

Original Research Article**The Practice of Forced Feeding: Perception among Parents and Caregivers in Enugu, South East Nigeria****ABSTRACT**

Background According to the Convention of the Right of a Child, every infants and child has the right to good nutrition. In delivery of good nutrition to the child, it is however important to encourage a child to eat in a responsive-feeding (RF) rather than force-feeding (FF) nourishing manner. Force feeding is a common practice in developing countries and despite the dangers associated with it, many parents especially in these countries are still driven by various reasons in justifying its practice.

Methods This hospital based cross-sectional study enrolled one hundred and thirty-seven mothers and caregiver in Enugu state. It aimed to determine perception, reasons and factors associated with force feeding a child among respondents. Structured questionnaires were used in data collection. Chi-square and fishers exact test where appropriate were used in data analysis.

Results Majority of the respondents were aware of practice of force feeding (80.3%) and its adverse effects (46.0%). Only nine (6.6%) respondents got this information from a health worker. Most of the forced fed children were within the 1-5 years age bracket. Significantly more respondents who were force fed as children (83.0%) engaged in the practice of force feeding compared to those not force fed (61.5%) as children ($P=0.018$). None of the socio-demographic factors considered in this study was significantly associated with force feeding practice. Weight related reasons (60.4%) and administration of medication (12.0%) were the commonest reasons for force feeding a child while forcing food into the mouth (29.1%),

distraction (21.8%) and nose-pinching (19.1%) were the commonest methods employed in the practice of force feeding. Coughing and difficulty in breathing were the commonest perceived (49.5% and 18.8%) and experienced (33.3% and 36.1%) adverse effect of force feeding in children of respondents.

Conclusion There is need for intensification of campaign against force feeding targeting mothers and care givers across all social strata of society.

What is known about this subject: Force feeding is a very common subject in our society regarded as a normal practice even among health practitioner. Because of this, little or no research has been conducted to ascertain the extent and prevalence of force feeding and to the best knowledge of the authors, the only study regarding force feeding in Nigeria was done about 7 years ago in south west Nigeria.

What are the new findings and/or what is the impact on clinical practice: The prevalence of force feeding among parents and care-giver is high. The practice is more among parents in the higher socio-demographic strata. These findings will help inform target education of parents and care-giver regarding the practice of force feeding.

Keywords: Force feeding, Infants, Children, Enugu.

INTRODUCTION

It is a common belief among parents and care-givers that the fatter a child looks the healthier he or she is. Also associated with this misconception is the belief that the appearance of a child in terms of weight is a reflection of the socio-economic status of the child's family. In order to achieve this appearance of 'well being' parents around the world especially in developing

countries, use physical or psychological force to get their children to eat when they refuse feeds. This is borne out of the erroneous assumption that infants and children do not know how, what and when to eat. This practice regarded as force feeding has been defined as the administration of food by force to those who cannot or will not receive it [1]. The practice of force feeding is usually borne out of good intentions for the child's benefit. However because it is usually with the use of coercion, force, physical restraints or psychological threat, it has been regarded as a form of inhumane and degrading treatment that could lead to unhealthy food habits and other health related consequences. In a study involving 100 college students out of which 70% where force fed during childhood, 31% experienced strong internal conflict, 41% moderate internal conflict and 29% slight internal conflict as a result of been force fed. Also, forty-nine percent reported they cried, 55% experienced nausea, and 20% vomited during the force feeding episodes in addition to negative feelings of anger, fear, disgust, confusion and humiliation they usually felt during the feeding process [2]. Several cases of child death following force feeding have also been reported globally [3, 4]. Given the psychological trauma force feeding may inflicts on children, this study tried to determine parents and care-giver perception and justification for the practice of force feeding in Enugu state, South-east Nigeria. It also tried to ascertain factors that predicts the practice of force feeding a child. It is hoped that findings of this study will help inform interventions by government and healthcare experts in preventing this practice which has been generally regarded as a violation of the right of a person.

METHODOLOGY

Study area

This study was conducted in Enugu state, south east Nigeria. it is located on latitude $6^{\circ} 27'N$ and longitude $7^{\circ} 30'E$. [5] Coal mining use to be the driving force of the state's economy in the early

twentieth century hence it was nicknamed coal city state but currently it is dependent mainly on national oil revenue and commerce. Enugu state is made up of 17 Local Government Areas (LGA) with its capital carved from Enugu North, Enugu South and Enugu East LGAs. The majority of the inhabitants are Igbo by tribe, and Christianity is the dominant religion. The minimum monthly income, similar to the national average was ₦18,000 (110 US\$). Literacy rate is 66%, fertility rate 4.5 births per woman and there are 955 males/1,000 females [6].

