Ecology of Food and Nutrition
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/gefn20

Infant feeding style in Urban Kenya

Penny van Esterik [a] & Terry Elliott [b]
[a] Department of Anthropology, York University, Downsview, Ontario, Canada
[b] Cornell University, Ithaca, New York, U.S.A.

Available online: 31 Aug 2010

To cite this article: Penny van Esterik & Terry Elliott (1986): Infant feeding style in Urban Kenya, Ecology of Food and Nutrition, 18:3, 183-195

To link to this article: http://dx.doi.org/10.1080/03670244.1986.9990924

Ecology of Food and Nutrition, Vol. 18, pp. 183-195
0367-0244/86/1803-0183 $18.50/0

INFANT FEEDING STYLE IN URBAN KENYA

PENNY VAN ESTERIK† and TERRY ELLIOTT‡

Department of Anthropology, York University, Downsview, Ontario, Canada and Cornell University, Ithaca, New York, U.S.A.

(Received December 6, 1984; in final form October 28, 1985)

The concept of infant feeding style is developed as a self-consistent way of making choices about infant feeding and applied to a study of infant feeding practices of low income women in Nairobi, Kenya. Personal and shared styles, interaction style and eating style are examined using both cross sectional survey data and results of ethnographic fieldwork. The dynamics of status and change are discussed using the concept of feeding "in style."

Mothers' different interpretations of breastfeeding, cow's milk and infant formula are reflected in the statistical analysis of their feeding patterns. The emphasis on breastfeeding as a process, cow's milk as a food, and infant formula as a superfood, explains the infant feeding patterns observed and points to the importance of the concept of infant feeding style for developing culturally appropriate infant feeding policy.

KEY WORDS: Infant feeding; child care; food categories; urban Kenya (Nairobi).

INTRODUCTION

In 1981-82 an infant feeding study funded by the U.S. Agency for International Development and designed by a Consortium of the Population Council in New York and Cornell and Columbia Universities was conducted in Thailand, Indonesia, Kenya and Columbia. The study was designed to examine the determinants of infant feeding practices among the urban poor, including the role of women's paid employment, modern health care systems, marketing practices, government programs and policies and other important social, biological, economic and cultural determinants. The concept of infant feeding style developed during the process of comparing and integrating data from these different sites.

Various methods were used to collect this information. Cross-sectional data were collected on mother-child pairs in each country using large scale sample surveys. These were designed to produce representative statistical evidence of feeding patterns and their determinants in each of the study countries. In three of the countries, similar techniques were used on a smaller scale to question health care workers on their knowledge, attitudes and practices regarding infant feeding. Data were culled largely from secondary sources for the substudy on government policies and practices. Development plans, budgets and agency and ministry reports were supplemented with information from key informant interviews.

Marketing data were collected using several standard techniques. Retail audits were done on a representative sample of retail outlets handling breastmilk substitutes, and key informant interviews were conducted with company representatives and shop keepers. Questions on marketing practices and consumer

† Formerly Research Associate in the Division of Nutritional Science, Cornell University.
‡ Worked with the Kenyan Central Bureau of Statistics on infant and child health and nutrition.

issues were included, as well, in the large cross-sectional surveys questionnaire administered to mothers in each country.

An important data source in each country was an ethnographic component consisting of fieldwork carried out before the cross-sectional survey and marketing components were begun. This fieldwork was designed and used to revise and generate hypotheses, guide the collection of survey data, inform the analysis of that data and create a separate but complementary data base to which the survey data could be compared and related. The ethnographic component was also important for drawing overall conclusions from the entire body of work and in making policy recommendations (Van Esterik, 1983).

The local ethnographic teams spent approximately three months working in three or four neighborhoods in each study site: Bangkok, Bogota, Nairobi and Semarang (Java). During the first phase of the fieldwork, the teams observed from ten to twenty families in each neighborhood in order to describe their infant feeding practices and how mothers in particular view infant feeding.

A second phase of ethnographic fieldwork was conducted after the start of the cross-sectional data collection to look in more detail at certain aspects of feeding patterns or determinants uncovered either by the initial phase of the ethnography or early returns from the survey data collection. For example, in Kenya the ethnographers studied infants in the ward for the malnourished in a large government hospital to understand how household circumstances contribute to infant malnutrition. By developing family histories, the ethnographers alerted the research team to the complexities of marital and economic struggles faced by many poor Nairobi families (Kogi, Njogu, and Okello, 1983).

