

Article

Combining the Case-Based Learning (CBL) and Sandwich Teaching Methods: A Promising Approach to Enhance Clinical Skills and Interests in Prosthodontics Internship

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Highlights

What are the main findings?

- CBL–Sandwich teaching method improved students' scores in clinical assessments.
- Students had higher satisfaction on CBL–Sandwich courses during clinical practice of prosthodontics.

What are the implications of the main findings?

- It is recommended that CBL–Sandwich teaching method be applied in clinical practice of prosthodontics to improve teaching effectiveness.

Abstract

Objective: This study was intended to evaluate the effects of the case-based learning (CBL) and Sandwich teaching methods in clinical practice of prosthodontics. **Methods:** 82 fifth-year students who were undertaking clinical practice of prosthodontics in Peking University School and Hospital of Stomatology (PKUSS) were included in this study. The CBL–Sandwich courses using typical esthetic cases were applied in the experimental group (40 students), while the control group (42 students) used a traditional teaching method during clinical practice. No significant differences were observed in the responses in age or pre-internship theoretical scores between the two groups ($p > 0.05$). After 10 months of training, clinical skills assessment and anonymous questionnaires were conducted. **Results:** The scores of clinical skills in the experimental group were all significantly higher than in the control group ($p < 0.01$). The former also showed significantly higher scores ($p < 0.01$) in three questionnaire items, while study burden was nearly the same between the two groups. **Conclusions:** The CBL–Sandwich teaching method can improve students' clinical skills during prosthodontic internship and enhance their interest in learning.

Keywords: case-based learning; clinical practice; teaching method; prosthodontics



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1. Introduction

With the rapid development of medicine, society's demand for high-quality medical students is increasing. Teaching models that integrate theoretical knowledge with clinical skills have become a trend in medical education [1]. Balancing education and training is a great challenge, as it shapes how future dentists are prepared for both current practice and evolving healthcare needs. Education emphasizes developing critical thinking, problem-solving, and a deep understanding of underlying principles, while training focuses on acquiring practical, hands-on skills [2]. Dental education consists of basic sciences, preclinical training and clinical internships. Clinical-based training is mandatory, with students practicing on live patients. In China, there is at least one year of clinical internship before dental licensure certification. Evolving dental education with new technologies such as digital dentistry, artificial intelligence and tele-dentistry may impact the students' competence and confidence during clinical training [3]. Therefore, an important goal of dental clinical internships is to cultivate dental students with proficient comprehensive clinical capabilities through diverse teaching methods [3,4].

The case-based learning (CBL) method uses typical cases to connect theoretical knowledge with clinical diagnosis and treatment, and therefore effectively trains students' clinical thinking [3]. During CBL courses, the students take on the learning responsibilities by analyzing the given cases and solving clinical problems with evidence-based information, while the teacher's role is as a prompter and guide to help students justify their analyses. It has been emerging as an outstanding teaching innovation, transitioning students from theoretical 'textbook'-oriented methodologies to practical scenarios.

The Sandwich teaching method is characterized by alternating teacher lectures and student discussions. Sandwich teaching, as a student-centered teaching style, has been applied to the teaching of various medical courses [5]. The typical team-based learning model not only enhances students' independent learning abilities but also ensures high interest and learning efficiency [6]. The combination of CBL and Sandwich teaching methods may contribute to more efficient teaching outcomes and help students develop deeper thinking of what they are studying. Through several typical clinical cases, CBL–Sandwich courses also efficiently integrate theoretical knowledge with clinical skills and can help students to develop a coherent understanding of scattered internship operations during internship [7].

In particular, with the development of the social economy and people's growing pursuit of esthetics, dental clinicians frequently encounter patients who are seeking treatment to improve the appearance of their teeth or orofacial region. In recent years, content related to dental esthetics has gradually been incorporated into the clinical internship curriculum for medical students [4]. However, patients requiring esthetic prosthodontic treatment often present with complex conditions, which place high demands on students' theoretical knowledge and clinical competence. In traditional clinical internships, focusing mainly on basic knowledge and skills, there is insufficient training in clinical analysis for esthetic prosthodontics [2]. Special skills like photography and digital esthetic design are important to perform esthetic dentistry, while merely involved in traditional clinical training.