Study subjects

This is a hospital based cross-sectional descriptive and analytical study conducted over a 5 months period (July 2014 to December 2014) in the Well Baby Clinics of Enugu State University Teaching Hospital, Parklane Enugu. Mothers and caregivers who came to the Well Baby clinics were employed for the study. Their perception and practice of childhood forced feeding was ascertained. This was done using structured pre-tested questionnaires administered by trained research assistants. Oral informed consent was obtained from each participant prior to interviews.

Data collection

Mothers or care-givers who agreed to participate in the study were consecutively enrolled. Information on socio-demographic characteristics of respondents were obtained and categorized as follows: i) *Age of respondent*: in years was assessed and grouped as less than 25, 26-30, 31-35, 36-40 and more than 40; ii) *Sex of respondents*; grouped as male or female iii) *Educational attainment*: assessed using the following variables: completed university, completed secondary, completed primary and no education: iv) *Religion of respondents*; categorized into Christianity, Islam, and Traditional religion. V) *Socioeconomic status*: defined as the wealth index of the household was derived using maternal and paternal highest educational attainment and

occupation based on oyedeji classification [7]. This was then categorized as lower, middle and upper class. vi) *Number of children alive*; classified into none, 1-4 and more than 4.

Respondents were interviewed to ascertain whether or not they were aware of forced feeding practice and if they have ever forced fed a child. The age of the child at forced feeding was noted and categorized into 0-11months, 1-5years and above 6 years. The interview also sought to know whether or not they (the respondents) were forced fed as children. Those that admitted ever force feeding a child were asked to list the reason(s) for doing so, the method they employed, knowledge of adverse events and adverse events experienced if they have witnessed if any. The age of the child at experience of the adverse event was also noted.

Data cleaning and analysis

Quality control check was done by researchers on daily basis after enrolment. Where there are errors detected, the interviewers were asked to clarify them accordingly with the interviewed mother or care giver. Microsoft excel 2007 was used to input the raw data. Data cleaning was done by researcher assistants and the study researchers. SPSS version 20 was used for data analysis. Chi-square and fishers exact test where appropriate were used to establish the relationship between respondents socio-demographic variable and practice of forced feeding. Results were presented in percentages and statistical significance was set at p-value < 0.05.

RESULTS

Characteristics of study population

A total of 137 participants who met the inclusion criteria were enrolled and interviewed for the study. The greatest number of respondents (37.2%) fell within the 26-30 years age group and almost all of them were female (92.7%). Most respondents had completed either University

education (48.2%) or secondary school (40.1%). Respondents from the upper socioeconomic class made up more than two thirds of the study population (69.3%) and the overwhelming majorities were Christians (93.0%) and Ibos (92.7%). See Table 1).

Table 1

Knowledge of forced feeding

One hundred and ten (80.3%) respondents considered themselves to have adequate knowledge of force feeding with only 9 (6.6%) of the respondents getting this information from a health worker. About a third (34.3%) of the respondents remembered being force fed as a child. Majority of respondents (86.1%) alluded to the fact that one or more of their children had refused food consistently for a period of time that warranted force feeding. Of these, 88 (68.8%) force fed their children and those within the 1-5 years age category were the most common victims of force feeding. Almost half of the respondents (46%) were aware of the adverse effect of force feeding and only one-fifth (21.2%) had actually experienced one or more of these adverse effect in their child or the children they cared for. Children in the 0-11 months and 1-5 years age group accounted for 43.3% and 50% respectively of children in whom these adverse events were experienced.

Respondent's Socio-demographics and forced feeding

Significantly more respondents who were force fed as children also force fed their child or children compared to those not forced fed as children (83.0% vs. 61.5%, $P=0.018$). Respondents in the younger age category [i.e. < 25 years (80.8%) and 26-30 years (69.4%)], had force fed the children they cared for compared to those in the older age categories [i.e. 31-35 years (61.5%), 36-40 years (63.2%) and > 40 years (62.5%)]. Surprisingly, the practice of force feeding was more among respondents with university education (71.4%) than those with secondary (65.5%) and primary or lower educational attainment (69.2%). Similarly, more respondents in the upper

socioeconomic class (73.0%) force fed their child compared to those in the middle (59.1%) and lower class (58.8%). However, none of these socio-demographic variables attained statistical significance (Table 2).

Table 2

Practice of force feeding and its adverse effects

Table 3 shows some of the reasons for force feeding a child and methods employed by respondents during force feeding. Weight related reasons accounted for 60.4% of the reasons why respondents indulge in force feeding. About 9% of the respondents force feed because of advice and pressure from relatives. One in ten (10.1%) believed it is normal to force feed a child while 12.0% usually force feed only during administration of medications (Table 3). The most common strategy of force feeding used by the respondents was forcing the food into the child's mouth (29.1%) and distracting the child (21.8%). Others included nose pinching (19.1%), flogging (16.4%) and threats (12.7%). More than 90% of the respondents listed combination of two or more force feeding techniques they used, with the most notable being physical restraint and nose pinching (Table 3). Coughing and difficulty in breathing were the most perceived and experienced adverse event of force forced feeding listed by respondents.

