



Putative Items for Oral Diagnostic and Surgical Department Information Sheet

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Abstract

Introduction: In oral surgery practice the student needs to implement wide scope of acquired theoretical knowledge. This knowledge includes theoretical understanding of intertwined biomechanics of teeth and jaw bone structures. In addition, student should have suitable relevant medical knowledge with direct and indirect influence of different medical conditions on oral surgical procedures. Through addressing students concerns and performances within two related previous studies within this research project it might be possible to utilize single patient information sheet for both diagnostic and surgical dental education. **Aim of the study:** To improve dental students' cognitive skills through unified diagnostic and technical training approach. **Materials and Methods:** One hundred and nineteen 5th year dental students from College of Dentistry, Almustansiriyah University, agreed to participate in the study. The students were asked to state their preference toward each question in oral medicine and oral surgery information sheets. Descriptive and analytic statistics were performed using SPSS Ver.23. **Results:** students prefer oral medicine items in different levels. The highest level of difference is shown in history of present illness (HPI) item. This has been statistically confirmed. Detailed types of question have shown to be the main reason for preference compared to other reasons. The second reason for preference was easiness of questions. This has been statistically confirmed ($p < 0.05$). **Conclusion:** Based on this study within the context of the research project, a standard patient information sheet items is suggested for a single department under the name of oral diagnostic and surgical department for undergraduate dental education.

Introduction:

Patient information sheet is the dentist asset for proper patient management ⁽¹⁾. In general, there is agreed basic structure for

dental patient case sheet ⁽¹⁾, However, there are specific required details for each clinical dental department. These details are related to each department learning

objectives. Proper gathering of relevant patient information is an important objective in clinical dental education. This would help to improve cognitive skills for senior dental students. To achieve this aim it is essential to orient the student to follow a unified and systematic approach for history taking, clinical examination and guide them to informed diagnostic process ⁽¹⁾. In a challenging clinical educational environment ⁽²⁾ ensuring cognitive skills development might not be easy task, especially in oral surgery department. In oral surgery practice the student needs to implement wide scope of acquired theoretical knowledge. This knowledge includes theoretical understanding of intertwined biomechanics of teeth and jaw bone structures. In addition, student should have suitable relevant medical knowledge with direct and indirect influence of different medical conditions on oral surgical procedures. Undergraduate dental students tend to focus on improving their technical skills ⁽³⁻⁶⁾. However, it seems that cognitive skills' development start to take its scope within students thinking. In a recent focus group study, it has been found that students do have critical awareness toward their cognitive clinical skills, despite the overwhelming pressure of their clinical training in oral surgery clinic. Students identified what they think as important items in diagnosis and treatment planning ⁽⁷⁾. Despite the increasing tendency toward student based learning ^(8, 9), attempting to incorporate students' critical insight did not seem to be fully considered the academic dental practice. Through addressing students concerns and performances within two related previous studies within this research project ^(6, 7), it might be possible to utilize single patient information sheet for diagnostic and surgical dental education.

Aim of the study

To improve dental students' cognitive skills through unified diagnostic and technical training approach

Materials and Methods:

This study has been approved by The Scientific Committee in College of Dentistry, Ibn Sina University of Medical and Pharmaceutical Sciences (21/5-6-2017). One hundred and nineteen 5th year dental students agreed to participate in the study. In this study, the authors requested from students to compare between two patient's information sheet samples adapted by Oral Surgery and Oral Medicine departments in College of Dentistry, Almustansiriyah University. The students were asked to state their preference toward each question in both information sheets. They were also asked to provide their reasons for preferring the particular answer. The provided reasons were as follows; (clear, easy or detailed). The study was conducted in the 2nd Semester of 2017\2018 academic year. Students at this stage should have reasonable time for better appreciation to both case sheet samples. The number of items (questions) included in the study was 12 items, some of which are not present in both samples. (Past dental history, family history and social habits) were not included in oral medicine information sheet. Even for those questions, students were asked to state their preference whether to include or not in the oral medicine sample. Descriptive and analytic statistics were performed using SPSS Ver.23.

