WEANING PRACTICES AMONG EGYPTIAN MOTHERS

THESIS

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BY

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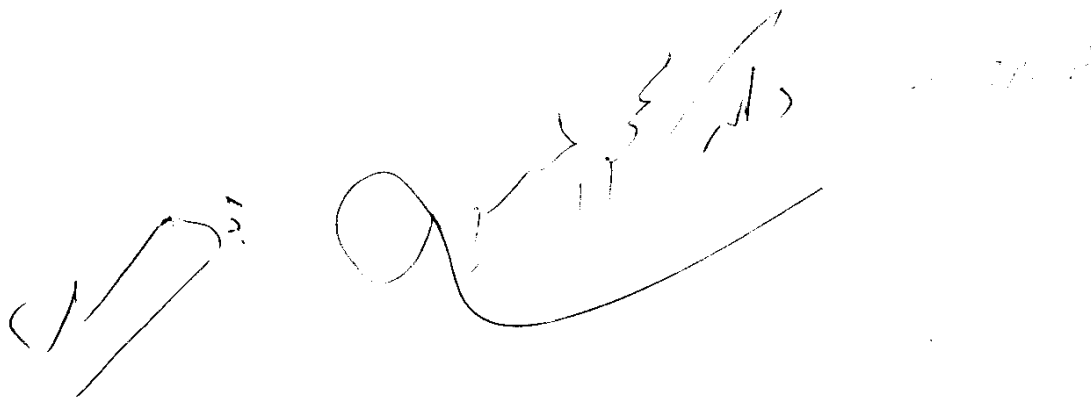

