Pain by proxy: An ethnographic study on the relational co-construction of the agency of young children in healthcare encounters

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Abstract

Access to pain management is a human right. Nevertheless, research consistently reports that children's pain is under-recognised and under-treated compared to adults. Additionally, younger children are less likely to receive treatment for their pain. The significance of early-life healthcare experiences is often underestimated due to constructions of young children as passive rather than active agents in healthcare. This study addresses this issue by examining how children's agency is co-constructed within the triad of children, caregivers, and healthcare professionals during childhood vaccination consultations. Field notes were collected describing vaccination consultations involving children aged two months to seven years, with an overrepresentation of children under the age of two due to the study's focus. Ethnographic observations (~ 275.5 hours) were held in Belgium, Italy, and Portugal, due to their diversity in healthcare system characteristics, vaccination policy, and coverage. Data were analysed using template analysis, a specific type of thematic analysis. Findings illustrate that children inherently possess agency, which can be hindered or facilitated by caregivers and healthcare professionals in the healthcare setting. Although clinical guidelines on pain mitigation for paediatric vaccinations exist, the findings show that these are not consistently applied in practice. Providing a framework for understanding the variability in paediatric pain mitigation, we highlight the socio-cultural conditions by which young children are either socialised into the patient role, or have their status as patients undermined. In pursuit of quality healthcare and pain mitigation for children during vaccination consultations, it is necessary that they are considered and treated as active, embodied healthcare agents.

Keywords

Children; agency; pain; healthcare encounter; ethnography; childhood vaccination

1. Introduction

In the wake of the United Nations Convention on the Rights of the Child (UNCRC) (United Nations, 1989), increasing attention has been given to children's rights and participation in healthcare (Carter et al., 2024; Ford, Dickinson, et al., 2018). The literature has emphasised the importance of (1) children's rights to participate in practice and decision-making regarding their medical consultations, (2) prioritising children's best interests in the delivery of care, and (3) acknowledging that children's experiences and healthcare needs differ from those of adults (Carter et al., 2024; Ford, Dickinson, et al., 2018). Despite this, children's pain is consistently under-treated across various care settings, including emergency care, chronic pain, and needle procedures such as childhood vaccinations (Alexander & Manno, 2003; Friedrichsdorf & Goubert, 2020; Holm et al., 2023; Taddio et al., 2009). Friedrichsdorf and Goubert (2020) found that pain management is inadequate among child patients compared to adults, and noted further age-based disparities among children, as prevention and treatment of pain are less often applied the younger the child. Another study confirms that children under the age of two are less likely to receive appropriate pain management compared to six-year-olds who can communicate verbally (Alexander & Manno, 2003). This is problematic because access to pain management is a fundamental human right. Consequently, failing to treat a young child's pain is a violation of his/her human rights (Friedrichsdorf & Goubert, 2020). This study seeks to answer the following research questions: (1) How is the child's agency co-constructed by the child, the caregiver, and the healthcare professional during paediatric vaccination encounters? (2) In what ways does this affect children's pain mitigation during vaccination consultations?

The current study focuses on childhood vaccination for three reasons. First, vaccinations are the most commonly performed needle procedures during childhood and can cause iatrogenic pain in healthy infants and young children (Friedrichsdorf & Goubert, 2020). Second, research shows that the impact of vaccination-related pain can extend beyond the short term, contributing to later-life anticipatory fears, needle phobias, and healthcare avoidant behaviours, leading to increased morbidity and mortality (Friedrichsdorf & Goubert, 2020; Taddio et al., 2012; Zimlich, 2018). Additionally, pain is a common reason for vaccine hesitancy (Taddio et al., 2022). Third, existing guidelines emphasise the importance of effective and tailored pain mitigation and strongly suggest preventing or minimising children's pain during vaccinations. These guidelines have been bundled into four evidence-based modalities, i.e., topical anaesthesia, sucrose or breastfeeding (for infants 0 to 12 months), comfort positioning, and age-appropriate distraction (Friedrichsdorf & Goubert, 2020). As part of the literature study, we consulted the current organisational guidelines on pain mitigation practices for childhood vaccination consultations in Belgium, Italy, and Portugal, which reflect the four modalities. Nevertheless, despite specific guidelines, research by Taddio and colleagues (2009; 2022) have shown that pain during routine childhood vaccinations continues to be inadequately addressed. On this note, Friedrichsdorf and Goubert (2020) conclude that "failure to prevent or minimise treatable procedural pain in children is now considered both inappropriate and unethical."

1.1 The construction of the young child as "Other"

One important factor contributing to the lack of care given to children during painful medical interventions is the persistent belief that young children experience pain differently from adults and/or that they will not remember it (Alotaibi et al., 2018). These false beliefs construct children as passive, inferior and assign them a subordinate status (Mayall, 2015). Specifically, this perspective draws on developmental approaches, which view children as "becomings" rather than "beings" (Brady et al., 2015). Lupton (2014), in her study on the portrayal of infants' bodies in Australian popular media, finds that children are often depicted as "precious", "pure", "uncivilised", or "vulnerable." Building on Douglas' work on purity and danger (2003), Lupton (2014, p. 348) explains that in contemporary Western society, bodies that are not contained and controlled are seen as "contaminating." As a result, infants are positioned as Inferior Others, contrasting with the privileged body of the adult Self (Lupton, 2014). This may explain why young children receive even less care for their pain, as their older counterparts are seen as closer to the ideal adult Self. Brady et al. (2015) argue that both implicit and explicit perceptions of children reflect and perpetuate their structural positioning in society within various health practices, influencing how infants are treated by caregivers or other adults (Lupton, 2014). Children should be considered a social (minority) group (Brady et al., 2015; Mayall, 2015), as generational power dynamics play a role in how this group is positioned, listened to, and taken into consideration in various settings (Brady et al., 2015). Furthermore, Mayall (2015, p. 79) argues that constructing children as “not (yet) fully human” undermines the recognition and implementation of children’s rights. Mayall (2015) also suggests that sociology is ideally positioned to analyse how these beliefs become institutionalised through practice by examining children’s social positioning and relational processes.

