

## Research Article

# Assessment of Knowledge about Referral Letters among Fresh Graduates and General Dentists of Karachi

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**Abstract: Background:** Medical or dental referrals are a very significant part of a health professionals' job. It is imperative that they are proficient in developing effective referral letters with relevant information and sequence.

**Objective:** To find out how much the dentists know about effective referral letter writing. To assess the knowledge of fresh dental graduates and general dentists in Karachi regarding referral letters.

**Materials and Methods:** It is a cross-sectional questionnaire-based study. A questionnaire was developed consisting of two parts; first part pertaining to demographic data while second part consisted of multiple-choice questions. Convenience sampling technique was adopted and a sample size of n=75 was collected. Our study setting was Jinnah Medical and Dental College for fresh graduates while general dentists were approached from all over Karachi. The fresh graduates who were absent on the day of data collection and anyone who did not give consent was excluded from the study. Participants were approached by one of the investigators to fill out the designated questionnaires. Study duration spanned from October 2022 to January 2023. Data was documented in SPSS version 25 and frequencies calculated. T-test was used for comparison.

**Result:** Knowledge of n=35 fresh graduates and n=40 general dentists regarding referral letters was assessed. 31.4% of fresh graduates and 25% of general dentists exhibited good knowledge on cut-off scores. No significant comparative difference in the level of knowledge of the two groups was determined regarding the components of a referral letter.

**Conclusion:** Participants were well informed and knowledgeable about the relevance and importance of a referral letter.

**Keywords:** Dental referral, Effective referral, Fresh graduates, General dentists, Questionnaire, Treatment.

## INTRODUCTION

Referral letters have always been the most effective means of communication between general practitioners or outpatient departments and the specialists. The effective use of referral letters in any healthcare system is essential for smooth patient management and care. They are the means of providing patients with specialist urgent care.

According to the definition of WHO medical referral is "a process in which a health worker at one level of the health system, having insufficient resources, and/or capacity (in terms of drugs, equipment, skills, etc.) to manage a clinical condition, seeks the assistance and involvement of a better or differently resourced facility or health worker at the same or higher level to assist in, or take over the management of the patient's case" [1, 2]. Referral letter itself is a comprehensive piece of document that can ease the life of a patient and the referred doctor or dentist to a great extent. This is only possible if the document contains the essential relevant information about the patient, their prob-

lem and the reason of referral [3, 4]. Many times, it has been observed that a referral letter either contains too much irrelevant information or too little information. Ineffective referral letters can, not only delay patient management but hinder the health care system [5, 6]. It may be assumed that writing a referral letter is not that complicated a duty, but only if the health professional is trained to do so. A dentist should plan the content and sequence of their referral letter mindfully. Whenever a patient is referred anywhere the information provided by the referring dentist should be conclusive enough to propel a fast treatment protocol by the referred dentist so that the patient is managed effectively and timely [7, 8].

Dentistry is an elaborate field with at least six major specialties. In dentistry it is not uncommon for, especially, general dentists to refer patients. The reasons may include; exhaustion of resources at the primary set up, unavailability of required equipment for the advised procedures or the need of specialist opinion or expertise among others [1, 9, 10]. Patients are often referred for complicated surgeries, endodontic treatments, full mouth rehabilitation or orthodontic consultations [2, 11-13]. These practices make the conjuring of referral letters by dentists an everyday feat. Thus, all dentists should be aware of the crucial elements of a

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good referral letter. Literature acknowledges few of the essential traits of effective referral letters without which the letter can lose most of its usefulness. The features that should be part of a well written referral letter include; patient's name, personal information (age, gender, socio-economic status, family history, contact etc.), presenting complaint, medical history, drug history, diagnosis and investigations, any treatment provided and the reason of referral [3,5,7]. Most importantly the information of the referred dentist along with the reason of referral should be appropriately highlighted. The referred dentist should be able to extract all the crucial information necessary for patient care from this one piece of document. If the right details are provided in the correct format, they can easily form the basis for the treatment plan by the specialist [14].

Each component of the letter should be properly stated, elaborated where needed and sent through an authorized channel [14, 15]. It is imperative that the information provided is correct and to the point, along with the use of appropriate terms. One of the most important aspect of referral in health care system is patient counselling. The dentist needs to take the patient in full confidence throughout the referral procedure [13]. Patient should be ensured about smooth transition of health care and better management.

As healthcare providers, dentists in general should be efficient in writing effective referral letters. They need to be able to formulate a legible and relevant piece of writing for the benefit of the patient and the consulting specialist [16]. Hence, the aim of our study is to assess and compare the awareness of dentists and fresh dental graduates about the effective referral letter writing. With a general inference of lack of awareness of appropriate referral letters, we recently taught our fresh graduates about effective referral letter writing. We decided to compare their new knowledge with experienced general dentists.