Table 3

DISCUSSION

Knowledge and practice of forced feeding were high among the respondents in the present study. Sarah et al as early as the mid twentieth century had reported the common practice of force feeding in many communities in Nigeria [8]. Another study had also reported that this harmful feeding practice is commoner among the Yoruba tribe in the south-western part of Nigeria [9]. Apart from serving as a veritable means of feeding children who refuses feed, endangering mother to child bonding was the commonest reason the Yoruba people gave in justifying force

feeding in their children. Unlike that study, weight related reasons rather than mother-child bonding was the main justifier of force feeding in our present study. The ethnic and socio-cultural difference between the two study populations could have accounted for the observed difference in reasons for the practice of forced feeding. Drug administration was a notable reason given by mothers for the practice of forced feeding in both studies. This is probably because of the common phobia of oral drugs among children, particularly the ones with unpleasant taste. This usually prompts mothers (out of anxiety or frustration) across ethnic and social strata to forcibly administer the drugs.

Forced feeding is commoner among children aged 1-5years in our study. This corresponds to the transition period when non-milk based food starts to predominate the child's diet and food refusal becomes an issue. Additionally, due to the relatively slower growth rate in this age bracket, there is reduced metabolic need and consequently poorer appetite for food [10]. It is therefore not surprising that children of this age group constituted a significant proportion of the those force fed in this study.

Though not statistically significant (probably due to sample size), mothers with higher socio-demographic parameters (i.e. higher educational attainment and upper socio-economic class) engaged more in the practice of force feeding in this study. In many African societies particularly in Nigeria, the weight of a child is believed to be directly related to the family's economic and financial status and thus serves as a status symbol [11]. It is therefore not surprising that mothers in this socio-economic class engaged more in the practice of force feeding in order to achieve this objective of a 'fuller' body for their children which they believe reflects their status. Furthermore, it is also likely that mothers in the lower socio-economic class due to lower resources, may more likely be unable to feed their children adequately. These

187 children are therefore more likely to be in a state of want of food (physiologic hunger) and thus
188 will need less coercion to eat whenever food is available.

189 Contrary to this findings, a similar study in the United States of America showed that white
190 middle class non Hispanic mothers for fear of overweight (which they regarded as detrimental to
191 health) restricted food to their children [12]. However mothers in the low-income group who
192 viewed large body size as a sign of good health and parenting had no concerns of restricting food
193 [12]. This demonstrates the differences in societal values and perception attached to the weight
194 of a child which was the main justification for force feeding among most respondents in the
195 present study.

196 Forcing the spoon into the mouth of the baby, distraction, nose pinching and flogging were the
197 common methods employed by our respondents in force feeding children. These practices have
198 been documented as types of physical child abuse and by extension a violation of the right of a
199 child [13].

200 The common adverse effect experienced among forced fed children in this study involved mainly
201 the respiratory system with difficulty in breathing and cough ranking high. This could be easily
202 explained by the common methods of forced feeding seen in the study (i.e. forcing the spoon into
203 the mouth and nose pinching) both of which are capable of increasing the risk of aspiration into
204 the airway. A recent unfortunate event in the United Kingdom where a mother mistakenly killed
205 her child during force feeding lays credence to the possibility of fatality as adverse event of force
206 feeding [14]. This further stresses the critical need for intensified campaign and public education
207 against the practice of forced feeding.

208 Not surprisingly, more respondents who were force fed as children, force fed their children
209 compared to those not forced fed as children. This is in keeping with the notion that abused

persons often end up as abusers [15]. Also, respondents in the younger age category engaged more in the practice of force feeding their children compared to those in the older age categories. Experience of these older mothers with more children, may have given them the knowledge and patience required to feed children, thus reducing fears and worries by mothers often associated with food refusal of their children [16].

Finally, it is distressing to note that most of our respondents their information about force feeding through their friends and relatives. The electronic media and health workers were significantly less source of information for force feeding among respondents in this study. This may be related to the general societal misconception of forced feeding even among the enlightened people as highlighted in this study. Information from uninformed sources is more likely to be potentially incorrect and harmful. There is hence the need for health workers and the media and health workers to educate people and ensure proper dissemination of information on the practice force feeding and the potential danger associated with its practice.

Conclusion

This study demonstrated high prevalence of practice of force feeding among parents and caregivers in Enugu. Public education and enlightenment of the ills of force feeding targeting parents of all educational and socio-economic strata of the society will probably help in the reduction of its practice in Nigeria.

