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ENHANCING INTERDISCIPLINARY COMPETENCE IN UNDERGRADUATE DENTAL EDUCATION: THE ROLE OF REFLECTIVE PRACTICE IN PERIODONTAL-PROSTHODONTIC INTEGRATED CARE PLANNING

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ABSTRACT

Introduction: The interdisciplinary competence is now being paramount in current dental education through periodontal-prosthodontic care since integrated planning is of utmost importance in treatment. This is helped by the reflective practice as it encourages critical thinking and collective decision making.

Objective: To find out how reflective practice can be used to promote interdisciplinary competence in undergraduate periodontal-prosthodontic integrated care planning by dental students.

Materials and Method: The study was a quantitative and cross-sectional study conducted at University Medical and Dental College Faisalabad in the duration from October, 2024 to March, 2025. There was a survey of reflective practices and interdisciplinary competence of 3rd year and final year dental students with a structured Likert-scale questionnaire. SPSS was utilized in data analysis.

Results: The response rate of the survey among 120 students was 93.3 percent (112 respondents). There was a substantial correlation in a positive direction ($r = 0.61$, $p < 0.01$) between reflective practice and interdisciplinary competence. Obstacles were lack of time and minimal reactions by faculty.

Conclusion: The reflective practice is such a good way of increasing interdisciplinary competence. Formative reflection and enhanced participation of faculty play essential roles in equipping teamwork, proficient dentists.

Keywords: Reflective practice, interdisciplinary competence, dental education, periodontal-prosthodontic care, undergraduate dentistry.

INTRODUCTION

The development of dental education has tended towards interdisciplinary competence to address the complex and multifaceted nature of patient care. The proportion of elderly people is on the rise, and

the number of comorbidities is also significant; thus, collaborative healthcare has stepped forward as the norm in a contemporary clinical environment. Mara (1) stresses that dental medicine related to geriatric patients needs special individual involvement in various fields to be able to cover oral and systemic health requirements in an integrative manner. It is sobering to consider that this issue defines a hundred-year gap that needs to be addressed in standard dental curricula and that tends to operate in closed blocks without including different health branches in dental education. Interdisciplinary learning is also emphasized, as materials science plays a crucial role in dentistry. The educational model proposed by Lin et al. (2) implies a connection between the basic principles of science and clinical practice, thereby ensuring a better understanding and retention of knowledge.

The combination of these scientific aspects in clinical conditions like periodontal-prosthodontic management provides those students with the ability to make evidence-based decisions in their treatment and work better with other medical workers. Such integrated learning is not offered by the conventional compartmentalized structure of dental education, contributing to the worldwide deliberations on how dental education should be transformed. The same need is echoed by Mays (3), who notes that oral health cannot be discussed without reference to overall health, and it must be taught in this context. By teaching students to view oral health as part of the healthcare continuum, they are more fit to approach interdisciplinary practice. Nevertheless, there is still a lot of academic concentration on discipline and specialization in many of the undergraduate programs to the extent that the relatedness of fields like periodontology and prosthodontics remains neglected.

This disconnect is characterized by Liu et al. (4) as a scoping review, noting the lack of research education and incorporation in undergraduate dental education. The absence of interdisciplinary experience and reflection practices contributes to the fact that hardly any idea of how to approach complex cases with a team approach to care is acquired, especially considering situations that demand the involvement of more than one specialty in collaboration with others. Moreover, according to Haber et al. (5), when it comes to connecting oral health education to other interprofessional competencies, it is possible to provide students with a bigger image of how healthcare is delivered. The same is also supported by Fatazadeh et al. (6), who applied an oral medicine-centered curricular implementation in terms of developing collaborative capacity in oral medicine. The above models not only encourage interprofessional collaboration but also inculcate reflective practices in students by asking them to learn how the decisions of treatment planning are grounded.

