ORIGINAL ARTICLE

NEED TO REVISE ORAL PATHOLOGY CURRICULUM

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ABSTRACT

Oral pathology is one of the major basic dental science subject taught to 3rd Year BDS students. Like other basic dental science subjects, oral pathology is gradually emerging as specialty in Pakistan as more students pursue post-graduation opportunities both nationally and internationally. Graduate students are trained according to standard outlines directed at familiarizing them to the pathologies of the oral cavity. However, at the undergraduate level the current oral pathology curriculum currently taught in Pakistan Dental College is quite vague and needs thorough revision. The aim of this article is to make some suggestions for the improvement of the oral pathology curriculum with emphasis on geographical variations of oral diseases worldwide.

Key Words: *Oral pathology curriculum, Bachelors of Dental Surgery.*

INTRODUCTION

Oral pathology is the pre-clinical subject taught to the under graduate dental students. Moreover, it is one of the major sub-specialities of dentistry that serves as a bridge between the basic and clinical science subjects. It involves the teaching of different parameters of oral diseases like etiology, pathogenesis, clinical presentation, histopathological and radiographical features followed by the management. Nonetheless, due to the extensive number of diseases that affects the oral cavity, the core issue mostly observed by the teaching faculty is what to teach and what not to teach at the undergraduate level. This problem is addressed by Pakistan medical and dental council as within the vast spectrum of responsibilities, provision of curriculum guidelines for each course/subject alongwith number of credit hours and marks distribution scheme for professional examinations is also the duty of PMDC.

However, present curriculum oral pathology taught at undergraduate level comprises of only 12 major topics listed below:[1]

1 Developmental disturbances of teeth
2 Pre-malignant, benign and malignant lesions
3 Salivary gland tumors and diseases
4 Odontogenic& non – Odontogenic tumors
5 Tooth wear
6 Caries
7 Diseases of pulp and periapical tissues
8 Spread of infections
9 Wound healing
10 Diseases of bones and joints
11 Cysts of jaws and oral cavity
12 Immunology.

There are many shortcomings in the present curriculum. Firstly, this is quite vague itself and secondly, it does not provide any detail of the sub categories. As oral

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pathologists, we understand that the subcategories for pre-malignant lesions (topic No. 2) for the oral cavity can be divided into at least eight to ten premalignant conditions. Similarly, the benign and malignant processes can be classified as epithelial or connective tissue origin with each category further categorized to include anywhere between ten to fifteen lesions. This means that some of these subcategories will be encountered by students more frequently, some rarely and the rest will lie in between these two categories. Since more than half the entities in the curriculum will never be seen by the students, justification can be given that topics that are extremely rare should be excluded from the oral pathology curriculum for undergraduate students. Moreover, absence of important topics like "infections of the oral cavity" and "oral vesicullo-bullous lesions" makes this an incomplete list. Inclusion of general pathology topics, such as wound healing and immunology seems redundant. Thus, it can be concluded that there are many shortcomings in the present oral pathology curriculum.

The importance of oral pathology is gradually being recognized and that is why more Pakistani dental graduates are joining post graduate courses internationally and locally. As a result of which a good pool of oral pathologists has developed and Pakistan Society of Oral and Maxillofacial Pathology (PSOMP) also emerged recently.

We have routinely obtained feedback from our students after they complete their course of oral pathology. Almost all students have commented on the extensiveness of the curriculum in one way or another. This extensive curriculum is a constant distress for students and makes it difficult for them to retain useful information. It also makes it difficult for the faculty to teach the material effectively. This is the reason why students fail to diagnose simple pathologies, such as pyogenic granuloma and fibromas in clinics. They also find it difficult to formulate simple differential diagnoses.

