critchley, K., & Quigg, Z. (2019). A cross-sectional study of child injury ambulance call-out characteristics and their utility in surveillance. *Journal of Paramedic Practice*, *11*(7), 282-292. https://doi.org/10.12968/jpar.2019.11.7.282

Cushman, J. T., Fairbanks, R. J., O'Gara, K. G., Crittenden, C. N., Pennington, E. C., Wilson, M. A., Chin, N. P., & Shah, M. N. (2010). Ambulance Personnel Perceptions of Near Misses and Adverse Events in Pediatric Patients. *Prehospital Emergency Care*, *14*(4), 477-484. https://doi.org/10.3109/10903127.2010.497901

Davison, G., Kelly, M. A., Conn, R., Thompson, A., & Dornan, T. (2021). How do children and adolescents experience healthcare professionals? Scoping review and interpretive synthesis. *BMJ Open*, *11*(7), e054368. https://doi.org/10.1136/bmjopen-2021-054368

Downs, S., Carey, N., & Mold, F. (2022). Barriers and facilitators to out-of-hospital pain management for children. *Journal of Paramedic Practice*, *14*(4), 1-11. https://doi.org/10.12968/jpar.2022.14.4.CPD1

Eldh, A. C., Ekman, I., & Ehnfors, M. (2008). Considering patient non-participation in health care. *Health Expectations*, *11*(3), 263-271. https://doi.org/10.1111/j.1369-7625.2008.00488.x

Eldh, A. C., Ekman, I., & Ehnfors, M. (2010). A Comparison of the Concept of Patient Participation and Patients' Descriptions as Related to Healthcare Definitions. *International Journal of Nursing Terminologies and Classifications*, *21*(1), 21-32. https://doi.org/10.1111/j.1744-618X.2009.01141.x

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, *62*(1), 107-115. https://doi.org/10.1111/j.1365-2648.2007.04569.x

Eriksson, K. (2001). *Vårdvetenskap som akademisk disciplin* (3rd ed.) [Caring science as an academic discipline]. Åbo Akademi, Institutionen för vårdvetenskap.

Eriksson, K. (2015a). *Den lidande människan* (2nd ed.) [The suffering human being]. Liber.

Eriksson, K. (2015b). *Vårdandets idé* (2nd ed.) [The idea of caring]. Liber.

Fawcett, J. (1984). The Metaparadigm of Nursing: Present Status and Future Refinements. *Image: the Journal of Nursing Scholarship*, *16*(3), 84-87. https://doi.org/10.1111/j.1547-5069.1984.tb01393.x

Ford, K., Dickinson, A., Water, T., Campbell, S., Bray, L., & Carter, B. (2018). Child Centred Care: Challenging Assumptions and Repositioning Children and Young People. *Journal of Pediatric Nursing*, *43*, e39-e43. https://doi.org/10.1016/j.pedn.2018.08.012

Frank, C., Asp, M., & Dahlberg, K. (2009). Patient participation in emergency care – a phenomenographic analysis of caregivers' conceptions. *Journal of Clinical Nursing*, *18*(18), 2555-2562. https://doi.org/10.1111/j.1365-2702.2008.02477.x

Fuchs, S. e., & McEvoy, M. e. (2022). *Pediatric education for prehospital professionals* (4th ed.). Jones & Bartlett Learning.

Graneheim, U. H., Lindgren, B.-M., & Lundman, B. (2017). Methodological challenges in qualitative content analysis: A discussion paper. *Nurse Education Today*, *56*, 29-34. https://doi.org/10.1016/j.nedt.2017.06.002

Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, *24*(2), 105-112. https://doi.org/10.1016/j.nedt.2003.10.001

Grimell, J., & Holmberg, M. (2022). Identifying and mapping professional identities among Swedish ambulance nurses: A multiple qualitative case study. *Theory & Psychology*, *32*(5), 714-732. https://doi.org/10.1177/09593543221103819

Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation*. Sage.