Results:

Fig.(1) shows the preference of students toward case sheet items in both oral surgery and oral medicine departments. All included case sheet items revealed that students prefer oral medicine items in different levels. The highest level of difference is shown in history of present illness (HPI) item followed by intraoral examination (IOE). This has been statistically confirmed. Past medical history (PMH), dental chart (DC) and extraoral examination (EOE) have comparable percentages. Not all students stated the reason for their choices, Fig.(2). The range of no answer toward the reason

of the choice was between 28 students for the first question item (HPI) to 88 students for the 11th question item (saliva examination). This particular question was part of IOE in oral surgery sample. Interestingly, detailed types of question have shown to be the main reason for preference compared to other reasons. The second reason for preference was easiness of questions. This has been statistically confirmed ($p < 0.05$). The least percentage was clarity of question. Among the reasons of preference, HPI was the highest being easy and detailed.

Discussion

This article is the third of a series in a research project started in 2014. This research project aims to give dental students active role in their clinical education process. The first 2 articles identifies lack of interest in dental students to document patients history compared to their high interest in their technical skills in oral surgical practice ^(6, 10). The third article, which was a qualitative focus group study tried to explore students cognitive attitude ⁽⁷⁾. This study concluded that students need to be encouraged to improve their cognitive skills. This study at hand tries to provide students with the tool to better engage with diagnostic and treatment planning process. The authors believe there is no need for oral medicine and oral surgery to have separate information sheet. It might be more imperative to formulate an information sheet that covers the scope of diagnosis and treatment planning for both departments. Furthermore, both information sheet samples are similar in most of the questions, although with different specifications. This was the main reason for this comparison. The other reason is related to the fact that topics of concerns in oral surgery sample have been compared to by students in a previous qualitative study conducted by the first author. There is no standard format for patient information sheet ^(11, 12). In addition, each clinical department in Iraqi dental schools has its own formulated case sheet to orient the student as they collect

suitable information before commencing their clinical task. The chosen reasons for comparison between both case sheet (clear, simple or detailed) based on students' views reported in the previous qualitative study. The following quote from a 4th year students referred to the usefulness of detailed information given in oral medicine case sheet "We can increase the usefulness of diagnosis by making the question of HPI more than one, for example for pain: severity...etc." ⁽⁷⁾. This has been confirmed by this study. Detailed question was the main reason for preference between items in this study. This reflect the fact detailed type of questioning makes it easy for the student to follow the case history in ordered fashion and avoid missing any relevant question. PMH item, as the study suggests, shows slight tendency toward oral medicine case sheet. This item, however, is more detailed in oral surgery sample. Despite the qualitative study finding suggests that medical history might not require system review suggested by both departments' information sheet "[Periodontology Dep.] case sheet is not as comprehensive as oral surgery in terms of medical history, because oral surgery has a system review, whereas perio is just like operative[department]. It has just one question, which we keep it in heart: how is your health and what medication are you taking?" ⁽⁷⁾. PMH is required to inform dental students the importance of systematic approach for medical history, as it might directly or indirectly influence their treatment option ^(13, 14). In addition, from oral medicine perspective, many oral lesions within the target of oral medicine clinical education have systemic concomitant symptoms and system review approach might be key element in diagnosis of such lesions ^(15, 16). It might difficult for the student within stressful and challenging clinical setting to keep in mind all what it is relevant. This should be acknowledged by academic tutor. In addition, stressing on systems' review for diagnostic and surgical training using unified patient case sheet will encourage students to give more attention toward patient general medical knowledge. In the focus group study, students complained