The concept of infant feeding style grew out of the experience of trying to integrate several different methodologies and approaches to the study of infant feeding in the four urban areas of Thailand, Indonesia, Kenya and Colombia. While the cross-sectional survey data could be compared across the four countries, the content of community ethnographies and case studies was more culturally specific and difficult to compare. In the search for a means of conceptualizing the similarities and differences between the four sites, Kroeber (1948), Redfield (1960) and Bourdieu's (1984) work on style was useful. In this paper on infant feeding style in Nairobi, and forthcoming papers on Indonesian, Thai and Colombian infant feeding style, the concept of style is used to communicate fundamental cultural assumptions underlying infant feeding decisions. Through critical review and feedback, the concept of infant feeding style may be improved and developed throughout the presentation of the four papers. This approach complements but does not replace related analyses on specific determinants of infant feeding patterns in the four countries (for example, Research Consortium, 1984).

STYLE

Style is a concept that is often used in the analysis of aesthetic expression. It refers to the manner of expression characteristic of an individual, a period of time and a place. It is a self consistent way of performing certain acts requiring deliberate and coherent choices in the way something is done. In Kroeber's usage, style is a way of achieving definiteness and effectiveness in human relations by choosing or evolving one line of procedure out of several possible ones and sticking to it (Kroeber, 1984). Bourdieu (1984: 56) developed the concept of stylization of life to refer to the systematic commitment which orients and organizes diverse practices (such as

infant feeding) into what in its broadest sense we call life-style. Style encompasses both expressive acts, as well as shared images of the sanctioned way of behaving, and the values, attitudes and beliefs associated with that behavior. The concept of style has practical use since it combines actual behavior resulting from deliberate choices (in this case, infant feeding practices) and the meaning of these practices according to informants. The best concrete illustrations of this abstract concept are dress style, music style, writing style and the elusive but important concept of life style.

We speak of shared styles and personal styles. Since the locus of personal style is a single individual, then behavior and meaning are integrated and consistent for that person. In this research project, for example, the case studies of individual mother-infant pairs illustrate examples of personal style of infant feeding. Yet, within Nairobi, there is also a shared style of infant feeding which differs from the style of infant feeding in other countries.

Infant feeding style refers to the manner of feeding an infant characteristic of an individual, a time and a place. Some aspects of shared infant feeding style persist through income, class and ethnic differences, and thus cannot be said to explain intra-cultural diversity within Nairobi. Existing class and ethnic differences can be thought of as transformations of the pervasive underlying quality or style of infant feeding. The number of personal variations and alternative infant feeding styles known to mothers within any one community is also an important feature of style. Do mothers assume that rich and poor feed their infants differently? Or do they assume that everyone feeds infants in the same way? These perceptions of alternatives are part of infant feeding style.

Just as dress styles change through time, so infant feeding practices change through time by similar processes, for example,

- long term historical changes — such as from homemade infant foods to industrially produced infant foods;
- short term oscillations or cyclical trends — as in North American shifts in pediatricians' advice to bottle feed or breastfeed, or to feed on demand or on schedule;
- changes in meaning, often related to status symbols — breastfeeding is taken-for-granted, or it is old fashioned, or part of the natural foods movement, etc.

Style reflects functional concerns such as income and time constraints and is affected by both external (trade agreements, colonial history) and internal (innovations, inventions) factors. Style reflects interaction between individuals and groups. For example, increased interaction between different ethnic groups in a city, or close contact between rural migrants serving as domestics and their wealthier employers, will affect the overall infant feeding style in each place. Style influences and is influenced by structures such as health care institutions and marketing systems. Although we focus primarily on style in this paper, we will suggest in the final section why the interaction between style and structure has important policy implications.

EVIDENCE FOR STYLE

Research on infant feeding in Nairobi was conducted by the Central Bureau of Statistics (CBS) and the African Medical and Research Foundation (AMREF) as

part of the four-country infant feeding study. The study consisted of a cross-sectional survey of 980 mother-child pairs from low and middle income areas, marketing, government and medical infrastructure substudies and two brief ethnographic studies.

The ethnographic fieldwork provided case studies of 64 Luo and Kikuyu households with children under 18 months of age living in a section of southwest Nairobi (Kogi, Njogu and Okello, 1982). Within this community are found mud-walled rooms with no amenities, multifamily houses with shared cooking and bathing facilities, small self-contained houses and tenant-purchase maisonnettes. The area was chosen because of its wide range of ethnic and socio-economic groups and its accessibility for the three ethnographers travelling to the area every day. Research methods employed included participant observation and informal interviewing based on an interview guide. On regular rounds to visit mothers and infants, the ethnographers gradually focused on the households with which they had the best rapport. In addition, mothers often introduced the ethnographers to others in the neighborhood who also had children under eighteen months. The trusting relationship which gradually developed between ethnographer and informant permitted the development of detailed life histories and a deeper understanding of why mothers fed their infants as they did.