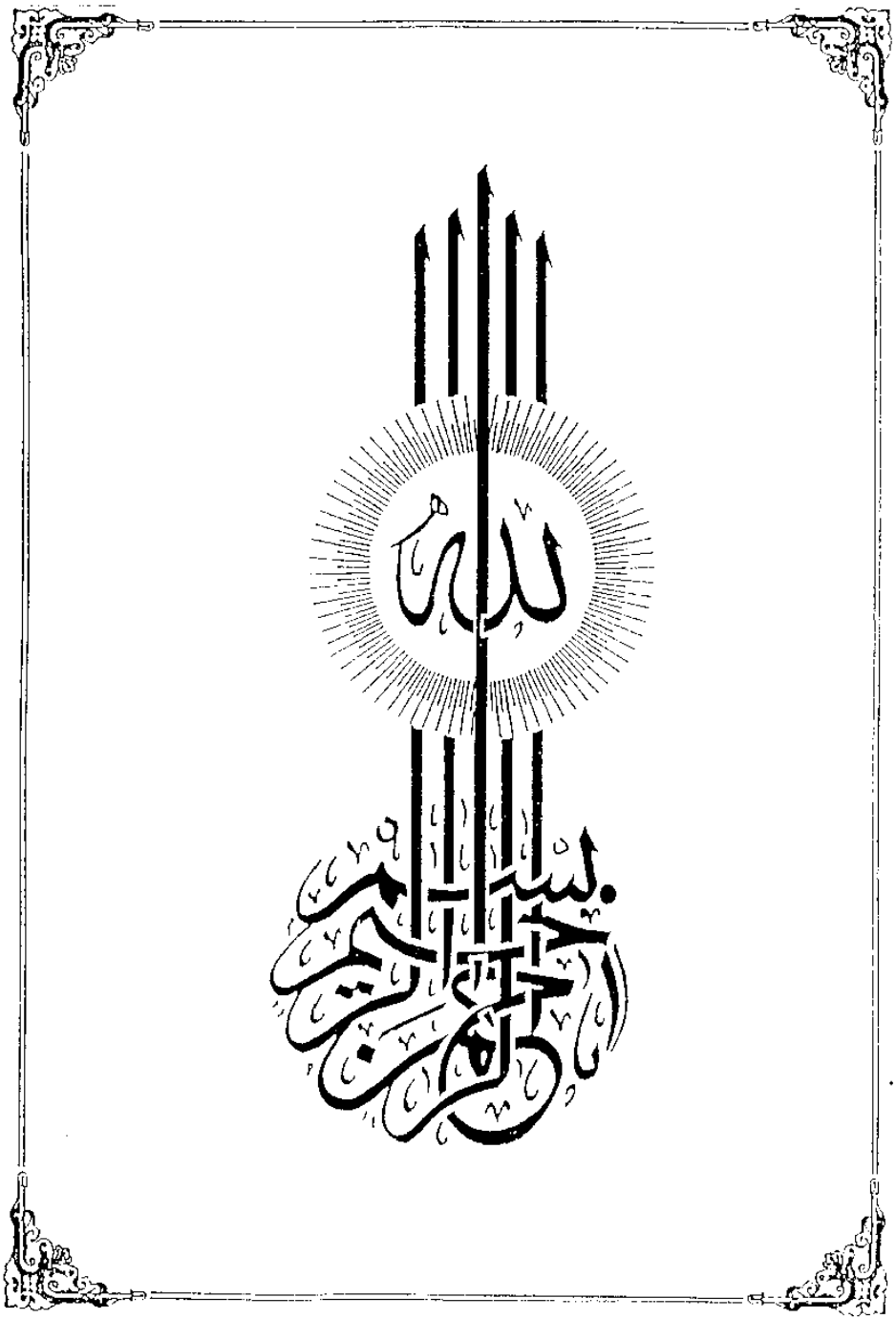

C O N T E N T S

INTRODUCTION

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According to Dorland Medical Dictionary, to wean is to discontinue the breast feeding of an infant with substitution of other feeding habits, while definition of weaning in Stedman's Medical Dictionary is to deprive permanently of breast milk and to nourish with other foods.

WHO defines weaning as "the gradual replacement of breast milk with another food in the diet of the child until finally this leads to cessation of breast milk "But it means more than removing the child from the breast. Weaning includes the long critical period when the child adapts to other adult foods while continuing to breast feed. Any item besides breast milk given to the infant in any manner, solid, semisolid or liquid represents a weaning food (Brown, 1978 and Gretchen, 1982).

The Unicef definition (Editorial, 1984) states that "Weaning is the transitional stage when a young child's diet gradually changes from one of milk alone to a diet based on what the family eats. Weaning begins when the child is introduced to foods other than breast milk (or a breast milk substitute) and is

completed when the child is fully accustomed to the regular family diet. During weaning the child should continue to be breast fed since breast milk is an important nutritional supplement to the weaning foods.

It is emphasized that the weaning process is naturally a lengthy one, lasting many months rather than few weeks and that the provision of additional foods need not inhibit a mother capacity for lactation as long as these foods are administered in the correct fashion (White-head, 1985). So, by the end of the weaning process, the infant no longer recieves breast milk or milk from a bottle. Weaning is a vulnerable period in an infant's life during which the child is still growing extremely rapidly and has just about to run out of maternal protective antibodies (Darwish et al., 1982). During weaning, the incidence of diarrhoea and malnutrition is high, making the risk of mortality greater than at any other time.

Adequate feeding is essential for the rapid growth and development of infants and children. It supplies the body with energy and nutrients required for growth and maintenance of cells and biological process (Khalil, 1981). In many parts of the world, malnutrition results simply from unavailability of sufficient food, but in a

significant extent, mal-nutrition also occurs from adverse dietary practices either from ignorance or customs. This can be corrected by different use of foods that are locally available. Infants and young children are frequent victims of customs that restrict proteins in their diets. These restrictions are particularly damaging during the time of weaning.

Weaning also has a social and psychological aspect. The special relationship between mother and child evolves as the child becomes more independent and other family members assume responsibility for the child. Weaning practices are related to many factors as economic, social, cultural and environmental factors. These factors play a role in what children eat and how they will be fed. The weaning process varies widely among different cultures: when the practice is initiated and terminated, the variety, quality and quantity of the weaning foods, the manner in which the food is provided. The variations in practices range from providing a food even before the first breast feeding, to feeding nothing but breast milk for as long as 12 months, and include feeding from a cupped hand to use of a modern feeding bottle (Under wood, 1985).

Poverty, social deprivation, large family size and low educational standard of mothers are the most important socioeconomic factors associated with malnutrition. (Robson and Wadsworth, 1977).

The home preparation of appropriate weaning foods will depend on the knowledge and attitude of mothers. The mother is principally responsible for feeding the child and she is the key to efforts to improve infant feeding practices (Editorial, 1979). Therefore, health education must be relevant. But it can be relevant and successful only with the most respect-ful knowledge of a community's customs, attitudes, practices and taboos. For these reasons clarification of actual practices of weaning among Egyptian mothers and detection of association between the pattern of the practice and some biological and socioeconomic variables may open the way and help in planning a more practical and relevant health education program.

REVIEW OF LITERATURE

INFANT NUTRITION

Breast feeding

Breast feeding is considered to be of priority interest as regard to pediatricians, nutritionists and specialists in health and infant feeding (Berg, 1973). It is extremely important to infants not only because of its nutritive substances but also because of its emotional and psychological advantages (Silver et al., 1980). Breast feeding is considered to be the ideal food for the infant particularly those in rural areas up to 6 months (Park, 1971), and it is not only the most suitable feeding for the infant nutritionally but also economically (Jelliffe and Jelliffe, 1979).

