

THE RELATIONSHIP BETWEEN THE CLINIC-BASED NUTRITION INSTRUCTIONS GIVEN TO NURSING MOTHERS AND THEIR COMPLEMENTARY FEEDING PRACTICES IN ENUGU STATE

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ABSTRACT

This study covered four different hospitals in Enugu State: University of Nigeria Teaching Hospital (UNTH), Mother of Christ Specialist Hospital (MCSH) both in Enugu and Comprehensive Health Centre (CHC), Bishop Shanahan Hospital both in Nsukka. This study ascertained the relationship between the clinic-based nutrition instructions given to the nursing mothers and their infant complementary feeding practices. Three hundred nursing mothers were randomly selected from the four hospitals. Validated questionnaires were used for data collection. There were uniformed infant nutrition instructions given to the nursing mothers by registered nurses in these selected baby-friendly hospitals. Pearson's product moment correlation (r) analysis was used to obtain the correlation coefficients (r). The study revealed that the relationship between the clinic-based infant nutrition education given to the nursing mothers and their complementary feeding practices were effective for the four hospitals but MCSH had the highest $r=0.68$ followed by UNTH $r=0.49$. The t -test result comparing the nursing mothers' infant complementary feeding practices in Enugu and Nsukka areas ($t = 2.019$) were significantly different at 5% probability level.

Key words: Nutrition instructions, complementary feeding practices, Nursing mothers

INTRODUCTION

Childhood malnutrition is a major public health problem throughout the developing world. Research conducted in a variety of settings demonstrates that post natal growth faltering begins around six months of age, just as infants begin to receive foods to complement their breast milk intake (WHO/NUT, 1995; Okeke and Okafor, 1989). Interventions to address childhood malnutrition have shown that improving complementary feeding will reduce malnutrition. However, to address malnutrition and improve complementary feeding, attention must be given to decisions taken by mothers and caregivers about complementary feeding (Bereng *et al.*, 2007). Again malnutrition as well as accelerating urbanization and commercialism, are leading to imbalances in availability of products and knowledge about nutrition. Nutrition education is an essential process for coping with these problems and issues (Jones *et al.*, 1985).

The process of nutrition education may be defined as the teaching of validated, correct nutrition knowledge in ways that promote the development and maintenance of nutritive attitude toward and actual practical habits of eating nutritious food (Jones

et al., 1985). Generally, the purpose of nutrition education is to create informed consumers who value good nutrition and consume nutritious foods throughout their lives and who subsequently pass on the information to others.

In most research evaluation studies in nutrition education one finds that knowledge, attitude and practices are the dependent or criteria's variables being measured. The foundations for this focus are strongly supported in educational theory (Jones *et al.*, 1985), and there has been some debate as to the extent that these three outcomes of nutrition education are related. Although several socio-psychological theories state that knowledge, attitudes and practice should be consistent, a number of studies indicate that their relationships are not simple or automatic (Bereng *et al.*, 2007). Sellen (2001) observed that a combination of maternal self-perception, assessment of infant well-being, and indicators of household food supply influenced the actual progression of weaning for individual children. Sellen (2001) suggested that interventions to promote exclusive breastfeeding and improve complementary feeding practices did improve rural East African pastoral populations, because they emphasized on maternal attention to infant-centered cues and addressed household-level constraints on

DISCUSSION

The correlation coefficient (r) values were all positive. It could be inferred that infant nutrition instructions given to the nursing mothers were positively related to their infant complementary feeding practices. MCSH had the highest value $r=0.68$ followed by UNTH with $r=0.49$ all in Enugu, thereby suggesting that nursing mothers who attended these child welfare clinics utilized the infant nutrition instructions given to them more than the nursing mothers who attended the other two clinics. The infant nutrition instructions were uniformly given by the registered nurses and these hospitals were also baby-friendly. This showed that knowledge alone does not always determine practice but is always determined by many motivations operating at the same time. There are a number of evaluations which provide credible evidence for the positive effects of education on health and nutrition practice. The factors which these evaluations have identified as contributing to successful practice change as mentioned below may have been observed by MSCH and UNTH for them to have successful practice change and high correlation values. The other two hospitals CHC and BSH must have ignored the factors hence the low correlation values of 0.08 and 0.07, respectively. The factors are as follows: active involvement of learners in identifying their own needs (Parleto *et al.*, 1982). Lee and Owen (1985), Zeitlin and Formacion (1981) noted that practice change must be seen as a process e.g. raising awareness of motivation does not automatically result in practice change. Lee and Owen (1985) and Whitehead (1979) pointed out that use of social networks by community organization and community leaders can support change. Cerqueira and Olsen (1995) on their part stated that information which allows for reasoned choice is preferable to didactic methods. Lee and Owen (1985) again stated that people are more likely to persist with actions if they find them enjoyable or rewarding. They also added that dependence on any particular place or person reduces the individual's capacity to take independent action. Therefore strategies selected to bring about practice change should be mediated by local knowledge and contexts.