The evidence for style includes both survey results and ethnographic observations and interpretation. Although we have indicated clearly which of our statements are supported by survey results and which are from observation, we have chosen not to separate survey results in tables from observational data. The two sources of information are complementary and reinforcing (The whole style is greater than the sum of the ethnographic and survey parts!). Often, the interpretation of survey results is informed by the life experiences of the women studied in the community ethnography. The statistics cited come from the cross-sectional survey and are given as exact percentages of respondents (Elliott and Kekovole, 1983). Both kinds of information are broadly representative of the urban poor and middle income population of Nairobi.

INFANT FEEDING STYLE

Infant feeding style is only one aspect of eating style and interaction style, which themselves must be considered as part of the much broader concept of life style. Mother-infant interaction and family eating style are introduced here briefly as background context for breastfeeding style and the discussion of the preferred breastmilk substitutes and foods introduced to the infant or young child, and their patterns of combination. It is not enough to examine breastfeeding patterns without considering the other foods offered in combination to make a complete meal. Figure 1 illustrates the infant feeding categories generated by mothers' descriptions of infant feeding, survey data and observation and is used here to define infant feeding style in Nairobi. The dynamics of changes in these patterns are discussed later.

Interaction Style

A newborn infant is immediately viewed as a family member — a new son, daughter, grandchild, brother or sister joining the household. The family takes great

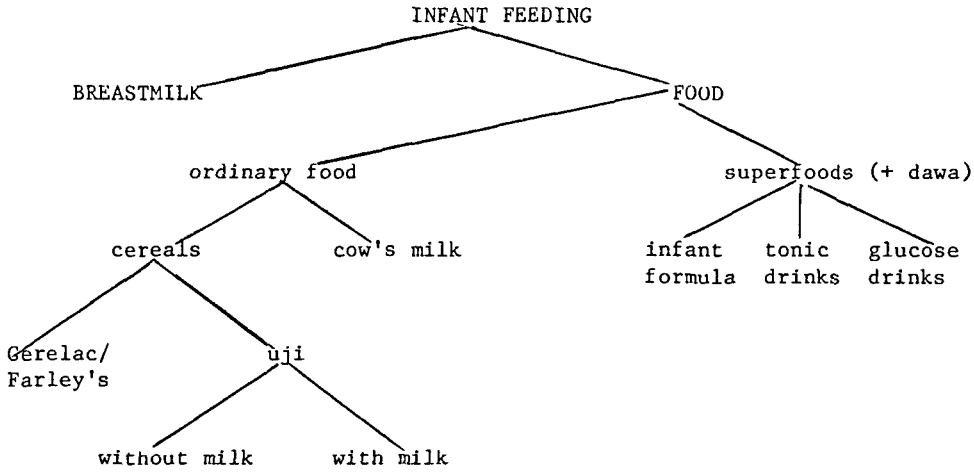

FIGURE 1 Categories of infant feeding used by Kenyan mothers

pleasure in newborns, even putting scarce resources into purchases like knitted suits and special baby clothes and equipment.

Infants are constantly seen in public on the streets of Nairobi, often tied with a cloth (*Kanga*) to mothers' or sisters' backs, with their legs and arms constrained. As one mother explained, "carrying a baby in front looks uncomfortable." Mothers prefer to take their babies to market with them (51%) or to meetings (38%), and are likely to have their infants with them at church (68%). Seventy-one percent of mothers reported their children slept in the same bed with them, while an additional 28% slept in the same room.

In Kenya, infant feeding is clearly a social act. While mothers take primary responsibility for food preparation and feeding, the responsibility may be shared with others, particularly other female relatives and older brothers and sisters in the household. Mothers assume primary responsibility until the next infant arrives, at which time the older child is often passed on to a sibling to care for.

Fathers seldom act as mother substitutes and view infant care as women's responsibility. They may even move out of the domestic unit altogether after the baby is born or sleep in another room. This distancing of the father may reflect traditional tribal values which often required fathers to be separated from their wives until the new infant is weaned. The long postpartum abstention from sexual intercourse common in polygynous tribes is not adhered to in Nairobi today, where most women felt that they should abstain from intercourse for only three months after childbirth.

Fear of infant death is still great in Nairobi, where the experience of infant loss is common. Grandmothers, sisters, aunts and daughters or the mother herself may all have lost one or more infants. Although the current infant mortality rate, 87 per 100 (Central Bureau of Statistics, 1981b) is the lowest in this century (Central Bureau of Statistics, 1981a), data from the Kenya Fertility Survey shows that more than half the women 35 years of age or older have experienced a child death (Central Bureau of Statistics, 1979).

