



Current Trends in Removable Partial Prosthodontics Teaching in Undergraduate Dental Colleges of Sindh, Pakistan

**Muneeb Ahmed Lone ^{a*}, Ahsan Inayat ^a, Maham Muneeb Lone ^b,
Mohid Abrar Lone ^c, Bharat Kumar ^d and Muhammad Farhan Khan ^e**

^a Department of Prosthodontics, Dr. Ishrat-UI-Ebad Khan Institute of Oral Health Sciences, Dow University of Health Sciences, Karachi, Pakistan.

^b Department of Operative Dentistry, Sindh Institute of Oral Health Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.

^c Department of Oral Pathology, Sindh Institute of Oral Health Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.

^d Department of Prosthodontics, Dow International Dental College, Dow University of Health Sciences, Karachi, Pakistan.

^e Department of Prosthodontics, Baqai Dental College, Baqai Medical University, Karachi, Pakistan.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JPRI/2021/v33i55A33806

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/78029>

Original Research Article

Received 19 September 2021

Accepted 27 November 2021

Published 13 December 2021

ABSTRACT

Objective: To explore current trends in removable partial prosthodontics teaching in undergraduate dental colleges of Sindh, Pakistan.

Study Design: Descriptive Cross-sectional.

Place and Duration of the Study: Department of prosthodontics in dental colleges of Sindh in September 2019.

Methodology: A descriptive cross-sectional study was done in which a questionnaire was sent by email to head of Prosthodontics department of 16 dental institutes of Sindh, Pakistan. The survey

included different questions regarding current trends in removable partial prosthodontics education in undergraduate dental colleges.

Results: Out of sixteen questionnaires, fourteen were completely filled and returned. Majority (69.2%) of the institutes teach fabrication of removable partial dentures (RPDs) in third year of dental college. Students of only one dental college fabricate 10-12 RPDs in their clinical rotation. All dental colleges teach acrylic RPD construction in their preclinical years. Faculty in 12 (85.7%) dental colleges always give clinical demonstrations to students before their clinical rotations. Eleven out of the fourteen colleges teach cast partial dentures (CPDs) theoretically, but no CPDs are fabricated by the students during their clinical rotation. About 70% dental schools do not have in-house facility to fabricate cast partial dentures.

Conclusion: This study describes current trends of removable prosthodontics teaching in undergraduate colleges of Sindh. A large majority of undergraduate dental students are not fabricating the minimum number of partial dentures as per PMC requirement. Although theoretically cast partial dentures are taught in lectures but students do not construct them in their undergraduate years. Efforts should therefore be made to improve teaching practices and clinical skills of undergraduates, for them to be able to treat partially dentate patients after graduation.

Keywords: Undergraduate; prosthodontics; removable partial dentures; education.

1. INTRODUCTION

Recent developments in dental materials has brought about considerable improvement in preventive dental care over the past years [1]. However, studies have shown that there will still remain a need for removable prosthetic treatment as a result of extended life expectancy and population growth globally [2,3]. About 4.1% of Pakistanis above 65 years are edentulous, expected to increase to 9.3% by 2030 [3]. Conventional removable prosthesis have been used to replace missing teeth as predictable and minimally invasive option for many years [4,5]. In recent years, the focus has shifted to implant retained prosthesis for missing teeth replacement [6]. The expense, complex surgical procedure and risks related to implant retained prosthesis is the reason that conventional removable denture is a treatment modality that is being used worldwide for replacing missing teeth [1].

For success of a removable denture it is imperative that a holistic treatment plan is formulated and design of denture framework is given utmost importance. Faulty designing and its execution can lead to harmful consequences on the oral tissues because of food packing, plaque accumulation, undue stresses on abutment teeth and underlying residual ridge. This can cause dental caries, gingivitis, periodontitis and accelerated bone resorption [5].

