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Review

Challenges associated with paediatric pain management in Sub Saharan Africa

R. Albertyn [a,*], H. Rode [a], A.J.W. Millar [a], J. Thomas [b]

[a] Department of Paediatric Surgery, Red Cross Children's Hospital, University of Cape Town, South Africa
[b] Department of Paediatric Anaesthesia, Red Cross Children's Hospital, University of Cape Town, South Africa

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ABSTRACT

The African child is particularly vulnerable to disease and injury, and subsequently, to pain and suffering. Factors such as inadequate training, language barriers, cultural diversity, limited resources and the burden of disease prevents sick and injured children from receiving basic pain care. This situation can only be rectified by providing pre and post graduate training on the safe use of analgesic preparations, the availability of drugs and government support.

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1. Introduction

The burden of disease and the potential for suffering weighs heavily on Sub Saharan Africa. This continent bears 24% of the global burden of disease, but only 3% of the health care force, and a paltry 1% of it's financial resources are available. Estimates revealed that 36 of 57 countries do not meet basic standards for health care are in Africa.[1]

Despite the ambitious goals set out by international efforts (e.g. United Nations millennium developmental goals[2] and the 1990 World Summit for Children), children in Africa are more likely to face illness and death before the age of 5 years, than in any other region in the world. Almost 98% of the 10.5 million child deaths occurred in children from lower income countries. The main causes of death are a combination of poverty, lack of good nutrition, lack of sanitation, lack of adequate health care as well as HIV/Aids, and the inability to treat communicable diseases (e.g. pneumonia, diarrhea and malaria).[3] Because of the lack of an enabling environment treatment programs have to be adapted to local circumstances, governed by fiscal, personal, infrastructure, government policies and customs and believes.

The above mentioned factors bring with it a significant potential for pain and suffering. Until now, paediatric pain management has been left largely unaddressed. Many factors (e.g. limited resources, inadequate training, cultural diversity and language barriers) will result in sick and injured children not receiving basic pain care.

Why – with the ever increasing global knowledge on paediatric pain management, pharmacology and the development of new technology, why do children in Africa miss out on improved treatments?

This paper will discuss the barriers preventing paediatric pain management in Africa, focusing on conventional practices only and not taking local customs and beliefs into account.

2. Barriers preventing paediatric pain management in Africa

Children in pain rarely, if ever, receive the attention they need. The ability to manage pain is one of the factors that divides developing countries from developed countries.[4] In Sub Saharan Africa, children have to cope with massive problems (e.g. disease, poverty, ineffective health care systems) in addition to not receiving basic pain management for disease, surgery or injuries. There is a paucity of information regarding pain management practices which may indicate that pain medication is not available, or that the practice is not documented, or that it is in such common use that it is not commented on. The latter however does not reflect international practice. What follows is an exploration of the barriers (access, attitudinal and legal[5]) that prevent the treatment of childhood pain in Sub Saharan Africa.

2.1. Access barriers

The availability of pain medication is essential for the treatment of pain. Unfortunately, pain relief, is to a large extent, unavailable to the poorest people in the world.

* Corresponding author.
E-mail address: rene.albertyn@uct.ac.za (R. Albertyn).

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2.1.1. Lack of analgesic medicine

The supply of analgesic medicines, particularly narcotics, is problematic in most developing countries. Even when available, access barriers will prevent the distribution of these drugs. Estimates indicated that almost 80% of those diagnosed with cancer do not have access to analgesic medicine. In Africa, 39% of palliative care providers do not have access to strong opioids, while for 41%, morphine was not available. A main hospital in Malawi only has aspirin (considered to be unsuitable for children) as an "always available" analgesic. No alternative analgesics are available for children at this hospital.[6]

According to the World Health Organization (2006), factors such as opioid addiction, misuse of drugs, lack of knowledge, and strict national laws, could account for the low opioid use in Africa.[7] For example, the use of Pethidine in Uganda for 2004 was 0.2272 mg/capita in contrast with South Africa which consumed 3.7694 mg/capita. South Africa's morphine consumption for 2004 was 4.6682 mg/capita in comparison to Uganda's 0.4001 mg/capita, Tanzania's 0.3250 mg/capita and Zambia's 0.0704 mg/capita.[8]

Peter, a Liberian father tells the story of how he had to watch his 5-year-old son suffer continuous pain for more than two months – the time it took him to save enough money to pay for treatment. It is estimated, that, because of inaccessible health care, a child dies every 3 s of a preventable disease in Sub Saharan Africa, and that the death and suffering of 800 children a day could have been prevented if health care was freely available.[9]