Guise, J.-M., Hansen, M., Brien, K., Dickinson, C., Meckler, G., Engle, P., Lambert, W., & Jui, J. (2017). Emergency medical services responders' perceptions of the effect of stress and anxiety on patient safety in the out-of-hospital emergency care of children: a qualitative study. *BMJ Open*, *7*(2), e014057. https://doi.org/10.1136/bmjopen-2016-014057

Guise, J.-M., Meckler, G., O'Brien, K., Curry, M., Engle, P., Dickinson, C., Dickinson, K., Hansen, M., Lambert, W., & O'Brien, K. (2015). Patient Safety Perceptions in Pediatric Out-of-Hospital Emergency Care: Children's Safety Initiative. *Journal of Pediatrics*, *167*(5), 1143-1148.e1141. https://doi.org/10.1016/j.jpeds.2015.07.023

Gunnvall, K., Augustsson, D., Lindström, V., & Vicente, V. (2018). Specialist nurses' experiences when caring for preverbal children in pain in the prehospital context in Sweden. *International Emergency Nursing*, *36*, 39-45. https://doi.org/10.1016/j.ienj.2017.09.006

Harve, H., Salmi, H., Rahiala, E., Pohjalainen, P., & Kuisma, M. (2016). Out-of-hospital paediatric emergencies: a prospective, population-based study. *Acta Anaesthesiologica Scandinavica*, *60*(3), 360-369. https://doi.org/10.1111/aas.12648

Hedström, E. M., Bergström, U., & Michno, P. (2012). Injuries in children and adolescents—Analysis of 41,330 injury related visits to an emergency department in northern Sweden. *Injury*, *43*(9), 1403-1408. https://doi.org/10.1016/j.injury.2011.01.027

Hegenberg, K., Trentzsch, H., & Prückner, S. (2019). Differences between cases admitted to hospital and discharged from the emergency department after emergency medical services transport. *BMJ Open*, *9*(9), e030636. https://doi.org/10.1136/bmjopen-2019-030636

Hewes, H. A., Genovesi, A. L., Codden, R., Ely, M., Ludwig, L., Macias, C. G., Schmuhl, P., & Olson, L. M. (2022). Ready for Children Part II: Increasing Pediatric Care Coordination and Psychomotor Skills Evaluation in the Prehospital Setting. *Prehospital Emergency Care*, *26*(4), 503-510. https://doi.org/10.1080/10903127.2021.1942340 (Ready for Children, series; 2.)

Holmberg, M., Forslund, K., Wahlberg, A. C., & Fagerberg, I. (2014). To surrender in dependence of another: the relationship with the ambulance clinicians as experienced by patients. *Scandinavian Journal of Caring Sciences*, *28*(3), 544-551. https://doi.org/10.1111/scs.12079

Holmberg, M., Forslund, K., Wahlberg, A. C., & Fagerberg, I. (2016). The relationship with the ambulance clinicians as experienced by significant others. *Nursing in Critical Care*, *21*(4), e1-e8. https://doi.org/10.1111/nicc.12144

Holmberg, M., & Ohlson, A. (2022). Det prehospitala patientmötet från ett vårdvetenskapligt perspektiv [The prehospital patient encounter from a caring science perspective]. In D. Bäckström, M. Andersson Hagiwara, & L. Lundberg (Eds.), *Prehospital akutsjukvård* (3rd ed.). Liber.

Holmström, M. R., Junehag, L., Velander, S., Lundberg, S., Ek, B., & Haggström, M. (2019). Nurses' experiences of prehospital care encounters with children in pain. *International Emergency Nursing*, *43*, 23-28. https://doi.org/10.1016/j.ienj.2018.07.004

Holopainen, G., Nyström, L., & Kasén, A. (2017). The caring encounter in nursing. *Nursing Ethics*, *26*(1), 7-16. https://doi.org/10.1177/0969733016687161

Hwang, P., & Nilsson, B. (2019). *Utvecklingspsykologi* (4th ed.) [Developmental psychology]. Natur & Kultur.