Yet mothers do not freely discuss or admit to the death of a young infant. (Only ten survey mothers reported that an infant had died during the previous 18 months,

substantially fewer than would be expected given infant mortality data.) Nairobi women's style of infant feeding is reflected in their careful choice of infant foods. When an infant dies, mothers would be likely to attribute it to the will of God (*shauri ya mungu*) rather than to errors in the way they chose to feed their infant, although many are aware that poor feeding can cause illness.

Eating Style

Meals in Nairobi are relaxed but structured events, with older infants generally being fed with children and adults. In wealthier households women and children may eat before the men of the household, but in poor families, all family members share a communal meal. Meals are structured around a common pot staple such as a thick boiled maize meal (*ugali*) accompanied by a soup or stew. The main staple is commonly prepared in the evening when family members return from school and work, bringing with them food or cash to buy food items. In the poorest households, staple dishes may be prepared only once a day and reheated until they are finished. But snacking or nibbling leftovers between meals is not encouraged.

The division of labor is quite strict, with women preparing and serving food, obtaining water and fuel for cooking and cleaning up following meals (or supervising domestic servants). Communal cooking is uncommon. Although there has been a great deal written about food restrictions for women and children in East Africa (Trueblood, 1970; May and McLellan, 1971), these Nairobi women did not discuss food beliefs restricting their own diet or that of their children. Sex differences are not apparent in the 24-hour food recall or the weaning age of the infants.

According to mothers, infants, like adults, need several meals a day to keep healthy and strong. Child feeding is not an occasion for worry or concern as long as there is food available and the baby eats. But mothers become anxious if an infant or young child does not eat enough, since they associate their infant's loss of appetite with potential illness. To avoid these problems, tonics are sometimes used to help increase infants' and children's appetites.

Breastfeeding Style

The act of breastfeeding can be conceptualized in a number of different ways. We can distinguish between breastfeeding as a process and breastmilk as a product. Either process or product may be emphasized in different contexts. By separating these concepts, we may be able to understand more about breastfeeding style in a particular country.

First, let us examine the process interpretation, since in Nairobi breastfeeding as an activity or process is more salient than ideas about breastmilk as a product. The Swahili phrase *kumnyonyesha matiti* means to offer the breast, an action or process oriented term. Kikuyu and Luo languages also emphasize the process of breastfeeding. Breastfeeding is what mothers naturally do after the birth of their babies. Breastfeeding quiets a baby, keeps it happy and keeps it alive. While meals are scheduled events, breastfeeding occurs any time. Mothers breastfeed their infants whenever they fuss. Nearly all mothers (96%) reported that they found breastfeeding pleasurable.

Breastfeeding is not considered a particularly difficult or problematic activity although it is considered time consuming. It is not something that women worry about, talk about or complain about. For example, 85% of women surveyed reported that they had no problems associated with breastfeeding. During the

process of breastfeeding, breasts may get too full or leak if the infant does not take enough milk. But that is the nature of breastfeeding, not a problem. Thus, mothers are unlikely to seek advice on how to solve these possible problems.

Because the process of breastfeeding is viewed as natural and unproblematic, neither women nor medical personnel have a single coherent set of cultural instructions or rules for managing breastfeeding problems. As a result, medical personnel are not sensitive to the idea that mothers might need assistance, nor do they provide consistent practical advice about infant feeding. Since they view breastfeeding as a very natural unproblematic process, they do not emphasize infant feeding methods with their maternity patients. Only 40% of mothers receiving prenatal care recall being told anything about infant feeding. The advice health professionals provide is, therefore, highly dependent on their own personal experience. Nurses in particular would be likely to present negative experiences to the mothers if they have had to balance work schedules and infant care without practical advice themselves. Among a sample of around 200 female health care professionals, 42% stopped breastfeeding their youngest child before six months of age (Nyanzi, unpublished data, 1983). Advice doctors give is probably based more on medical training and course materials than clinical experience, since mothers say they would not ask doctors about breastfeeding problems. Yet mothers put weight on what they advise.

Although the *process* of breastfeeding is stressed in Kenya more than breastmilk as a *product*, there is some consistency about the way Kenyan mothers think about the product breastmilk. It is produced from food but is not easily affected by the particulars of a mother's diet. It is most affected by pregnancy and 86% of survey mothers agree that a woman should not breastfeed when she is pregnant. But this belief is more connected with traditional rules about sexual activity, abstinence and adultery during the period of time a woman is breastfeeding rather than concern with substances such as semen or forbidden foods altering the characteristics of her breastmilk. However, there is some concern with bad milk, thin or watery milk or milk that is too yellow reported elsewhere in East Africa.