Our observations correspond with those of other countries because a few articles addressing this issue were published in the medical literature. The American Association of Dental Schools (AADS) published very detailed and comprehensive guidelines for the oral pathology curriculum in 1992, these are not widely accepted by oral pathologists in US dental schools probably again because of the same reason that it includes a very extensive list of topics without considering the fact that it was formulated for undergraduate students.[2] Odell et all recommended a curriculum including six major topics, each with further subdivisions,. While these are better than the AADS guidelines, further modifications are still required.[3]

With regard to our neighboring country India, Oral pathology curriculum guidelines are provided in

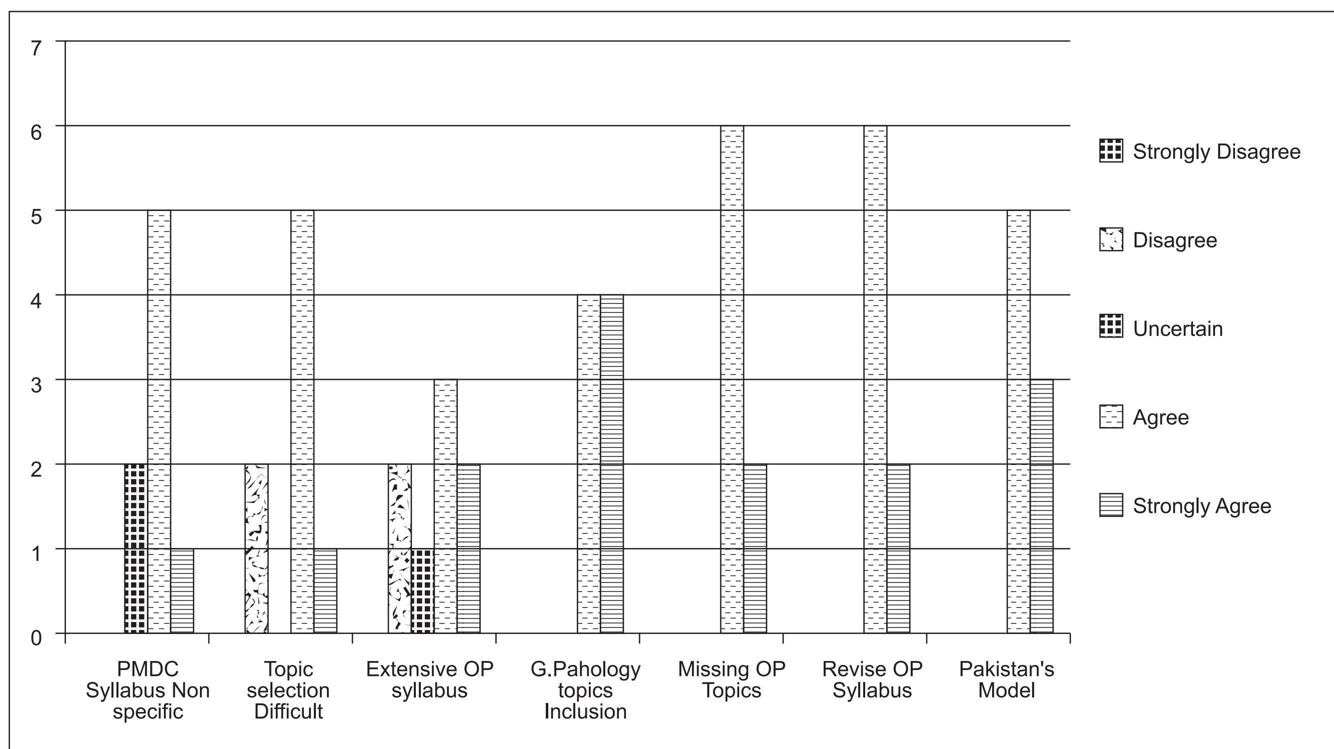

Fig 1: Questionnaire responses of the participants

TABLE 1: QUESTIONNAIRE DISTRIBUTED TO ORAL AND MAXILLOFACIAL PATHOLOGISTS

1 Do you believe that the current curriculum for oral pathology defined by PMDC is non-specific?
1. Strongly disagree
2. Disagree
3. Uncertain
4. Strongly agree
5. Strongly agree

