Developing Pain Services Around the World

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Summary

This chapter examines the state of pain care for children in developing countries. Various barriers to pain care, such as knowledge deficits, bureaucratic issues, and types of pain, are discussed. Potential strategies for change are explored, including examples from a number of projects initiated in developing countries. Action research is presented as a scientific approach to produce change and build capacity for pediatric pain management in low- and middle-income countries in a contextually sensitive way.

Key Words: Pediatric pain services; developing countries; action research; international development; qualitative research; cancer pain.

1. Introduction

Since the late 1980s, children’s pain has become recognized as both an important clinical problem and a focus for developmental and clinical research. This work has resulted in comprehensive pain services for children in some (but not all) hospitals in industrialized countries. However, such pain services are not readily available to children living in the developing world, where there are multiple barriers to care. In this chapter, we explore factors that put children in developing countries at increased risk for pain, as well as those barriers that impede pain prevention and treatment. We draw on the minimal research conducted in this area as well as our personal experiences consulting on delivery of pain care in a number of developing countries.

Developing country is a widely used, but poorly defined, term. The World Bank uses relative, rather than absolute, criteria to define low- and middle-income countries (LMIC) as those countries “in which most people have a lower standard of living with access to fewer goods and services than do most people in high-income countries” (http://youthink.worldbank.org/glossary.php). The World Bank defines these countries based on their gross national income (GNI) per capita. These countries are shaded from light to dark gray in a world map, with the darker shaded countries being the richest in terms of GNI per capita. The map is available at http://youthink.worldbank.org/education/education-occasional-papers/chapter1/figure1.1.jpg.
Trade Organization allows countries to define themselves as “developing” or “developed.”

According to the United Nations \(^{(1)}\), there are 45 “least-developed countries” as defined by a low income (less than $900 per capita gross domestic product), weak human assets (a composite index based on indicators of nutrition, health/child mortality, education, and adult literacy), and economic vulnerability (based on indicators of agricultural instability, instability of exports, economic importance of nontraditional activities, and economic smallness). The United Nations groups other countries as “developed market economies” or “countries in Eastern Europe”; all countries outside these three groups are “developing.”

The Canadian International Development Agency ranks countries based on human development index (combining three dimensions of development: longevity—life expectancy at birth, knowledge—adult literacy and mean years of schooling, and income). On that ranking, Canada is 4th and Sierra Leone is 177th (of 177; see http://www.acdi-cida.gc.ca/CIDAWEB/webcountry.nsf/VLUDocEn/SierraLeone-Factsataglance). The Canadian International Development Agency also provides information on per capita gross national income and purchasing power parity, which helps define the challenges faced by individual governments.

For the purposes of this chapter, we use the terms developing countries and LMIC interchangeably to refer to poorer countries with inconsistent health care resources.

As of 1997, the total population in the 125 developing countries with populations of more than 1 million was more than 4.89 billion (http://youthink.worldbank.org/glossary.php). Of the world’s population, 80% lives in the developing world, and this is expected to increase to 88% by the end of the 21st century, with the most dramatic increase in the next 50 years (http://www.worldbank.org/depweb/english/beyond/beyondco/beg_03.pdf). In Africa, the population is expected to quadruple, and in Latin America, it is expected to double. The population in Europe may decrease by 18% and is aging \(^{(2)}\). Thus, the vast majority of children live in developing countries, yet medical and health research has not addressed their issues \(^{(3)}\).

We know that pain is still generally undertreated in the developed world for both adults and children \(^{4–8}\). There is also mounting evidence that incidents of unmanaged adult pain in LMICs are widespread. For example, Muirden \(^{(9)}\) noted that pain is frequently not recognized or addressed in Papua New Guinea and quoted Dr. Puka Temu, the Secretary of Health in Papua New Guinea, as saying “most of our patients die and in pain, which is not the way to die at all, given the many currently available treatment modalities for pain control in patients.” Similarly, while conducting research in Uganda, Merriman \(^{(10)}\) found that, despite good home and hospital care for patients receiving palliation, pain was not always treated adequately. Recognizing the lack of consistent