Hörberg, A., Jirwe, M., Kalén, S., Vicente, V., & Lindström, V. (2017a). We need support! A Delphi study about desirable support during the first year in the emergency medical service. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, *25*(1), 89. https://doi.org/10.1186/s13049-017-0434-5

Hörberg, A., Lindström, V., Kalén, S., Scheja, M., & Vicente, V. (2017b). Striving for balance - A qualitative study to explore the experiences of nurses new to the ambulance service in Sweden. *Nurse Education in Practice*, *27*, 63-70. https://doi.org/10.1016/j.nepr.2017.08.015

Hörberg, A., Lindström, V., Scheja, M., Conte, H., & Kalén, S. (2019). Challenging encounters as experienced by registered nurses new to the emergency medical service: explored by using the theory of communities of practice. *Advances in Health Sciences Education*, *24*(2), 233-249. https://doi.org/10.1007/s10459-018-9862-x

Jacobsen, A., Tistad, M., Bergström, A., Hörberg, A., Wallin, L., & Rantala, A. (2024). What is person-centred care in Swedish ambulance service? − A qualitative exploratory study. *International Emergency Nursing*, *77*, 101529. https://doi.org/10.1016/j.ienj.2024.101529

Jennings, P. A., Lord, B., & Smith, K. (2015). Clinically meaningful reduction in pain severity in children treated by paramedics: a retrospective cohort study. *The American Journal of Emergency Medicine*, *33*(11), 1587-1590. https://doi.org/10.1016/j.ajem.2015.06.026

Jepsen, K., Lindström, V., Wihlborg, J., & Hörberg, A. (2024). Newly employed nurses' transition into their new role in the ambulance service– a qualitative study. *BMC Nursing*, *23*(1), 93. https://doi.org/10.1186/s12912-024-01745-y

Jepsen, K., Rooth, K., & Lindstrom, V. (2019). Parents' experiences of the caring encounter in the ambulance service-A qualitative study. *Journal of Clinical Nursing*, *28*(19-20), 3660-3668. https://doi.org/10.1111/jocn.14964

Jeruzal, J. N., Boland, L. L., Frazer, M. S., Kamrud, J. W., Myers, R. N., Lick, C. J., & Stevens, A. C. (2019). Emergency Medical Services Provider Perspectives on Pediatric Calls: A Qualitative Study. *Prehospital Emergency Care*, *23*(4), 501-509. https://doi.org/10.1080/10903127.2018.1551450

Jewkes, F. (2001). Prehospital emergency care for children. *Archives of Disease in Childhood*, *84*(2), 103-105. https://doi.org/10.1136/adc.84.2.103

Johnson, T. D., Lindholm, D., & Dowd, M. D. (2006). Child and Provider Restraints in Ambulances: Knowledge, Opinions, and Behaviors of Emergency Medical Services Providers. *Academic Emergency Medicine*, *13*(8), 886-892. https://doi.org/10.1197/j.aem.2006.03.562

Khan, T. H., & MacEachen, E. (2022). An Alternative Method of Interviewing: Critical Reflections on Videoconference Interviews for Qualitative Data Collection. *International Journal of Qualitative Methods*, *21*, 16094069221090063. https://doi.org/10.1177/16094069221090063

Kilkelly, U. (2019). The UN convention on the rights of the child: incremental and transformative approaches to legal implementation. *The International Journal of Human Rights*, *23*(3), 323-337. https://doi.org/10.1080/13642987.2018.1558974

Larsson, G., Larsson, S., Strand, V., Magnusson, C., & Andersson Hagiwara, M. (2024). Pediatric trauma patients in Swedish ambulance services -a retrospective observational study of assessments, interventions, and clinical outcomes. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, *32*(1), 51. https://doi.org/10.1186/s13049-024-01222-0

Larsson, I. E., Sahlsten, M. J. M., Sjöström, B., Lindencrona, C. S. C., & Plos, K. A. E. (2007). Patient participation in nursing care from a patient perspective: a grounded theory study. *Scandinavian Journal of Caring Sciences*, *21*(3), 313-320. https://doi.org/10.1111/j.1471-6712.2007.00471.x

Larsson, S. (1986). *Kvalitativ analys: Exemplet fenomenografi* [Qualitative analysis: The example of phenomenography]. Studentlitteratur.