1.2 A sociological conceptualisation of child agency in healthcare

Collectively, the abovementioned studies illustrate that certain constructions of childhood may undermine the status of children as patients and as citizens by positioning them as “vulnerable,” “incompetent,” and “passive recipients of care” (Dedding et al., 2015, p. 2121; James, 2011). Essentially, such constructions undermine the idea that children are agents. Agency in this sense means that children have the capacity to not only be influenced by but also to actively construct their social worlds and engage in meaning-making (Alderson et al., 2005; Brady et al., 2015; Montreuil & Carnevale, 2016). In light of this, sociological approaches have underlined the implications of recognising children’s agency for children’s rights and participation (Valentine, 2011), as well as for the study of child health (Brady et al., 2015).

Previous conversation analytic studies have relied on a triadic child-parent-doctor communication perspective to understand the challenges in providing patient-centred care during multiparty medical visits, especially when the patient is a child (Clemente et al., 2012). In a study on physician-child interaction with children aged two-and-a-half to ten, Stivers (2012) finds that physicians’ interactional resources such as asking social questions early in the visit, using yes/no questions, and directing their gaze at the child can increase the likelihood of children answering physicians’ questions. In other studies focusing on children aged ten to 18, Clemente et al. (2012; 2008, p. 1420) identify interview practices that allow clinicians to create opportunities for children to maintain the role of primary informants by establishing them as the “primary knower and experiencer of symptoms.” They show that paediatric patient-centredness is not straightforward nor easily implemented, as key practices in the patient-centred literature, such as open-ended questions, can lead to both opportunities (i.e. giving children more control) or risks (e.g. losing the child as primary informant and the parent taking over as alternative informant). While some research emphasises the role of parents and healthcare professionals (HCPs) as gatekeepers in restricting children’s contributions (Tran et al., 2023), others have found that doctors frequently select children as problem presenters during triadic paediatric encounters (Stivers, 2001). Although parents more often present the issue, Stivers (2001) explains that this is not an act of dominance or control, but rather a response to interactional complications. Furthermore, as the study by Clemente (2009) illustrates, older paediatric patients may actively manage parental assistance when having difficulties answering clinicians’ questions, thereby maintaining their role as primary informants, and managing the rights and responsibilities associated with the patient role. Additionally, an important stream of research has focused on non-verbal agency among subsets of children, such as those with complex conditions affecting their ability to verbally communicate (Ekberg et al., 2022), children with disabilities (Olli et al., 2020), or babies (Alderson et al., 2005, 2006). In doing so, they have recognised that being a child, regardless of age, social characteristics, and verbal skills, inherently evokes agency (Alderson et al., 2005; Brady et al., 2015; Dedding et al., 2015; Montreuil & Carnevale, 2016). According to Dedding and colleagues (2015), children generally express their agency through distinct body language, actions, emotions, and facial expressions.

With reference to children’s social positioning and relational processes, the sociology of child health highlights the intergenerational relations and bodily, social and material resources within which children’s agency in healthcare is bounded (Brady et al., 2015; Mayall, 1998). This leads to two important aspects. First, as mentioned earlier, the body is an important source of agency, especially for preverbal children (Dedding et al., 2015; Santah & Bröer, 2022). Building on relational sociology, Redshaw (2014) supports this view by challenging the biomedical conceptualisation of the infant body as isolated and passive, arguing that the infant body is a social body. Similarly, Gottlieb (2000) points out that babies engage in somatic communication. That is, babies can be disruptive, as they can challenge or transform how certain spaces are experienced and performed (Holt & Philo, 2023). In their research on premature babies in neonatal intensive care units, Alderson et al. (2005, 2006) found that babies actively enact agency, by altering relationships, reacting to their environment, and cooperating with or resisting adult programmes, and as such hold, to some extent, control over their healthcare. Second, it emphasises children's social positioning in intergenerational relations (Brady et al., 2015; Mayall, 1998). Children's expressions of agency may be facilitated or restrained by caregivers and other adults (Brady et al., 2015; Holt, 2017). Olli et al. (2020, p. 3) state that "other people's inability to understand a child's self-expression or unwillingness to let the child have an influence may restrict the child's agency from being realised, but it does not eliminate the existence of agency," meaning that "children's agency is not dependent upon adult facilitation." We theorise the agency of young children according to this perspective, which means that we understand childhood as a social construction (James & Prout, 2003) in a relational framework (Burkitt, 2016; Redshaw, 2014), acknowledging that children's agency is embedded in networks, social dynamics and power relations, and that children are actively engaging in the co-construction of their social worlds (Dedding et al., 2015). Based on these studies, we agree with Paron (2024) that young children, caregivers and HCPs are interdependent interactants in the triadic relationship of the vaccination consultation.