The Pakistan Medical Commission (PMC) is the body that implements undergraduate curricula and develops the major competencies for

Dentistry in the country. An indispensable module of undergraduate Prosthodontics curriculum is fabrication of removable dentures. Even though didactic teaching is a vital tool to form the initial schema for a topic, it will not provide the competency needed to carry out the skill in clinical situations. Similar to other dental procedures, construction of removable dentures is a skill that will be learnt better when demonstrated clinically [6,7]. The test for dental educators of today is to train dentists who are proficient oral healthcare providers [8]. Dentists attain knowledge, learn procedural skills and gain initial expertise for management of missing teeth in the undergraduate years [9,10]. It is the obligation of educators to ensure that students graduate from dental school with the competencies and professional attributes that will help them carry out efficient patient management and provide oral health care to the community. Therefore, if there are disparities in the teachings of removable prosthodontics, dental graduates may not be able to treat patients effectively in clinical settings, subsequently providing below par patient care. In this era of medical education, continuous curricular evaluation should be undertaken to ensure that evidence based current techniques and management are imparted to students, so they are able to fulfil the dental needs of our community after they graduate [8,10].

In developed countries, surveys have been carried out that report methods used in undergraduate schools to teach removable partial denture prosthodontics to students [9,11-14]. To the best of our knowledge, we could not

find any published study conducted in Sindh that describes teaching methodologies and practices employed in removable partial Prosthodontics curriculum.

The objectives of this study were to assess current trends in removable partial Prosthodontics teaching in bachelors of dental surgery (BDS) in Sindh and to determine current trends in techniques and materials being used in dental colleges when fabricating removable partial dentures.

2. METHODOLOGY

The cross-sectional descriptive survey included various questions on current trends in teaching removable partial Prosthodontics in dental colleges of Sindh. The questionnaire used was adapted by a couple of studies, [12,13] modifications and additions were then done according to local context. The questionnaire was emailed to three content experts; changes were made to the questions as per their suggestions. Names of recognized colleges teaching undergraduate dental students in Sindh was obtained from PMC. A structured questionnaire was emailed in September 2019 to departmental heads of Prosthodontics in these colleges. All departmental heads involved in teaching Prosthodontics to BDS students in Sindh were included; while those who did not consent to be a part of the study were excluded. Two reminders, by phone calls and email, at two week intervals were sent to the study participants to completely fill the questionnaires. Part I of the questionnaire inquired details regarding socio-demographics of the participants. The second part of data collection instrument included questions related to didactic and clinical teaching practices of removable partial Prosthodontics. Data was entered and analysed using SPSS version 23 (SPSS Inc., USA).

3. RESULTS

A total of 16 survey forms were emailed, out of which 14 were mailed back completely filled. Seven (50%) dental schools conduct didactic and clinical teaching of removable partial dentures (RPDs) in 3rd year, 2 (14.3%) in the final year while five of the schools spread the teaching over two or more years of dental school. Fig. 1 illustrates the number of acrylic RPDs students constructed during clinical rotation.

Preclinical removable partial denture courses are taught at all 14 dental colleges before the

students enter their clinical rotations. Acrylic partial denture construction is taught in all 14 schools. Cast partial dentures (CPD) designing is only taught at 08 (57.1%) dental schools, and surveying is taught in 10 (71.4%) dental schools. Only 01 (7.1%) dental school teaches rest seat preparation to their students during pre-clinical rotation. Faculty of 13 (92.9%) dental colleges always give clinical demonstrations to the undergraduates before they provide treatment to partially dentate patients in clinical settings, while 01 college reports giving demonstrations only some of the times. Fig. 2 illustrates the teaching methodologies used during the removable partial prosthodontics (RPDs) course.

Lecs- Lectures; HO- Hands on Practice; SGD- Small Group Discussion; EL- E-Learning; LCD- Live clinical demonstration.

Irreversible hydrocolloid is used in all the dental schools for primary impressions of removable partial dentures. The most common material used by students for making secondary impressions was irreversible hydrocolloid 10 (71.4%), followed by polyvinylsiloxane (7.1%) and zinc oxide impression paste (7.1%). All colleges advocate green stick compound for peripheral border moulding of impressions of partially dentate arches in Kennedy Class I and II scenarios. For recording impression of mandibular free end saddle RPDs, selective pressure technique was advocated by 12 out of 14 colleges, while 02 colleges supported the use of mucostatic technique. Wax alone (64.3%) was the most commonly used material for interocclusal records followed by combination of wax and bite registration paste (35.7%).

Out of 14, students of 13 schools carry out laboratory steps of acrylic RPDs themselves. When mounting casts, students of only one college (7.1%) use semi-adjustable articulators. Articulator of choice in other 13 colleges (92.9%) was the simple hinge.