The availability of trained personnel who understand and implement practice change strategies appropriately, and who can involve learners in solving their own nutrition problems is essential. To ensure a successful utilization of instructions by nursing mothers, demonstrations

should be carried out for mothers to participate in using locally available and affordable foodstuffs.

The student t -test result comparing the complementary feeding practices of Enugu and Nsukka areas showed $t=2.019$ and was significantly different $P<0.05$. The urban environment, where the hospitals with a higher mean (3.8 ± 0.66) were sited could have an influence on the nursing mothers' complementary feeding practices. The competitive attitudes in urban areas could have played a role on the nursing mothers' complementary feeding practices, as well as the use of social networks in which there could have been peer group influences (Lee and Owen, 1985). External factors such as cultural expectations, food availability, food cost and financial status are all contributory factors (Church, 1982). Additionally, influences from television and radio adverts in the urban environment including the strategies used by the nurses may have caused the differences in complementary feeding practices of the nursing mothers from the different areas.

CONCLUSION

In conclusion the clinic-based nutrition instructions given to the nursing mothers by the registered nurses had some impact on the complementary feeding practices of the mothers. Hence the positive correlation values in all the hospital clinics. Some factors or strategies may have contributed to achieving high positive results in Enugu, which needed to be incorporated by the nurses in Nsukka area, so that their instructions could have a better impact on the nursing mothers that attended their hospital clinics.

There is also the need to create more health centres for nutrition instructions to be brought closer to the grassroot. Registered nurses should also have in-service training to acquaint themselves with current issues in their profession. Such training should serve as re-orientation with emphasis on infant complementary feeding. To ensure a successful utilization of instructions by nursing mothers, demonstrations should be carried out for mothers with their participation in using locally available and affordable foodstuffs.

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Inheritance of fruit colour in nigerian local okra, *abelmoschus esculentus* (L.) Moench. cultivars.

Table. 2: Phenotypic expression of fruit skin colour in Parents, F1, F2 and backcross generations in okra

Parents and Crosses	Plants with Reddish Green colour	Plants with Deep Green colour	Plants with faint greenish milky white colour	Total population	Expected phenotypic ratio	χ^2	Probability
"Ogbu Oge"	27	--	--	27			
Awgu Early	--	29	--	29			
"Mpi Ele"	--	--	24	24			
i) "Ogbu Oge" x Awgu Early, F1	30	--	--	30			
Awgu Early x "Ogbu Oge", F1	32	--	--	32			
"Ogbu Oge" x Awgu Early, F2	155	47	--	202	3:1	0.3233	.70-.50
Awgu Early x "Ogbu Oge" F2	142	39	--	181	3:1	1.1510	.30-.20
Awgu Early x ("Ogbu Oge" x Awgu Early) BC1	27	35	--	62	1:1	0.0322	.50-.30
Awgu Early x ("Awgu Early x "Ogbu Oge") BC1	33	23	--	56	1:1	1.7857	.20-.10
ii) "Ogbu Oge" x "Mpi Ele", F1	23	--	--	23			
"Mpi Ele" x "Ogbu Oge", F1	27	--	--	27			
"Ogbu Oge" x "Mpi Ele", F2	143	--	54	197	3:1	0.6108	.50-.30
"Mpi Ele" x "Ogbu Oge" F2	132	--	35	167	3:1	1.4550	.30-.20
"Mpi Ele" x ("Ogbu Oge" x "Mpi Ele") BC1	24	--	31	55	1:1	0.8909	.50-.30
"Mpi Ele" x ("Mpi Ele" x "Ogbu Oge") BC1	32	--	27	59	1:1	0.4237	.70-.50
iii) "Awgu Early x "Mpi Ele", F1	--	21	--	21			
"Mpi Ele" x Awgu Early, F1	--	23	--	23			
Awgu Early x "Mpi Ele" F2	--	134	54	188	3:1	1.3900	.30-.20
"Mpi Ele" x Awgu Early F2	--	135	58	193	3:1	2.6269	.20-.10
"Mpi Ele" x (Awgu Early x "Mpi Ele") BC1	--	18	26	44	1:1	1.4545	.30-.20
"Mpi Ele" x ("Mpi Ele" x Awgu Early) BC1	--	15	22	37	1:1	1.3243	.30-.20

Udengwu O. S.

Fig.1 Schematic Representation of Multiple Allelism in the Inheritance of Okra Fruit Skin Colour