Collectively, these studies highlight the need for a comprehensive examination of the agency of young, preverbal children in triadic healthcare encounters. While most prior research has conducted conversation analytic work and/or analyses of verbal communication during healthcare encounters with children over the age of four (van Woerden et al., 2023), little is known about young children's agency during healthcare encounters. Markee (2007) highlights that while conversation analytic studies provide in-depth, sequential analyses of *how* individuals achieve particular practices by examining "the social organisation of speech" (Moerman, 2010, p.x.), ethnographic studies aim to provide a grounded understanding of *why* individuals act in particular ways. This means that, drawing on a social constructionist epistemology, this ethnographic study aims to complement existing research by balancing a focus on interaction with institutional and contextual analysis, thereby examining the physical, material and, importantly, non-verbal conditions that co-construct child patients' social worlds (Charmaz & Olesen, 1997; Holstein & Gubrium, 2008). Concretely, we aim to develop an understanding of the triadic relationality of child patients' agency within healthcare encounters, specifically for preverbal children starting from two months old.

2. Methods

2.1 Context

The ethnographic observations reported in this study were conducted in Belgium, Italy, and Portugal as part of an overarching research project *(reference removed for anonymisation purposes)*. These settings were selected due to their diversity in healthcare system characteristics, childhood vaccine policies, coverage, and other cultural, socio-demographic, and geographical differences (for more information, see *[reference removed for anonymisation purposes]*). The research teams conducted observations using the same observation grid to systematically analyse childhood vaccination consultations and “understand how people in different places ‘manage’ similar challenges” (Wilson & McLennan, 2019, p. 172). The observation grid was developed in research meetings for the overarching project, with input from all involved researchers who contributed their methodological and theoretical perspectives. Building on these discussions, the ethnography leaders of the project finalised the observation grid (for more information, see *[reference removed for anonymisation purposes]*, focusing on three thematic areas: the description of the observed site, the interaction between parents and HCPs, and participant profiles. The authors of this study, all contributors to the broader research project, engaged in structured collaboration from the project's onset throughout data collection and analysis. Prior to data collection, biweekly meetings with the ethnography leaders ensured a unified methodological approach across teams. During data collection, monthly meetings focused on sharing and discussing field notes. This collaboration was further strengthened by an in-person meeting, which deepened consistency across the three teams.

This study received positive ethical advice in Belgium by *(anonymised)*, in Italy by *(anonymised)* and in Portugal by *(anonymised)*. Prior to the commencement of data collection, informed written consent and access to the field were provided by the observation sites. Patients’ parents verbally consented to be included in the observation field notes. All names of participants used in this study are pseudonyms.

2. Fieldwork

Ethnography is a well-established methodology in healthcare studies and has been recommended for researching child agency (James & Prout, 2003) and childcare (Buchbinder et al., 2006). Our approach combines three emerging streams in ethnographic research in a multi-sited, rapid, team ethnography (reference removed for anonymisation purposes). First, in pursuing a representative diversity in vaccination consultation settings, we conducted observations at multiple sites in each country: six in Belgium, four in Italy, and three in Portugal. Second, rapid ethnographies, i.e. short periods of high-intensity fieldwork, have become increasingly popular in healthcare research (Vindrola-Padros & Vindrola-Padros, 2018). Third, engaging in team ethnography (Erickson & Stull, 1998), we worked as "a team of teams" (reference removed for anonymisation purposes), i.e. in each country, fieldwork was carried out by a small group of scholars proficient in the local language, who also collaborated during the data analysis. In Belgium, data collection was conducted by two junior researchers, neither of whom are parents, while a senior researcher who is a mother herself coordinated the fieldwork. In both Italy and Portugal, four ethnographers – comprising a mix of senior and junior researchers, male and female, and both parents and non-parents – participated in the fieldwork. All ethnographers have a background in the social sciences, primarily sociology. Consequently, all authors were involved either in country-specific fieldwork (coordination), interpretation, or in both (Erickson and Stull, 1998).

A total of 275.5 hours of observations were held during childhood vaccination consultations between January and June 2022. During these consultations, children receive a variety of vaccines as outlined in the national childhood vaccination schedules of each respective country (ECDC, 2024). From the country-specific datasets, field notes on 86 child-caregiver dyads were selected, with an intentional overrepresentation of Belgian field notes to focus on younger, preverbal children. Consultations with children under the age of two made up 73% of the subset, while consultations with children up to the age of seven were also included to explore potential age-related disparities in the interactions. Caregivers were predominantly mothers, as they accompanied their children in 88% of the consultations. We made detailed field notes on the observation of triadic interactions and added some selected verbatim quotes, which were written out into the final ethnographic text immediately after the observation. The final dataset includes field notes that were carefully translated into English by the ethnographers, with oversight from the entire country team to ensure accuracy and preserve original meanings.