Reflective practice can serve as an anchoring point for developing interdisciplinary competence in periodontal-prosthodontic integrated care planning, as it enables dental students to critically reflect on their clinical judgments and cross-specialty collaboration. Using formal reflective tasks, including case discussions and reflective summaries, the students are able to examine the interaction of the role of periodontal health before prosthetic rehabilitations, determining how their choices affect the overall treatment and team barriers. For example, discussing a situation involving balanced periodontal care planning and prosthetic construction prompts students to consider various aspects of the profession, enabling them to integrate knowledge and navigate the complexities of treatment planning. Through faculty-directed reflective sessions, as recommended by Fatahzadeh et al. (6), learners will be able to obtain specific feedback, enabling them to improve their interdisciplinary skills in communication and decision-making. This, in turn, will foster a collaborative mindset, essential for patient-centered care in contemporary dental practice.

In this respect, reflective practice forms a primary tool of interdisciplinary knowledge analysis and its synthesis, promoting learners to think in terms of different professional options when making clinical decisions. The research conducted by such researchers as Numasawa et al. (7) and Wong et al. (8) indicates that sometimes students can be ready to engage in interprofessional learning, but their institutions do not offer sufficient exposure. Reflective practice as part of periodontal-prosthodontic care may constitute a pedagogical bridge across the distance between the disciplines, permitting the students to move between disciplines and examine their roles in patient outcomes. As an illustration, the reforms in dental education among children provided by Anas et al. (9) allow drawing conclusions about the capacity of shifts in the curriculum and the development of holistic competence among

learners. Similarly, progressive learning environments with entrustable professional activities (EPAs), such as those proposed by Hissink et al. (10), are a good model for interprofessional clinical training. The second aspect to reflect upon is the importance of active learning strategies that help to ensure interdisciplinary competence. According to Perez et al. (11), active learning approaches like case-based discussions, problem-solving activities, and engaging in collaborative reflection not only facilitate knowledge retention but also facilitate critical thinking in different disciplines. The above-mentioned strategies are highly compatible with the objectives of periodontal-prosthodontic integrated care, which in many cases necessitates a subtle insight into biomechanics, tissue response, and patient behavior, factors that require the involvement of several specialties. The example of curriculum redesign mentioned by Olsson et al. (12) also includes the integration of teaching-service-community, thus further supporting the fact that interdisciplinary learning can be effectively used in clinical education. A framework for designing the interdisciplinary measures included in geriatric dental education is also provided (Brandt et al. 13), as the construct makes it possible to formulate the approaches to an aged population.

Such results are specifically applicable in the planning of periodontal-prosthodontic care, wherein simultaneous needs of prosthetic restoration and periodontal maintenance should be balanced by mutual planning coordination and reflective measurements. The use of remote learning and digital tools also increases interdisciplinary cooperation even more. Guraya et al. (14) show how online interventions could be used to create interprofessional awareness among students in the various health disciplines. This development can also be traced in the samples of research such as Chan et al. (15), which examined the knowledge and attitudes toward oral diseases in students, and it is a generalized, interdisciplinary comprehension that can enhance disease preventive efforts. Another opportunity to develop interdisciplinary competence may be identified in problem-based learning (PBL) and network analysis methods described by Obi et al. (16). Sanders et al. (17) can be added to this debate since they present an integrated learning case that entails pharmacy, social work, and nursing, once again proving the usefulness of cross-disciplinary work in healthcare education. Along with these gains, there continue to be challenges.

Nitschke et al. (18) present a case in favor of universal gerontology training and say that without mandating the curriculum in question, interdisciplinary competence can be a dream but not an academic result. Additionally, emerging technologies like chatbot GPT, which is identified by Thorat et al. (19), provide scalable solutions to achieve reflective conversations and interdisciplinary context and enable students to practice collaborative care design. The long-term programmatic experience, like the one discussed by Yu et al. (20), reveals that extended exposure to interdisciplinary research and practice leads to substantial improvements in the preparation of students to collaborate in the practice. Lastly, Chandel et al. (21) highlight the significance of promoting dental education services in underserved rural areas by using specific interdisciplinary training, which shows how reflexive and collaborative education can fix these issues of locational inequity in dental healthcare services.

Objective: To investigate the role of reflective practice in promoting interdisciplinary competence in undergraduate dental students in particular, the region of periodontal prosthodontics integrated care planning, collaborative based clinical decision-making, and better patient-centered treatment outcomes.

MATERIALS AND METHODS

Design: Quantitative, Cross-sectional Design.

