

NUTRITION EDUCATION FOR PREGNANT WOMEN

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INTRODUCTION

The application of good nutrition in preventive health care for mother and child is especially important during the crucial prenatal growth period. One way to improve the diets of pregnant women is to provide nutrition education, although increased knowledge alone cannot guarantee change. Many factors influence a person's eating habits and nutritionists must learn to understand those factors before they can begin to promote changes. The process of change itself is complex and is another factor to consider. Nutritionists can take advantage of a pregnant woman's concern for her baby to promote dietary improvements.

The purposes of this paper are to: 1) discuss the relationship of nutrition during pregnancy to the health of the infant; 2) discuss the philosophy and application of nutrition education; and 3) review nutrition education programs developed for pregnant women.

MATERNAL NUTRITION AND PREGNANCY OUTCOME

Some of the health problems of newborn infants are related to maternal nutrition during pregnancy. The effects of maternal nutrition on the outcome of pregnancy are reflected by several measures of infant health.

Measures of Health

Infant mortality and morbidity. According to Vermeersch (1), infant mortality rate, a measure of deaths occurring during the first year of life, remains high in the United States as compared to several other developed countries. The U.S. ranks thirteenth, with a rate of 16.5 deaths

per 1000 live births in 1974. The largest number of infants die during the first 28 days of life. These neonatal deaths usually are related to prenatal factors, including immaturity. Immaturity can be caused by being born preterm or being born small-for-date. Perinatal mortality varies more directly with birth weight than with actual length of gestation.

Birth weight. Immaturity is reflected in a low birth weight (LBW) of less than 2500 g. Neonatal deaths occur thirty times more often in LBW infants than in normal weight infants. In addition to the higher death rates, Vermeersch (1) cited the high incidence of handicapping conditions which afflict LBW babies, such as cerebral palsy, epilepsy, mental retardation, illnesses, visual and hearing disabilities, behavioral disorders, and learning problems in school. According to the Committee on Maternal Nutrition of the National Research Council (2), the birth weight of the baby is dependent on several factors, including the height and prepregnancy weight of the mother. These factors reflect the nutritional status of the mother; they are based on lifetime dietary habits. A strong positive relationship also exists between the weight gain of the mother during pregnancy and the birth weight of the infant.

Effects of Malnutrition During Pregnancy

Animals. Vermeersch (3) reviewed the use of dietary restrictions of animals during pregnancy to determine the negative effects of malnutrition. The general finding was that maternal malnutrition can be the cause of growth failure and LBW babies. Growth failure was seen on the organ and cellular level as reductions in the number and size of cells in the placenta, in the number of brain cells and head size, and in the size of other organs. The effects of maternal malnutrition on the fetus depend on the timing, severity, and duration of the reduced nutrient intake.