Theoretically, interim dentures are taught at all of the 14 dental schools. Eleven out of 14 schools carry out didactic teaching of cast partial dentures. Didactic teaching of precision attachment retained, sectional dentures and implant supported dentures at the undergraduate level is done in only 03 (21.4%) of the dental colleges. Students of eight colleges (57.1%) perform cast partial denture (CPD) designing, but

none of them construct CPDs or implant supported removable prosthesis in the clinics. The reasons stated were lack of patient affordability and scarce resources in the institutes. Only 04 (28.6%) of the dental colleges have an in-house laboratory facility for CPD fabrication.

The most recommended book for didactic teaching was McCracken's Removable Partial Prosthodontics (100%). Textbooks authored by Steward, Fenn and Nallaswamy were also endorsed by a couple of colleges. Around 1/3rd dental colleges (35.7%) recommended journals along with textbooks.

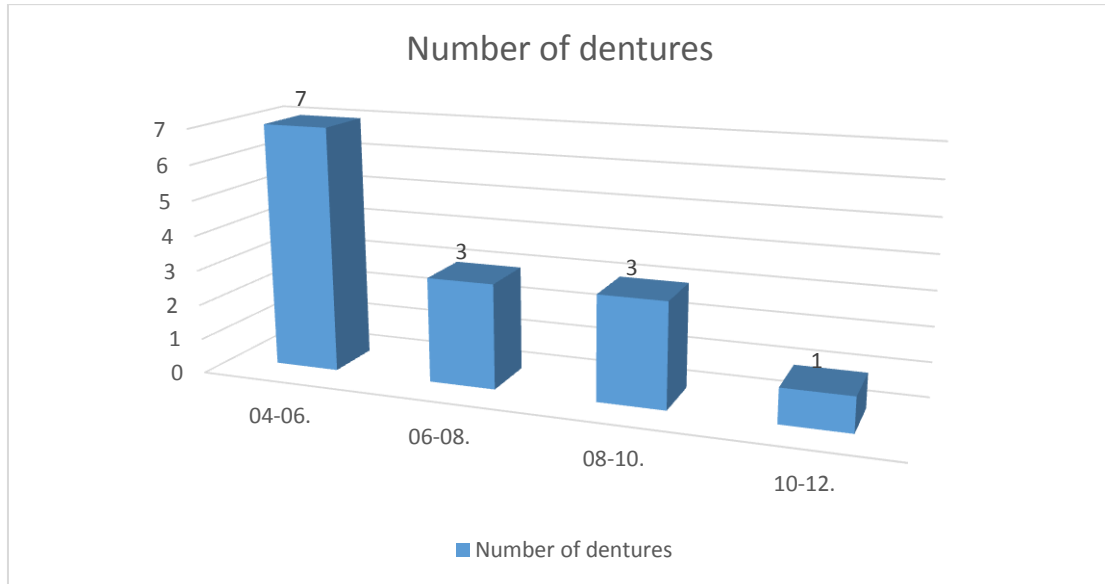


Fig. 1. Removable acrylic partial denture cases fabricated by students during their Prosthodontic rotation