Study setting: The research was performed at University Medical and Dental College Faisalabad.

Duration: The research process took place within six months, in the duration from October, 2024 to March, 2025.

Inclusion criteria: 3rd year and final-year undergraduate students was enrolled in dental programs that had participated in at least one clinical rotation that involved both prosthodontic and periodontal

treatment planning. Only the students who have voluntarily agreed to participate and showed themselves as knowing enough about reflective case documentation were recruited.

Exclusion Criteria: The study excluded students of pre-clinical years, students with no experience of both specialties, and students who failed to complete the questionnaire. Also, students who participated in interventional research projects in the course of a study were excluded in order to get unbiased results.

Methods

A structured, self-administered questionnaire was created to evaluate quantitatively the degree of interdisciplinary competence and the role of reflective practice in undergraduate dental students. This instrument consisted of closed-ended items, using a 5-point Likert scale (strongly disagree to agree), centered on student experience in interdisciplinary care planning, particularly in periodontics and prosthodontics, and participation in the reflective process. The questionnaire was tested in advance in order to determine its reliability as well as clarity in case it was to be used. The collection of the data was conducted within the allocated clinical hours under the supervision of personnel staff, and minimal interference was done to the clinical work. Students were approached by a total of 120, and their responses were anonymized to make the process confidential. Statistical analysis was done using SPSS version 26.0 data. The results of the completed questionnaires were summarized by descriptive statistics (means, frequencies, and percentages) and inferential statistics in the form of Pearson correlation. The chi-square tests were used to investigate the relationships between reflective practice and the degree of interdisciplinary competence in each of the clinical performance indicators.

RESULTS

The response rate of the 120 distributed questionnaires was 93.3% as 112 returned questionnaires were received. A total of 54 (48.2%) final-year and 58 (51.8%) 3rd year dental students were the participants. Most of respondents were female (62.5 percent) and the remaining 37.5 percent were males. The result distribution was tabulated into the key variables indicating the level of student involvement in reflective practices and their feeling of the interdisciplinary competence in periodontal-prosthodontic integrated care planning.

Table 1: Engagement in Reflective Practice Activities

Table 1 shows the frequency of the students involved in differently reflective activities. Findings indicated that 76.8 percent of the students tended to frequently reminisce on treatment results, and 68.7 percent of the students wrote reflective summaries after their patient sessions. Nevertheless, 42.9 percent said that they had structured faculty feedback in cases involving cross-departmental discussion.

Reflective Practice Activity	Always	Often	Sometimes	Rarely	Never
Reflecting on treatment outcomes	36	50	16	6	4
Writing reflective summaries post-case	30	47	18	10	7
Receiving faculty feedback on interdisciplinary care	20	28	34	15	15
Reflective discussion with peers	24	41	27	12	8

According to these results, most participants have a middle or high rate of reflective practice, yet the provision of feedback by the faculty seems to suffer.

Table 2: Perceived Interdisciplinary Competence

Table 2 reports the self-rated competency of students in interdisciplinary work of periodontics with prosthodontics. The majority of the students (73.2%) were very sure of their skills to plan together, and more students (69.6%) confirmed that reflection enhanced their interdisciplinary care knowledge.

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I can effectively collaborate with students from other specialties	35	47	18	7	5
Reflective practice enhances my understanding of integrated care	38	40	19	10	5
I can plan treatment combining periodontal and prosthetic needs	34	48	16	9	5

These findings indicate that there may be a great sense of perceived interdisciplinary competency especially in respect to planning treatment and department to department communication.

Table 3: Association Between Reflective Practice and Interdisciplinary Competence

Pearson Correlation was used to determine that there is a statistically significant correlation at Pearson correlation rank of 0.61 with a p value less than 0.01 between the scores of reflective practice and interdisciplinary competence meaning that interdisciplinary competence was observed to increase with increasing reflective practice scores and the results were significant.

Variable	Mean Score	SD	Correlation (r)	p-value
Reflective Practice Score	3.98	0.62	–	–
Interdisciplinary Competence Score	4.12	0.57	0.61	<0.01

These results strengthen the hypothesis that reflective practice has a great role in fostering interdisciplinary competence in dental education.