## MATERIALS AND METHODS

This is a cross-sectional analytical study. The duration of the study was 03 months from October 2022 to January 2023. Ethical approval for the study was obtained from Sohail University (protocol# 000228/22). A questionnaire was developed based on the essential elements of an appropriate referral letter. Few of the questions were adapted from literature [7]. The questionnaire was pilot tested initially. The investigator ensured that the context of the questions was understandable and clear to participants before beginning the data collection of the actual study. Convenience sampling technique was adopted and a sample size of n=75 was collected. Responses of n=35 fresh dental graduates and n=40 general dentists were documented.

House officers working in the out-patient departments of Jinnah Medical and Dental college were approached by one of the investigators. Each participant was informed about the topic, nature and significance of the research and asked for consent. If the verbal and written/signed consent was given, each participant was provided with a printed questionnaire to fill in. General

dentists were sent the questionnaire as google form along with the covering letter, explaining the objectives of the research via emails and whatsapp.

## Inclusion Criteria

House officers who had freshly graduated posted in out-patient-departments of Jinnah medical and Dental College an general dentists associated with the college and clinics.

## Exclusion Criteria

Partially filled questionnaires were excluded from the study. Specialist dentist and anyone who refused to consent was excluded as well.

## Data Collection Tool

The questionnaire consisted of two parts; the first part pertaining to demographic data i.e. gender and age, while the second part consisted of multiple-choice questions. The questionnaire itself consisted of 16 questions in total, out of which 13 questions were to be graded according to Likert scale of 1-5; 1 pertaining to 'not important' and 5 pertaining to 'extremely important'. First three questions were about the significance of referral system while later questions were regarding the importance of individual components of effective referral letter writing. The cut-off scores of the 13 questions based on participant responses were used as follows: <30=below average knowledge, 31-36= average knowledge, 37-42=good knowledge and >42=excellent knowledge.

## STATISTICAL ANALYSIS

Data was documented in SPSS version 25 and frequencies calculated. Independent T-test was used to compare the knowledge of fresh graduates with general dentists.

## RESULT

Out of 50 general dentists approached, 40 (80%) responded, while the response rate among fresh graduates was 100%. Eleven participants (14.3%) believed that medical referral is the process of sending patients to a higher medical center for more specialized and expert medical care. Eight participants (10.66%) added that transfer of care to another doctor with more experience for assessment and treatment is also part of the referral process. Nine participants (12%) reported that the reason for referral is for expert evaluation, investigations, and treatment, or for the treatment of co-morbid health challenges that require a general practitioner's review. All participants (100%) responded that they refer patients whenever necessary (Table 1).

**Table 1.** Assessment of Knowledge Based on Cut-off Scores.

|       |                  | Below Average Knowledge Count (%) | Average Knowledge Count (%) | Good Knowledge Count (%) | Excellent Knowledge Count (%) |
|-------|------------------|-----------------------------------|-----------------------------|--------------------------|-------------------------------|
| Group | Fresh Graduates  | 6 (17.1)                          | 10 (28.5)                   | 11 (31.4)                | 8 (22.8)                      |
|       | General Dentists | 12 (30)                           | 12 (30)                     | 10 (25)                  | 6 (15)                        |

Our participants responded that patient details and purpose of referral are a very important part of a referral letter. 38% of general dentists and fresh graduates regard past medical and drug history as an extremely important aspect of a referral letter. More than 30% of the participants rated past dental treatment, patient inclusion and communication in decision making and referring doctor's details as only important components of a referral letter. 38% fresh graduates and general dentists conform that it is important for referral letters to be legible while 34% believe electronic communication to be important as well. 31% of the participants consider structured referral letter template as a very important aid in the process of patient referral. We inferred no significant difference in the level of knowledge of fresh graduates and general dentists regarding the components of a referral letter (Table 2).

**Table 2.** Comparison of Knowledge Scores of Fresh Graduates with General Dentists.

|       |                  | n  | Mean  | Std. Deviation | Std. Error Mean | p value |
|-------|------------------|----|-------|----------------|-----------------|---------|
| Group | Fresh Graduates  | 35 | 37.37 | 6.787          | 1.147           | 0.153   |
|       | General Dentists | 40 | 35.25 | 5.921          | 0.936           |         |

## DISCUSSION

In this study fresh dental graduates and general dentists chose various options to explain their understanding of the term 'medical referral'. Majority of the dental practitioners considered it as means of acquiring specialized dental care for the patients. The next most frequently selected option was transferring the patient to a more experienced practitioner in the context of management required. Consequently, our participants considered unavailability of a service at the dental facility, collaboration in patient management and continuation of secondary care by another physician to describe medical referral in descending order.