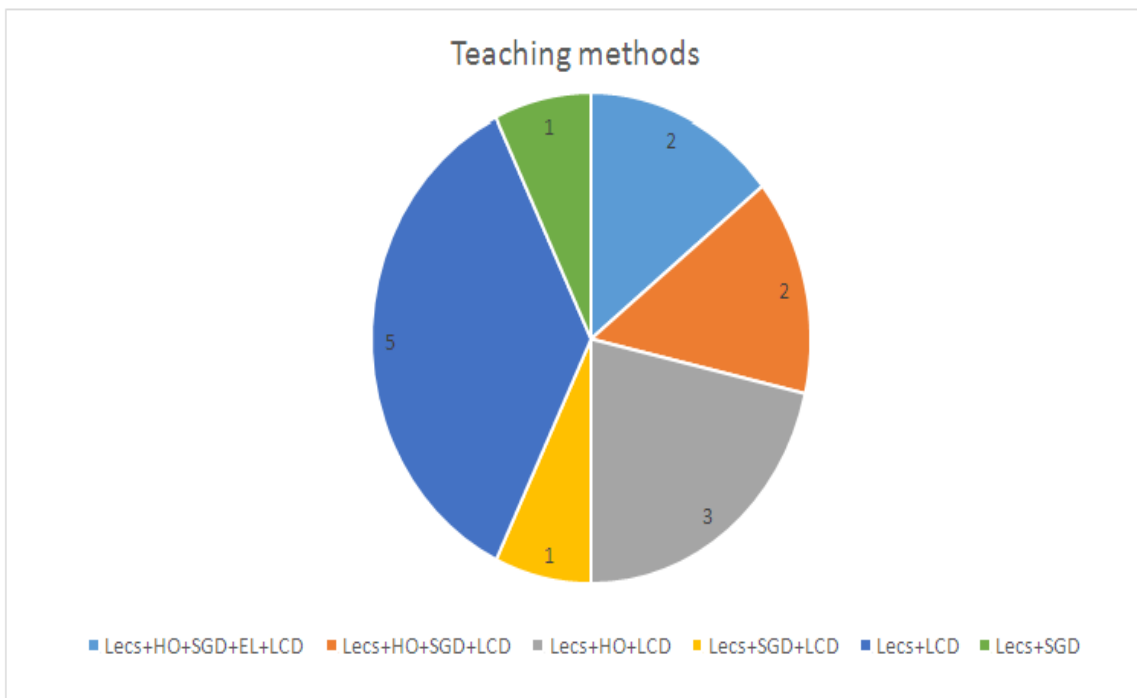


Fig. 2. Methods employed in teaching removable partial dentures (RPDs) to the undergraduate students

4. DISCUSSION

This is the pioneer study to the best of our knowledge carried out in Sindh, Pakistan to evaluate current trends in didactic and clinical practice of undergraduate students in removable partial prosthodontics. Even though similar studies have been conducted over the years in other parts of the developed world, none has been carried out to date in our part of the world [9,11-14].

Pakistan Medical Commission (PMC) regulates the license to practice dentistry in Pakistan. A recent graduate is eligible to start an independent professional practice without undertaking any training/ licensing examination. It is thus important that a dental graduate is competent to rehabilitate partially dentate patients by different treatment modalities, including provision of removable dentures. Acrylic RPDs are considered as interim dental prosthesis that are to be replaced with cast partial dentures in the definitive treatment phase. This is because the stability and function of acrylic dentures deteriorates considerably within a year of use [15]. Designing and fabrication of dentures is a skill that is best learned and retained by hands-on training and practice after attaining baseline knowledge about the procedure. It is therefore alarming to note that even though didactic teaching and designing of cast partial dentures is being taught in some schools, none of the students are fabricating even a single CPD in their undergraduate years. This is dissimilar to undergraduate schools in UK, United States, Ireland and Spain as their students are required to construct cast partial dentures during their undergraduate years [9,11-14,16].

Preclinical courses are foundation courses before clinical practice. All skills the undergraduates will carry out in clinical settings should ideally be taught and practiced in the preclinical setting beforehand. Preparation of rest seats, an important step during provision of CPDs is only taught to students of only one dental college in their pre-clinical years. Use of a dental surveyor is taught at 10, while cast partial denture designing is taught in 08 dental colleges. These procedures are important during CPD fabrication and therefore students must be competent enough in all these areas before treating such patients. Khan MF *et al.* [17] in a recent study concluded that almost half of dental practitioners were of the opinion that designing RPD was the technicians job rather their own.

However it is the responsibility of dentist to design partial denture rather than dental technician since dentist has evaluated the patient clinically. Hence there is a need to formulate guidelines for pre-clinical prosthodontics course so an improved and uniform course is taught across colleges and the students are better prepared when treating patients in the clinical setting.

Even though there are no 'evidence-based' guidelines, recommendations in textbooks used in undergraduate teaching can be used as a reference for use of articulators in various restorative cases [18,19]. Simple hinge articulator is unable to mimic mandibular movements when fabricating removable dentures in the laboratory. It is therefore recommended that in majority of cases, the average value or semi-adjustable articulator be used for cast mounting when fabricating removable prosthesis, especially in cases with unstable occlusion [20,21]. Petropoulos *et al* [13] reported use of semi-adjustable articulator by 98% dental colleges in US to mount casts to plan and fabricate RPDs. Surveys conducted in US, UK and Ireland report that semi-adjustable articulator is advocated for articulation when replacing missing teeth [9,13,14,20]. In comparison, only 01 school in our survey reported the use of semi adjustable articulator by students. Students of the other 13 schools all use hinge articulators when constructing acrylic partial dentures.