Lerner, E. B., Dayan, P. S., Brown, K., Fuchs, S., Leonard, J., Borgialli, D., Babcock, L., Hoyle, J. D., Kwok, M., Lillis, K., Nigrovic, L. E., Mahajan, P., Rogers, A., Schwartz, H., Soprano, J., Tsarouhas, N., Turnipseed, S., Funai, T., & Foltin, G. (2014). Characteristics of the Pediatric Patients Treated by the Pediatric Emergency Care Applied Research Network's Affiliated EMS Agencies. *Prehospital Emergency Care*, *18*(1), 52-59. https://doi.org/10.3109/10903127.2013.836262

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.

Lord, B., Jennings, P. A., & Smith, K. (2016). The epidemiology of pain in children treated by paramedics. *Emergency Medicine Australasia*, *28*(3), 319-324. https://doi.org/10.1111/1742-6723.12586

Marton, F. (1981). Phenomenography-Describing the conceptions of the world around us. *Instructional Science*, *10*(2), 177-200.

Marton, F., & Booth, S. (1997). *Learning and awareness*. Erlbaum.

Morgan, D. L. (2007). Paradigms lost and pragmatism regained: Methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research, 1*(1), 48-76. https://doi.org/10.1177/2345678906292462

Morgan, D. L. (2014). Pragmatism as a Paradigm for Social Research. *Qualitative Inquirey*, *20*(8), 1045-1053. https://doi.org/10.1177/1077800413513733

Murphy, A., Barrett, M., Cronin, J., McCoy, S., Larkin, P., Brenner, M., Wakai, A., & Sullivan, R. (2014). A qualitative study of the barriers to prehospital management of acute pain in children. *Emergency Medicine Journal*, *31*(6), 493. https://doi.org/10.1136/emermed-2012-202166

Murphy, A., McCoy, S., O'Reilly, K., Fogarty, E., Dietz, J., Crispino, G., Wakai, A., & O'Sullivan, R. (2016). A Prevalence and Management Study of Acute Pain in Children Attending Emergency Departments by Ambulance. *Prehospital Emergency Care*, *20*(1), 52-58. https://doi.org/10.3109/10903127.2015.1037478

Musselwhite, K., Cuff, L., McGregor, L., & King, K. M. (2007). The telephone interview is an effective method of data collection in clinical nursing research: A discussion paper. *International Journal of Nursing Studies*, *44*(6), 1064-1070. https://doi.org/10.1016/j.ijnurstu.2006.05.014

Nelson, K. S., Kushlev, K., & Lyubomirsky, S. (2014). The Pains and Pleasures of Parenting: When, Why, and How Is Parenthood Associated With More or Less Well-Being? *Psychological Bulletin*, *140*(3), 846-895. https://doi.org/10.1037/a0035444

Nilsson, M., From, I., & Lindwall, L. (2019). The significance of patient participation in nursing care – a concept analysis. *Scandinavian Journal of Caring Sciences*, *33*(1), 244-251. https://doi.org/10.1111/scs.12609

Nomaguchi, K., & Milkie, M. A. (2020). Parenthood and Well-Being: A Decade in Review. *J Marriage Fam*, *82*(1), 198-223. https://doi.org/10.1111/jomf.12646

Nordén, C., Hult, K., & Engström, Å. (2014). Ambulance nurses' experiences of nursing critically ill and injured children: A difficult aspect of ambulance nursing care. *International Emergency Nursing*, *22*(2), 75-80. https://doi.org/10.1016/j.ienj.2013.04.003

