



Cultural Myths and Perceptions Regarding the Usage of Nasogastric Tube amongst Adult Maxillofacial Surgery Patients of a Tertiary Health Centre in Nigeria

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Authors' contributions

This work was carried out in collaboration between all authors. Author BIA designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors ODO and KUO managed the analyses of the study. Authors AAE and OIA managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Background: Nasogastric tubes (NGT) are used in the clinical setting for the management of patients who require nutritional support amongst others. Knowledge of the perceptions and Myths about NGT use would help address the problem associated with its use so that patients care can be optimal.

Aims: This study is aimed at identifying the common perceptions and myths surrounding NGT use in adult maxillofacial surgery patients.

Methods: Prospective cross sectional study of adult maxillofacial in-patients of a teaching hospital. The study period spanned from January, 2012 to December 2013. A total of 73 consenting patients were recruited.

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Results: 35 males and 38 females participated in the study. The mean age was 39.4±1.42 years. Prior to the insertion of the NGT 52.1% of the patients were of the opinion that the NGT was necessary while the others had a contrary opinion. Despite considering that NGT use was necessary 62% of them did not feel that it could help speed up their recovery. The myths associated with NGT use were that it causes death (n=6, 8.2%), it indicates patient would not recover (n=11,15.1%) and that it slows down recovery (n=27; 32.9%). Education significantly affected the perception of NGT use as an indication of terminal illness; with the higher the educational status the less likely the perception of NGT as an indication of a terminal illness (P = 0.0001).

Conclusion: The identified myths and negative perceptions have to be addressed with adequate counseling to help improve patient acceptance of the procedure.

Keywords: Adult; Africa; culture; enteral nutrition; knowledge; perception.

1. INTRODUCTION

Nasogastric tubes (NGT) are narrow luminal tubes of varying sizes passed through the nose into the stomach and are frequently used in the clinical setting for the management of patients who require nutritional support, medication administration, decompression of the gastrointestinal tract and when the patient is at risk of aspiration, like following maxillofacial surgeries due to facial trauma amongst others. [1-3]. Although NGT is a very important component of patient management, it may be associated with respiratory, gastrointestinal and nasopharyngeal trauma or ulceration, tube occlusion, tube displacement and metabolic complications (like dehydration and electrolyte imbalances) [4,5]. It may also be contraindicated in severe mid facial fractures, recent nasal surgeries, coagulation abnormalities or oesophageal varices. However despite these possible complications and contraindications NGT use still remains an important part of surgical practice.

In terms of nutrition, several authors [6-8] have documented that nutritional support is now considered an essential component of the management of the critically ill patient. It has been well established that early enteral nutrition (EN) reduces disease severity, decreases length of hospital stay and complications as well as favorably impacting on patient outcome. However it has been observed that there are many myths and wrong perceptions surrounding the use of NGT most of which may affect the patients willingness to accept it or otherwise and this could pose serious problems for the surgical patient thereby limiting the ability to provide adequate enteral nutrition amongst other uses of NGT for these patients [6].

To the best of the authors' knowledge and review of English literature, no study has so far been

carried out in adults in Nigerian patients to assess the specific myths and their perceptions of NGT usage. Although studies by Omar et al. [8] and Aliyu et al. [9] suggested that there is a background cultural fear amongst caregivers in Africa about NGT usage, their studies [8,9] however, were carried out in children. Hence this study was designed to identify the myths and perceptions, whether genuine or otherwise, of patients on NGT with the aim of identifying factors that may influence patients' perception of NGT use and identify means to address this and help improve the overall care of the patient.

2. METHODOLOGY

The study was a prospective cross sectional study of adult maxillofacial surgery patients admitted into the surgical ward of a Nigerian teaching hospital. The study was carried out from January, 2012 to December 2013. A total of 73 patients were recruited consecutively during the study period. Informed consent was obtained from the participating patients. All patients aged 18 years and above, that had an indication for the use of NGT as part of their management and consented to participate in the study were recruited, while those that refused to give consent were excluded from the study. The NGT sizes used were patient dependent and ranged from size 16 to 18F.

The questionnaire was pretested in a pilot study involving 10 patients and necessary amendments made before it was applied to the final study. Information obtained included age, gender, educational and occupational status, clinical diagnosis, indication for the NGT, perception before and after insertion of the NGT. The information obtained was analyzed using SPSS version 16 (Chicago IL). The data obtained were represented using frequencies and percentages. Chi-squared test was used

to determine association between categorical variables. A p- value of ≤ 0.05 was considered significant.

3. RESULTS

Majority of the patients studied were in the 21-30 years and the 51-60 years age groups. The study population was made up of 52.1% females and 47.9% males. Other socio-demographic characteristics of the patients studied are presented in Table 1.

