

January 1980

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### Recommended Citation

Hills, A. P. (1980). Nutrition and the Primary School Child. *Australian Journal of Teacher Education*, 5(2).  
<http://dx.doi.org/10.14221/ajte.1980v5n2.3>

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## **NUTRITION & THE PRIMARY SCHOOL CHILD**

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There is a great need for nutrition education in the primary school. With a greater range of foodstuffs available today, it is necessary to educate children in choosing the correct foods to eat, and why they should eat them in preference to others. The concept of nutrition is related closely to the growth and well being of the child and subsequently should be an important part of a child's primary school education.

Nutrition is intimately involved with serum lipids, hypertension, hyperglycemia and obesity. Because of this, intervention should be directed at altering patterns of nutrition. Since the likelihood of altering adolescent and adult patterns of nutrition is very remote, the main thrust of a programme to alter nutritional habits should be in infancy and early childhood. (Mayer, 1968; Seltzer and Yayer, 1970; Dupin and Senecal, 1971; Cochrane, 1965.) However, adults and adolescents cannot be neglected in the educational process, for in order to effect change, parental understanding and co-operation are essential, in fact the whole family must be involved for any change to be lasting.

Surveys clearly indicate that typical meal habits of school age boys and girls are far from satisfactory with intakes of certain nutrients short of the amounts recommended for good nutrition in children. Furthermore, diets tend to worsen rather than improve as children continue through grades to high school (Lewis and Coy, 1976; Bruch, 1973; Bowden, 1973).

If the trend is to be reversed, some means must obviously be found whereby all children receive guidance in building good food habits. The school, where other basic learnings are acquired becomes the logical place for nutrition education. Moreover the younger the individual and the less fixed his habits, the greater are the possibilities for the acceptance of nutrition education and for improved nutritional practices.

Dr. Jean Mayer (1969), noted nutritionist, outlined that the general public in America had an appalling ignorance of energy value and nutrient content of food. He urged States to include nutrition education as part of the public school curricula, specifically a human physiology course (including nutrition), at the high school level. Many educators and nutritionists however, agree that study of nutrition subjects should begin earlier in life and that the motivation for later study must be established at the primary level. Nutrition education begins for each child the first day of his life and continues throughout his life. With each new food, the child establishes likes and dislikes, certain habits of eating and attitudes toward food. By the time he enters primary school his eating habits are generally firmly established. In the school environment these habits may be influenced directly or indirectly by the comments or behaviour of playmates and teachers - especially an authority figure.

The groundwork of a child's eating habits, good and bad, have been laid in his home and the home where he has most of his meals, will continue to be the primary influence on the way he eats. Recognition of this fact is essential to the success of any nutrition education programme.

Because eating habits that are established in infancy or early childhood often persist into adult life it seems desirable to teach infants and children to eat in moderation. A more rapid gain in weight is noticeable when infants are bottle-fed rather than breast fed which seems to reflect the tendency of parents to overfeed when using a bottle (Garrow, 1978; Stewart and Westropp, 1953; Mellander et al, 1959; Fomon et al, 1971). It has been postulated that the breast fed infant is allowed to stop nursing when he feels that he has had enough, whereas the bottle-fed infant is commonly encouraged to finish the last drop in the bottle. This is a cumulative example as once beikost is introduced the child may not only finish all the bottle given but also clean the plate as well. This very encouragement to continually overeat may be a strong contributing factor to early established habits of overeating that would persist through later life (Garrow, 1976).

Ounstead and Sleight (1975) report that there are "powerful self-regulatory controls within the infant" which determine how much milk it will take from a bottle and during recovery from malnutrition children switch off their burst of catch-up growth when they reach the appropriate weight for their height (Ashworth, 1974). A particularly interesting speculation has been described by Hall (1975). The composition of human breast milk (and that of other mammals) changes during the feed and it is quite likely that this is an important factor in teaching the child to recognise where it is in the course of a feed at the breast. If this is correct the bottle-fed baby is at a certain disadvantage, since it has a milk of constant composition and flavour and is thus deprived of any landmarks to help him navigate in this difficult area (Garrow, 1978).