Breastmilk is sweet and light (not heavy) and is warm in quality and temperature. Cold milks are harmful for infants. There is only one product produced from the breast and that is breastmilk. Although there is no semantic distinction made between breastmilk and colostrum in most tribal languages, Kikuyu women made the distinction that the earliest milk produced for a calf, *githana*, is critically important for the survival of new calves. Kikuyu mothers used this analogy in discussing their own breastmilk. More significantly, there is no prejudice against colostrum, and 75% of survey mothers began breastfeeding within 24 hours of childbirth. During the course of breastfeeding, the breastmilk is thought to remain the same; that is, mothers do not talk about early milk, late milk, milk for a newborn or milk for a six-month-old child as being different. Once again, this emphasizes the process rather than product orientation of breastfeeding.

To summarize Kenyan breastfeeding style, breastfeeding is something that mothers and infants do and is not simply perceived as feeding an infant. But as part of the infant feeding style, breastmilk alone is not considered sufficient for a baby. Just as an adult needs several foods to have a complete meal, so mothers tend to view breastmilk as only part of an infant's meal. Evidence for this is found in the early age of supplementation with solid and semisolid foods among study mothers. More than 70% of the children surveyed had been given food supplements before they were four months old. This is not because breastmilk as a product is inferior to other foods but simply that meals consist of several foods, and even total and exclusive breastfeeding provides only part of a meal. It is difficult to say with certainty

whether this approach to supplementing breastmilk is a recent urban phenomena or based on longstanding tribal traditions.†

Infant Formula

Cow's milk and infant formula, sometimes combined within the classification of breastmilk substitutes, are conceptualized and used differently from one another by Nairobi mothers and will be discussed separately here. Figure 2 illustrates the percentage of children receiving cow's milk, breastmilk, and infant formula by the child's age in months.

Because Kenyan women experience few problems associated with breastfeeding, we should not expect to see infant formula used extensively except as an occasional substitute bottle for working women. However, such is not the case. Over half the infants and young children in the study had at some time received infant formula, and 25% were being fed infant formula at the time of the survey.

Infant formula is regarded as a supplement to accompany breastfeeding rather than as a replacement for breastmilk. Infant formula feeding peaks at three months and then falls off. Most mothers continue breastfeeding through this period of use and for an extended period thereafter. When asked if they would prefer to bottle-feed instead of breastfeed if they had more money, 60% said they would not. For many women, infant formula is not considered as equivalent to or an adequate substitute for mother's milk.

Infant formula instead seems to be widely viewed as a superfood (compare Jelliffe, 1967) or a food with special properties (see Figure 1). These foods act as *dawa*, a Swahili term used for both western and traditional medicines and also for the charms or amulets used by traditional medical practitioners. The analogy with *dawa* is inferred from observations and patterns of use rather than informants' labelling of infant formula and needs to be tested more systematically before the term can be considered an "emic" category.

Other superfoods may provide an extra boost to a child's diet as well. Glucose and tonic drinks are very popular and easily available in even the small shops around Nairobi and give an infant an "extra good start in life." These drinks may also be used as appetite stimulants and purges, both important functions of food for children. Ribena (black currant concentrate), and other products advertised as health tonic drinks, are reassuring to poor mothers who assume these products are valuable for their children.

The use of glucose drinks follows a similar pattern to that of infant formula with a peak use at around two months of age followed by a sharp decline. The use of infant formula and glucose solutions in hospitals and maternity units adds to their aura as superfoods.

---

† While there are no surveys on weaning practices from the last century, there are clues that suggest that four months was the average age for starting weaning foods, with rural children receiving foods earlier than urban children (Mgaza, unpublished data, 1982). A helpful reviewer pointed out that Dr. S. Ominde in *The Luo Girl* mentions the average age at which babies were given gruel is one month, and from the third to the sixth month, breast milk and gruel continue to form the child's main diet until gruel prevails over breastfeeding. But weaning foods vary by region with maize and beans most common in Central Kenya; rice, cassava and nuts on the coast, millet and fish in the west, and milk and meat in the north and the rift valley. Women often mentioned sitting as a cue for adding foods on a more regular basis. It is likely that there were a number of different patterns of supplementary feeding in rural areas. The urban markets provided easier access to infant formula and commercial weaning foods and may have encouraged giving larger amounts of supplementary foods at an earlier age. This, however, remains to be tested.