Table 1. Characteristics of the study population

Characteristics	No (%)	Mean \pm SD
Age group		39.4 \pm 1.42
18-20	8 (10.9)	
21-30	18(24.7)	
31-40	15(20.5)	
41-50	14(19.2)	
51-60	18 (24.7)	
Gender		
Male	35 (47.9)	
Female	38 (52.1)	
Educational qualification		
None	9 (12.3)	
Quranic	26(35.6)	
Primary	4 (5.5)	
Secondary	24 (32.9)	
Tertiary	10 (13.7)	
Indication for the NGT		
Feeding	21(28.8)	
Drainage	2 (2.7)	
Feeding and drugs	47 (64.4)	
Drugs	3 (4.1)	
Duration of use		
Less than 1 week	22(30.1)	
1-2 weeks	22 (30.1)	
Greater than 2 weeks	29 (39.8)	
Types of maxillofacial surgery conditions necessitating NGT insertion		
Odontogenic infections	20(27.4)	
Post resection of the mandible	8 (10.9)	
Oral cancer patients	5 (6.9)	
Hemiglossectomy	5 (6.9)	
Post traumatic Patients	20(27.4)	
Reconstruction of the mandible using loco regional flaps	3 (4.1)	
Maxillofacial fractures treated with MMF	12(16.4)	

NGT - Nasogastric tube, MMF- maxillo- mandibular fixation

Of the study participants, 52.1% thought NGT use was necessary though 61.6% of the patients

still felt it does not help to speed up recovery. Other perceptions and myths are documented in Table 2.

Table 2. Patients knowledge of NGT myths and perception about NGT before and after passage

Patients perception prior to passage		Number (%)
Necessary	Yes	38(52.1)
	No	35(47.9)
Speeds up recovery	Yes	28(38.4)
	No	45(61.6)
Indicates terminal illness	Yes	13(17.8)
	No	60(82.2)
Precipitates Death	Yes	0 (0)
	No	73 (100)
Unnecessary	Yes	12(16.4)
	No	61(83.6)
Knowledge of myths		
Causes death	Yes	6 (8.2)
	No	67(91.8)
Patient would not recover	Yes	11 (15.1)
	No	62 (84.9)
Slows down recovery	Yes	27 (32.9)
	No	46 (67.1)
Others 0 (0)		
Perception after insertion		
Harmful	Yes	9 (12.3)
	No	64 (87.7)
Helpful	Yes	61(83.6)
	No	12(16.4)
Unnecessary	Yes	9 (12.3)
	No	64(87.7)

The perceptions were tabulated against educational qualification and the perception influenced by education was identified. See Table 3.

Educational qualifications were aggregated into two groups and the relative risk was compared. Group I comprised those with None, Primary, and Quranic levels of qualification, while group II were made up of those with Secondary and tertiary levels of education (Table 3). The results showed those with no formal education, primary and quranic levels of education believed that the use of NG indicates a terminal illness while all the participants in the more educated group (secondary and tertiary levels of qualification) disagreed (RR=2.5; 95% CI=1.834, 2.408).

4. DISCUSSION

There is documented evidence that there is a negative perception and cultural fear of the use

Table 3. Effect of educational qualification on perception of NGT use

Perception	Educational group I (None, Prim, Quranic)**	Educational group II (Sec, Tertiary)***	Relative risk	95% CI	P-value
Necessary					
Yes	20	18	1.18	0.489-2.590	0.729
No	18	18			
Speeds recovery					
Yes	14	14	0.957	0.372-2.458	0.926
No	23	22			
Terminal illness					
Yes	13	-	2.500	1.834-2.408	0.0001*
No	24	36			
Unnecessary					
Yes	7	5	1.447	0.413-5.063	0.561
No	30	31			

* Significant at $P < 0.05$

** None, Prim, Sec= (None, Primary, Quranic)

*** Sec, Tertiary=Secondary, Tertiary

of NGT, however review of the English literature has not really been able to explain the reason or the extent of this fear. [9] This study therefore is aimed at reducing this gap in knowledge.

The results of this study showed that prior to the insertion of the NGT about half of the patients were of the opinion that the NGT was necessary (52.1%). The result of this study, with respect to acceptance of NGT, is however lower than the 81% acceptance observed in the report of Nordin et al. [10] The authors of that study [10] attributed their high acceptance rate to the strong emphasis on feeding in their culture. Surprisingly though, despite considering that NGT use was necessary about 62% of our study participants did not feel that it could help speed up their recovery. This could help shed light to the reason why some patients still refused NGT because they felt that it would not contribute to their recovery. However a significant proportion of the study participants (82%) were of the opinion that NGT was not indicative of a terminal illness which is a very important finding and needs to be re-enforced to help improve acceptance of the procedure.

The myths associated with NGT use were that it causes death, it indicates patients would not recover or that it slows down recovery. However, after patients had NGT inserted majority of patients felt it was more helpful than harmful and also that it was a necessary tool. This goes to show that there is a need to initially demystify the use of NGT among patients through adequate counseling and frequent patient enlightenment so as to make it more readily acceptable to the

patients. Areas of counseling that need to be re-enforced include the fact that NGT helps to provide adequate nutrition especially in situations where patient can not tolerate adequately by mouth hence shorter hospital stay and faster recovery.

When education was tabulated against perception it was observed that education significantly affected the perception of NGT use as an indication of terminal illness; with the higher the educational status the less likely the perception of NGT as an indication of a terminal illness. This helps to shed light on the group of patients that really need the counseling right from admission so as to reduce the rejection rate of the procedure. With patients with lower educational status requiring more detailed counseling than those of a higher educational status.

5. CONCLUSION

The identified myths and negative perceptions have to be addressed with adequate counseling since admission to help improve patient acceptance of the procedure.

CONSENT

Informed consent was obtained from all the Study participants.

ETHICAL APPROVAL

All authors hereby declare that all experiments have been examined and approved by the

appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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