The background information above is extremely important to both parent and teacher. Without the understanding and aid of parents, the school will meet only partial success in influencing the food habits of its pupils, particularly those in lower grades. Despite the strong home influence, schools can play a distinctive role in the nutritional welfare of the children (Martin and Coolidge, 1978; Cornacchia and Staton, 1974).

Teachers have an opportunity to create situations that promote good food habits, notably the school lunch. Learning to know what to eat and why, is an essential aspect of a child's education. This is one way to give him the opportunity to make the most of his abilities and help him prepare to assume responsibility for his own health. He must come to know at the appropriate learning level for him, that nutrition makes a difference in growth, fitness, prevention and recovery from disease and appearance.

Children do not instinctively choose the foods they need for good nutrition. Each primary school child should learn that certain foods have

special importance for health and that regularly choosing combinations of such foods in meals is the basis of good food habits. The school is in a unique position to relate nutrition to other learnings and can be incorporated in a broad range of subjects from physical education to social science. Too often nutrition is handled only incidentally and not enough time is devoted to it as a separate area. Properly handled, a nutrition programme could strengthen and reinforce any good food habits developed in the home. At the same time it helps a child substitute good habits for any poor ones he may have developed.

In the primary school the greatest responsibility lies in the hands of the classroom teacher. He or she has hourly contact with pupils and therefore an opportunity to know the general health of each child, and to determine their nutritional needs. The teacher may gather information such as the following:

- A. His present food habits.
- B. His general state of nutrition and health.
- C. His environment as it affects his food habits.

The nutritional needs of a child are suggested by his routine eating habits. They show which food he eats in recommended amounts, which he omits or slights, and those in which he over indulges. It is therefore desirable to find out his consumption of foods, in amounts and kinds, on a typical day, how meals and snacks are interspersed throughout the day and what they contain. There are several ways to do this:

- A. Individual talks - child or parents.
- B. Conference with parent and child.
- C. Class discussion.

Parents should be informed in advance of a food habit survey, its purpose and how they may assist it. A questionnaire can be used to obtain a written record for children's food practices. It can be administered to record food eaten during the past 24 hours. Children in upper primary grades are capable of self recording, while it would probably be better to interview younger children. It is possible to obtain supplementary information about their food habits by talking to the mothers and to the children themselves.

There are some problems however. One of these is that the meals are recorded merely on memory. Moreover, most children are sufficiently aware of the foods that are "good" for them to substitute or add a few such foods, thus creating a more favourable picture than actually exists. Regardless of its shortcomings, if filled out with maximum accuracy, the questionnaire should serve its main purpose: discovering those food habits of the children, as a group, which need primary attention. A possible precaution to contribute to the accuracy of the recall is to administer the questionnaire in 2 or 3 instalments:

1. Applied at the opening of school in the morning - breakfast.
2. Directly after lunch - mid morning snacks and lunch.

3. When school opens on the second morning - meals and snacks of the previous afternoon and evening.

Following each segment the teacher may collect and hold the sheets. It may also be important to have each child understand that you are only interested in obtaining a factual record, that he will not be singled out for class discussion. A study of the completed questionnaires will give you a rough overview of the food habits of the children in the class. If there is a problem with breakfasts, for example, it will tell you quickly if the children are skipping the meal entirely or eating breakfasts obviously poor in quantity and quality. Or perhaps lunch is deficient? Are snacks composed predominantly of sweets, and do they appear to affect the content of the meals that follow? These and other findings will usually indicate the need for certain broad habit changes. In the higher grades it may be valuable to compare their 24 hour input with that recommended for children of their age group (Thomas and Corden, 1970, 1977; Acton, Smith and Alcock, 1968).

Obviously, seeing the amounts and kinds of food a child eats is better than any questionnaire record. Rarely is this possible except for the school lunch, which usually represents only about one third of the day's food consumption. Observations of lunches reveal likes and dislikes as shown by those foods accepted or rejected from the school lunch, tuckshop and miscellaneous snack foods purchased when available.