According to the guidelines provided by PMC, students before graduation should fabricate 12 acrylic partial denture cases in the Prosthodontics OPD. Despite of this, only one college fulfils this requirement. Most (53.85%) of the students fabricate about 4-6 acrylic RPD cases during their Prosthodontic rotation. While this number is far less than what is expected according to the set guidelines, comparable data from UK and Ireland revealed that students, on an average, fabricated 02 acrylic and 03 cobalt chromium dentures, prior to graduation [9]. Similarly, students of Spanish dental schools fabricate 3-4 acrylic and a similar number of cobalt-chromium RPDs prior to graduation [11]. Survey of US dental schools also found a similar number of dentures that students are required to complete in clinical undergraduate years [13]. While the cases of acrylic partial dentures fabricated are comparable to international practices, fabrication of CPDs is negligent in our students. The reasons stated for this include lack

of patient affordability and scarce resources in the dental schools. In the authors' view, a conscious effort should thus be made by the colleges to make available the resources at subsidized costs in order to provide students with the clinical familiarity of CPD fabrication in undergraduate years. This will enhance training experience of students and improve their expertise for rehabilitating patients requiring CPDs once they graduate.

It is encouraging to note that along with lectures, faculty of 13 out of 14 colleges give live clinical demonstrations in small groups to students before they treat patients in clinical settings. Only 02 dental colleges utilize e-learning to aid in teaching their students the clinical steps of denture construction. In the era of computers and digitalization, more emphasis can be given to alternate teaching strategies including virtual teaching and online videos to help students learn principles of removable denture construction [11]. Video-taped demonstrations that are accessible to students to watch in their own time, on multiple occasions, have been reported to develop comparable levels of understanding of procedures in students [22].

Results of our study reported that very few dental colleges of Sindh teach implant supported/retained partial dentures. Khan FR *et al.* reported more than half the dental colleges nationwide neglect prosthetic component of implants at the undergraduate level [8]. On the flip side, majority (81%) of dental schools in United Kingdom teach implant dentistry in the Restorative and Oral Maxillofacial curriculum [23]. Furthermore, none of the students in dental colleges of Sindh fabricate implant supported partial dentures in their Prosthodontic rotation. This is analogous to results reported by dental schools of UK and Ireland where very few schools provide clinical experience to students for restoration and placement of dental implants [23,24].

Results of this study needs to be treated with caution as they only portray the current teaching trends as narrated by senior faculty themselves. A study should be conducted whereby input of students be recorded regarding teaching methodologies and trends in RPD education and then paralleled to results of our study. Nevertheless, this is the first study that highlights the trends of removable partial denture education in our country. Finding of this survey will help in highlighting the insufficiencies in teaching methods as well as clinical practices at the undergraduate level Prosthodontics curriculum in

Sindh. In light of these results, recommendations need to be forwarded to governing educational body of the country to expand curriculum needs, thus improving clinical training of undergraduate students.

5. CONCLUSION

This study describes current trends of removable partial prosthodontics teaching in the dental colleges of Sindh. Removable partial denture education program differs from institute to institute.

Majority of the students do not fabricate the minimum number of acrylic partial dentures as per PMC requirement, while none construct cast partial dentures in their formative undergraduate years. Efforts should therefore be made to improve teaching practices and clinical skills at undergraduate level, for graduates to be prepared to treat partially dentate patients.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

Ethical approval letter from the Institutional review board committee. Ethical review committee approved the research (Ref# AUG-2019- PRSO1).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Douglass CW, Shih A, Ostry L. Will there be a need for complete dentures in the United States in 2020? *J Prosthet Dent.* 2002;87:5-8.
2. Jayasinghe RM, Perera J, Jayasinghe V, Thilakumara IP, Rasnayaka S, Shiraz MHM et al. Awareness, attitudes, need and demand on replacement of missing teeth among a group of partially dentate patients attending a University Dental Hospital. *BMC Res Notes.* 2017;10:334.
3. Rashid H, Naseem M, Vohra F, Shah SU, Shehzad A. Prosthodontic services