Nåden, D., & Eriksson, K. (2002). Encounter: A Fundamental Category of Nursing as an Art. *International Journal for Human Caring*, *6*(1), 34-40. https://doi.org/10.20467/1091-5710.6.1.34

Nørreklit, L., Nørreklit, H., & Israelsen, P. (2006). The validity of management control topoi: Towards constructivist pragmatism. *Management Accounting Research*, *17*(1), 42-71. https://doi.org/10.1016/j.mar.2005.04.002

O'Connor, S., Brenner, M., & Coyne, I. (2019). Family-centred care of children and young people in the acute hospital setting: A concept analysis. *J Clin Nurs*, *28*(17-18), 3353-3367. https://doi.org/10.1111/jocn.14913

O'Neil, J., Steele, G. K., Weinstein, E., Collins, R., Talty, J., & Bull, M. J. (2014). Ambulance Transport of Noncritical Children: Emergency Medical Service Providers' Knowledge, Opinions, and Practice. *Clinical Pediatrics*, *53*(3), 250-255. https://doi.org/10.1177/0009922813517168

Oulasvirta, J., Salmi, H., Kuisma, M., Rahiala, E., Lääperi, M., & Harve-Rytsälä, H. (2019). Outcomes in children evaluated but not transported by ambulance personnel: retrospective cohort study. *BMJ Paediatr Open*, *3*(1), e000523. https://doi.org/10.1136/bmjpo-2019-000523

Patton, M. Q. (2015). *Qualitative research & evaluation methods: integrating theory and practice* (4th ed.). SAGE Publications.

Polit, D. F., & Beck, C. T. (2021). *Nursing Research: generating and assessing evidence for nursing practice* (11th ed.). Wolters Kluwer.

Quaye, A. A., Castor, C., Coyne, I., Söderbäck, M., & Hallström, I. K. (2021). How are children's best interests expressed during their hospital visit?-An observational study. *J Clin Nurs*, *30*(23-24), 3644-3656. https://doi.org/10.1111/jocn.15886

Quaye, A. A., Coyne, I., Soderback, M., & Hallstrom, I. K. (2019). Children's active participation in decision-making processes during hospitalisation: An observational study. *Journal of Clinical Nursing*, *28*(23-24), 4525-4537. https://doi.org/10.1111/jocn.15042

Rahman, A., Curtis, S., DeBruyne, B., Sookram, S., Thomson, D., Lutz, S., & Ali, S. (2015). Emergency medical services provider comfort with prehospital analgesia administration to children. *Prehospital & Disaster Medicine*, *30*(1), 66-71. https://doi.org/10.1017/S1049023X14001277

Rahman, R. (2023). Comparison of Telephone and In-Person Interviews for Data Collection in Qualitative Human Research. *Interdisciplinary Undergraduate Research Journal, 1*(1), 10-13. https://doi.org/10.25417/uic.22217215.v1

Rantala, A., Ekwall, A., & Forsberg, A. (2016). The meaning of significant others´ encounter with the ambulance clinicians in a non-emergency care context. *Nordic Journal of Nursing Research*, *36(1)*, 51-58. https://doi.org/10.1177/0107408315610509

Rantala, A., Ekwall, A., & Forsberg, A. (2020). Significant others' perceptions of being taken seriously by the Swedish Ambulance Service when the patient is assessed as nonurgent. *Scandinavian Journal of Caring Sciences*, *34*(4), 1028-1037. https://doi.org/10.1111/scs.12811

Rantala, A., Ingoldsson, A., & Persson, E. I. (2019). "We are already person-centred in our practice"—A Qualitative Study of Ambulance Clinicians' Experiences of Person-Centred Care. *Healthcare*, *7*(4), 115. https://www.mdpi.com/2227-9032/7/4/115

