Quality and Pattern of Orthodontic Referrals to an Orthodontic Clinic in a Nigerian Tertiary Hospital

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Abstract

Background This study aims to evaluate the quality and pattern of referral letters received in a Nigerian orthodontic clinic.

Method Referral letters of patients attending the orthodontic unit of the University College Hospital, Ibadan over a 6-month period were retrieved and analysed for information including date, age, sex, patient name, clinic name, name of referring doctor, history of complaint, diagnosis, management already instituted and reasons for referral. Each were scored 1 when present and 0 when absent. Inclusions such as radiographs and study models were scored the same. Thus, a maximum of 12 points were recorded when all items were present. Referral letters were then grouped into grades according to their scores: grade A maximum score (12); grade B (9-11); grade C (6-8); and grade D (<6).

Results A total of 160 referral letters were received, including no grade A letters (0%), 74 (46%) grade B letters, 81 (51%) were grade C letters and 5 (3%) were grade D letters. The teaching hospital's oral diagnostic clinic provided most of the letters (109), accounting for 68%, while the remaining 32% were from other sources. All 74 (46%) grade B letters were from the same oral diagnostic clinic; however, there was no statistically-significant difference between source of referral and grade of letter ($p>0.05$).

Conclusion There were no grade A letters, while the majority was grades B and C; signifying that none were of the highest quality. In addition, some vital information was missing from the letters and no inclusion (radiographs or study models) was recorded. Therefore, the style of writing orthodontic referrals needs to be improved. There may be a need to design standard orthodontic referral forms for of uniformity in referring patients for orthodontic treatment.

Keyword: Orthodontics referrals, Orthodontics Services, orthodontic treatments orthodontic standards

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Introduction.

Writing referral letters is an effective means of communication between the dental specialist and other health professionals, although communication regarding the patient can also be made via other means, such as the telephone, verbal conversation or the internet. In developing countries, such as Nigeria, where telecommunication and web services are still being perfected, a referral letter remains the most common and effective means of communication [1].A good referral letter should reflect good diagnostic, communication and professional skills. The superiority of writing referral letters over other communication methods lies in the fact that they can be documented effectively, unlike face-to-face or telephone conversations.

Referral letters are meant to provide the necessary information to assist the clinician in the effective management of the patient. Therefore, a poorly written referral letter may result in delayed diagnosis, inadequate follow-up and increased costs due to the duplication of services.

Studies [2, 3] have reported the shortcomings of referral letters, that they are poorly written and lack certain essential information relating to the patient; for example, patient bio data, clinical details, management already instituted identification and contact with the referring doctor. Receiving such information may greatly assist the specialist in the formulation of a treatment plan; furthermore, the information is documented and may serve as a future reference. However, some specialists have expressed dissatisfaction with the quality and content of letters received from general practitioners [4-6].

Most referrals to orthodontic specialists are made by the general dental practitioner as the first point of contact for most patients. However, since there is no formal template for writing such letters, some useful information may be omitted.

Consequently, the use of standard referral forms has been advocated and supported by

many studies [1, 4, 6] and many are used routinely in most advanced countries for the referral of patients for orthodontic treatment. However, some studies [7, 8] have reported that standardized forms do not have any advantage over freehand letters and that most referral letters written by medical and dental specialists are poorly written and lack the required information.

From available data, no studies have been conducted on the quality and pattern of referral letters to the orthodontic clinic in Nigeria. Therefore, this study aimed to evaluate the quality and pattern of referral to one orthodontic clinic in Nigeria.

Method

Referral letters to the orthodontic unit of the department of Child Oral Health of University College Hospital, Ibadan were retrieved and analyzed over a 6-month period from January to July 2010. The following information was sought: date; age; sex; patient name; clinic name; name and status of the person making the referral; history of complaint; diagnosis; management already instituted; and reasons for referral. Inclusions such as radiographs and study models were also scored. Each of the 12 items were scored 1 when present and 0 when absent. Thus, a maximum score of 12 was recorded when all items were present. Referrals were then grouped into grades according to their scores using a previously-reported grading method [7]: grade A maximum score (12); grade B (9-11); grade C (6-8); and grade D (0-5).

Data was analyzed using SPSS 11.0 version, frequencies were generated and association between the source of referral and grades of letter was determined using chi square.

Results

A total of 160 referral letters were received, and the different grades reported were: grade A letters - 0 (0%); grade B letters -74 (46%); grade C letters- 81 (51%); and grade D-5 (3%). The distribution of referral letters is presented in Figure 1, with the oral diagnostic clinic of the teaching hospital accounting for the majority (109) 63%, followed by private clinics (32) 19%, paedodontic clinics (20)