- provided by the dental practitioners of Karachi, Pakistan. *J Pak Dent Assoc.* 2014;23(4):159-163.
4. Bellini D, Dos Santos MB, De Paula Prisco Da Cunha V, Marchini L. Patients' expectations and satisfaction of complete denture therapy and correlation with locus of control. *J Oral Rehabil.* 2009;36:682-686.
 5. Dula LJ, Ahmedi EF, Lila-Krasniqi ZD, Shala KS. Clinical evaluation of removable partial dentures on the periodontal health of abutment teeth: a retrospective study. *Open Dent J.* 2015;9:132-139.
 6. Basker RM, Harrison A, Davenport JC, Marshall JL. Partial denture design in general dental practice 10 year. *Br Dent J.* 1988;165:295-299
 7. Taylor CL, Grey N, Satterthwaite JD. Assessing the clinical skills of dental students: a review of the literature. *J Educ Learn.* 2013;2(1):20-31.
 8. Khan FR, Lone MM. Oral Implantology education in the dental colleges of Pakistan. *J Pak Dent Assoc.* 2016;25(4):137-142.
 9. Lynch CD, Allen PF. The teaching of removable partial dentures in Ireland and the United Kingdom. *Br Dent J.* 2007;203(8):e17.
 10. Lynch CD, McConnell RJ, Wilson NH. Teaching the placement of posterior resin-based composite restorations in U.S. dental schools. *J Am Dent Assoc.* 2006;137(5):619-625.
 11. Castillo de Oyague R, Lynch C. Variations in teaching removable partial dentures in Spanish Dental Schools. *Med Oral Patol Oral Cir Bucal.* 2011;16(17):e1005-1013.
 12. Clark RKF, Radford DR, Juszezyk AS. Current trends in removable partial denture teaching in British Dental School. *Br Dent J.* 2011;211(11):531-535.
 13. Petropoulos VC, Rashedi B. Removable partial denture education in US dental School. *J Prosthodont.* 2006;15:62-68.
 14. Rashedi B, Petropoulos VC. Preclinical removable partial denture curriculum survey. *J Prosthodont.* 2003;12(2):116-123.
 15. Suwal P, Singh RK, Ayer A, Roy DK, Roy RK. Cast partial denture versus acrylic partial denture for replacement of missing teeth in partially edentulous patients. *J Dent Mater Tech.* 2017;6(1):27-34.
 16. Barsby, MJ, Swartz WD. A survey of teaching of partial denture construction in dental schools in UK. *J Dent.* 1979;7:1-8.
 17. Khan MF, Khan FNA, Lone MA, Hussain MW, Shaikh MA, Shaikh IA. Knowledge and attitude regarding designing removable partial denture among interns and dentist; dental schools in Pakistan. *J Pak Dent Assoc.* 2020;29(2):66-70.
 18. Davenport JC, Basker RM, Heath JR, Ralph JP, Glantz PO. A clinical guide to removable partial dentures, 2nd ed. London: Br Dent Assoc;2000.
 19. McCord JF, Grant AA, Youngson CC, Watson RM, Davis DM. Missing teeth- A guide to treatment options. Edinburgh: Churchill Livingstone;2003.
 20. Hindle JR, Craddock HL. The use of articulators in UK dental schools. *Eur J Dent Educ.* 2006;10(4):197-203.
 21. Lone MA, Inayat A, Lone MM, Khan MF, Lone MA, Shaikh MS. Current trends in removable partial prosthodontics education in dental colleges of Pakistan. *Eur J Dent Educ.* 2021;25:698-704.
 22. Packer ME, Rogers JO, Coward TJ, Newmans PS, Wakeley R. A comparison between videotaped and live demonstrations, for the teaching of removable partial denture procedures. *Eur J Dent Educ.* 2001;5(1):17-22.
 23. Chin JS, Lynch CD, Rees J, Locke M, Thomas MBM, Addy LD. Teaching of implant dentistry in undergraduate dental schools in the UK and Ireland. *Br Dent J.* 2018;225:763-768.
 24. Addy LD, Lynch CD, Locke M, Watts A, Gilmour AS. The teaching of implant dentistry in undergraduate dental schools in the United Kingdom and Ireland. *Br Dent J.* 2008;205:609-614.

CURRENT TRENDS IN REMOVABLE PROSTHODONTICS TEACHING IN UNDERGRADUATE DENTAL COLLEGES OF SINDH, PAKISTAN

The purpose of this study is to determine the current trends in the teaching & training of Partial denture prosthodontics in undergraduate dental colleges of Pakistan. The individual participant's information will be kept confidential.