Therefore, in this study, we used CBL–Sandwich teaching methods in the early stage of prosthodontic internships, compared with traditional seminars. We selected several typical cases of esthetic prosthodontics, focused on training students' clinical thinking and comprehensive abilities related to dental esthetics. After training, students' clinical skills were evaluated, along with an online questionnaire survey. The null hypothesis of this study is that "CBL–Sandwich teaching methods has no significant effect on students' clinical skills and interest."

2. Materials and Methods

2.1. Selection of Subjects

Students who were undergoing the first year of dental clinical internship at the Department of Prosthodontics in Peking University School of Stomatology in 2023 and 2024 were selected for this study. All the students were in the fifth year of dental education and had only completed the study and examinations of dental theoretical knowledge. None of them had any clinical experience before. Exclusion criteria were: (1) failed to pass the pre-internship theoretical examination; (2) postponement or withdrawal from the clinical internship due to various reasons; (3) refused to be involved in this study.

A total of 82 students (38 males, and 44 females) were included in this study. All participating students provided informed consent for this study. This study was approved by the Institutional Review Board of Peking University School and Hospital of Stomatology (Approval number PKUSSIRB-202272017).

2.2. Research Methods

Students were divided into groups using the odd–even number method based on their internship numbers. The experimental group consisted of 40 students and the control group of 42 students. Before clinical training, there were no statistically significant differences in age or pre-internship theoretical scores between the two groups (see Table 1). Both groups completed their internships in sequence for a duration of 10 weeks, with the same group of teachers responsible for clinical guidance and teaching.

Table 1. Comparison of students’ basic characteristics in the two clinical teaching groups (mean ± standard deviation).

Group	Number of Students	Age (Years)	Pre-Internship Score (Points)
Experimental group	40	23.2 ± 0.8	83.5 ± 4.0
Control group	42	23.1 ± 0.9	83.4 ± 4.2

2.2.1. Teaching Methods for the Experimental Group

The experimental group adopted the CBL–Sandwich teaching method. During the clinical internship, students focused on patient consultation and clinical operations, with guidance from their teachers. After undertaking clinical practice 2 days per week, one CBL–Sandwich course was held. Each course lasted approximately 1–1.5 h, with one teacher and 9–10 students in a small group for discussion.

During CBL–Sandwich courses, students first studied the cases and then discussed the relevant questions. Four typical clinical cases related to esthetic prosthodontics were selected from a standardized clinical case database, including gummy smile, large tooth defect in front teeth, tooth erosion, and mal-aligned anterior teeth. Medical history, oral examination results, and clinical operation videos were provided along with patients’ models. After studying the case, 4–5 relevant clinical questions covering the diagnosis, treatment plans, patient management, and details of clinical operations were discussed by students. After that, they searched for answers by reviewing the literature and textbooks, then summarized and presented their findings through presentations and following discussions. Every student participated in the presentations and subsequent discussions, and finally, each group selected a representative to summarize their answers to all questions related to the case.

Each case, it took four CBL–Sandwich courses including learning, discussing and practicing involved operation skills. During 10 weeks of training, there were a total 16 CBL–Sandwich courses.

2.2.2. Teaching Methods for the Control Group

The control group used a traditional teaching method, conducted by the same teachers as the experimental group. During the clinical internship, students focused on patient consultation and clinical operations, with guidance from their teachers. After each day of the internship, there was a 30 min summary of dental-esthetic-related cases encountered during the internship, where the teacher explained the problems encountered by students, with a teacher-centered lecture format.

2.3. Evaluation Methods

2.3.1. Assessment of Clinical Skills

At the end of the teaching period for both groups, students were assessed on their prosthodontic clinical skills by three experienced teachers who were blinded to group assignment. They scored students' performance independently according to unified scoring criteria ($Kappa = 0.75$). The highest score for the clinical assessment was 50 points, including clinical operations (20 points), medical record writing (10 points), and clinical analysis (20 points). The specific content was as follows:

Basic clinical operations: Within a specific time, students were required to complete tooth preparation and impression taking for a full ceramic crown and ceramic veneer on the maxillary right central incisor. The assessment criteria of the tooth preparation included: amount of reduction, margin placement, margin morphology, undercuts, taper of axial surfaces, preservation of teeth and gingiva, and finished morphology.