Table 4: Barriers to Interdisciplinary Learning Identified by Students

When asked about the obstacles when implementing interdisciplinary care planning, students mentioned time pressures, a lack of assigned faculty supervision, and departmental scheduling as the most frequent obstacles.

Barrier Identified	Frequency	Percentage
Limited faculty involvement in case integration	70	62.5%
Conflicting schedules between departments	63	56.3%
Lack of structured reflection in curriculum	59	52.7%
Time constraints during clinical rotations	75	67.0%

Such findings indicate possible obstacles to the full adoption of interdisciplinary care planning that could be institutional and curriculum-based as students demonstrated a desire to participate. Altogether, the results demonstrate the definite connection between the reflective practice and the growth of the interdisciplinary competence as well as define potential sites of curricular and structural support to develop collaborative learning in undergraduate dental education.

DISCUSSION

The results of the study provide strong evidence that reflective practice is crucial in enhancing interdisciplinary competence among undergraduate dental students, particularly in the context of periodontal-prosthodontic integrated care planning. The trend of making dentistry more inter-professional and patient-focused also requires the skills to synthesize knowledge across disciplines and reflect on therapeutic decision-making to deliver care safely and efficiently. Mara (1) also emphasized the importance of interdisciplinary methods, particularly in the field of geriatric dentistry, as systemic and oral diseases often share overlapping causes, necessitating comprehensive treatment plans. Reflective practice improves such complex decision processes by promoting the assessment of personal clinical performance and the wider health outlook of students.

This is most applicable in the areas of prosthodontics and periodontics, where positive outcomes can only be realized through conciliated treatment plans that deal with soft tissue health and prosthetic restoration. The connection with perceived interdisciplinary competence supports the educational significance of planned reflections as well. According to Lin et al. (2), it has been pointed out to integrate the foundational sciences with clinical learning so as to promote critical thinking and interdisciplinary learning. Reflecting gives the mental space that students need to draw such lines together so that scientific knowledge is transformed into actual clinical applicability. Moreover, as outlined by Mays (3), the interlinking of oral and overall health is central to the development of curricula. The results of our study indicate that the students who reflect actively will be more apt to state that they feel confident to provide and conduct interdisciplinary treatments and, therefore, prove the educational practice.

Nevertheless, in addition to these positive results, there are still challenges. The findings indicate that there is a wide gap in structured faculty feedback, which plays a critical role in specifically guiding meaningful thought and re-enforcing interdisciplinary concepts. Liu et al. (4) noted the lack of structure, basic research, and thoughtful aspects in dental programs, which echoes our conclusions about the institutional obstacles that restrict reflective practice. Reflection can be initiated informally by students, but unless structured reinforcement of these activities takes place by the faculty, there may not be depth and continuity with which to transform learning. Haber et al. (5) and Fatahzadeh et al. (6) recommend the use of interprofessional programs spearheaded by faculty members because this solution has the potential to address this gap by establishing proper guidance and role modeling adequate non-competitive interactions among students.

The importance of student preparation towards interdisciplinary learning also appeared in our study very prominently. Most of them believe in their capacities to work across the departments, which is in line with Numasawa et al. (7) and Wong et al. (8), who found that students were highly prepared to participate in interprofessional interactions. This suggests that student resistance is not the primary impediment to interdisciplinary growth, but rather the structure of the curriculum and the distribution of resources. It is upon institutions to utilize this willingness by offering frequent interdisciplinary learning experiences, well-organized feedback, and reflection within the curriculum. The second notable point is the use of reflective practice in the formation of the clinical identity and ability to collaborate. According to Anas et al. (9) and Hissink et al. (10), such curriculum innovations as problem-based learning and entrustable professional activities (EPAs) can significantly improve clinical competence.

On the same note, active learning strategies, as defined by Perez et al. (11), provide an interactive learning process where the students are able to self-critically reflect on their position in interdisciplinary teams. These are the methods that not only base their learning on rote learning but also impart a culture of working collectively with each other, which is paramount in periodontal-prosthodontic treatment planning as timing and sequencing of the various steps and predictability of outcome is essential. Olsson and Brandt (6) reiterate the necessity of frameworks in the curricular structure that incorporate community-based and geriatric models of care in their studies. The findings of our study are consistent with theirs, meaning that students gain exposure and reflection experiences in various aspects of patient care in the real world. Nevertheless, a common thread is also the existence

of a gap in integration between specialties at the institutional level, which leads to the loss of learning opportunities through collaboration. According to Guraya et al. (14), the enhancement of interprofessional education, even in the context of resource-limited settings, can also be achieved with the help of online interventions.