Figure 1
Percentage Distribution of Referral Letters

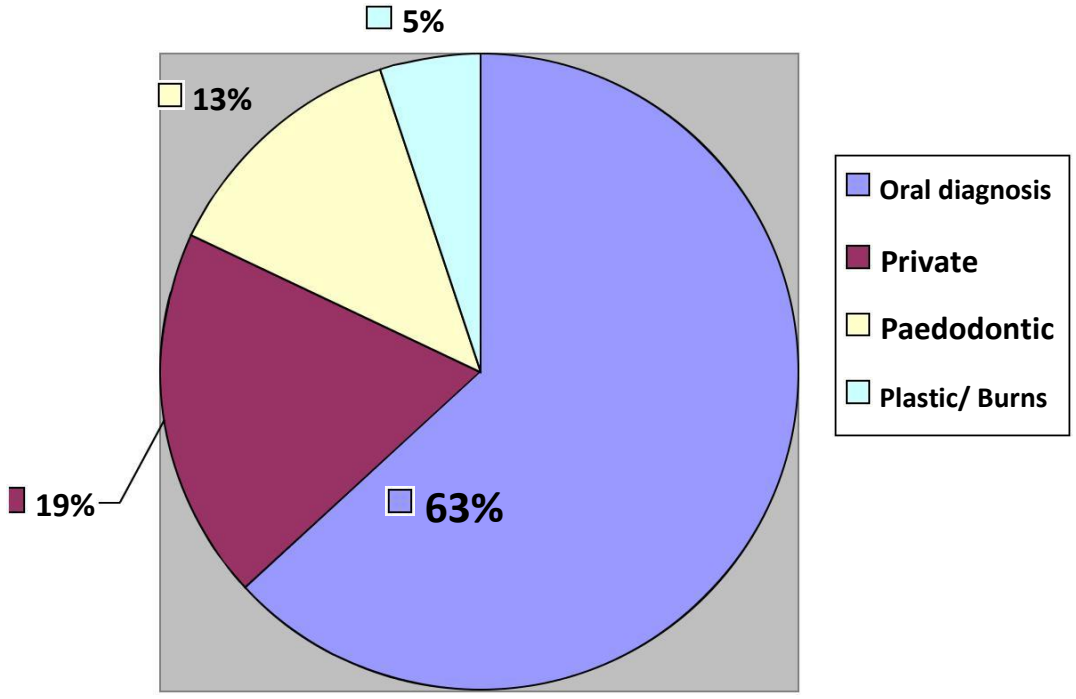

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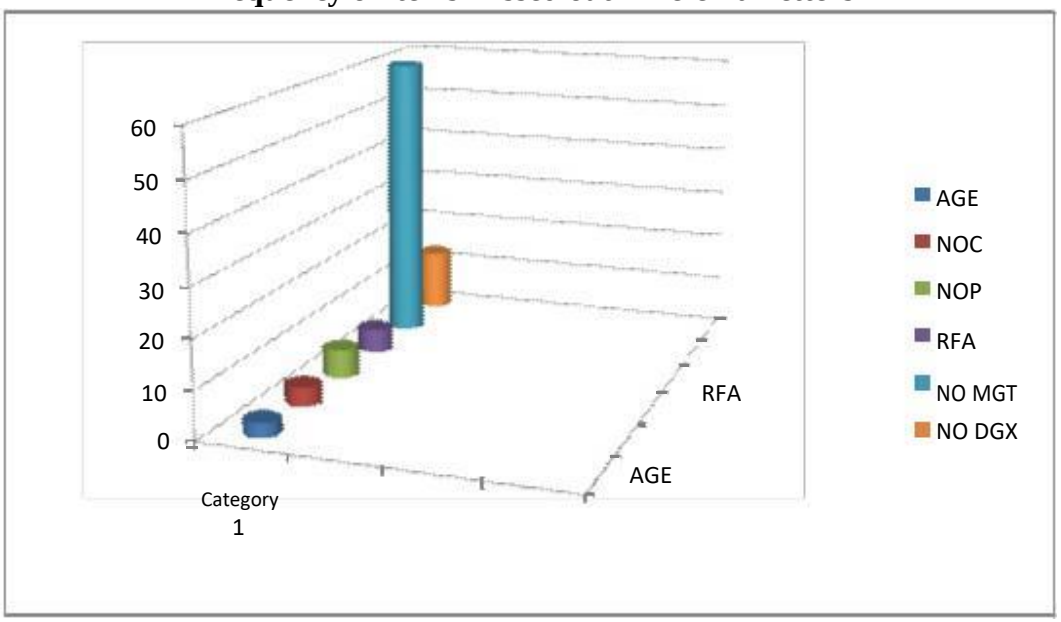
Figure 2
Frequency of items missed out in referral letters



Analysis of how frequently the necessary information was omitted (Fig 2) showed that study models and radiographs were missed out in all letters (100%). Moreover, management already instituted was missing from 60 letters (38%), diagnosis from 13 letters (8%) and the reason for referral was absent in 7 letters (4.3%). The name and status of the person making the referral was omitted in 6 letters (3.8%). Other items missing from the referral include the reason for attendance in 5 letters (3.6%), the clinic name in 4 letters (2%) and age in 3 letters (1.9%).

The frequency of referral unit and grades of letters was determined (Table 1); however, there was no statistically-significant difference between the source of referral and grades of letters ($p>0.05$).