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TABLES

269 Table 1- Summary of the descriptive variables of respondents considered in the study

Variables	N n (%)	Variables	N n (%)
Age of Respondents (years)	N= 137	Knowledge of Force feeding	N= 137
Less than 25	27 (19.7)	Yes	110 (80.3)
26-30	51 (37.2)	No	27 (19.7)
31-35	26 (19.0)		
36-40	20 (14.6)	Respondents forced fed as a Child	N=137
More than 40	13 (9.5)	Yes	47 (34.3)
		No	81 (59.1)
Sex of respondent	N= 137	Cannot remember	9 (6.6)
Male	10 (7.3)		
Female	127(92.7)	Have you ever force fed a child	N=128
		Yes	88 (68.8)
Number of children alive	N= 137	No	40 (31.2)
None	24 (17.5)		
1-5	95 (69.3)	Age of child at force feeding child	N= 88

More than 5	18 (13.1)	Mostly between 0 and 11 months	27 (19.7)
		Mostly between 1 and 5 years	55 (40.1)
		Mostly above 6 years	6 (5.1)
Respondent education	N= 137		
Completed university	66 (48.2)		
Completed secondary	55 (40.1)	Do you know the adverse effect of force feeding	N= 125
Completed primary	11 (8.0)	Yes	57 (45.6)
None	5 (3.6)	No	68 (54.4)
Socio-economic class	N= 137	Have you experienced any?	N= 137
Upper	95 (69.3)	Yes	30 (21.2)
Middle	24 (17.5)	No	85 (62.0)
Lower	18 (13.1)	Cannot remember	22 (16.8)
Religion of respondents	N= 137	Age of child at experience of adverse effect	N= 30
Christianity	127 (93)	Between 0 and 11 months	13 (43.3)
Islam	4 (2.9)	Between 1 and 5 years	15 (50.0)
Traditionalist	1 (0.7)	Above 6 years	2 (6.7)

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272 Table 2- Association between Respondent's Socio-demographics and Forcing Feeding

Socio-demographic factors	N (%)	Child was force fed		P-value
		Yes (n%)	No (n%)	
Age of Respondents (years)	N= 128			
Less than 25	26 (20.3)	21 (80.8)	5 (19.2)	0.590
26-30	49 (38.3)	34 (69.4)	15 (30.6)	
31-35	26 (20.3)	16 (61.5)	10 (38.5)	
36-40	19 (14.8)	12 (63.2)	7 (36.8)	
More than 40	8 (6.3)	5 (62.5)	3 (37.5)	
Sex of respondents	N=128			
Male	8 (6.3)	5 (62.5)	3 (37.5)	0.694
Female	120 (93.7)	83 (69.2)	37 (30.8)	
Respondents Education	N= 128			
Completed university	63 (49.2)	45 (71.4)	18 (28.6)	0.902
Completed secondary	52 (40.6)	34 (65.4)	18 (34.6)	
Primary or lower	13 (10.2)	9 (69.2)	4 (30.7)	
Socio-economic class	N= 128			
Upper	89 (69.5)	65 (73.0)	24 (27.0)	0.287
Middle	22 (17.2)	13 (59.1)	9 (40.9)	
Lower	17 (13.3)	10 (58.8)	7 (42.1)	
Force Fed as a Child	N= 87			
Yes	47 (54.0)	39 (83.0)	8 (17.0)	0.018
No	78 (46.0)	48 (61.5)	30 (38.5)	

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275 Table 3- Practice and Adverse Effect of Force Feeding Reported by Respondents

Reason for Force Feeding	N= 159	Method used During Force Feeding	N= 110
Anxiety about weight loss	62 (39.0)	Nose pinching	21 (19.1)
Child is thin (lean)	34 (21.4)	Flogging	18 (16.4)
Pressure from relatives	14 (8.8)	Restraining	11 (10.0)
Insecurity about parenting skills	3 (1.9)	Force spoon into mouth	32 (29.1)
To create mother-child bond	2 (1.3)	Feeding while sleeping	11(10.0)
Usually for medications	19 (12.0)	Distraction	24 (21.8)
Pressure from work and/or home	5 (3.2)	Threat to deprive usual benefits	14 (12.7)
Desperation about child's health	4 (2.5)	Blackmail	6 (5.5)
Normal for children	16 (10.1)	-	-
Perceived Adverse Effect	N= 101	Experienced Adverse Effect	N= 36
Growth faltering	6 (5.9)	Difficulty in breathing	13 (36.1)
Chronic illnesses	7 (6.9)	Coughing	12 (33.3)
Coughing	50 (49.5)	Vomiting	4 (11.1)
Death	9 (8.9)	Suffocation /choking	1 (2.8)
Difficulty in breathing	19 (18.8)	Crying inconsolably	2 (5.6)
Others†	10 (9.9)	Fever	4 (11.1)

†¹ Others include: vomiting (7), fear (1), crying (1), and overdose (1). ‡² Multiple Response Allowed.