Furthermore, the need to identify barriers such as time constraints, absence of departmental coordination, and restricted curriculum support leads to problems at the systemic level. Chan et al. (15) and Obi et al. (16) support a more integrated structure in order to support interdisciplinary learning. Those results, combined with ours, indicate that it is necessary to provide institutional leadership and recreate dental curricula with reflective and interdisciplinary competencies as the key outcomes to breaking institutional inertia. The introduction of the reflective practice helps to achieve more than the educational purposes, which include professional ethics, understanding empathy, and patient-centeredness development. Sanders et al. (17) emphasize that it is important to incorporate social work and nursing involvement within dental facilities, which would provide a root-to-root approach to the patients. Similarly, Nitschke et al. (18) claim that gerontology education should be made compulsory and, in turn, implies interdisciplinary cooperation. Our research supports this practice and suggests formalizing reflection throughout the dental training ranks to facilitate integration.

The need to improve reflective learning can even be achieved through emerging technologies such as AI-based tools. The usefulness of GPT-based chatbots in facilitating the interaction of students in clinical reasoning and decision-making was discussed by Thorat et al. (19). When applied in conjunction with conventional mentorship, these tools enables lifelong reflection and skill growth. The example of long-term programs offered by Yu et al. (20) demonstrates the worthiness of long-term educational programs based on research. The approaches provide models of carrying out systematic, longitudinal reflective practices to enhance an interdisciplinary competence as a body of history. Lastly, Chandel et al. (21) highlight the necessity of special training courses in underrepresented environments, where patients require interdisciplinary treatment most of the time because resources are insufficient. In these settings, reflective practice results not only in increased learning but also in the development of adaptation and resourcefulness skills, which are necessary for contemporary dental practitioners.

CONCLUSION

This study proves that reflective practice is a strong pedagogic instrument in terms of increasing interdisciplinary competence of dental undergraduate students, especially in an integrated care process planning involving periodontal prosthodontics. Students who actively participate in reflection declare high levels of confidence and effective teamwork and a better idea of a combined treatment plan. The fact that a high positive correlation was found between reflective practice and interdisciplinary competence shows that the dental curriculum should consider integrating formal reflection into the dental curriculum. There are however, some limitations like feedback limitation by the faculty, time, and disconnects of departments, which limit its potential. Curriculum reform, higher faculty participation, and inter dept co-ordination to overcome these challenges can make learning more coordinated and therefore integrated. The modern dental clinical practice continues to shift towards collaborative care, so the development of reflective habits and skills in an interdisciplinary approach should also be addressed in training students to cope with clinical challenges in real life. Incorporation of the reflective practice, in addition to the enhancement of learning, further leads towards the creation of empathetic, competent, and team-oriented dental practitioners.

REFERENCES

1- Mara M. Interdisciplinary education and health care in geriatric dental medicine. Dental Clinics. 2021 Apr 1;65(2):377-91.
2- Lin GS, Jurado CA, Afrashtehfar KI. Interdisciplinary approaches for integrating materials Science and Dentistry. Bioengineering. 2023 Mar 9;10(3):344.

