INTERVENTIONAL SKILLS AND PREVENTIVE ATTITUDE OF
PRIVATE PRACTITIONERS REGARDING ADVERSE HABITS
AND ORAL POTENTIALLY MALIGNANT
DISORDERS- A QUESTIONNAIRE BASED SURVEY

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ABSTRACT
Introduction
India ranks first in oral Cancer and it has become a well established fact for tobacco being the prime cause of oral Cancer. Despite of initiatives taken, still nearly 30% of the Indian population indulges in these habits. Delayed presentation and resultant delayed diagnosis further contribute to poor survival rates. Considering their accessibility, there is a lot of scope for Private Practitioners to effective counsel against practice of adverse habits and to incidentally diagnose potentially malignant disorders. This paper hopes to highlight on the attitude of Private Practitioners regarding Adverse Habits and Oral Potentially Malignant Disorders, with a thorough discussion emphasizing the reasons behind posing the questions included in this survey.

Aim
To assess the screening practices, Interventional skills and Preventive attitude of Private Practitioners regarding Adverse Habits and Oral Potentially Malignant Disorders.

Method
This cross-sectional study was designed to include 200 randomly selected general dental practitioners affiliated to a private practice set up and a second group comprising of a 100 General Medical practitioners. Separate questionnaires were formulated for Dental and Medical practitioners respectively and comprised of 10 simple and comprehensive questions for Dentists regarding the routine they follow during regular consultations and for the Medical Practitioners,5 simple, comprehensive questions pertaining to their assessment and referral pattern when they come across a patient with oral health considerations.

Results
The overall statistical analysis of the responses revealed that the Interventional Skills of Dentists towards Oral Cancer was found to be insufficient (’p- value’<0.005) calling for a practice of a more social focus

KEYWORDS: Adverse Habits, Potentially Malignant Disorders, Screening, Intervention
INTRODUCTION

Oral Cancer is turning to be one of the most fatal health problems faced by mankind today. The primary risk factor of oral squamous cell carcinoma is attributed to tobacco, areca and alcohol consumption; even though other factors may be involved. Oncogenic viruses, Candida, syphilis, iron deficiency, radiation, immunosuppression, oncogenes, tumour-suppressor genes and many other factors have been postulated to have a carcinogenic role.\(^1\) Though the exposure to these “other factors” may not be within our control, the exposure to primary risk factors of tobacco, areca nut, and alcohol exposure is definitely within the bounds of the population. Due to various cultural influences almost 30% of the Indian population indulges in these habits.\(^2\)

There is increasing demand on clinicians to identify oral mucosal lesions, especially potentially malignant ones. Literature supports the fact that Invasive oral squamous cell carcinoma is often preceded by clinically identifiable premalignant changes of the oral mucosa.\(^3\) Considering the fact that the poor survival rate of an oral cancer patient is attributed to the delayed presentation and resultant delayed diagnosis and the five-year survival is directly related to stage at diagnosis; prevention and early detection efforts have gained pivotal roles and this mainly revolves around the social responsibility of a health care professional.\(^4\)

In an Urban Indian setting, where a majority of population access private practitioners for their health care needs, there is a lot of scope for the alert Dentist to effectively counsel his patient regarding strict abstinence from deleterious habits and also to incidentally detect premalignant changes in the oral mucosa and recommend appropriate timely intervention. Recent evidence however does not favor general dental practitioners and has led to the suspicion that even though knowledgeable, there are gaps in applicatory skills regarding intervention of Oral Cancer.\(^4,5,6\)

General medical practitioners can also effectively contribute to the Intervention of Oral Cancer as they may come across patients requiring dental attention and their timely referral can prove cardinal. A study by Scully et al proves that a major group of Patients often consult their general medical practitioner regarding initial addressing of their oral lesions.\(^7\)

This study was hence designed to evaluate the alertness of private practitioners regarding detection of oral mucosal changes, and how seriously they live up to their social responsibility of effectively counseling a patient to quit his vices.