The school lunchroom or lunch area is an excellent place to practice desirable food and health habits, and, because eating is a daily activity, these habits can be readily reinforced. Because a nutritionally adequate meal contains a variety of foods, children should have the opportunity to try, and subsequently learn to enjoy, new foods. A student will naturally have more enthusiasm for trying new foods if he is familiar with their history and knows their value in relationship to his own growth needs.

You will not fully understand your pupil's nutritional needs until you know their parents and the homes from which they come. You need to know, for example, the meal habits of the family, what influences the family meal pattern, the emotional climate of the home, and the family's economic position. Changing food habits even in children is not easy. Children's food habits are inseparable from family food habits and family food habits, in turn, are deeply rooted in racial, religious and family practices. A number of studies have shown that parents exert a potent influence on the food habits of children even at the older ages. This is not surprising in view of the fact that children eat at least three quarters of their meals at home where adults largely control the menu.

Sleep, rest and outdoor play are also environmental factors that influence the nutrition of children (Martin and Coolidge, 1978). Shortage of sleep increase the waking hours, when a child is more active and therefore using more energy, and reduces the amount of time when body processes slow down and thus conserve energy. Often the result is a child who is too thin. Loss of sleep also fosters nervous tension, which further increases food needs while usually diminishing appetite. Lack of sleep then may result in nervous, irritable, undernourished children.

Too much confinement and lack of outdoor play are likewise negative factors in maintaining good food habits. Poor appetite for wholesome foods is a frequent outcome. This may lead to undernutrition or may result in an overconsumption of food which can result in overweight, or an upset of the individual's energy balance.

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## TEACHER DENIGRATION : SOCIETAL EXPECTATION, OR PAR FOR THE COURSE

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Once the classroom door is closed the teacher is in charge, though reminiscent of power tripping, is a popular assertion fraught with misconceptions of some magnitude. This paper attempts to explore such an assertion in the hope that once the content of the assertion is identified the training and education of the teacher would be more efficient and effective.

It is a truism to say that the teacher is a product of the society in which he teaches. Like all truisms of course the truth is hidden within a web of explanation at times extremely difficult to uncover. The teacher has been continually subjected from birth to information over-load concerning schooling, politics, religion, art etc., and his/her place in the general scheme of things. That this information was in the form of a covert, unplanned and incidental gift from society's authority figures is inconsequential. However, as the child aspiring teacher matures and learns to read, write and compute the influences on him take on a carefully engineered pattern. Not that there is some master mind at work carefully indoctrinating the aspirant, far from it and herein lies one of the difficulties in pinning down the major influences on the aspiring teacher. Even more difficult to separate out, for the purposes of throwing light on the societal inquiries affecting an aspiring teacher are those actual people who know that they are going to be teachers. For the purposes of this paper it is assumed that those who do not become teachers are subjected to much the same influences as those that do and consequently it will be argued that at the time job selection is made, societal attitudes to teaching have been already implanted in the teacher and non-aspirant. These societal attitudes can be examined under the umbrella concept of who has the key role in influencing the aspiring teacher: parents, peers, pushers, police or politicians.

### Parents

Parents themselves once went to school. This sole effort, within this context, qualifies them as experts on teachers and teaching. That such a statement can be proven to be demonstrably false is not at issue. The nebulous concept of the average parent can be brought into play at any non-educational gathering to give support to such a statement. The statements typically began with something marginally obnoxious: the sooner the frills are removed and the education system returns to normal the sooner will real education be put back into the schools. However, within a very short period of time the self styled experts range over the whole gambit of educational endeavour. One major premise is necessary in such debates, that being that the good old days, for obvious obstetric reasons are any time usually greater than 25 years, i.e., beyond the realm of experience of the average aspiring teacher. The good old days were those days where recitation and respect were highly valued; respect for basics and recitation of the same. Everyone understood what