from lengthy information sheet used in oral surgery department, which is more or less similar to oral medicine department. However, their preference to detailed type of questions might be the real reason. What really seems to bother students is the required effort to remember the entire relevant questions during history taking. Apparently, EOE item does not represent a major difference area in both samples, although there is some tendency toward oral medicine sample. The way items formulated in oral medicine patient sheet appears to be more relevant to the students. This agrees with the qualitative study finding "Lymph node and extraoral examination is useful in 10% of the cases"(5th year student) ⁽⁷⁾. Systematic EOE is acknowledged as inherent part in dental patient examination ^(17, 18). However, it is important for the student to consider what is relevant to the case at hand ⁽¹⁹⁾. Proper lymph node examination must be taught to undergraduate students in both departments when suspicion arises about LN involvement in orofacial pathological condition. This fact has been acknowledged by the focus group study. According to the current study findings, IOE shows clear tendency toward oral medicine department case sheet, because it is more detailed. This supports focus group study findings ⁽⁷⁾. Oral medicine case sheet sample provides broader examination account to the oral cavity in general, besides it is more relevant to what is recommended in academic literature ^(18, 20). Furthermore, oral surgery case sheet sample does not seem to have an underpinning concept, as it seems to focus student's IOE toward the accused tooth, as if it is dental extraction case sheet. This, also, has been acknowledged by students in the focus group study "The problem is with cases we receive in oral surgery; the diagnosis around such cases is almost known, either pulpitis or periapical lesion. There are no cases such as tumors....".

This refers to an important question. What is the clear boundary between cases to be referred to oral medicine department and what are the cases to be referred to oral surgery department. It is important for the student to conceptualize the fact that oral

cavity is not merely a dental apparatus. Moreover, oral surgery sample misses an important examination, which is the examination of the floor of the mouth as a separate entity. The student should be taught to pay a particular attention for this area for early detection of premalignant lesions ^(21, 22). Given the above facts, the authors argue the necessity for considering those two departments as one undergraduate clinical department and each case to be treated within the same clinic accordingly. Both case sheets have dental chart, which has been considered by students as redundant element in the information sheet ⁽⁷⁾. It is useful to have a full view for patient's dentition for different treatment planning purposes. However, it might be enough describe the oral hygiene status as good, fair or poor ⁽²³⁾ and to mark adjacent and/ or apposing teeth when pulpal inflammation could be the origin of the complaint. Although having full appreciation about the patient dental condition is important, there is no need to mark each tooth for suspected carious lesion or periodontal problem. Each clinical department focuses student's attention toward specific pathologies and orient them how to detect and examine relevant conditions. Dental charting for carious surfaces can be covered in conservative department. The same applies for detailed periodontal examination, which can be dealt with in periodontal department. In challenging and stressful clinical environment it might be useful for the student to focus his/her attention to the problem at hand. This might explain the preclusion for the need for systems review in those departments' case sheets, especially when this review can be covered in oral diagnostic and surgical department. This seems to encourage the separation between technical and cognitive clinical skills in dental students' minds. In oral surgery department, this appears to be encouraged by the focus on dental extraction (technical) skills during clinical training more than the diagnostic skills. The justifications for a unified case sheet formula to be implemented in a single diagnostic and surgical clinical department management are to widen the scope of

student's cognitive skills; decrease their confusion between different diagnostic approaches and to make them used to a standard model, which they will be exposed to repeatedly and become more accustomed to during their undergraduate clinical training. This unified clinical educational practice will help to establish an appropriate student mindset, which incorporate both of these skills through unified patient information sheet in both oral medicine and oral surgery departments' clinics. This in turn will make it easier to keep in mind and follow in their postgraduate practice.

Conclusions:

Based on this study within the context of the research project, a standard patient information sheet items is suggested (appendix) for a single department under the name of oral diagnostic and surgical department for undergraduate dental education.

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There is no conflict of interest in relation to this research.