2.3 Data analysis

The observational data were analysed using template analysis, a specific style of thematic analysis, as described by King and colleagues (2018) and Brooks and colleagues (2015). We chose template analysis for its flexibility, allowing themes to develop both deductively and inductively (Brooks et al., 2015). This approach enables the definition of themes a priori, based on the research project's aims and relevant issues identified in previous studies and policy (King, 2002; Brooks & King, 2012). In our case, this included themes such as "pain ratings", "perceptions of child patients" and "HCPs' strategies for pain relief." Using template analysis, an initial coding template is constructed based on a subset of data, which is then applied, revised, and redefined according to the full dataset (Brooks & King, 2012). While template analysis shares flexibility and a hierarchical coding structure with other thematic analysis approaches, such as Braun and Clarke's (2006), there are three key differences (Brooks et al., 2015). First, the initial template in template analysis is created based on a subset of data, not after the initial coding of all data. Second, unlike other approaches that often define themes later, template analysis defines themes early on to guide further coding. Lastly, template analysis typically employs more levels of coding than other approaches. Each country team developed a coding template (Brooks et al., 2015) based on a subset of their country's observations. The first author then flexibly applied these coding templates for further data analysis. All authors were consulted in the iterative coding process until analytical consensus was reached. NVivo release 1.7.1 was used for data analysis. The final template consists of three main themes with subthemes. First, the theme of embodied agency includes subthemes of physical positioning, breastfeeding as a strategy for pain relief, and responses to children's crying. The second main theme is the inclusion or exclusion of child patients by verbalising the consultation, which includes subthemes such as addressing the child (including 'dyadic communication' or 'inclusion'), repairment strategies (comprising 'positive affective climate' and 'apologetic strategies') and the minimisation of children's pain (through 'pain ratings' or '(professional) ventriloquism'). The last theme is non-verbal inclusion in interaction, focusing on coping mechanisms. The findings section is organised accordingly.

The team ethnography approach entails that the research team is diverse in nationality, age, gender, and parental status. This yields a rich spectrum of positionalities which is reflected in our respective field notes. Throughout the research project, the ethnographers discussed their positionality and life experiences, considering how these elements "shape their relationships with study participants and the research process itself" (Vindrola-Padros & Vindrola-Padros, 2018, p. 327), which facilitates a reflexive stance (Charmaz & Olesen, 1997). For example, field notes on childhood vaccination consultations varied between researchers who are parents and those who are not. Researchers who are parents emphasised certain aspects and reflected on their experiences with their own children during similar procedures. In contrast, researchers who are not parents found the experience novel and added more details on certain aspects of the procedure. Overall, discussions with colleagues from diverse backgrounds highlighted aspects of healthcare encounters that might have been overlooked otherwise. By employing this collaborative approach from the onset of the overarching project, throughout data collection and analysis, we aimed to emphasise reflexivity and minimise researcher bias. This collaborative approach allowed us to reach consensus on identified themes and their interpretation, contributing to a culturally-informed analysis that remains attentive to the diverse positionalities of the researchers involved. Vindrola-Padros and Vindrola-Padros (2018) highlight the importance of these reflexive accounts in rapid ethnographies, as they allow for more critical interpretations of data.

3. Findings

3.1 Embodied agency

A recurring theme in the field notes refers to the extent to which children can enact their agency during childhood vaccination consultations by moving their bodies, cuddling, crying, laughing, and breastfeeding.

Children's physical positioning. The guidelines pertaining to childhood vaccination and pain mitigation across the three contexts emphasise the importance of ensuring the child's physical comfort. These guidelines recommend that the child be held in the caregiver's arms or lap throughout the vaccination procedure and advise against supine positioning, that is, lying on the back. Nevertheless, we discern that the positioning of the child followed two patterns. The child is either considered “as-a-body” or “embodied” (Elsey et al., 2017, p. 123). In the clinics under observation, the former is commonly noted, where HCPs routinely instructed caregivers to position the child on the cushion of the examination table in a supine position. In these instances, the child’s realisation of bodily agency was further hindered as children were physically restrained to the examination table by HCPs, caregivers, or both. In the case of a one-year-old boy (field notes Belgium), the mother asked the physician how they were going to administer the vaccine. The physician replied that it was best to lay the child down. Then, the mother distracted the child while the nurse restrained his legs and the physician administered the vaccine. We argue that this technique, often practised as a safety-oriented approach and known as holding (Bray et al., 2015), exemplifies how children’s agency may be constrained by adult agendas in the medical setting. This discrepancy between clinical guidelines and practice has implications for the realisation of the child’s agency as well as for the pain mitigation care they receive. This study shows that holding was generally suggested by HCPs and that this practice was not limited to younger children. This excerpt from the Italian field notes illustrates the supine positioning and holding of a three-year-old patient.

> *Field notes Italy – Consultation with three-year-old patient*
>
> *The three-year-old has already had first bronchopneumonia and then Covid. Despite this, her appointment resolves in less than four minutes […] The mom enters the room with the child, the physician says: “Let's give the vaccine to this little girl.” Without even saying hello, the physician rushes up to the child, picks her up, sits her on the edge of the bed, lays her down with one motion and pulls down her pants. The child cries and wiggles and he holds her to the bed, I would almost say holding in an attenuated form.*

While the practice of holding was often initiated by the healthcare professional, it was also common for the HCP to ask the caregiver to decide on the child’s physical positioning. Field notes indicate that when given the opportunity, caregivers almost exclusively considered the child as “embodied” (Elsey et al., 2017) and cuddled or held the child on their lap during the consultation. This may facilitate the bodily enactment of the child’s agency.