3- Mays KA. Designing oral health curriculum that facilitates greater integration of oral health into overall health. Frontiers in Dental Medicine. 2021 Aug 9;2:680520.
4- Liu H, Gong Z, Ye C, Gan X, Chen S, Li L, Hong Y, Xu J, Lin Z, Chen Z. The picture of undergraduate dental basic research education: a scoping review. BMC medical education. 2022 Jul 23;22(1):569.
5- Haber J, Hartnett E, Cipollina J, Allen K, Crowe R, Roitman J, Feldman L, Fletcher J, Ng G. Attaining interprofessional competencies by connecting oral health to overall health. Journal of dental education. 2021 Apr;85(4):504-12.
6- Fatahzadeh M, Sabato E, Singhal V, Wagner M, Fenesy K. A novel oral medicine-centered interprofessional curricular initiative to promote collaboration and build oral health capacity. Journal of dental education. 2025 Jan;89(1):81-9.
7- Numasawa M, Nawa N, Funakoshi Y, Noritake K, Tsuruta J, Kawakami C, Nakagawa M, Yamaguchi K, Akita K. A mixed methods study on the readiness of dental, medical, and nursing students for interprofessional learning. PloS One. 2021 Jul 22;16(7):e0255086.
8- Wong G, Irving M, Forsyth CJ, Chen R, Tsai C. Intraprofessional learning: dentistry and oral health students' readiness and experience. Journal of Dental Education. 2023 Nov;87(11):1542-51.
9- Anas M, Ullah I, Sultan MU. Enhancing paediatric dental education: a response to curriculum shifts. European Archives of Paediatric Dentistry. 2025 Apr;26(2):401-2.
10- Hissink E, Fokkinga WA, Leunissen RR, Lia Fluit CR, Loek Nieuwenhuis AF, Creugers NH. An innovative interprofessional dental clinical learning environment using entrustable professional activities. European Journal of Dental Education. 2022 Feb;26(1):45-54.
11- Perez A, Green J, Moharrami M, Gianoni-Capenakas S, Kebbe M, Ganatra S, Ball G, Sharmin N. Active learning in undergraduate classroom dental education-a scoping review. Plos one. 2023 Oct 26;18(10):e0293206.
12- Olsson TO, Dalmoro M, da Costa MV, Peduzzi M, Toassi RF. Interprofessional education in the dentistry curriculum: analysis of a teaching-service-community integration experience. European Journal of Dental Education. 2022 Feb;26(1):174-81.
13- Brandt AC, Lingard L, Dong CS. A multi-faceted construct to guide geriatric dental education: Findings from a scoping review with consultation. Gerodontology. 2025 Mar;42(1):1-1.
14- Guraya SY, David LR, Hashir S, Mousa NA, Al Bayatti SW, Hasswan A, Kaouas M. The impact of an online intervention on the medical, dental and health sciences students about interprofessional education; a quasi-experimental study. BMC Medical Education. 2021 Dec;21:1-1.
15- Chan ZW, Phuan YF, Ooi PY, Nor Azmi N, Pateel DG, Yap HY, Gunjal S. An assessment of oral cancer knowledge, attitudes, and practices among undergraduate students in Malaysian dental schools. BMC oral health. 2023 Aug 31;23(1):617.
16- Obi LI, Omotayo T, Ekundayo D, Oyetunji AK. Enhancing BIM competencies of built environment undergraduates students using a problem-based learning and network analysis approach. Smart and Sustainable Built Environment. 2022 Aug 18;13(1):217-38.
17- Sanders KA, de Saxe Zerden L, Zomorodi M, Ciarrocca K, Schmitz KL. Promoting whole health in the dental setting: steps toward an integrated interprofessional clinical learning environment involving pharmacy, social work, and nursing. International Journal of Integrated Care. 2021 Nov 18;21(4):20.
18- Nitschke S, Hahnel S, Sobotta BA, Jockusch J. Undergraduate Dental Education in Gerodontology in Germany between 2004 and 2019—A case for compulsory teaching?. European Journal of Dental Education. 2022 Aug;26(3):523-38.
19- Thorat VA, Rao P, Joshi N, Talreja P, Shetty A, Thorat V, RAO P, Shetty AR. The role of chatbot GPT technology in undergraduate dental education. Cureus. 2024 Feb 14;16(2).
20- Yu W, Sun Y, Miao M, Li L, Zhang Y, Zhang L, Lu E. Eleven-year experience implementing a dental undergraduate research programme in a prestigious dental school in China: Lessons learned and future prospects. European Journal of Dental Education. 2021 May;25(2):246-60.

21- Chandel T, Alulaiyan M, Farraj M, Riedy CA, Barrow JR, Brennan L, Thompson L, Bass MB, Chamut S. Training and educational programs that support geriatric dental care in rural settings: A scoping review. Journal of Dental Education. 2022 Jul;86(7):792-803.