AIM

To assess the screening practices, Interventional skills and Preventive attitude of Private Practitioners regarding Adverse Habits and Oral Potentially Malignant Disorders based on a Questionnaire survey.

MATERIALS AND METHODS

This cross-sectional study was designed to include 200 randomly selected general dental practitioners affiliated to a private practice set up and a second group comprising of a 100 General Medical practitioners and specialists from ENT and Dermatology who were involved in private practice were included. Institutional Ethical clearance was obtained and the survey was carried out within tenure of 6 months.

Separate questionnaires were formulated for Dental and Medical practitioners respectively. The Questionnaire was preformed, pretested and comprised of 10 simple and comprehensive questions for Dentists regarding the routine they follow during regular consultations and the Questionnaire for the Medical Practitioners included 5 simple, comprehensive
questions pertaining to their assessment and referral pattern when they come across a patient with oral health considerations. Subjects were enrolled after giving verbal consent to participate. The study was performed in accordance with legal requirements regarding confidentiality and anonymity. The participants were further encouraged to return their answered questionnaires in sealed envelopes as the validity of the study depended on the genuineness of the responses.

In the Dental group, specialists from Departments of Oral Pathology, Medicine and Surgery were excluded considering their comparative advanced training regarding oral cancer and its entities. A pilot study was conducted among 25 subjects using a preformed questionnaire to determine the feasibility of the study. Modifications were executed and the experienced difficulties were managed by reformatting the Performa, which was used for conducting the survey. Reliability was found to be satisfactory.

### QUESTIONNAIRE FOR DENTAL PRACTITIONERS:

1. Do you systematically evaluate for soft tissue changes in a routine dental check-up?  
   YES/NO

2. Does your clinic's regular case sheet include a habit/personal history column?  
   YES/NO

3. Do you perform tissue biopsies when the clinical situation demands?  
   YES/NO

4. In view of World No Tobacco day, Oral cancer awareness month do you conduct any special programs in your private practice?  
   YES/NO

5. What do you do/will you do when you come across a suspiciously malignant lesion?  
   A. Do a biopsy to confirm the diagnosis.  
   B. Call your Consultant Oral Medicine specialist for opinion  
   C. Refer the patient to a nearby educational institution  
   D. Inform the patient about malignancy and refer him to a cancer specialization hospital

6. Have you counseled a patient for stress referred the patient to a psychiatrist for counseling?  
   YES/NO

7. Do you regularly counsel patients who come for any other treatment, for quitting adverse habits of tobacco and alcohol?  
   YES/NO

8. Does your clinic's waiting hall depict at least a poster/patient education brochure regarding ill effects of tobacco, alcohol/how to perform self-examination for oral cancer?  
   YES/NO

9. Are you aware that at least 20% of Oral cancers definitely have a premalignant phase  
   YES/NO

10. Does your team of doctors include an Oral medicine consultant?  
    YES/NO
RESULTS

A total of 300 subjects participated in the study, which comprised of 200 Private Dental Practitioners and 100 medical Practitioners. The individual private practice experience tenure was found to range between 1.6 years to 27 years with an average of 4.3 years among Dentists and in medical practitioners it ranged between 3.7 to 32 years with an average of 5.2 years.

In the Dental group, a systematic soft tissue examination was included only by 31.5% during routine oral checkups; Only 20.5% of the private clinics had a personal/ habit history slot in their case sheets; only 11.5% of the study group perform tissue biopsies when the clinical situation demands it; Only 5.5% of the study population conducted special camps/ programs in his private practice in view of World No Tobacco day/ Cancer awareness month; When given a choice, nearly 36.5% of the study group preferred to refer a suspected case of malignancy directly to a Cancer specialization hospital(Figure 1); 37.5% of the study population counseled a patient for stress (Figure 6)and 65.5% of the study population counsel their patients regularly for quitting adverse habits of tobacco and alcohol even though it does not concern the purpose of visit of the patient. Only 36% of the participating clinics had anti-tobacco posters and self examination for oral cancer brochures in the waiting hall ; 81% of our study population was aware that at least 20% of malignancies are preceded with premalignant changes in the oral cavity; and 43.5% of the clinics included an Oral Medicine consultant in their team.