Breastfeeding as a strategy for pain relief. Similar to Alderson and colleagues (2005, 2006), who illustrate how premature babies enact and co-construct their agency during breastfeeding, this study demonstrates that breastfeeding during or after childhood vaccination can be seen as a realisation of child agency during healthcare encounters. While the WHO (2015) and the national guidelines in Belgium, Italy and Portugal generally recommend breastfeeding as a pain relief strategy during infant vaccinations, we did not observe this practice during consultations in Belgium and Italy, even when most infants were accompanied by their mothers. One nurse disclosed that she refused these requests out of safety concerns (Field notes Italy). This disparity may highlight inconsistencies between national practices and existing clinical guidelines. This excerpt from the observations in Portugal illustrates the relational interdependencies of the healthcare triad in a consultation with a four-month-old child. The healthcare professional inquired about preferred positioning, and the mother opted to take the child in her lap, which facilitates breastfeeding. This approach allowed the child to nurse, thereby enabling participation in pain relief strategies.

> *Field notes Portugal – Consultation with four-month-old patient*
>
> *The nurse asked the mother about her preference (positioning) for administering the vaccines in the baby's thighs. The mother mentioned that she preferred to be seated with the baby on her lap during the vaccination and so she did. The nurse administered the three vaccines which caused the baby to cry. The mother tucked him in her lap and tried to comfort him and minimise the pain, and even breastfed the baby at the end of the administration of the vaccines (on her own initiative). After administering the vaccines, the nurse detailed them to the mother and sat at the computer taking notes to pass on to the physician. I noticed that the nurse performed this task calmly and "in no hurry" to give the mother time to breastfeed the baby before going into the consultation with the family physician.*

Responses to children's crying. During childhood vaccination consultations, it is common for children to cry, as vaccinations are painful healthcare interventions. A clear distinction can be drawn between instances in which the child's crying was disregarded and instances in which the enactment of the child's agency was recognised. The field notes reveal practices where crying was viewed as a routine aspect of the process and was not given particular attention, or where it was actively banned from the consultation entirely by expressions such as: *"You are a young man, you do not have to cry."* (Field notes Italy – consultation with a one-year-old). This seems to deny the child's agency and participation in the healthcare encounter and could be interpreted as a manifestation of 'pain blindness' on behalf of the caregiver or healthcare professional (Carter, 2002; Versloot & Craig, 2009). Contrarily, some doctors responded to the child's crying. During an informal talk with a physician in Italy, he explained that crying must be seen as the child's communication strategy. Similarly, this study demonstrates that HCPs engaged in verbal and non-verbal communication with children, acknowledging and responding to the child's crying as an enactment of agency, as exemplified by this excerpt from a consultation with a four-month-old patient:

> *Field notes Belgium – Consultation with four-month-old patient*
>
> *The nurse takes the vaccines out of the fridge, processes them and gives them to the doctor. The mother picks up the child and the physician administers the vaccines. The baby starts crying and the physician says: "Cry hard, the pain passes faster [that way], yes you can cry". The nurse tries to calm the baby down and this works a little bit. The nurse blows bubbles and uses a hand puppet. She takes the baby and rocks him up and down. She shows the baby around in the physician's office and brings him to the mirror. The baby starts crying again. The nurse rocks him up and down again and the baby calms down. The doctor and nurse recommend the parents to use the latter method of calming the baby down.*

3.2 The inclusion or exclusion of child patients by verbalising the consultation

Addressing the child. The field notes illustrate that addressing the child during vaccination consultations establishes their status as a patient. For the verbal children in the sample, we observed that HCPs often addressed them by name and invited them to actively participate in the healthcare encounter, such as in this case of a six-year-old patient.

> *Field notes Italy – Consultation with six-year-old patient*

> *The physician says, turning to the child: "Sebastian, listen to me: you have to uncover the arm you use the least. If you draw with the right uncover the left. If you draw with the left uncover the right."*

During consultations with preverbal children, we observed that dyadic communication between HCPs and caregivers was particularly prominent when the child was positioned supine on the examination table. In this positioning, HCPs and caregivers frequently remained standing, maintaining eye contact with each other and engaging in dialogue directed toward the caregiver (e.g. *"How is mummy doing?"*, "*Two vaccines today. OK, mama?" – Field notes Belgium*). However, we observed variability in HCPs' verbal communication with preverbal children. Some HCPs used inclusive approaches and directly addressed them, either by their name or by pet names (e.g. *"my love*", *"sparrow"*). Similar to Clemente and colleagues (2008), we interpret this as upgrading the child's epistemic status as the "experiencer", as illustrated in the following excerpt of a consultation with a four-month-old patient:

> *Field notes Portugal – Consultation with four-month-old patient*
>
> *The nurse started by giving the baby the rotavirus vaccine (an oral vaccine), addressing the baby in a calm and friendly tone of voice: "Mummy's milk is better, isn't it?"*

Repairment strategies. Building on these inclusive approaches, we found that some HCPs used creative communication strategies to create a positive atmosphere, akin to the study by Hervé et al. (2009), who illustrated how non-verbal communication in therapies involving infants can foster triadic engagement and subsequently cultivate a positive affective climate. Similar to the study conducted by Paron (2024), which focused on children aged 2 to 19, some HCPs in this study employed strategies such as positioning themselves at the child's eye level, utilising humour, and directly engaging with the child to alleviate anxiety, often after vaccine administration. In addition, we observed that HCPs can positively attribute responsibility to parents. These excerpts exemplify the utilisation of these strategies by HCPs.