Medical record writing: Basic information, clinical examination photos, and imaging data of a typical case with dental esthetic defects were presented via slides, and students were required to write an initial medical record within a specified time. The content of the record should include medical history, extraoral and facial findings, intraoral findings, occlusal and TMJ findings, radiographic findings, diagnosis, summary of concerns and proposed treatment plans. The accuracy, completeness, and logic of this medical record are important bases for scoring.

Clinical analysis: Comprehensive cases related to dental esthetics (including patients' basic information and partial clinical examination data) were presented via slides. Students were required to make a preliminary diagnosis of the patient's dental esthetic diseases based on the data, propose additional examinations. Before they develop a preliminary treatment plan, objectives of treatment should be clarified. In addition, students were asked to answer three relevant clinical questions about the provided case, like advantage or disadvantage of the proposed treatment, or how to explain the prognosis to the patient.

2.3.2. Questionnaire Survey

At the end of the internship, an anonymous online questionnaire was used to collect students' satisfaction and feelings of their learning, via WeChat. The questionnaire was specifically designed for this study, and it included two parts:

① Student satisfaction, covering four questions:

Do you agree "I'm satisfied with the teaching model"?

Do you agree "It improved my learning ability"?

Do you agree "It improved my clinical analysis"?

Do you agree "It improved my operational skills"?

With each item scored from 0 (strongly disagree) to 5 (strongly agree), giving a highest possible score of 20 points.

② Evaluation of learning burden, with options including "appropriate burden" and "excessive burden." The Cronbach's alpha coefficient of the questionnaire was 0.891, indicating high reliability.

The result of the questionnaire survey was collected and analyzed by two teachers who were all blinded to group assignment.

2.4. Statistical Analysis

All statistical analyses were performed using SPSS software version 23.0 (SPSS, IBM Corp., Armonk, NY, USA). After passing the normality test, quantitative data were analyzed using independent samples t-tests, and categorical data using the chi-square (χ^2) test. A significance level of 0.05 was used for all statistical comparisons.

3. Results

3.1. Clinical Skill Assessment Scores of the Two Groups

The clinical assessment scores of the experimental and control groups are shown in Table 2. In all three aspects, basic clinical operations, medical record writing, and clinical analysis, students in experimental group performed higher scores, with statistically significant differences ($p < 0.05$).

Table 2. Comparison of clinical skill assessment scores between the two groups (points, mean $\pm$ standard deviation).

Items	Experimental Group	Control Group	<i>p</i> Value
Clinical Operations	17.2 $\pm$ 1.3	16.3 $\pm$ 2.0	0.013
Medical Record Writing	8.7 $\pm$ 1.0	7.9 $\pm$ 1.2	<0.01
Clinical Analysis	15.8 $\pm$ 1.8	14.4 $\pm$ 1.9	<0.01
Total Score	41.6 $\pm$ 3.5	38.6 $\pm$ 4.4	<0.01

In addition, the total internship score of the experimental group was 41.6 $\pm$ 3.5 points, which was significantly higher than that of the control group (38.6 $\pm$ 4.4), with a statistically significant difference ($p < 0.01$).

3.2. Questionnaire Survey Results of the Two Groups

A total of 82 valid questionnaires were collected from two groups. The satisfaction scores are shown in Table 3. The experimental group's overall satisfaction score was significantly higher than that of the control group ($p < 0.01$). Among the specific items, the experimental group scored significantly higher than the control group in terms of satisfaction with the teaching model, improvement in learning ability, and improvement in clinical analysis, with statistically significant differences ($p < 0.01$). While considering the improvement of operational skills, the score of the experimental group was 3.4 $\pm$ 1.1, and the score of the control group was 3.3 $\pm$ 0.7, with no statistically significant difference between the two groups ($p = 0.37$).

Table 3. Comparison of students' satisfaction of clinical teaching models between the two groups (points, mean $\pm$ standard deviation).

Items	Experimental Group	Control Group	<i>p</i> Value
Satisfied With the Teaching Model	4.5 $\pm$ 0.7	3.5 $\pm$ 1.1	<0.01
Improved My Learning Ability	3.8 $\pm$ 0.7	3.3 $\pm$ 0.9	<0.01
Improved My Clinical Analysis	4.4 $\pm$ 0.7	3.2 $\pm$ 0.9	<0.01
Improved My Operational Skills	3.4 $\pm$ 1.1	3.3 $\pm$ 0.7	0.37
Total Score	16.0 $\pm$ 1.7	12.95 $\pm$ 2.46	<0.01

Regarding the evaluation of learning burden and difficulty, five students (12.5%) in the experimental group and six (14.3%) in the control group considered the learning difficulty

excessive, while the rest thought it was appropriate. There was no statistically significant difference between the two groups ($p = 0.81$).