Riksföreningen för ambulanssjuksköterskor. (2022). *Kompetensbeskrivning avancerad nivå-Specialistsjuksköterska med inriktning mot ambulanssjukvård* [Competency description for advanced level ambulance nurses]. Swedish Society of Nursing. ISBN 978-91-85060-66-5

Schnegg, B., Pasquier, M., Carron, P.-N., Yersin, B., & Dami, F. (2016). Prehospital Emergency Medical Services Departure Interval: Does Patient Age Matter? *Prehospital and Disaster Medicine*, *31*(6), 608-613. https://doi.org/10.1017/S1049023X16000947

SFS 1949:381. Föräldrabalken [The Children and Parents Code]. https://www.riksdagen.se/sv/dokument-och-lagar/dokument/svensk-forfattningssamling/foraldrabalk-1949381_sfs-1949-381/

SFS 2003:460. Lag om etikprövning av forskning som avser människor [Act on Ethical Review of Research Involving Humans]. https://www.riksdagen.se/sv/dokument-och-lagar/dokument/svensk-forfattningssamling/lag-2003460-om-etikprovning-av-forskning-som_sfs-2003-460/

SFS 2014:821. Patientlag [The Patient Act]. https://www.riksdagen.se/sv/dokument-och-lagar/dokument/svensk-forfattningssamling/patientlag-2014821_sfs-2014-821/

SFS 2017:30. Hälso- och sjukvårdslag [The Health Care Act]. https://www.riksdagen.se/sv/dokument-och-lagar/dokument/svensk-forfattningssamling/halso-och-sjukvardslag-201730_sfs-2017-30/

SFS 2018:1197. Lag om Förenta nationernas konvention om barnets rättigheter [Act on the United Nations Convention on the Rights of the Child]. https://www.riksdagen.se/sv/dokument-och-lagar/dokument/svensk-forfattningssamling/lag-20181197-om-forenta-nationernas-konvention_sfs-2018-1197/

Shier, H. (2001). Pathways to participation: openings, opportunities and obligations. *Children & Society*, *15*(2), 107-117. https://doi.org/10.1002/CHI.617

Socialstyrelsen. (2020). Socialstyrelsens föreskrifter om ändring i föreskrifter (SOSFS 2009:10) om ambulanssjukvård m.m. (HSLF-FS 2020:66) [Regulations amending the regulations (SOSFS 2009:10) on ambulance care, etc. (HSLF-FS 2020:66)]. The National Board of Health and Welfare. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/foreskrifter-och-allmanna-rad/2020-11-6997.pdf

Soderback, M., Coyne, I., & Harder, M. (2011). The importance of including both a child perspective and the child's perspective within health care settings to provide truly child-centred care. *Journal of Child Health Care*, *15*(2), 99-106. https://doi.org/10.1177/1367493510397624

Stoklosa, A. R., Zafron, M. L., Bass, K. D., & Lillvis, D. (2023). Safe Pediatric Ground Ambulance Transport: A Systematic Review. *International Journal of Paramedicine*(2), 19-28. https://doi.org/10.56068/MESG1218

Stålberg, A., Sandberg, A., & Söderbäck, M. (2018). Child-centred Care – Health Professionals' Perceptions of What Aspects are Meaningful When Using Interactive Technology as a Facilitator in Healthcare Situations. *Journal of Pediatric Nursing*, *43*, e10-e17. https://doi.org/10.1016/j.pedn.2018.07.006

Sundstrom, B. W., Bremer, A., Lindstrom, V., & Vicente, V. (2019). Caring science research in the ambulance services: an integrative systematic review. *Scandinavian Journal of Caring Sciences*, *33*(1), 3-33. https://doi.org/10.1111/scs.12607

Sundström, B. W., & Dahlberg, K. (2012). Being Prepared for the Unprepared: A Phenomenology Field Study of Swedish Prehospital Care. *Journal of Emergency Nursing*, *38*(6), 571-577. https://doi.org/10.1016/j.jen.2011.09.003