> *Field notes Italy – Consultation with three-month-old patient*

> *The child calms down and observes Roberta [the nurse]. Roberta makes a joke and tells him, "What an ugly girl Roberta is! She who pierces my leg and takes my pants [referring to the vaccine which was inoculated in the child's bare leg]! But you're really good, and a mama's boy too." The mother coats him, turning to the child gently, singing "One little foot, the other little foot." Roberta [the nurse] turns to Andrea [the child] and says: "Mommy has been very good because this way she protects you from all the diseases that can land you in the hospital."*

The field notes reveal a similar technique in which HCPs adopted an apologetic strategy and addressed the child directly during distressing situations. They took responsibility for any pain or discomfort caused by the vaccination, using it as a means to repair the relationship with the child (directly) and the parent (indirectly).

> *Field notes Belgium – Consultation with 15-month-old patient*
>
> *The physician disinfects the child's left upper leg and the left upper arm. He first administers the vaccine in the left upper leg, meanwhile, the nurse is playing with the mobile and the rattle as she says to the child: "Look at me while the physician will administer the vaccine". The child starts crying after the first inoculation. The nurse responds to the child and says: "Yes, you can cry." The other vaccine is administered in the child's left arm. After this inoculation, the baby is still crying and the mother holds him in her arms. The physician gives the mother a tissue to clean the child's face from crying and goes on to say "I'm sorry" to the child.*

Minimisation of children's pain. Apart from heterogeneous approaches in communication during consultations with preverbal children, which may either include or exclude them, the absence of their own verbal expressions allows caregivers and HCPs to interpret their experiences. This affects the ways in which their vaccination-related pain is taken into account. HCPs and caregivers often tended to minimise the child's pain experience or engage in (professional) ventriloquism (Carter, 2002). In all three studied contexts, childhood vaccination guidelines stress the importance of neutral language on behalf of the healthcare professional and advise against denying vaccination-related pain and providing false suggestions in this regard. Nevertheless, a common practice emerged where HCPs assigned pain ratings to the child's experience, sometimes even before the inoculation, leading to the minimisation of the child's expected pain. Such minimisation is often accomplished using diminutive expressions such as *"a little pinch"*, *"a little bit of pain"*, *"a little vaccine"*, and false comparisons such as *"babies are less affected by the injection than we, adults"*. Alternatively, HCPs or caregivers often engaged in (professional) ventriloquism, i.e. speaking for the child, as illustrated by this excerpt in which a father expresses the child's perceived experience. In this way, the child's agency is assumed by the parents in a sort of proxy agency (Fay et al., 2021), creating a layer of separation between the child's true, embodied experience and the interpreted experience told by the person talking for them.

> *Field notes Belgium – Consultation with 12-month-old patient*
> *The child is placed on the matt in supine position and the parents have to hold her arms and legs while the physician injects the vaccines. There's a cuddly toy hanging from the ceiling and the nurse pulls it down to distract the child for the second vaccine. The child hardly cries. The nurse schedules the next appointment. The father says to the child: "Do you say thank you for the vaccines?" He goes on by saying, as if it were the child speaking: "Thank you, I felt nothing."*

Given the subjectivity of pain, particularly in paediatric cases, we should consider that there is a "possible difference between perception, experience, and expression" of children's pain (Neshat and Ghorbani, 2023, p. 102). Verbalisation of children's pain may lead to it being ignored or inadequately treated (Craig, 2009), underestimated (Versloot et al., 2004; Pillai Riddell and Craig, 2007), or reinterpreted and mistranslated by the healthcare professional (Versloot and Craig, 2009; Carter, 2002). Therefore, we argue that these verbalisation techniques concerning children's experiences of pain undermine their agency and socialise them to respond to vaccination-related pain, which is constructed as a minor form of distress.

3.3 Involving children in non-verbal interaction

Coping mechanisms. The observations indicate that the triad frequently engaged in non-verbal interactions, such as play, during healthcare encounters. We propose that this type of interaction promotes the child's agency, recognising them as an active agent and patient, rather than a passive recipient of the vaccine. Specifically, we observed that some caregivers and HCPs provided children with tools to cope with the procedure. In Portugal and Italy, YouTube videos or mobile games were commonly used, depending on the age of the child. Similarly, in Belgium, caregivers and HCPs offered toys such as rattles, books, baby mobiles, or bubble wands. By doing so, they created a sense of familiarity during healthcare encounters. For example, in a Portuguese clinic, caregivers sang nursery rhymes to a four-month-old girl while the nurse played her favourite song and took time to address the child's needs during the vaccination administration.

> *Field notes Portugal – Consultation with four-month-old patient*
>
> *The vaccines were then administered with the mother sitting up and the baby is sitting on her lap. […] Throughout the administration of the three vaccines, the parents sang typical nursery rhymes together that they usually sing to the baby. After the administration of the second vaccine the baby cries a lot and the parents try to comfort her with cuddles and with aero-OM [as a substitute to sucrose]. At this point, the nurse gave the baby some time to calm down before administering the third vaccine. The nurse took the opportunity to alert the parents to the fact that they have not yet scheduled their six-month appointment and that at this time the baby will have a vaccine that does not hurt as much. During the administration of the third vaccine, the nurse played a song on YouTube, which the parents mentioned as being the baby's favourite. The baby cried after the administration of the vaccine but then calmed down while watching the YouTube video and the parents sang again together.*

