Child Health Care in the Era of Evidence-Based Medicine

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Current medical and public health practice in general and pediatric and child health in particular should depend on sound and up-to-date evidence generated through well-conducted research. This notion actually underpins the concept that seems to have crystallized and started to appear in the literature in the '80s as 'evidence based medicine' (EBM) (1,2). EBM was clearly defined for the first time by Sackett D.in the early '90s (3) as 'the conscientious, explicit, and judicious use of the best evidence in making decisions about the care of individual patients', which simply means integrating individual clinical expertise with the best available external evidence from systematically conducted research (4). The relevance and applicability of EBM to developing countries, including in the African setting, have subsequently been adequately emphasized (5-7).

With EBM, best available evidence and care providers expertise must be used in the light of the patient's "values and circumstances", which constitute a key pillar for clinical decision as we connect the strict statistical methodology to the humanistic doctor-patient relationship (8-11).EBM emerged with the birth of statistics and diffusion of scientific methods into medicine, gradually replacing "experience-based medicine", which pretty much depends on the skills and experiences of the single practitioner. Historically, "experience-based medicine" was antedated by "authority-based medicine", which had its basis on the authority of the 'Master', a cultural leader of the ancient societies (11). The Master could not be challenged or refused and the practitioner was just a passive executor of the decisions of the Master. Unlike authority or experience-based medicine, decision-making in EBM hinges very much on the results of specific clinical and basic research keeping patient's perspective at the heart of the decision making process– 'the Hippocrates Oath'.

Over the last few years, 'guidelines-based medicine' has emerged as a major modality of medical care, which involves reconstituting literature evidence in to summaries that serve as general references for practitioners and patients to make decisions about care of specific clinical conditions (12).Guidelines simply are statements that include recommendations, intended to optimize patient care, that are often informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options (12,13). These are obviously valuable tools, which help in delivering evidence-based care at affordable costs. However, experience and observations to date have shown that guidelines quickly become the unchallengeable, almost "divine" truth (14).

They also tend to get rigid and restrict the “freedom” of doctors and health care staff (15).The general observation nowadays is that guidelines are getting at the center of our medical practice rendering practitioners to gradually become passive executors of decisions that are pre-formed by others(16). Whether modern health care is unwittingly heading back wards authority-based medicine is an issue we need to look into and may need to guard against.

From the perspectives of child health, the pivot of the clinical decision making process remains to be the pediatrician and child health care provider. She/he is expected to critically and systematically appraise evidence in the latest literature and prune it to the needs of children requiring care to reach a shared decision with the child, parents or guardians. The availability of published evidence is imperative for appraisal and use for action by the pediatrician. On a wider scale, we recognize that the research-action-research cycle has provided the underpinning for many of the most remarkable achievements in global health exemplified by the dramatic declines in child mortality that have occurred over the past few decades (17).Yet still today, there are relatively limited research activities pertaining to children and missing links in the available evidence as well as barriers hampering children from accessing benefits from research outputs (18).

Of the five leading causes of premature death and disability globally, three are primarily or exclusively childhood diseases - respiratory infections, perinatal conditions and diarrhoeal diseases (19). Mortality rates among newly born infants remain relatively high. We know for long now that the greatest impact on child health in general is associated with a few factors, including low birth weight, nutrition, the environment, and poverty and inequity (20).There are many correlates, determinants and consequences to this and other child health challenges, which we need to unravel through penetrating epidemiological research. Evidence generated on prioritized challenges will be vital to address existing and emerging burdens and threats in child health, growth and development. In our setting, the combination of research and action as a major determinant in enhancing child health need to be promoted and major gaps filled. Improving child health requires investments to broaden local research capacity and ensure that research addresses local needs. Indeed, the needs are well highlighted by the suggestions of a recent and relevant Cochrane review at Debre Berhan Referral Hospital: ‘Ethiopian health professionals have unmet training needs and want support through professional development workshops and an improved education system to provide high-quality evidence-based healthcare’ (21).

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