Literature suggests referring a patient to a more resourceful place or a person of expertise whenever the need be [17-19]. All the dentists in our study unanimously claimed that they refer their patient whenever it is required or needed depending upon the nature of the case.

Many studies emphasize the key role that personal information of the patient plays in the referral system. It is an introductory

part of the written document that sets the theme for the referral letter [1, 3, 9]. These findings are corresponded by our results where both groups deem mentioning the personal data of the patient as a very important part of a referral letter. If the reason of referral is comprehensively mentioned it can emphasize the severity of the disease and ensure timely management by the referred dentist. It actually constitutes as one of the basic and specific criteria for an effective referral letter as per literature as well [3, 11, 15]. The fresh graduates and general dentists in our study thus, also agree that the reason of referral is the most crucial information that should be highlighted in a referral letter.

General dentists consider past medical and drug history or investigations of a patient as an extremely important part of a referral while the fresh graduates gave this information slightly lesser consideration. In comparison according to a couple of Nigerian studies, their healthcare workers did not consider medical and drug history of the patient as an essential aspect of a referral letter [1, 20]. Thus, a lack in quality of the referral letters was also observed [19, 20]. While another study, focusing on dentists, highlighted the lack of importance given to the acknowledgement of investigations that were conducted by the referring dentist [11, 21]. According to Djemal *et al.* mentioning the urgency of consultation might help the patient receive timely management and increase the efficiency of the referring system on the whole [22, 23]. In comparison the fresh graduates in our study responded with varying levels of importance towards it while most of the general dentists feel that it is very important to acknowledge urgency in a referral letter. Researches have stressed upon how deficient referral letters of healthcare workers can be, regarding previous treatment and how it affects the referral system [10, 24]. In comparison, though the fresh graduates believe that any previous dental treatment should be specifically mentioned, general dentists in our study have given this information an average value of importance. This knowledge can actually lead to reduction in repetition of procedures such as x-rays and making patient management more cost effective.

Some participants disagreed with the notion of patient counseling and good communication for a successful referral. Fresh graduates consider it more important than the general dentists. Yet it is important to condition the patient and respect their autonomy throughout the referral procedure. Patient should retain the right to decide whether to go through with the referral or not. In comparison Ghani F, *et al.* suggests that referral should not be made before consulting the patient [13]. Other studies also emphasize the importance of training the health workers in

communication skills to complement their referral letter writing skills [12, 14]. Even though, our participants believe that the referring dentist should have adequate knowledge of dental specialties, their responses had varying importance levels. Supplementing this finding, a study determined that most general dentists do not possess sufficient knowledge of other specialties that can hinder the proficiency of referral system [17]. Regarding contact information, literature implies that referring dentist's information should be properly mentioned as it is a means for the referred dentist to correspond further for any future assistance [10, 13]. While the results of our study do not imply it to be most important.

In comparison to our research, Benjamin LM, *et al.* reports legibility as a prime attribute of a high-quality referral letter [18, 23]. Though, our participants did not completely disregard it. A few of the participants do not consider electronic communication to have a huge impact in a referral letter. Dentists have previously reported the effectivity of using electronic communication in referral [11, 19, 21]. While a study mentions how this medium can be used for the exchange of investigative documents e.g. x-rays, pulp testing results and blood test reports for the facilitation of the referred dentist [16]. Similar to our results various studies report the use of structured proformas and their benefits to write referral letters in healthcare [1, 3, 14, 22, 25].

### LIMITATION

A larger sample size may be used for the particular topic to be able to generalize the results. Furthermore, the study is single-center, fresh dental graduates from multiple centers should be considered for data collection.

### CONCLUSION

Our study concluded that the fresh graduates and general dentists of Karachi are well informed and knowledgeable about the relevance and importance of a referral letter. We inferred no significant difference between the knowledge of the two groups included in our research. Participants exhibited sound knowledge about the essential components of an effective referral letter.

Based on the results and conclusion of our study we would like to make following recommendations:

The teaching of key components of a good referral letter to undergraduate dental students should be continued. Electronic communication for referral documents should be emphasized in our general dental practice. Structured proformas should be developed and incorporated for effective and easy referrals.

### AUTHORS' CONTRIBUTION

- **Marium Iqbal:** Conception of Research, Design of the study, Final proofreading.
- **Rooha Sultan:** Literature research, Data collection, Manuscript writing.

- **Hana Parvez:** Literature research, Data analysis, Manuscript writing.

### CONFLICT OF INTEREST

Declared none.

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