4. Discussion

Knowledge and clinical competence related to dental esthetics are crucial for dentists, especially for prosthodontists. It is increasingly necessary to incorporate esthetic prosthodontic content into the teaching of prosthodontics clinical internships for undergraduates [7]. Traditional clinical internships in stomatology focus on clinical practice, supplemented by teacher summaries. However, for esthetic prosthodontic teaching, the development of clinical diagnosis- and treatment-related analysis is more important. The results of this study confirmed that the CBL–Sandwich teaching method not only connects theory with clinical practice by targeting solutions to practical clinical problems, but also fully stimulates students' enthusiasm for independent learning.

CBL/PBL and Sandwich teaching methods have existed for many years. However, they have only recently been formally classified and given specific names [8]. In previous studies, the CBL teaching method has been applied in theoretical or pre-clinical stomatology courses, achieving good results [9–11]. Most of these studies suggested that the CBL pedagogy could significantly increase knowledge scores and teaching satisfaction, compared with that of the traditional courses [8,9]. However, the differences between clinical internship and theoretical courses are remarkably distinct. One of the primary goals of internships is gaining hands-on experience on real patients and cases and enhancing the ability of dental students to engage in practical work and reach professional quality. In this situation, critical thinking and clinical analysis improved by CBL or Sandwich courses might be less important compared to daily clinical work. Contrary to expectations, in this study, after CBL–Sandwich courses, students' basic clinical skills had also been improved. The reason can be assumed by the below advantages of CBL–Sandwich teaching methods.

Firstly, learning and discussing clinical cases helps students develop the ability to think and determine the correct clinical diagnosis and treatment. The standardization of medical history collection and examination description provided by CBL–Sandwich courses can also improve students' medical record writing skills. Secondly, each case includes questions related to prosthodontic treatment and videos of relevant clinical operations (e.g., details of tooth preparation and use of adhesive materials), guiding students to think about key details and techniques in treatment. Although students do not perform the operations themselves, independent literature review and video viewing deepen their understanding and memory of clinical operations—rather than merely memorizing operational points mechanically—thereby indirectly improving the proficiency and accuracy of their clinical operations [10]. Especially for AI-powered CBL teaching models, it has been proved to highly enhance students' practical skills compared to traditional learning approaches [12].

The CBL–Sandwich teaching method also has unique advantages in clinical internship teaching: it is not limited by time or location. Even without real patients, teaching can be conducted using case data accumulated by the teaching and research section. Particularly during unforeseen situations such as natural disasters or major epidemics, when clinical internships are disrupted, online teaching becomes the main mode of education [9]. The CBL–Sandwich teaching method can be combined with online teaching to maximize its effectiveness. In view of the above advantages of the CBL–Sandwich teaching method, after this study, the control group (which did not receive CBL teaching) was granted access to an online learning system for case teaching, allowing them to learn using the case database established by the teaching and research section. It has been reported that online teaching for dental education can also be an efficient alternative approach [13].

Additionally, learning outcomes in CBL–Sandwich courses greatly depend on the characteristics of the cases used [14]. For the same case, teachers can design discussions and questions of varying difficulty, depending on different groups of students:

- For beginners, the questions should be related to basic theoretical knowledge of dental esthetics, to help students consolidate their foundational knowledge.
- The next level involves questions about routine clinical operations (e.g., steps and requirements for ceramic veneer tooth preparation) to guide students in clinical practice.
- For students who have accumulated some experience during internship, the difficulty should be increased expanded into some complex situations that students may not encounter during internships. It will help them to understand the correct way of thinking regarding diagnosis and treatment of complex clinical problems and expand the breadth and depth of their knowledge.

