

Head Start, Nutrition, and Problems of Poverty in Childhood

Head Start is one of the most effective ways of addressing the multiple interrelated problems of poor families with children—specifically, to make sure that they get enough nourishing food. Reviewing the paper by Dr. Bollella and her colleagues at the American Health Foundation [1] reminded me of advice given by my father who lived through the great Depression of the 1930s. “If times get tough, take a job in a restaurant, you can eat two big meals and several snacks. You won’t starve.” Head Start seems to fill that role.

The data presented show that preschool-age children attending “all-day” Head Start actually consume 1/3 of the daily energy and most nutrient requirements expected by the government in funding school feeding programs [2]. Half-day students do not meet this goal as they do not have enough “eating time.” For some nutrients, specifically iron (44%) and Vitamin A (63%), all-day children have a ratio of percentage of daily intake of nutrients as compared to calories substantially greater than one. These high percentages for the most expensive nutrients, calculated on a cost-per-100 calories basis, raises concern for the effects of poverty in these families [3,4].

Admittedly, advocacy in science, such as I am presenting here, is a risky business and has no place in the presentation of research data. The eugenics movement serves as a model of evil consequences, usually unintended, resulting from advocacy [5–7]. Nevertheless, malnutrition is a common phenomenon among poor children in the United States [4]. The data provided by Dr. Bollella and colleagues point to a solution. Had this same paper derived from a query “could diet advice affect the likelihood of lung cancer in smoking families of Head Start children,” authors from the American Health Foundation would certainly put smoking as a “first cause” for lung cancer and address *not* smoking as a recommended outcome. Similarly, the role of poverty in producing a need for food supplemental in programs providing nutrition, freeing money for food and other expenses deserves comment.

School feeding programs have a “double origin.” The first was to keep farm families and the agricultural economy working. The second, from the McGovern, Committee’s work of 30 years ago, was to keep our nation’s children well-fed and

healthy [2]. Moreover, as David Rush noted in his introduction to the National Evaluation of School Nutrition Programs, there is great advantage to be gained when poor families and communities are able to appreciate concern, rather than neglect, from society at large [8].

Food supplementation programs are extremely effective in preventing malnutrition in both developing countries and among the poor in the United States [4,9,10]. Rebecca Blank, in her recently published “It takes a nation: A new agenda for poverty,” notes that food support, along with direct income supplements and progressive tax structures, has effectively removed the elderly in the United States from poverty while their absence has led to rising rates for poverty for families with children [10]. As noted in a prior commentary published in the *Journal* [11], in the United States, families with children at the tenth percentile for income have one-sixth the income of affluent (90th percentile) families with children [12]. For no other industrial democracy is the ratio lower than one-to-four.

How malnutrition follows poverty

Hunger and malnutrition, following a rise in food costs [13], spending on other necessities [14,15], and just plain poverty [16], illustrate the “Engels phenomenon” where food selection narrows to those items which provide the most energy at lowest cost [3,4,17]. If this continues for sufficient time essential nutrients—those at highest cost for energy—disappear from the diet and malnutrition ensues. The cost to society from this phenomenon is to have a population of undernourished children who then evidence various health and learning problems [4].

Why food supplement programs are effective

Widespread malnutrition will be prevented by food supplement programs [9]. Moreover, they are extremely effective in reversing the consequences of the Engels phenomenon [3,4,17]. In the United States, provision of food stamps, school lunches and breakfasts and the special program for Women, Infants and Children (WIC) do a good job of offering foods with a high nutrient density affecting the most important nutritional deficiency impacting on children in the United States, that of iron

[18]. Money left over can be used to purchase the remaining caloric requirements in foods of high nutrient density. Hence, these food programs have a “double effect.” As a result, nutrient intake is equal to that of middle income families, and the Engels phenomenon is reversed [3,4,17]. Still, these supports are often referred to as “welfare dependence,” implying that there is an unearned benefit to the recipient. Actually, the benefit of these programs is to children and to society by creating a healthy population able to learn, work and earn [3,9,19]. They do not create “welfare dependence” since supplemental programs provide essential food to working families and their children [4,9,10,18,20].* Contemporary food programs have never been shown to be a detriment to work. Rather, they are an alternative to the bread lines and soup kitchens of a post-Victorian era [21].

The study of Bollella and colleagues [1] provides evidence of the effectiveness of Head Start as a school-based food supplementation program for children. It is an example of our doing something right in the United States. Would that it be so more often!

* Note that one well known nutritionist-physician, George Graham, has attacked the concept of nutrition support programs as promoting obesity and a “welfare mentality” [20].

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