4. Discussion

The purpose of this study was to assess the relational co-construction of young children's agency during triadic healthcare encounters and how this affects the pain mitigation they receive during vaccination. Although the three contexts differ in healthcare organisation, vaccine policies, and geographic, cultural, and socio-demographic factors *(reference removed for anonymisation purposes)*, one clear trend across all countries is that the clinical guidelines concerning paediatric pain mitigation during childhood vaccination are not consistently applied. Previous studies find that pain in child patients is undertreated across contexts (Birnie et al., 2014; Friedrichsdorf & Goubert, 2020; Taddio et al., 2009). Drawing on ethnographic methods, this study provides insights into the socio-cultural conditions under which pain mitigation measures are applied during vaccination consultations across various healthcare settings (Charmaz & Olesen, 1997). We argue that the degree to which the child is constructed as an active patient in the consultation may explain the pain mitigation care they receive. Concretely, the findings show that when children's comfort and expressions – whether through supporting embodied positioning, their inclusion in the verbalisation of the consultation, or their involvement in non-verbal interaction such as play – are acknowledged and supported, conditions are created in which the child becomes an active patient, their epistemic status as experiencer is recognised, triadic engagement is facilitated, and a more positive affective climate is fostered. By delineating these conditions, this study offers a framework for understanding the variability in the application of paediatric pain mitigation measures. Overall, there is significant variability in practices that either enhance or negate the child's agency, which we discuss more in depth below.

First, the field notes provide instances in which the child is included through the verbalisation of the consultation. Examples are HCPs actively addressing child patients – either by involving them directly in the consultation or by using repairment strategies to manage distress. In this regard, our findings support previous research that has highlighted the importance of such verbal interactions between HCPs and child patients, not only for healthcare purposes but also for children's socialisation in the patient role (Clemente, 2009; Stivers, 2001). These verbal communication practices elevate the paediatric patient's epistemic status to that of "knowers" and "experiencers" of pain (Clemente et al., 2008), enhancing their agency and consequently supporting the care that is provided to manage their pain. These elements may also facilitate triadic engagement and a positive affective climate. However, we also observed practices in which the communication during the consultation was more dyadic, with communication between caregiver and HCP forming the dominant axis of relationality (Paron, 2024) and children sometimes being spoken for by their caregivers' "baby talk" (Goffman, 1981) rather than being spoken to (Dedding et al., 2015). Paron (2024) explains this in terms of the dual patient, as in paediatric care the patient is represented by both the child and the caregiver, and Liu (2023) argues that acting as the child's representative and taking epistemic primacy over the child's health is an enactment of parental status and responsibility. As inclusion in the consultation's verbalisation upgrades the child's epistemic status to that of "experiencer" (Clemente et al., 2008) we highlight that exclusion by verbalisation may lead to young children's agency being assumed by, or transferred to, their caregivers in what is called "proxy agency" (Fay et al., 2021, p. 5), especially regarding painful healthcare experiences. More specifically, we see this issue reflected in the minimisation or underestimation of the child's pain experience. The verbalisation of children's pain experiences illustrates the persistence of erroneous beliefs among caregivers and HCPs about pain in young children. James (2011) argues that the mobilisation of deterministic developmental paradigms legitimises adults' power over children and allows them to disregard the interdependencies inherent in all social relationships. This emphasis on children's dependency on adults portrays them as "becomings" and denies their status as citizens (James, 2011). This helps to explain how the recognition of young children having different healthcare experiences and needs than adults is frequently disregarded (Carter et al., 2024) and may explain the age-based disparities found in children's pain treatments (Alexander & Manno, 2003; Friedrichsdorf & Goubert, 2020).

Second, this study enhances our understanding of the mechanisms through which pain mitigation is influenced by the child patient's "embodied" or "as-a-body" positioning. On the one hand, this study highlights instances where the child's expressions, such as crying, are recognised and their bodily comfort is supported, thereby affirming their status as patients. Field notes show that supporting embodied positioning can facilitate the effective application of pain mitigation measures. On the other hand, children were also frequently placed in a supine position and held to the examination table, which restricts their embodied agency . This approach persists in clinical practice, despite being recommended against by clinical guidelines on paediatric pain during vaccinations. The existing literature explains that the holding of children during medical consultations is influenced by concerns for physical safety and by the perceived status of the child, particularly in the case of young children (Bray et al., 2015). Our study illustrates some instances of the latter, where the child patient is positioned as-a-body, portrayed as a passive patient undergoing vaccination, rather than being recognised as an embodied patient who is an active agent (Brady et al., 2015; Elsey et al., 2017). We argue that the verbal and non-verbal means through which children's pain was dismissed or its legitimacy questioned are forms of epistemic injustice (Fricker, 2007, as cited in Tosas, 2021). Buchman and colleagues (2017) explain that stereotypes and prejudices unfairly undermine children's credibility regarding pain, rendering them a marginalised group whose pain has long been silenced, ignored, or taken less seriously.