The overall statistical analysis of the responses revealed that the Interventional Skills of Dentists towards Oral Cancer was found to be insufficient (‘p- value’<0.005) calling for a practice of a more social focus.

Of the 100 Medical practitioners, only 41% examined a patient with cutaneous lichen planus for oral lesions; 39% were not aware that Oral lichen planus is a debated premalignant lesion; only 23% routinely recommend a patient who practices adverse habits to meet a dentist and get himself evaluated for oral mucosal changes; Only 29.5% were aware regarding specialization of Oral Medicine in Dentistry and correlated it to the department that deals with diagnosis of pre malignant lesions of the oral cavity. 43.5% preferred to do an oral examination of soft tissues when ambient light...
was available, demonstrating the willingness of a medical practitioner to contribute towards oral health. (Figure 2 and 3)

**DISCUSSIONS**

Although most of the clinicians have a basic knowledge about the direct relationship of practice of adverse habits and its association with malignancy, identification of potentially malignant disorders and how it can be managed, there seems to be a gap when it comes to practical application of this knowledge in the regular private dental setting. The questions in this questionnaire were constructed not only for the assessment of these gaps but also to bring about a self-realization among clinicians regarding the scope of their role in early detection of oral cancer for the improved survival rate and quality of life of the patient.

In the questionnaire for Dentists, the first question focused on the inclusion of systematic soft tissue examination during routine dental examinations. Most Dentists involuntarily restrict their examination to the teeth and associated periodontal structures, and to the maximum extend their examination to the buccal mucosa during a routine checkup. The response to the first question affirmed this observation by eliciting that only 31.5% of the private dentists do a systematic soft tissue examination, whereas 68.5% did not. Incorporating this basic routine of doing soft tissue examination in practice starting from lips, floor of the mouth, tongue, buccal mucosa, gingiva, palatal mucosa, retromolar trigone, faucial pillars and tonsillar area will definitely help incidentally identify undesirable oral mucosal changes. All the participants of this study were given handouts describing the art of performing a soft tissue examination at the end of the session.

The second question focused on the patient’s adverse habits being documented. Only 20.5% of the private clinics covered in our survey had a personal/habit history column. In a patient’s case sheet when the medical history of a patient is emphasized and given its deserved significance to avoid risk for both patient and practitioner, it is surprising that adverse habits which attribute to the development of many health problems to the patient is not being regularly documented in the case records of patients in private practice. Initially recording a habit history before performing a patient examination prepares a dentist about anticipated oral mucosal changes. The dentist also should make it a point to include a brief counseling session in the consultation visit itself so that frequent reminders can be given, every time the patient visits the dental office for continuation of the treatment prescribed for him. In the advent of technological innovations, it is also recommended that patient management softwares which aid in sending appointment reminders in private practice can also be programmed to incorporate a personalized reminder message periodically, specifically for patients with a positively documented habit history.

The third question on the dentists performing tissue biopsies was intended to assess whether the clinician understands the necessity of histopathological confirmation of his clinical diagnosis and the effort he puts in to evaluate dysplastic changes so as to justify his treatment recommendation. However something very basic and mandatory like a tissue biopsy is yet to find a place in routine private practice with only 11.5% of the study group performing tissue biopsies. Though various contributory factors like lack of training, laboratory facilities have been claimed by the dentists which refrains them from performing this very mandatory investigation, the actual reason needs further probing and is beyond the scope of the present study.