2.1.2. Lack of education and access to information

African health care workers are faced with limited access to literature, expensive text books on pain, and a lack of available training, when attempting to learn about childhood pain.[6] Few are trained to recognize, measure and assess pain and anxiety in paediatric patients. Many of the measurement instruments validated in developed countries are unsuitable for use in the more multi cultural setting found in African hospitals. Decision making in pain management is further hampered by ignorance regarding specific factors (e.g. facial expressions, individual characteristics, cultural differences, the uniqueness of the child and physiological indicators) which are all important for the assessment of pain.[10]

Literature on childhood pain management is scarce. While pain journals are expensive, internet access is limited in many African countries. In the early 1999s, only 1 million of the 700 million people in Sub Saharan Africa had internet access – of these, 80% lived in South Africa.[11] Today more people have internet access, but regular power cuts, and the inability to access journals online, prevents people from obtaining knowledge.[12] A recent PUBMED search on "paediatric pain management in Africa" revealed a total of only 14 articles containing information on the use of drugs (e.g. lignocaine, ketamine or tramadol) or the management of anaesthetic complications. In addition, when PUBMED was searched for "pain assessment children Africa" a total of 57 articles were found, in which the focus was placed on pain as a diagnostic aid, the efficacy of a drug or anaesthesia and analgesia.

Very little, if any under – and post graduate training specifically in paediatric pain management exists at university level. A PUBMED search revealed that only 19 and 7 articles respectively dealt with the training of African nurses and doctors in pain management. In these articles, with the exception of one, pain was used to identify underlying pathology. An exciting program introduced in Uganda during 2000–2004, saw the laws changed to allow specifically trained nurses and clinical officers, to prescribe and use morphine. This project now ensures that morphine is available to palliative care for those who need it.[13]

2.2. Attitudinal barriers

Language barriers and cultural differences all impact on the management and assessment of pain in children. Pain management is often dependant on the attitudes, culture and believes of health practitioners and is often tarnished by myths and misconceptions. Rampanjato's (2007) study on factors influencing emergency room nursing practices in pain management in a hospital in West Africa, revealed that cultural factors influenced the perception of pain management. Nurses ($n = 28$) interviewed in this study believed that opioids caused addiction and that the patient's need for analgesia was a sign of weakness (even in children). They also believed that pain was an expected consequence of injury and that pain medication could interfere with healing.[14] Donald and McNeil (2007) published an article in the New York Times on the availability of drugs in poor countries such as Sierra Leone, stating that narcotics incite fear; doctors fear addiction and law enforcers fear drug related crimes. Government elite, who can afford analgesic drugs, are often indifferent to the suffering of the poor in their countries.[15]

Culture and language also play a significant but often unrecognized role in pain management, especially in multi cultural, multi language settings in Africa (e.g. South Africa which has 11 official languages and cultures). Levin (2006), in a survey on barriers to optimal care, interviewed 53 Xhosa speaking parents whose children were treated at the Red Cross War Memorial Children's Hospital in Cape Town, South Africa. Study findings identified language and cultural barriers as major obstacles for these parents when seeking health care for their children. For example 64% of the parents included in the study, indicated difficulties in understanding doctors, or making themselves understood when discussing their children's health problems.[16]

Schlemmer and Mash (2006) reviewed the effects of language barriers in South African hospitals. This study revealed cross cultural misunderstandings, decreased satisfaction with care, decreased quality of patient care, and negative patient and staff attitudes.[17] Communication and cultural barriers may place limitations on the child's ability to recount pain and anxiety to those responsible for care. Health professionals have to be sensitive to the variations in children's responses to pain, as well as communication styles, as the meaning of pain varies between cultures. In some instances, the communication that one is suffering from pain might not be acceptable or tolerated.[18]

2.3. Legal barriers

Essential medicines, as defined by the World Health Organisation are "those medicines (e.g. opioids) that support priority health care needs". Unfortunately, the use of opiates is restricted by regulations, policies, a lack of availability and education regarding its use. Many developing countries are faced with further limitations such as poor health care systems, lack of infrastructure, staff shortages and limited funds. Additional controls stem from opiates being listed as both essential medicines, and class 1 narcotics.[19] Additional barriers to prevent access to analgesic medicines originated from efforts to restrict the opium trade. Unfortunately, policies today focus on preventing drug abuse, instead of providing pain relief. In many countries more attention is given to the war on drugs (crime) than the war on pain.[15] Regulations to prevent drug abuse contributed to a fear of drug dependence, which in turn, led to physicians avoiding prescribing opioids, and a subsequent loss of knowledge on how to use them.[20]