NOC-Name of Clinic NOP-Name of Patient RFAReason for Appointment MGTManagement DGX-Diagnosis

Table 1
Frequency of referring unit and quality of referral letter

Referring unit	Grade of Letter					
	A	B	C	D	Total	%
Oral diagnosis	-	74	25	1	100	63
Peadodontic Clinic	-	2	17	1	20	13
Plastic unit	-	-	7	1	8	5
Private clinic	-	-	32	--	32	19
Total	0	76	81	3	160	100
	Chi2 value=0.023				(P>0.05)	

Angles class I malocclusion was the most frequently referred condition, accounting for 63% of all referrals. Angles class II malocclusion accounted for 23% of referrals, while Angles class III malocclusion accounted for 14%.

Discussion

The style of writing referral letters seems to differ among different health personnel and institutions [1-5]. While it is expected that such letters contain certain basic information required for the successful management of

patients, it is important that consensus is reached about the information that needs to be conveyed. In terms of orthodontics, this should include patient records, such as study models and panoramic radiographs. The successful management of patients is aided further by the availability of these records and the supply of correct information. Therefore, the inclusion of patient records when making referrals to orthodontic specialists cannot be over emphasized.

In this study, the quality of the letter was determined by the inclusion of records and other vital information. Grade A letters containing all 12 scored items were of the highest quality; however, none of the letters achieved a grade A, demonstrating a poor referral pattern of orthodontic patients. This is of serious consequence as misdiagnosis and wrong management may arise without radiographs or study models for the patient. The non-availability of the necessary X-ray facilities in most government hospitals may have contributed to the exclusion of radiographs in the referral letter.

The results of this study are consistent with other studies where an insignificant percentage of grade A letters were also reported among medical and dental professionals [2, 3, 7-8]. Of the letters received 74 were grade B; thereby indicating that most are fairly written. However, radiographs and study models are required before correct diagnosis of orthodontic patients can be made. Grade C numbered 81, while there were 5 grade D letters. These are poorly written letters that demonstrate the poor writing style exhibited by most dental practitioners. Some reasons that have been adduced for poor referral letters include writing in a hurry and working in a busy clinic [7, 8]. In addition, other studies [7-12] cite writing of referral letters by junior doctors without being vetted by senior colleagues as another reason. Indeed, in another study [8], it was discovered that most poorly-written letters were signed by residents on behalf of their consultants.

The percentage of poor-quality letters included in this study may be attributed to impatience on the part of doctor to take full details and incorrect patient assessment, which often results in the omission of vital information. Letter writing is an art that must be taught; therefore, trainee doctors should begin to practice medical/dental writing during their undergraduate studies.

Seminars or updates on the art of writing good referral letters can also be organized by different specialists to sensitize other health professionals to the necessary information required for the referral of orthodontic patients the medico-legal significance of referral letters should also be emphasized with a view to encouraging better writing style and avoid future litigation.

In this study, the information about management already instituted was absent from a total of 60 letters (38%), which is a similar statistic to that of a previous study [8]. One possible reason for such a high percentage is the fact that orthodontics is a highly specialized field in dentistry; therefore, many dentists may not be aware of the type of orthodontic management required. However, it is important that the right diagnosis be made even if no management has been instituted, but this should be stated to avoid ambiguity and confusion. Moreover, there is a need to educate doctors about simple orthodontic problems and their management as this may further enhance the quality of referral letters. Other missing information included the patient's age in 3 letters, their name in 4 letters and reasons for referral in 6 letters. This may have been due to carelessness or human error as well as composing the letter in a hurry. Therefore, it is suggested that referral letters should be read at least twice before being sent out in order to avoid such mistakes.

The majority (109) of letters were written from the oral diagnostic clinic of the dental center. This is known as an intra-specialty referral and may explain the reasonable number of fairly acceptable letters, as all grade B letters originated here. It is suggested that there should be more harmony in writing within specialties (intra) rather than from other specialties (inter). In a previous study [8] where there were higher inter-specialty referrals, the majority of letters were of poor quality; thereby signifying that most medical professionals are poorly informed about

dental conditions.

In this study, however, the referral letters were not of the highest quality, despite there being more intra-specialty referrals. Certain guidelines expected in orthodontic referrals from doctors were not strictly followed. This may be based on the assumption that most specialists know what to do with their patients and do not require additional information from non-specialists. However, this is erroneous and should be corrected, as information conveyed is vital to the successful management of any patient.

The need to standardize referral letters to orthodontic specialists may then be necessary to ensure the inclusion of basic information. Furthermore, the patient's attitude towards orthodontics, oral hygiene status and caries status may be included in such forms. One means of achieving this is to design orthodontic referral templates.

Conclusion

This study has reported that most referral letters received in one of the orthodontic clinics in a Nigerian teaching hospital were not of the highest quality, although the majority was of fair quality. Certain vital information was omitted from some letters; therefore, a recommendation is made for the design of a standard orthodontic referral form that can be used by other doctors to refer patients to orthodontic specialists.

Inclusions	Present	Absent
1	Name of patient	
2	Age	
3	Sex	
4	Clinic	
5	Name of Patient	
6	Name of Doctor referring	
7	History of complaint	
8	Diagnosis	
9	Management	
10	Reason for referral	
11	X-ray report	
12	Study models	

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