

Comparative Analysis of Networking and Mentorship in Enhancing Soft Skills Among Dental Undergraduates, A Quantitative Study in a private dental college

F. Amin¹

¹Senior Instructor in University Medical and Dental College, Faisalabad

ABSTRACT

Introduction: The acquisition of soft skills is essential for undergraduate Bachelor of Dental Surgery (BDS) students, enhancing their ability to communicate, collaborate, and adapt in the dynamic field of dental practice. While networking and mentorship are both recognized as valuable methods for developing these skills, their comparative effectiveness remains unclear. This study aims to evaluate the impact of networking and mentorship on the development of soft skills among BDS students in a private dental college.

Methodology: A cross-sectional quantitative approach was used, involving a survey administered via Google Forms. The study population comprised 250 participants, including current BDS students, alumni, and faculty members from Liaquat College of Medicine and Dentistry. Data were collected over six weeks, focusing on participation in networking and mentorship activities, and self-assessment of soft skills development. Statistical analysis was conducted using SPSS 25 to compare the effectiveness of these two approaches.

Results: Of the 250 respondents, 64% participated in networking activities, while 48% engaged in mentorship programs. Networking activities primarily included student organization gatherings and professional conferences, whereas mentorship was mostly one-on-one. Participants rated their competencies in various soft skills on a scale of 1 to 5. Networking was found to be more effective in enhancing communication, teamwork, problem-solving, and adaptability, with 48% of participants favoring it over mentorship. Mentorship, although less impactful in certain domains, provided significant individual guidance and career support.

Conclusion: The study highlights the complementary roles of networking and mentorship in developing soft skills among BDS students. Networking was particularly effective in enhancing communication and teamwork, while mentorship offered personalized support. Integrating both approaches into dental curricula can provide a supportive learning environment, promoting comprehensive professional growth. Future research should consider diverse sampling and objective measures to validate these findings. This study highlights the importance of structured networking and mentorship programs in dental education, benefiting students, practitioners, and faculty alike.

Keywords: Mentoring, Networking, dental education, soft skills

Introduction:

The acquisition of soft skills is vital for undergraduate Bachelor of Dental Surgery (BDS) students, as these abilities enhance their capacity to communicate effectively, operate collaboratively, and adjust to the ever-changing dental practice setting(1). Soft skills, including communication, teamwork, problem-solving, leadership, and adaptability, are indispensable not only for attaining clinical proficiency, but also for promote the overall professional development of dental practitioners(2). Considering the changing landscape of the dental field, there is an increasing focus on the comprehensive development of dental students, which involves promote the growth of these essential skills (3).

The development of soft skills in educational settings can be achieved through two primary strategies: networking and mentoring. Networking entails creating and sustaining professional connections that offer support, information, and prospects for career advancement(4). This is typically accomplished through conferences, workshops, student organizations, and online platforms (5). In contrast, mentoring involves a more organized relationship in which seasoned professionals offer guidance, support, and expertise to less experienced individuals. Mentorship programs can be formal or informal and take various forms, such as one-on-one, group, peer, or faculty-led mentorship(6).

Although networking and mentorship have both been identified as valuable techniques for promote skill development, which approach proves more effective in honing the soft skills of undergraduate BDS students remains undetermined. Earlier studies have demonstrated that networking can significantly influence professional advancement by offering exposure to diverse viewpoints and chances for collaboration (7). On the other hand, mentorship has been linked to enhanced academic achievement, professional self-assurance, and career fulfillment (8).

A dentist's capacity to lead a team, manage a dental office, and promote the profession may all be hampered by a lack of leadership abilities. In general, a dentist's ability to establish rapport and trust with staff, patients, and colleagues can be hampered by a lack of soft skills, which can eventually affect the practice's success and reputation. (9).

Poor teamwork and collaboration skills can hinder a dentist's ability to work effectively within a multidisciplinary healthcare team, which is crucial for comprehensive patient care. Additionally, inadequate problem-solving and adaptability skills can result in difficulties managing unexpected clinical situations and adapting to new technologies and treatment methods, potentially compromising the quality of care provided(10).

The absence of leadership skills can also limit a dentist's ability to effectively manage a dental practice, lead a team, and contribute to the advancement of the profession. Overall, the lack of soft skills can impede a dentist's ability to build trust and rapport with patients, colleagues, and staff, impacting the success and reputation of their practice(11).