2.4. Solutions

- It is vital to a) to increase the awareness of pain as a physical and emotional insult which if not treated results in significant

morbidity and b) to provide for the resources needed in pain management.
- Access to appropriate analgesic drugs is as essential as is adequate training on the responsible use of these drugs.
- Pain management should be seen as a priority in health care provision, and, as such, will require the distribution of protocols, and the setting of minimum standards.
- Support from governments and policy-makers is vital, and must be included in the development of pain management standards and protocols. Only then will the access to pain relief be seen as a basic human right.

3. Conclusion

The following comment was made by the international community in 1990: "*Together our nations have the means and the knowledge to protect lives and to diminish enormously the suffering of children. In the words of Fleshman (2002): Eighteen years later, and despite best efforts, it looks like the world's leaders failed to deliver. Pain and suffering, illness and the lack of health care, is still as present as it was in the past. While others watch and wait, Africa's children are suffering.*"[3]

Conflict of interest statement

The authors have no conflict of interest to declare.

References

1. Kumar P. Providing the providers – remedying Africa's shortage of health care workers. *The New England Journal of Medicine* 2007;**356**(25):2564–7.
2. UNICEF. Millennium developmental goals: combat HIV/Aids, malaria and other diseases. 2004. Available from: www.unicef.org/mdg/disease.htm.
3. Flesman M. A troubled decade for Africa's children: trapped by poverty, disease, war and insufficient aid. *African Recovery* 2002;**16**(1):6.
4. Bosenberg AT. Paediatric anaesthesia in developing countries. *Current Opinion in Anaesthesiology* 2007;**20**(3):204–10.
5. Taylor AL, Lawrence OG, Pagonis KA. Ensuring effective pain treatment: a national and global perspective. *JAMA* 2008;**299**(1):89–91.
6. Morris C. New report expose wide scale lack of access to essential analgesics. From the world hospice and palliative care day. 2007. Available from: http://www.worldday.org/documents/access.
7. Adams V, Bertolino M, Ddungu H, Delima L, Finch L, George R, et al. Access to pain relief – a basic human right. Report for the hospice and palliative care day. 2007. Available from: http://www.worldday.org/documents/access_to_relief.pdf.
8. Availability of morphine and pethidine in the world and Africa. Advocacy for palliative care in Africa: a focus on essential pain medication accessibility. 2006. Available from: http://www.medsch.wisc.edu/painpolicy.
9. Joranson DE. Availability of opioid analgesics in Africa (editorial). *Journal of Pharmaceutical Care in Pain and Symptom Control* 1998;**6**(4):1–4.
10. Abu-Saad H, Hamers J. Decision making and paediatric pain: a review. *Journal of Advanced Nursing* 1997;**26**:946–52.
11. Sparus BLW, Gupta SK. Research in family medicine in developing countries. *Annals of Family Medicine* 2004;**2**:S55–9.
12. Noutcha AE. Powerless science: African scientist on African science. *TWAS Newsletter* 2004;**16**(3/4):10–8.
13. Jagwe J, Merriman A. Uganda, delivering analgesia in rural Africa: opioid availability and nurse prescribing. *Journal of Pain and Symptom Management* 2007;**33**(5):547–51.
14. Rampanjato RM, Florence M, Patric N, Finulane BT. Factors influencing pain management by nurses in emergency rooms in Central Africa. *Emergency Medicine Journal* 2007;**24**:475–6.
15. Donald G, McNeil JR. Drugs banned, many of the worlds poor suffer in pain. Available from: *New York Times* http://www.nytimes.com; Sept 2007.
16. Levin ME. Language as a barrier for care for Xhosa speaking patients at a South African paediatric training hospital. *SAMJ* 2006;**96**(10):1076–9.
17. Schlemmer A, Mash B. The effects of language barriers in a South African district hospital. *SAMJ* 2006;**96**(10):1084–7.
18. Davidhizar R, Giger JN. A review of the literature on care of clients in pain who are culturally diverse. *International Nursing Review* 2004;**51**:47–55.
19. World Health Organisation. Selection and rational use of medicines. 2008. Available from: http://www.who.int/medicines/areas/rational_use/en/index.html.
20. Scholten W, Nygen-Krug H, Zucker HA. The world health organization paves the way for action to free people from the shackles of pain. *Anesthesia and Analgesia* 2007;**105**:1–4.