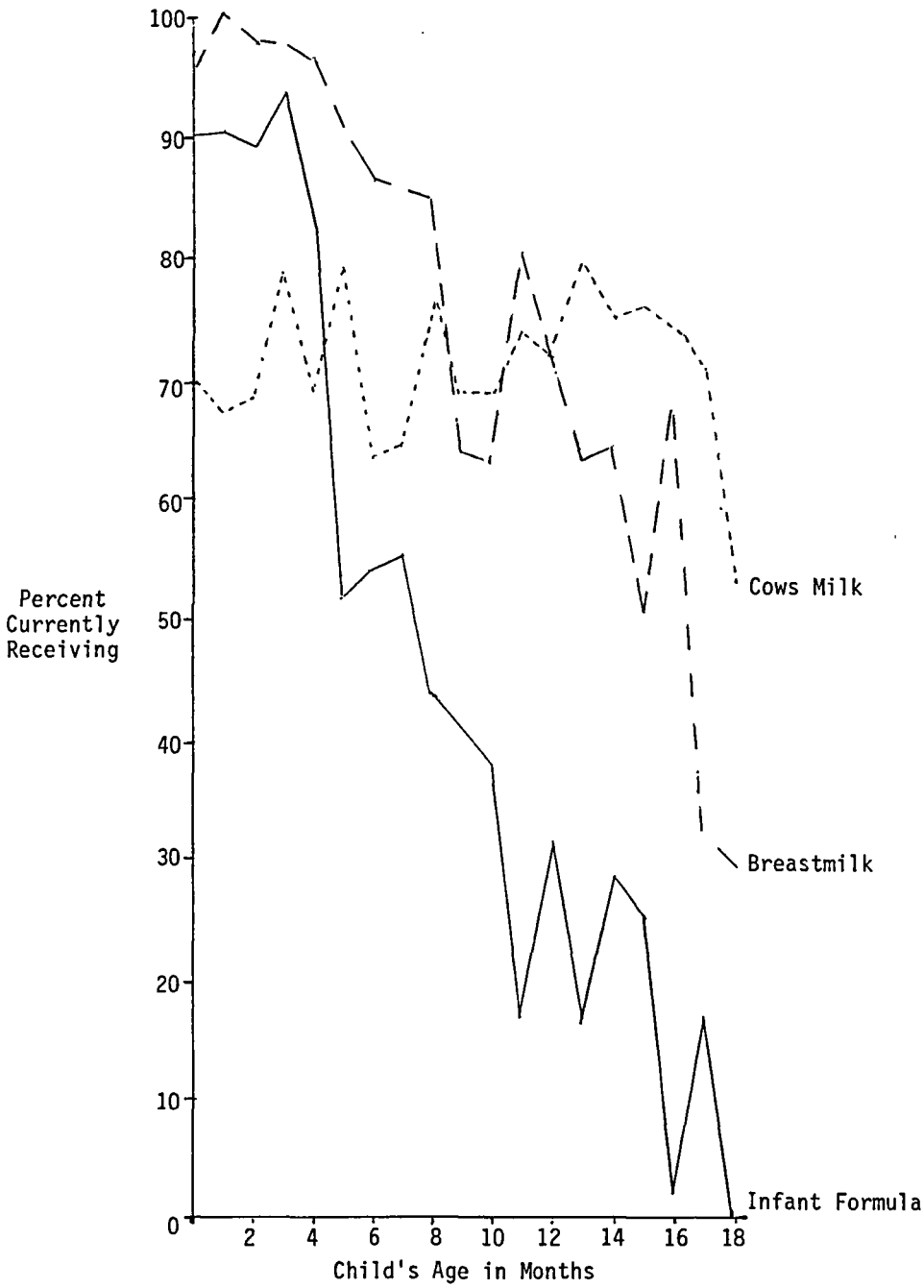

FIGURE 2 Percentage of Kenyan infants who received cows milk, infant formula and breast milk by the age of the child (months).

Cow's Milk

Cow's milk is a regular and valued part of meals for most Kenyans and its use in infant feeding reflects this. While the use of infant formula peaks at about three months of age, cow's milk is introduced as one of the early supplemental foods (see Figure 2), and its use continues as the infant grows to a child and adult.

The widespread use of milk products predates colonialism. Traditionally mixed with blood or fermented among pastoralists, milk products are generally viewed as good foods, but strong and heavy and in need of dilution before given to a child. Their use in tea (the main source of milk in many adult diets) and as breastmilk substitutes was probably strongly encouraged by colonial experience.