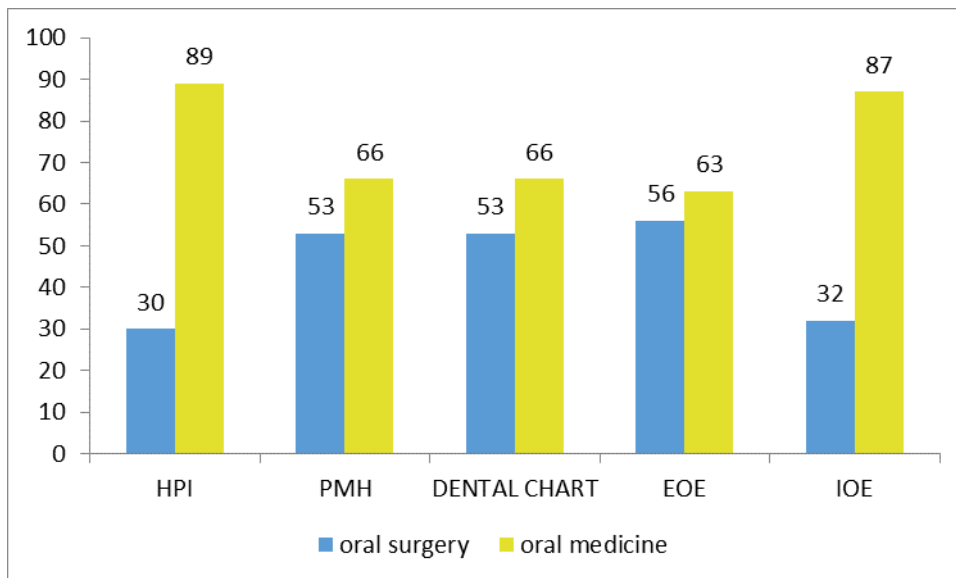


Fig.(1): Students' preferences toward main items of oral medicine and oral surgery departments' case sheet.

Past Dental History:

.....

Past medical history (PMH):

1- Are you good health?

2- Last medical physical examination was on (approximately).....for what

4-do you have or have you had any of the following diseases or problems:

- | | | | |
|----------------------------|--------------------------|--|--------------------------|
| I. Cardiovascular problem | <input type="checkbox"/> | VIII. Endocrine disorder | <input type="checkbox"/> |
| II. Respiratory problem | <input type="checkbox"/> | XI. Genitourinary and sexually transmitted disease | <input type="checkbox"/> |
| III. Hematological problem | <input type="checkbox"/> | X. Drug history | <input type="checkbox"/> |
| IV. Neurologic problem | <input type="checkbox"/> | XI. Hospitalization | <input type="checkbox"/> |
| V. Gastrointestinal tract | <input type="checkbox"/> | XII. Pregnancy | <input type="checkbox"/> |
| VI. Hepatic disorders | <input type="checkbox"/> | XIII. Dermal mucocutaneous | <input type="checkbox"/> |
| VII. Musculoskeletal | <input type="checkbox"/> | | |

Social Habits

Extra Oral Examination:

Facial asymmetry, TMJ: pain, tenderness, click, limitation of movement, others.....

Lymph node enlargement

Intraoral Examination:

Oral hygiene status

Good fair poor

Swelling:

-The anatomical situation.....

-Single multiple shape: Size.....

-Surface of the mass: smooth lobulated irregular

Others:

-Consistency: soft firm cartilage hard bony hard rocky hard rubbery hard

-Is the lump tender, warm? Fluctuant?

-Is the lump attached to the skin? Color:

-Is there any cyanosis, oedema, anesthesia, paresthesia, paralysis created by pressure of the mass?

-Edge: diffuse or clearly defined.

Oral mucosa: please remember to examine the floor of the mouth

Oral lesions (ulcers, white lesion)

-Location and distribution:

-Single multiple

-Shape: round oval irregular punched out other:

-Floor: smooth fungating covered by granulation tissue (bleeds or not)

Covered with "slough, membrane, scab" adherent to soft part or bone.

-Edge: undermined, punched out, rolled, raised and everted.

-Painful?

-other symptoms

Investigations:

Diagnosis/ Differential Diagnosis:

Treatment:

Staff signature

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