2 Is it difficult for you to select the relevant topics for each of the defined categories while designing the syllabus for your own institution?
1. Strongly disagree
2. Disagree
3. Uncertain
4. Agree
5. Strongly agree

3 Do you think that your syllabus is too extensive for undergraduate students and teachers?
1. Strongly disagree
2. Disagree
3. Uncertain
4. Agree
5. Strongly agree

4 Do you think there is inclusion of general pathology topics in oral pathology curriculum laid down by PMDC?
1. Strongly disagree
2. Disagree
3. Uncertain
4. Agree
5. Strongly agree

5 Do you think that the current curriculum for oral pathology defined by PMDC does not include some important topics like infections of the oral cavity?
1. Strongly disagree
2. Disagree
3. Uncertain
4. Agree
5. Strongly agree

Please elaborate:

6 Do you believe that there is a need to revise/redesign the curriculum for oral pathology?
1. Strongly disagree
2. Disagree
3. Uncertain
4. Agree
5. Strongly agree

7 Would you be willing to adapt a model curriculum consisting specifically of the diseases more common and prevalent in Pakistani population?
1. Strongly is agree
2. Disagree
3. Uncertain
4. Agree
5. Strongly agree

Additional comments are welcome:

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TABLE 2: RELEVANCE SCORES FOR COMMONNESS, PREVALENCE, SIGNIFICANCE AND UNIQUENESS OF TUBERCULOSIS AND SYPHILIS

Topic	Commonness Score	Prevalence Score	Significance Score	Uniqueness Score	Relevance Score
Tuberculosis	1	3	2	0	6
Syphilis	2	0	1	0	3

a document titled "Syllabus for undergraduate BDS" by Indian Dental Council; Ministry of Health & Family Welfare, Government of India.[4] This document includes 18 broad categories along with sub-categories of Oral Pathology. Nonetheless, it's still quite an extensive list with inclusion of extremely rare conditions as well.

Mark R. Darling and Tom D. Daley introduced a concise oral pathology curriculum for general dentists.[5] We believe that this is an excellent attempt to provide a platform for oral pathologists to formulate an appropriate curriculum. His model divides oral lesions into three sections based on commonness, significance and uniqueness of lesions. Each category is given score range from 0-3 and a resultant relevance score, that is sum of three categories ranges between 0-9. He presented a detailed list of topics with their relevance scores as well.

METHODOLOGY

Methodology of this study was based on two aspects; first, recognition of the problem and second solution of the problem. To look for the problem, a self-designed questionnaire was formulated and distributed to a total of eight Oral and Maxillofacial pathologists of Islamabad and Rawalpindi (Pakistan) working as senior teaching faculty in four different dental colleges. The questionnaire was primarily focused to assess the problems with the current curriculum for oral pathology in Pakistan. It also aims to evaluate the need for changes in the current curriculum. (Table 1) The response and opinions of the participants are summarized in Fig 1.

In order to look for the possible solution Darling's and Daley's model was expanded and a format was proposed for drafting a suitable oral pathology curriculum for Pakistan.

Criteria 1: Commonness

Score: 0 — never or rarely occurs in oral and maxillofacial area (OMFA)

1— uncommonly occurs in OMFA

2— sometimes occurs in OMFA

3— commonly occurs in OMFA"5

Criteria 2: Prevalence

Score: 0— rarely occurs in Pakistan

1— sometimes occurs in Pakistan

2— common in Pakistan

3— highly common in Pakistan

Criteria 3: Significance

Score: 0— trivial, of no clinical significance

1— may cause mild to moderate morbidity

2— causes significant morbidity

3— potentially fatal"5

Criteria 4: Uniqueness

Score: 0— a lesion that is not unique to OMFA

1— a lesion that is unique to OMFA

In this scheme, criterion 2 is a novel addition, criteria 1 and 3 are taken from Darling's model. In criterion 4, the scoring system was changed. The total sum of relevance score of the four criteria is 10. The critical relevance score for a general dentist's education is taken as 5, which means topics that score 5 or >5 should be included in oral pathology curriculum. This scoring is done subjectively, however objective scoring can also be performed for more accuracy if incidence/prevalence rates are known. The scoring for criterion 4 is changed because it was considered that it repeats information covered in criterion 1. The reason criterion 2 was included to add information about geographic variation of disease incidence in different parts of the world.