Infants gradually become accustomed to cow's milk, and its use increases with the age of the child until milk becomes a regular part of their diet. In Nairobi, KCC milk (cartons of pasteurized milk marketed by the Kenya Cooperative Creamery Ltd.) is more easily obtained than unprocessed milk, although it is an expense that must be incurred daily. A tin of powdered milk, once purchased or received as a gift, can stretch for months. Cow's milk, then, is not a status food (not dawa), but a valued ordinary food that needs to be introduced into an infant's diet as early as possible. It is not analogous to breastmilk, being heavier and stronger than mother's milk.

Other Foods

Infant foods are very much like adult foods, only they require more dilution to make them smoother and to provide extra water to aid the infant's digestion. For example, *uji*, maize meal porridge, can be diluted for an infant and diluted even more if it is to be fed through a feeding bottle. Idealy, dilution is done with milk, but since babies still need extra water for digestion, it is appropriate to use water instead. As infants grow, the milk and water dilution can be reduced until the child can eat the same meal as an adult.

Mothers do not talk of separate recipes and mixtures that are special for babies. However, traditional porridges made of millet and sorghum are considered ideal for babies. Cerelac and Nestum substitute for the traditional sorghum and millet mixtures if mothers can afford them. The products slip into a suitable cognitive slot and are, therefore, innovations that are particularly successful in Kenya, since they fit so well into traditional meal patterns and are heavily promoted at a time when millet and sorghum porridges are harder to obtain. Because they are special infant foods, they may have special properties to protect infants from illness (or an analogy with vitamins and dawa). Kenyan women are particularly vulnerable to this approach because the death of infants is common. These products can also be used to tempt a baby with a diminishing appetite to eat, a great concern among Nairobi mothers. The sugar content of these commercial cereals may appeal to infant palates introduced early in life to glucose drinks. Finally, the commercial cereals are so finely ground and smooth in texture, they can be offered even earlier than the regular family porridges. Use of packaged cereal peaks at four to six months and drops off to very low levels after ten months, while uji use peaks at 10-14 months.

INFANT FEEDING IN STYLE

With positive attitudes toward breastfeeding, accurate knowledge about its manage-

ment and few culturally defined expectations of problems associated with breastfeeding, why do Nairobi women use breastmilk substitutes and feeding bottles, and do this while their infants are so young?

Over the past years, bottlefeeding has become a status symbol in Kenya. Seventy-seven percent of mothers agree that most wealthy people in Kenya bottle-feed their babies. This is a perfectly logical assumption considering the elaborateness and cost of most baby feeding equipment in Nairobi. The image of bottlefeeding as a status symbol was fostered by the association of bottlefeeding with expatriates who controlled power and resources in Kenya for several decades and the popularity of bottlefeeding among the wealthy. The variety and complexity of infant feeding equipment marketed in Nairobi is extraordinary. The range of products encourages the idea that bottlefeeding is truly in style. Some bottles have handles so that "baby feeds himself;" others are slant-sided to make it easier to prop against a baby's chest. Similarly, neighbors and older children can care for an infant with a feeding bottle, where they could not be expected to take the time and trouble to use a cup and spoon. Mothers might take the trouble, but neighbors or other relatives would not be expected to.

New experiences and changes in the social context of infant feeding in Nairobi encourage changes in the interpretation of infant feeding behavior. Although women in Nairobi are still breastfeeding successfully, there is evidence that the meaning and interpretation of breastfeeding may be changing in the urban area. Mothers are uncertain about breastfeeding in public and believe that bottlefeeding takes less time and is more convenient than breastfeeding. They accept breastfeeding as a process which should be combined with bottlefeeding to maximize the health of their infants. Changes in the meaning of breastfeeding are affected by institutional and social structural conditions in Nairobi, such as the availability and promotion of breastmilk substitutes and the attitudes and practices of the health care professionals. Changes in employment opportunities for women would also affect style — but time is not the scarcest resource for many Nairobi women.

IMPLICATIONS OF INFANT FEEDING STYLE

Why develop a concept like style to explain changing patterns of infant feeding in urban Kenya? Are there not simpler and more precise concepts which refer to the same phenomena? If changes in infant feeding practices could be accounted for by changes in women's work patterns, or new marketing strategies alone, then infant feeding style would be redundant. A concept like style is particularly useful since it

- suggests how biological and social factors will interact in different cultural settings;
- combines affective, cognitive, motivational and behavioral information in a single framework;
- emphasizes variability at both the individual and group level;
- and provides cultural appropriate emic definitions which may be important for the development of both programs and policies relevant to infant feeding.