Although the CBL–Sandwich teaching method involves teachers designing different questions based on cases to guide discussions, the group learning and presentation format still gives full play to students' independent learning abilities [15]. Students analyze and reflect on the core of their questions, further search for information to solve problems, organize information logically, and finally present their findings through slide presentations. This entire process stimulates students to take the initiative and increases their interest in dental esthetics [16]. The questionnaire results showed that the CBL–Sandwich teaching method received higher satisfaction ratings; students believed that this method significantly improved their learning and thinking abilities and helped them achieve a higher level of esthetic prosthodontic competence. However, in terms of satisfaction with “the improvement in their clinical operations”, there was no statistically significant difference between the two groups. This may be because clinical internship operations accounted for most of the teaching time, and students' skill improvement achieved through hands-on practice was more significant [17].

The students in this study were born between 1999 and 2002, called “Gen Z”, the generation born between 1993 and 2016 [18]. During their lifetime, the advancement in technology and multimedia has been rapid and significant. With underdeveloped social and relationship skills, they prefer digital communication and team-based learning, rather than traditional classroom lectures [19]. The findings of relevant studies were consistent with this study: students expressed greater satisfaction with CBL–Sandwich courses and perceived higher learning efficiency.

However, due to the limited scope of the assessment content and subjects in this study (only basic clinical abilities regarding anterior tooth preparation for full ceramic crowns/veneers and impression taking were assessed, and only 10 weeks internship), further studies with larger sample sizes and long training period are needed to evaluate the impact of this CBL–Sandwich teaching method on students' clinical operational abilities. Student grouping and the teaching proficiency of teachers in each group also exerted a negative impact on the objectivity of the study results. In addition, unlike theoretical lectures, CBL–Sandwich teaching method is not efficient in knowledge impartment. Instead, its key goal is to train students' learning and thinking abilities. Traditional exams cannot reflect students' actual abilities. Some studies focusing on training one single skill, like cavity preparation, designed a special test for evaluating teaching efficiency [20]. Further exploration is required to design clinical assessment content, like Objective Structured Clinical Examination (OSCE) [21], that can both reflect the effectiveness of the method and objectively and comprehensively evaluate students' competence.

5. Conclusions

In conclusion, the application of the CBL–Sandwich teaching method of esthetic prosthodontics during internship provides a relatively satisfactory outcome. It can improve students' clinical skills and competence and enhance their interest in learning. But further robust evidence is still required to demonstrate its superiority over traditional methods.

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Conflicts of Interest: The authors declare no conflicts of interest.

References

1. Trullàs, J.C.; Blay, C.; Sarri, E.; Pujol, R. Effectiveness of problem-based learning methodology in undergraduate medical education: A scoping review. *BMC Med. Educ.* **2022**, *22*, 104. [\[CrossRef\]](#)
2. Shuler, C.F. Dental school: Balancing education and training. *J. Dent. Educ.* **2014**, *78*, 655–666. [\[CrossRef\]](#) [\[PubMed\]](#)
3. Manas, A.; Ismail, P.M.S.; Mohan, R.; Madiraju, G.S.; Mulla, M.; Mulla, M.; Babaji, P. The role of combined problem-based learning (PBL) and case-based learning (CBL) teaching methodologies in dental education. *J. Educ. Health Promot.* **2024**, *13*, 417. [\[CrossRef\]](#) [\[PubMed\]](#)
4. Kovačić, I.; Miloš, M.; Kurkutović, M.; Čelebić, A.; Petričević, N. Influence of education level and gender of dental students on perception of dental aesthetics. *BMC Oral Health* **2024**, *24*, 398. [\[CrossRef\]](#) [\[PubMed\]](#)
5. Parkes, J.; Abercrombie, S.; McCarty, T. Feedback sandwiches affect perceptions but not performance. *Adv. Health Sci. Educ. Theory Pract.* **2013**, *18*, 397–407. [\[CrossRef\]](#)
6. Lin, G.S.S.; Tan, W.W.; Hashim, H.; Foong, C.C. The use of feedback in teaching undergraduate dental students: Feedback sandwich or Ask-Tell-Ask model? *BMC Oral Health* **2023**, *23*, 417. [\[CrossRef\]](#)
7. Chuenjitwongsa, S.; Oliver, R.G.; Bullock, A.D. Competence, competency-based education, and undergraduate dental education: A discussion paper. *Eur. J. Dent. Educ.* **2018**, *22*, 1–8. [\[CrossRef\]](#)
8. Dong, H.; Guo, C.; Zhou, L.; Zhao, J.; Wu, X.; Zhang, X.; Zhang, X. Effectiveness of case-based learning in Chinese dental education: A systematic review and meta-analysis. *BMJ Open* **2022**, *12*, e048497. [\[CrossRef\]](#)
9. Jiang, Z.; Zhu, D.; Li, J.; Ren, L.; Pu, R.; Yang, G. Online dental teaching practices during the COVID-19 pandemic: A cross-sectional online survey from China. *BMC Oral Health* **2021**, *21*, 189. [\[CrossRef\]](#)
10. Nizami, M.Z.I.; Xue, V.W.; Wong, A.W.Y.; Yu, O.Y.; Yeung, C.; Chu, C.H. Challenge-Based Learning in Dental Education. *Dent. J.* **2023**, *11*, 14. [\[CrossRef\]](#)
11. Yu, Z.; Zhao, Z.; Chen, X.; Shi, J.; Liang, Y.; Zhang, X.; Qu, M.; Huang, M.; Li, P.; Li, D.; et al. Effects of standardised patients (SP) combined with case-based learning (CBL) in Chinese clinical education: A systematic review and meta-analysis. *BMJ Open* **2025**, *15*, e095705. [\[CrossRef\]](#) [\[PubMed\]](#)
12. Wei, H.; Dai, Y.; Yuan, K.; Li, K.Y.; Hung, K.F.; Hu, E.M.; Lee, A.H.C.; Chang, J.W.W.; Zhang, C.; Li, X. AI-Powered Problem- and Case-based Learning in Medical and Dental Education: A Systematic Review and Meta-analysis. *Int. Dent. J.* **2025**, *75*, 100858. [\[CrossRef\]](#) [\[PubMed\]](#)
13. Wang, K.; Zhang, L.; Ye, L. A nationwide survey of online teaching strategies in dental education in China. *J. Dent. Educ.* **2021**, *85*, 128–134. [\[CrossRef\]](#) [\[PubMed\]](#)

