

Dear friends, dear members of Ethics WG,
Please, find attached the final version of "pain paper" prepared by Dirk Matthys.
If you have any further comments I would appreciate to send them within 14 days, otherwise I will consider paper ready for publishing and would advice Dirk to send it to EJP as an Editorial as decided in Cyprus
You should send the comments to Dirk, so he will be able to correct them immediately and then procede with the finalization of the paper
I would also like to congratulate to Dirk and his colleagues for this important contribution of our work
Best regards to all
David

Prof. David Neubauer, MD, PhD

UNDER-RECOGNITION AND UNDER-TREATMENT OF PAIN IN CHILDREN:

Ethical Appreciations and Recommendations

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Introduction

The medical profession has been long aware of the fact that patients often receive less treatment for pain than they should (1,2), and this has been shown to be especially the case in paediatric medicine(3,4). While there has been an enormous development in treatments for pain as well as a deepening of the profession of pain management in recent years (5,6), still today far too many paediatric patients are insufficiently treated for pain (7). The failure to apply modern knowledge and developments in pain management to regular clinical practice in paediatrics may be understood as a great and condemning paradox of modern paediatric medicine.

This paper explores the reasons behind and consequences of the under-recognition and under-treatment of pain in children from an ethical point of view, focusing on these phenomena in mentally impaired and very young children. After examining the reasons for and the impact of these ongoing threats to good paediatric practice, the authors put forward recommendations to improve the care of children confronted with pain in the clinical setting.

Why is pain in children under-treated?

Probably the major reason for the under-treatment of pain in children is the difficulty paediatricians and clinicians face when trying to evaluate or measure the amount of pain a child is suffering. This is especially the case in children that are mentally challenged or who are very young (8,9). Pain assessment is still very much dependent on the patient's ability to express themselves in ways that can properly target clinical interventions. In children, the gold standard of pain assessment, self-report, is often simply not available. Many caregivers base their pain management on how they themselves interpret the amount of pain one can expect in a certain condition, in other words, healthcare providers characteristics may affect pain management (10). This approach does not always fully take into account the perception of pain by the one currently suffering it (11-12). Many studies have been performed in order to predict a pain response. From these studies a wide range of factors have been hypothesized as affecting a child's experience of pain. These factors include age (13-14), developmental stage, gender (15), religion, cultural background, and intelligence. More complex factors affecting a child's appreciation of pain include pain-related fear (as expressed by either the child and/or the parents), pain expectation and pain acceptance, previous pain experience, interaction between the medical staff and the child and coping behaviour (16-21). The data from these studies are often varied and even, at times, contradictory. Predicting just how a child will experience pain in a given circumstance is challenging, at best, often impossible.(22)

Complicating the paediatric clinical management of pain is the fact that, alongside evaluating clinically the pain experience itself, the response to pain therapy by children is itself very complicated to predict and assess. A major reason for the difficulty in predicting a child's response to pain therapy is that the metabolism of drugs varies often dramatically in children depending upon both developmental and genetic factors (23,24,25). Of themselves, genetic factors may affect a relatively slow or a relatively rapid metabolism of opioids (26).

Bearing in mind the great difficulty of evaluating pain in children, today the paediatrician is also fortunate in having many validated assessment tools are available(27-30,11) and their use may improve pain management and patient and staff satisfaction. (31). Pain may be assessed through physiologic indicators or systematic observation of behaviour. While behavioural observation is often useful, even necessary, it may not be sufficiently objective. Different observers often have widely varying judgements of pain. Especially in mentally impaired children, behavioural changes revealing pain may be very subtle and all too easily overlooked

by professional caregivers. Parents of children with profound special needs have expressed concern regarding professionals under-recognizing the pain experienced by their children. In such cases, the paediatric professional has much to gain from requesting the parents or other prime caregivers to assist in the assessment of pain (32). Neglecting parental, sibling, or other close care providers input into the assessment of pain in a child, may lead to under-recognition and poor pain management in specific cases (33-34)

The pathophysiology of the experience of pain is complex. The medical profession's knowledge of neuroanatomic development is recent and still under development. The recent insight that very young infants can experience pain has changed neonatal pain management drastically (35-37). As science and medicine develops our understanding of the pathophysiological mechanisms affecting pain in children, it is crucial that paediatricians and other health professionals engaged with children also develop more adequate pain management techniques and interventions.

Fear of doing harm is the second most important reason for the under-treatment of pain in children. Many practitioners fear that opioids may be too strong for children. The fear of respiratory depression is especially widespread. In contrast, studies involving large series of patients in which opioids were given in a well controlled and well-dosed regimens reveal that respiratory depression is very rare(38). In addition, excellent and safe antidotes exist (39) (for example, Naloxon®). Another concern among paediatric clinicians when administering opioids to children is the risk of addiction. Tolerance, physical dependence, and withdrawal are often seen in children; but these conditions should not be mistaken for addiction, which involves psychological dependence (40). Clinicians should prepare parents well for symptoms of withdrawal when starting children on opioid treatment, because the fear for addiction is even greater among lay persons.

Another reason for the under-treatment of pain in children is the fear of symptom maintenance: children may continue to experience pain in order to achieve positive attention.(41) Still another reason is that at times clinicians may consider pain to be a useful parameter for monitor a patient's condition.

In summary, all of the above reasons for the under-recognition and under-treatment of pain may be categorised into one of the following three distinctive types of justifications for not providing appropriate analgesic treatment, as described by Walco, Cassidy, and Schechter in their state-of-the-art review: 1. The Revisionist Justification: "The pain is not that bad."; 2. The Comparative Justification: "The pain is not the worst it could be." and 3. The Pragmatic Justification: "The pain may produce something better."(42)

Why treat pain?

Is the apparent under-treatment of pain ethically justifiable? The answer is 'no'. The fundamental principle of responsible medical care, *primum non nocere* (first do no harm), should be interpreted and applied properly in the care and treatment of children suffering pain. Pain is harmful for patients. Relieving pain is a fundamental duty of every care-giver.

We cannot put aside the gold standard for pain assessment, self-reporting. At the same time, as clinicians engage in paediatric care, we need to ensure that children who cannot communicate their experiences of pain clearly, such as mentally challenged or very young children, also receive fully appropriate pain recognition and pain management. Asking the patient or the patient's family or immediate caregivers about the patient's experience of pain is crucial. Perhaps most especially in paediatrics, where the temptation may be even greater, we need to avoid the threat of the physician's hubris: 'I am the expert.' Rather, for the evaluation of pain, we need to recognise that the expertise here lies with the sufferer, even the very small child lacking any sophisticated communication skills. As paediatric clinicians, our expertise should be focused on listening first, then diagnosing, and this followed by adequate and appropriate pain management.

The pathophysiology of pain should be an integral part of medical education and paediatric research. Paediatric clinicians have a professional obligation to integrate pain recognition and pain management into child healthcare fully, such that the state-of-the-art handling of pain is fully based on the listening ear of the paediatrician, medical competence in diagnosis supported by state-of-the-art knowledge on the pathophysiology of pain, and the application of the most advanced techniques and medicines for pain management.

The growing awareness and concern with pain recognition and pain management in paediatrics, as evidenced by the increasing number of medical publications concerning pain in children, should be supported by strong clinical approaches to pain management in children. No one should suffer pain unnecessarily, children not in the least.

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