Public policy is the arena where style and structure should interact to provide a framework for social action. In past policy research, cultural meaning and values were seldom utilized partly because of the difficulty of working a qualitative concept like style into the prevailing cost-benefit framework of policy analysis. If

values are not considered, ethnocentric concepts such as equality or individuality may substitute for local concepts. In addition, structural constraints such as hospital practices or price policies are easier to manipulate. But a consideration of infant feeding style is essential for understanding current practices, for predicting changes and for choosing culturally appropriate policy strategies and implementation options. The practical importance of style can be seen in examining some of the infant feeding policy options for Kenya.

Because breast and infant formula feeding are conceptualized by mothers as separate issues, breastfeeding should be fairly resilient to encroachment by breastmilk substitutes. For the same reason, protecting breastfeeding by policies to limit breastmilk substitutes, or trying to reduce the use of breastmilk substitutes by encouraging breastfeeding, will probably not work.

Because of the interpretation of infant formula as a superfood or dawa, the use or promotion of infant formula by health workers or in the health care settings will strongly reinforce the idea of these products as medicines. At the same time, Kenyan women would be particularly vulnerable to promotions of infant formula as a health supplement.

Finally, on the issue of supplemental foods, because of the emphasis on breastfeeding as a process rather than on breastmilk as a product, Kenyan mothers may be reluctant to delay feeding their infants solid and semi-solid foods until the recommended four to six months of age.

It is important that educators and policy makers understand the infant feeding style in urban Kenya and build on it. For programs and policies made in ignorance of infant feeding style will start at a great disadvantage.

ACKNOWLEDGMENTS

This paper is based on research findings from the Infant Feeding Study which was conducted in collaboration with the Population Council, Columbia University and Cornell University with funding from the U.S. Agency for International Development under Contract No. AID/DSAN-C-0211. Research Consortium Staff included Michael Latham, Virginia Laukaran, James Post, Giorgio Solimano and Beverly Winikoff. We are grateful for the assistance of K.O. Agunda and John Kekovole of the Kenyan Central Bureau of Statistics, and Norman Scotney, Wambui Kogi, Wamucii Njogu and Margaret Okello of the African Medical Research Foundation.

REFERENCES

Bourdieu, P. (1984). *Distinction: A Social Critique of the Judgement of Taste. Tr. R. Nice.* Harvard University Press, Cambridge, Mass.

Elliott, T., and J. Kekovole (1983). *Kenyan Infant Feeding Study Final Report.* Central Bureau of Statistics, Nairobi, Kenya.

Jelliffe, D.B. (1967) Parallel Food Classification in Developed and Industrialized countries. *Amer. J. Clin. Nutr.* 20: 279-280.

Kogi, W., W. Njogu and M. Okello (1982). *A Repot for the Infant Feeding Study Consortium.* African Medical and Research Foundation, Nairobi, Kenya.

Kogi, W., W. Njogu and M. Okello (1983). *Severe Malnutrition: Ten Case Studies Made at Kenyatta National Hospital.* African Medical and Research Foundation, Nairobi, Kenya.

Kroeber, A. (1948). *Anthropology.* Second edition, Harcourt, Brace Jovanovitch Inc., New York.

Laukaran, V.H., E.K. Kellner, B. Winikoff, G. Solimans, M. Latham, P. Van Esterik and J. Post (1981). *Research on Determinants of Infant Feeding Practices: A Conceptual Framework.* Working Paper No. 15, International Programs, Population Council, New York.

May, J.M., and D.L. McLellan (1971). *The Ecology of Malnutrition in Seven Countries of Southern Africa and in Portuguese Guinea.* Studies in Medical Geography, Vol. 10, Hafner, New York.

Osminde, S. (1952) *The Luo Girl from Infancy to Marriage*, MacMillan, New York.
Redfield, R. (1960). *The Little Community, Peasant Society and Culture.* University of Chicago Press, Chicago.
Research Consortium (1984). *The Determinants of Infant Feeding Practices: Preliminary Results of a Four Country Study.* Working Paper No. 19, International Programs, Population Council, New York.
Central Bureau of Statistics (1979). *Social Perspectives.* Vol. 4, No. 2. Government of Kenya.
Central Bureau of Statistics (1981a). *Social Perspectives* Vol. 5, No. 2. Government of Kenya.
Central Bureau of Statistics (1981b). *Social Perspectives.* Vol. 6, No. 1. Government of Kenya.
Trueblood, L.W. (1970). Preface. In J.M. May and M. McLellan, *The Ecology of Malnutrition in Eastern Africa and Four Countries of Western Africa.* Studies in Medical Geography, Vol. 9.
Van Esterik, P. (1983). *Integrating Ethnographic and Survey Research: A Review of the Ethnographic component of a Study of Infant Feeding Practices in Developing Countries.* Working Paper No. 17, International Programs, Population Council, New York.