Third, this study demonstrates that the embodied agency of young children can be enhanced by the relational interdependencies of the triadic healthcare encounter (Burkitt, 2016; Paron, 2024). According to James (2011), recognising these interdependencies allows for children to be viewed as "beings": "citizens" with status and rights. Taking the case of pain mitigation during childhood vaccination consultations illustrates how the provision of child-centred care can put the child at "the centre of thinking and practice […] in the context of their family" (Carter et al., 2024, p. 114). Specifically, we find that when children's physical positioning aligns with the HCPs' eye gaze and body posture – key aspects of the doctor-patient interaction (Elsey et al., 2017) – this may enhance both their agency and the pain mitigation care they receive. For example, the findings illustrate how this alignment facilitates non-verbal interaction such as play and eye contact, and provides the child with opportunities for skin-to-skin contact or nursing. These examples illustrate that children's agency exists in a relational process and that childhood vaccination consultations are embodied interactions (Brownlie & Sheach Leith, 2011), in which children's bodies become interlinked and interactive with those of their caregivers (Mayall, 1998; Lupton, 2013). This means that embodied caring practices have an important function, not only for effective pain mitigation (Abdel Razek & AZ El-Dein, 2009) but also as a means to facilitate the realisation of young children's agency.

Overall, emphasising the influence of power dynamics, it becomes evident that although children possess agency, the extent to which the perspectives of child patients and their rights are taken into account is contingent on the facilitation of adults. Children are a social minority group in the healthcare setting (Brady et al., 2015) as children's agency in the healthcare setting is bounded by intergenerational relations and adult agendas (Mayall, 1998). Consequently, they face a double asymmetry of power, to both institutional and adult authority (Tates and Meeuwesen, 2001). Of course, structural factors, such as organisational and legal settings, play a role in the extent to which the child patient is included in medical consultations as well (Gabe et al., 2004). Nevertheless, HCPs and caregivers hold greater power than children in the outcome of the medical consultation (Gabe et al., 2004). In order to counter this imbalance and engage in a triadic model of paediatric care (Lenne et al., 2023), children should be considered as empowered and agentic "beings" and not just "becomings" (Brady et al., 2015); their perspectives should be actively included, and they should be at the centre of the interaction in the healthcare triad.

5. Limitations

Finally, a number of important limitations need to be considered. First, while we included data from various sociocultural contexts (i.e. Belgium, Italy and Portugal), we did not explore potential intra-group cultural variations within these countries. While this is beyond the scope of this study, future research could benefit from such a comparative approach and delve into how HCPs', caregivers' and patients' cultural differences may impact the relational triad. Second, conducting ethnographic observations enabled us to gather data on the socio-cultural conditions of what is happening rather than on underlying personal motivations. Third, it is important to consider the potential influence of social desirability bias, as HCPs may have behaved differently during the observations. Fourth and last, due to ethical considerations, no audio or video tape recordings could be made during the vaccination consultations. We adopted the suggestions by Charmaz and Olesen (1997) to enhance the rigor of analysis and interpretation of ethnographic research in medical sociology, by providing details of analytic decision-making, patterns in the data and negative data. Nevertheless, as recordings can complement the observed interaction by providing the opportunity to repeatedly consult the data (Holstein & Gubrium, 2008), we advise future research to combine both approaches as this could support the analysis. Notwithstanding these limitations, this study is based on a robust amount of fieldwork and reports on children's lived reality. Furthermore, this study employs ethnographic data as this allows for the inclusion of young children, a group who would be otherwise excluded from other research methods.

6. Conclusion

This study provides insights into the relational co-construction of young patients' agency during vaccination consultations in three European countries. In doing so, we highlight that the variability in approaches by which caregivers and HCPs co-construct and facilitate or impede children’s agency directly affects the care provided to children during painful medical procedures. Children have the right to pain mitigation. Nevertheless, this study has shown that younger children, in particular, are often verbally and/or non-verbally excluded from healthcare, by being positioned as patient-bodies rather than as embodied patients. This positioning fosters the perception of the child as passive, merely “undergoing” the vaccination procedure rather than actively participating in it. This leads to a poor standard of care in which the child’s pain is underestimated or minimised. These practices negate the interdependency between children and adults and legitimise adults’ power over children, thereby perpetuating the idea that children are “becomings” and undermining their status as patients and citizens with rights (James, 2011). When the interdependencies of the triad are recognised, children are seen as “beings” who actively participate in healthcare encounters (Paron, 2024). This study demonstrates that physical strategies (i.e. giving the opportunity to nurse or cry), verbal strategies (addressing the child, employing repairment strategies) and non-verbal approaches (e.g. play, aligning eye gaze and body posture) support the preverbal child’s status as a patient and enhance pain mitigation throughout vaccination consultations. To conclude, in line with the perspectives of Spray (2020) and Bergnehr and Nelson (2015), we advocate for institutional conditions to support the routine implementation of child-centred practices that recognise children’s rights, competences, and contributions, and prioritise the impact of healthcare interventions, such as vaccinations, on the experiences and well-being of children.

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Highlights:

- Paediatric patients’ agency is co-constructed by health professionals and caregivers
- Paediatric pain mitigation is not consistently applied in practice
- Conditions of child agency provide a framework for variability in pain mitigation
- We advocate for a child-centred approach in paediatric vaccination

Ethics approval

This study received a positive ethical advice in Belgium by the Ethics Committee of the Faculty of Political and Social Sciences of Ghent University, in Italy by the Bioethical Committees of the University of Torino and in Portugal by the Instituto de Ciências Sociais da Universidade de Lisboa. Prior to the commencement of the data collection, informed written consent and access to the field was provided by the observation sites. Patients' parents verbally consented to be included in the observation fieldnotes. All names of participants used in this study are pseudonyms.