14. Perez, A.; Howey, M.; Green, J.L.; Nóbrega, M.T.C.; Kebbe, M.; Amin, M.; von Bergmann, H.; Ganatra, S. Multiple cases in case-based learning: A qualitative description study. *Eur. J. Dent. Educ.* **2023**, *27*, 1067–1076. [[CrossRef](#)]
15. Lin, G.S.S.; Tan, W.W.; Foong, C.C. A new attempt of applying hybrid team-based and case-based learning approach in dental materials science: Does it work? *Eur. J. Dent. Educ.* **2023**, *27*, 956–962. [[CrossRef](#)]
16. Wang, Z.; Li, M.; Hu, B.; Lin, N. The implementation of a diversified teaching model can enhance the quality and efficacy of dental materials science. *J. Dent. Educ.* **2024**, *88*, 1609–1615. [[CrossRef](#)]
17. McGleenon, E.L.; Morison, S. Preparing dental students for independent practice: A scoping review of methods and trends in undergraduate clinical skills teaching in the UK and Ireland. *Br. Dent. J.* **2021**, *230*, 39–45. [[CrossRef](#)]
18. Parry, E.; Urwin, P. Generational differences in work values: A review of theory and evidence. *Int. J. Manag. Rev.* **2011**, *13*, 79–96. [[CrossRef](#)]
19. Walinski, C.J.; Ontiveros, J.C.; Liu, F.; Crain, G.; Vardar-Sengul, S. Optimizing teaching effectiveness in dental education for a new generation of learners. *J. Dent. Educ.* **2023**, *87*, 182–188. [[CrossRef](#)]
20. Khattak, O.; Alruwaili, N.G.; Alarjan, L.M.M.; Alsattam, A.A.; Anis, R.; Iqbal, A.; Chaudhary, F.A. Evaluating case-based learning to enhance dental student performance in cavity preparation: A pilot study. *Cureus* **2024**, *16*, e69222. [[CrossRef](#)]
21. Gandhi, P.; Singh, H.P.; Chaturvedi, S.; Gondhalekar, R.V.; Halappa, T.S.; Gandhi, V. Assessment of Perception of Dental Students to OSCE Exams: A Cross-Sectional Study. *J. Pharm. Bioallied Sci.* **2023**, *15*, S1311–S1313. [[CrossRef](#)]

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