Consent: I understand that this is purely an academic research study and does not involve any patient confidentiality issues. I thereby consent to participate in this study.

Participant's signature : _____

Demographics:

Name (Optional) : _____

Gender : _____

Years of experience : _____

Qualification(s) : _____

Institute (Public/ Private) : _____

Questionnaire:

Note: Where necessary, more than one option can be selected

1. During which years of course do you teach removable partial denture fabrication?
 - a. 1st year
 - b. 2nd year
 - c. 3rd year
 - d. 4th year

2. How many cases of removable Acrylic partial denture does each student treat during their prosthodontics rotation?
 - a. 4-6
 - b. 6-8
 - c. 8-10
 - d. 10-12

3. Do you teach preclinical laboratory based removable partial denture course to your students?
 - a. Yes
 - b. No

4. Which of the following do your student exercise during their preclinical course?
 - a. Acrylic Partial denture
 - b. Rest seat preparation
 - c. Cast partial denture designing
 - d. Cast partial denture construction
 - e. Surveying
 - f. None of the above

5. Does your faculty give clinical demonstrations to the students before they start to treat removable partial denture patients themselves?
 - a. Yes
 - b. No
 - c. Some times
6. Which methods do you use to teach removable partial dentures at your college?
 - a. Lectures
 - b. Hands-on on model
 - c. Small group discussions
 - d. Videos/ E-learning
 - e. Live clinical demonstrations
7. What material(s) do your students use for primary impressions of removable partial dentures?
 - a. Irreversible hydrocolloid
 - b. Polyether
 - c. Polyvinylsiloxane
 - d. If other, Please specify _____
8. What material(s) do your students use for making secondary impressions of partially dentate arches?
 - a. Irreversible hydrocolloid
 - b. Polyether
 - c. Polyvinylsiloxane
 - d. If other, Please specify _____
9. What material(s) do the students use for border molding final impression trays for the partially dentate arches?
 - a. Green stick-compound
 - b. Polyvinylsiloxane
 - c. Polyether
 - d. If other, please specify _____
10. In case of mandibular free-end (distal extension) saddle removable partial denture which impression technique do your students practice?
 - a. Mucostatic
 - b. Mucocompressive
 - c. Selective pressure technique
11. What material(s) do your students use for making inter-occlusal records?
 - a. Wax
 - b. Bite registration paste
 - c. Polyvinylsiloxane
 - d. Polyether
 - e. If other, please specify _____
12. Do the students use a custom tray for making final impressions of partially dentate arches?
 - a. Yes
 - b. No
 - c. Some times
13. Do your students do laboratory steps for the removable acrylic partial dentures they fabricate for patients?
 - a. Yes
 - b. No

14. For fabrication of RPD what type of articulators do the students use to mount casts?
- Simple hinge articulator
 - Semi-adjustable articulator
 - If other, please specify_____
15. Which of the following do you teach at undergraduate level to your students?
- Interim partial dentures
 - Cast partial dentures
 - Precision attachment retained partial dentures
 - Sectional dentures
 - Implant supported/retained partial dentures
 - If other, please specify _____
16. Do your students fabricate Cast partial dentures during Prosthodontic rotation?
- Yes
 - No
17. Do your students fabricate Implant supported removable partial dentures during Prosthodontic rotation?
- Yes
 - No
18. If no, why?
- Lack of resources
 - Lack of patient affordability
 - Any other, please specify: _____
19. Is there an in-house laboratory that fabricates Cast partial denture framework?
- Yes
 - No
20. Which text book(s) you recommend to teach Removable partial denture course?
- McCracken's Removable Partial Prosthodontics(Alan B. Carr and David T. Brown)
 - Stewart's Clinical Removable Partial Prosthodontics (Rodney D. Pheonix)c. Clinical Dental Prosthetics (HRB Fenn)
 - Textbook of Prosthodontics (Deepak Nallaswamy)
 - Any other, please specify_____
21. Apart from textbooks, do you recommend any journals to your undergraduate students to update their knowledge regarding removable partial dentures?
- Yes
 - No

© 2021 Lone et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<https://www.sdiarticle5.com/review-history/78029>