The American Academy of pediatrics, 1963 has stated that "breast feeding is recommended for all full term and vigrous preterm infants because human milk is nutritionally sound and because breast feeding tends to facilitate a close mother-child relationship (Hambreaus, 1977).

The importance of breast feeding appears also on the long run as mother's milk is important for the prevention of a number of diseases of adults as allergic manifestations, obesity and atherosclerosis. It is also

stated that only mother's milk contains all the elements essential for the development of the brain, jaws and teeth (Park, 1971).

Forfar and Arneil, 1978 stated that the infant fed on mother's milk gets all his nutritional requirements in optimal amounts. So he is less likely to develop gastroenteritis, kwashiorkor, neonatal tetany, hyperosmolar dehydration, infantile eczema, cow milk allergy and idiopathic hypercalcemia. All infectious diseases are less frequent in breast fed than in bottle fed infants as mother's milk contains many anti-infectious agents which are effective in protecting the infant specially during the neonatal period when they are vulnerable to infection. Breast fed babies rarely develop diarrhoea in comparison with artificially fed babies, specially in unhygienic places (Mata and Wyatt, 1971). This was explained by Goldman, 1977 who showed that bacteria present in the maternal intestinal tract stimulate intestinal lymphocytes that migrate to maternal mammary glands where they produce IgA. These antibodies are excreted with mother's milk and provide specific protection against organisms present in mother's environment.

From the begining of history, breast feeding was the only way to feed infants and the only alternative was wet nursing (Hambraeus, 1977). and it was mentioned in Talmoud, Bible and Holy Koraan that the prophet moses was fed in this way at the order of pharaon's daughter.

Constituents of mother's milk change according to different conditions and from time to time. Milk collected at preterm has a higher nitrogen content than that collected at full term and this is suitable as preterm infant requires higher protein content than full term infant. Human milk composition also changes from one period of lactation to the next one depending on the frequency of lactation (Pipes, 1982). Taste, consistency and fat concentration at the begining of feed differ from that at the end. This may be responsible for producing a sense of satiety and control of appetite (Hall, 1975).

Artificial lactation

Artificial feeding is the alternative of breast feeding when the mother is unable to breast feed her infant. Artificial feeding is usually derived from animals' milk and it is essential to be of adequate

nutrients, economic, readily available and sterile (Forfar and Arneil, 1978). To depend on artificial feeding as an alternative to breast feeding, there should be food industry to produce infant's food of high quality, it should be cheap to be within the reach of poor classes and the mothers should have the time and equipments to prepare food under hygienic conditions. In developing countries, mothers are not trained to prepare artificial food correctly. So the infant is given insufficient highly diluted formula. Milk powder is a suitable form as bacteria can not grow on dry powders. They are much safer than liquid preparations (Davidson et al., 1975). Gastroenteritis is more prevalent among bottle fed infants than among breast fed infants as human milk contains lactoferrin that inhibits growth of pathogenic intestinal microorganisms (Hambraeus, 1977).

Supplementation in early infancy to prevent deficiency diseases

Malnutrition is highly responsible for the increasing rate of mortality among infants and children in developing countries. So adequate nutrition and proper supplementation to breast or bottle feeding is essential (Jelliffe, 1966).

The results of the Egyptian national nutrition survey, 1978 point to the high prevalence of anemia among preschool children. The highest prevalence is among infants of age group 12-23 months suggesting that the lower intake of food sources rich in iron, (legumes, meat, eggs and vegetables), during weaning is an attributing factor to the high prevalence of anemia in this age period. Breast milk and Cow's milk contain 0.5 - 1 mg iron/L., but iron deficiency anaemia is more common among bottle fed infants than among breast fed infants (Wooddraff, 1977). This can be explained by the fact that breast milk contains lower protein, lower phosphate, higher lactose and higher vit C in comparison with Cow's milk and each factor of these facilitates iron absorption. Infants, require iron supplementation at 5 months of age before iron stores are exhausted. The adequate iron dose to prevent iron deficiency anaemia is 2 mg/kg/day.

The recommended daily requirement is 10 mg/day till 6 months of age and 15 mg/day between 6 months and 3 years (Lundstrom et al., 1977 and Wooddraff, 1977). So iron supplementation should begin no later than 4 months of age in term infants and 2 months of age in preterm infants, otherwise iron deficiency anaemia will result (Willard, 1982).