Suserud, B. (2001). Emergency nursing in Sweden. *Emergency Nurse*, *9*(7), 10-13. https://doi.org/10.7748/en.9.7.10.s15

Suserud, B. (2005). A new profession in the pre-hospital care field -- the ambulance nurse. *Nursing in Critical Care*, *10*(6), 269-271. https://doi.org/10.1111/j.1362-1017.2005.00129.x

Svensson, C., Bremer, A., & Holmberg, M. (2019). Ambulance nurses' experiences of patient relationships in urgent and emergency situations: A qualitative exploration. *Clinical Ethics*, *14*(2), 70-79. https://doi.org/10.1177/1477750919851050

Svensson, L. (1997). Theoretical Foundations of Phenomenography. *Higher Education Research and Development*, *16*(2), 159-171. https://doi.org/10.1080/0729436970160204

Sveriges Kommuner och Regioner. (2023). *Ambulanssjukvårdens utveckling* [The development of ambulance care]. The Swedish Association of Local Authorities and Regions. ISBN 978-91-8047-202-9.

Swedish Research Council. (2024). *God forskningssed* [Good Research Practice]. Swedish Research Council. ISBN: 978-91-89845-08-4.

Tsao, H. S., Sutcliffe, T., Wang, C., Vargas, S. E., Day, C., & Brown, L. L. (2024). Barriers and Enablers in Prehospital Pediatric Analgesia. *Prehospital Emergency Care*, 1-7. https://doi.org/10.1080/10903127.2024.2431586

Tuckett, A. G. (2005). The care encounter: Pondering caring, honest communication and control. *International Journal of Nursing Practice*, *11*(2), 77-84. https://doi.org/10.1111/j.1440-172X.2005.00505.x

Uleanya, C., & Yu, K. (2023). Data Collection in Times of Pandemic: A Self-Study and Revisit of Research Practices During a Crisis. *Sage Open*, *13*(1). https://doi.org/10.1177/21582440231160698

Uljens, M. (1989*). Fenomenografi- forskning om uppfattningar* [Phenomenography- research on conceptions]. Studentlitteratur.

UNICEF. (n.d.). *Convention on the Rights of the Child*. UNICEF. https://www.unicef.org/child-rights-convention

Whitley, G. A., Hemingway, P., Law, G. R., & Siriwardena, A. N. (2019). The complexity of pain management in children. *Journal of Paramedic Practice*, *11*(11), 466-468. https://doi.org/10.12968/jpar.2019.11.11.466

Wiman, E., & Wikblad, K. (2004). Caring and uncaring encounters in nursing in an emergency department. *J Clin Nurs*, *13*(4), 422-429. https://doi.org/10.1111/j.1365-2702.2004.00902.x

Wireklint Sundström, B., Bremer, A., Lindström, V., & Vicente, V. (2019). Caring science research in the ambulance services: an integrative systematic review. *Scandinavian Journal of Caring Sciences*, *33*(1), 3-33. https://doi.org/10.1111/scs.12607

Wireklint Sundström, B., & Ekebergh, M. (2013). How caring assessment is learnt – reflective writing on the examination of Specialist Ambulance Nurses in Sweden. *Reflective Practice*, *14*(2), 271-287. https://doi.org/10.1080/14623943.2012.732944

WMA. (2024). *WMA Declaration of Helsinki- Ethical principles for medical research involving human subjects*. Retrieved November 3 2024 from https://www.wma.net/policies-post/wma-declaration-of-helsinki/

Åkerlind, G. S. (2012). Variation and commonality in phenomenographic research methods. *Higher Education Research & Development*, *31*(1), 115-127. https://doi.org/10.1080/07294360.2011.642845

Öberg, M., Vicente, V., & Wahlberg, A. C. (2015). The Emergency Medical Service personnel's perception of the transportation of young children. *International Emergency Nursing*, *23*(2), 133-137. https://doi.org/10.1016/j.ienj.2014.06.192