The following query which delves on the Dentist conducting special camps/programs in his private practice in view of World No Tobacco day/ Cancer awareness month was to emphasize on how seriously a dentist considers his role in a social responsibility. Only 5.5% of the study population answered affirmatively to this query leading to speculation.
that when private Dentists collaborate with dental product brands to conduct free dental checkups to promote a “Caries Free” Society, it is a real irony when Dentists themselves fail to recognize the due importance of these meaningful awareness days. With Oral Cancer being the highest possible life saving diagnosis that a Dentist can make, and with our country ranking first in Oral cancer incidence and prevalence, it is recommended that it is made compulsory for all health care establishments to remarkably conduct free tobacco cessation campaigns and screen for oral cancer during these days to make it more accessible and beneficial.

Question 5 which focuses on what a private dentist prefers to do when he comes across a suspected malignancy is to determine their preferred way of referral. With 36.5% of the study group preferring to refer immediately to a cancer specialization hospital leads to reiterate that over diagnosing without histopathological backing, also creates an emotional chaos for the patient, especially when the patient is immediately referred to a cancer specialization hospital. It is proposed that all private clinics involve an Oral Medicine Consultant in their practice, whose expertise involves these arenas, and based on his advice, further investigations and treatment referrals can be proceeded with.

Questions 6 and 7 were targeted on the time that the dentists prefer to spend on counseling a patient. Stress was included due to the fact that the etiology of Oral Lichen Planus; a debated premalignancy, is related to stress and anxiety levels of the patient. 37.5% of the study population counseled a patient for stress and this counseling was oriented mostly for bruxism and for habits like finger/thumb sucking. Studies like that as Carr et al, in 2012\(^5\) prove that counseling for quitting adverse habits of tobacco, areca chewing and alcoholol consumption is said to be more effective when done by a dentist than any other healthcare professional. It was encouraging to learn that 65.5% of the study population counsels their patients regularly for quitting adverse habits of tobacco and alcohol even though they report for any other treatment. Some, due to inhibitions that a patient might get offended by repeated counseling for quitting of habits, tend to refrain themselves. Moral and ethical concern and repeated emphasis definitely has an impact and it is recommended that private dentists employ and train hygienists who, under the supervision of the dentist, can continue later stages of counseling if the dentist claims lack of time. The effectiveness of the counseling session however could not be evaluated in the present study and further studies are recommended for the evaluation of the same.

The next question was framed to encourage a self realization that doing a simple act of displaying anti-tobacco posters and keeping self examination brochures in the waiting hall of the clinic could act self explanatory and contribute towards patient education and in a way claims the protest of the clinic team against tobacco. Only 36% of the participating clinics had such display which was discouraging, considering the role that dentists have to play against oral cancer..

Question 9 was targeted to input information in the questionnaire that at least 20% of malignancies are preceded with premalignant changes and to seek the awareness of the dentists regarding the same. It was inspiring to know that 81% of our study population was aware of this information. Knowing this fact, would probably, prompt the dentists to be more vigilant in future. The last question hoped to encourage dentists to involve Oral medicine consultant in their practice, and to make use of their knowledge and their exclusive training in diagnosis and management of premalignancies.43.5% of the clinics already utilized the services of Oral Medicine consultants whereas the rest of the practices did not.

The questionnaire for medical practitioners was aimed to determine if they were able to identify patients requiring dental attention and recommend timely referrals. The responses elicited are demonstrated in Graph 11and 12. The questions apart from evoking self realization that simple facts are being skipped unknowingly.(e.g: A patient with known adverse habits not being referred to a Dentist for oral examination on a routine basis).The Dental community should
embrace the Medical professionals in the fight against Oral Cancer and help them realize the scope of their role in intervention of Oral Cancer and also basic information of specializations in Dentistry and their arena of management should also be imparted to them, so that appropriate referrals can be made.

CONCLUSIONS

In a country like India, where private practitioners have an access to a vast majority of the population, simple modifications, better insights and improvements in standards of diagnosis and intervention definitely promises a paradigm shift in the incidence and occurrence of oral cancers.

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APPENDICES

Graphic- Schematic Representation

**Figure 1: Response to Question Regarding Preferred Action Plan When Dentist Encounters Suspiciously Malignant Lesion**

**Figure 2 and 3: Responses of Medical Practitioners to Questions Depicted in Percentage**