DISCUSSION

We believe Darling's and Daley's model is an exceptional and outstanding piece of work. It allows oral pathologists worldwide to draft a relatively brief oral pathology curriculum. However, our suggestion is an attempt to modify it to be precise and specific for individual countries or areas, this can help overcome the geographical differences in the prevalence of various conditions. This can be illustrated through an example of two infections; each one of which is common in different areas/countries of the world can be used, as shown in Table 2.

This table illustrates, that a general dentist of Pakistan is more likely to encounter a patient with Tuberculosis than Syphilis. Thus, burdening our students with details of etiology, pathogenesis, stages of syphilis, diagnosis and histopathology would not be consistent with the modern concepts of dental education, aimed to create better and more informed general dental practitioners. If they see something complex, they can always refer the patient to the oral pathologist for definitive diagnosis and management.

Nonetheless, this rating has been subjectively, and there is still room for improvement. Although recommendations have been made to add objectivity by introducing incidence or prevalence rates, much information is not available on the Pakistani population.

In addition, to those raising an argument that some dental surgeons graduating in Pakistan will work abroad, the general consensus is that teaching everything will be more detrimental than beneficial. It is recommended for such cases a new relevance point can be decided upon. In addition, students can be introduced to two parameters, definition and the most common clinical presentation. This will allow students to have a basic knowledge and be able to include such lesions in the differential diagnosis.

At the end it can be concluded that this article will serve as one step forward in search of good methodology to be adopted in improvement of oral pathology curriculum at the undergraduate level.

CONCLUSION

This article gives an insight to the current situation in Pakistan regarding the oral pathology curriculum guidelines given by PMDC. Moreover, it proposes a revised model for oral pathology curriculum which is aimed to reduce subjectivity worldwide and encourages formulation of more customized curriculum.

REFERENCES

1 Pakistan Medical and Dental Council. Revised BDS curriculum, 2003. http:// www.pmdc.org.pk/guidelines/revised curriculum/ BDS.

2 American Association of Dental Schools. Curriculum guidelines for predoctoral oral pathology. J Dent Educ.1992; 56: 10-7.

3 E W Odell, P M Farthing, A Highs et al. British society for oral and maxillofacial pathology, UK: minimum Curriculum in oral pathology. Eur J Dent Educ. 2004; 8: 177-84.

4 Syllabus for undergraduate (BDS) (Screening test for Indian nationals with foreign dental qualifications).http://www.amu.ac.in/newdata/course/10480.pdf

5 M R Darling, T D Daley. Oral pathology in the dental curriculum: a guide on what to teach. Journal of Dental Education. 2006; 70(4): 355-60.

CONTRIBUTION BY AUTHORS

1 **Nadia Zaib, Naila Umer:** Manuscript preparation.

2 **Amber Kyiani:** Manuscript editing.

3 **Amber Kiyani, Rabia Masood, Shazia Nawabi:** Manuscript review.

CORRIGENDUM

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Page 367. At the bottom of Table 1, it should be read Group C (and not Group A)

Contributions for authors should be read as published below:

1 **Zahoor Ahmad Rana & Omer Arshad** were involved in drafting and revising the man uscript.

2 **Omar Arshad & Khalid Mahmood Siddiqi** made substantial contributions to conception and design of the manuscript as well as data acquisition.

3 **Khalid Mahmood Siddiqi** also made the statistical analysis.