However, there is limited quantitative research that directly assesses the impact of these two approaches on soft skills development in the context of undergraduate dental education. This study aims to bridge this gap by evaluating the effectiveness of networking and mentorship in the development of soft skills among undergraduate BDS students. The results of this study are intended to inform educators and policymakers in their efforts to develop programs that promote the comprehensive development of dental students. Moreover, it will provide guidance to the undergraduate students on how to enhance their soft skills.

Methodology:

This study adopted a cross-sectional quantitative approach to evaluate the efficacy of networking in comparison to mentorship in enhancing soft skills among undergraduate Bachelor of Dental Surgery (BDS) students. The data were collected through an online survey administered via Google Forms within duration of 6 weeks (1st January – February 2024). The study population included current undergraduate BDS students, alumni of BDS programs, and faculty members involved in BDS education of Liaquat college of Medicine and Dentistry. Utilizing convenience sampling, we obtained responses from 250 participants, comprising 180 current students, fifty alumni, and 20 faculty members. The inclusion criteria were all individuals who consented to participate. The questionnaire was disseminated through institutional email lists comprised sections pertaining to demographic information, participation in networking activities,

participation in mentorship programs, self-assessment of soft skills development, and overall perceptions.

To verify clarity and relevance, the structured questionnaire was created using literature and reviewed by three medical educationists. It was pilot tested with twenty participants whose data was removed from the final results. The pilot test led to modest adjustments for better comprehension of questions. From January 1 to February 15, 2024, a period of six weeks was used to gather the data. Informed consent was incorporated into the survey to guarantee that the participants were aware of the aim, confidentiality, and voluntary nature of the investigation. Statistical data analysis was performed using SPSS® Statistics 25.0. Descriptive data analysis was done using mean, frequency & percentage. For inferential analysis independent sample t-test applied to compare the effectiveness of networking and mentorship participation in enhancing soft skills among undergraduate BDS students. Key variables were self-assessed growth in leadership, flexibility, communication, teamwork, and problem-solving skills, as well as independent variables such the frequency and kinds of networking and mentorship engagement.

Results:

Analysis of 250 participants (Table-1) revealed that 160 (64%) said that they have participated in networking activities connected to their dentistry education. Of these, 40 (25%) indicated frequent activity (once a week), while 80 (50%) claimed infrequent participation (once a month). The two most popular forms of networking events were student organization gatherings (n=80, 50%) and professional conferences (n=100, 62.5%). 120 (48%) of the respondents said they had taken part in mentoring programs. Of them, thirty (25%) reported regular meetings (once a week) with mentors, whereas sixty (50%) reported infrequent meetings (once a month). The most often reported kind was one-on-one mentoring, with eighty participants (66.7%) reporting involvement. The participants used a scale of 1 (extremely low) to 5 (very high) to score their current competency levels in a variety of soft skills.

Corresponding Author:

Name: Dr. Fatima Amin

Affiliation: University Medical Dental College
Faisalabad

Email: fatimaamin@gmail.com

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Table 1: Participant percentage

Current Students	180	72%
Alumni	50	20%
Faculty	20	8%

Table 2: Self-Assessment of Soft Skills Development

Soft Skill	Mean Score
Communication	4.2
Teamwork	4.0
Problem-Solving	4.1
Leadership	3.8
Adaptability	4.0

Table 3: Mean Scores & standard deviations for each soft skill

Soft Skill	Networking (Mean \pm SD)	Mentorship (Mean \pm SD)	p-value
Communication	4.3 \pm 0.6	4.0 \pm 0.7	<0.05
Teamwork	4.2 \pm 0.5	3.9 \pm 0.6	<0.05
Problem-Solving	4.1 \pm 0.6	3.9 \pm 0.7	<0.05
Adaptability	4.2 \pm 0.5	4.0 \pm 0.6	<0.05
Leadership	3.7 \pm 0.8	3.8 \pm 0.7	>0.05

When asked which helped them develop their soft skills more, 120 participants (48%) said networking, while one hundred participants (40%) said mentoring. A total of thirty individuals (12%) stated that networking and mentoring were on par. Table 2 compares the participants who participated in networking and mentorship activities, providing an overview of the mean scores and standard deviations for each soft skill. An independent sample t-test was conducted to compare the effectiveness of networking and mentorship participation in enhancing soft skills among undergraduate BDS students. The results revealed a statistically significant difference between the two groups, with a t-statistic of -3.476 and a p-value of 0.0005 ($p < 0.05$). This indicates that networking participation had a significantly higher impact on soft skills development compared to mentorship participation in this study.

Table-4: Independent sample t-test

Test	Statistic	P-Value
Independent Sample T-Test	-3.476	0.0005

Discussion:

The findings of this study shed light on the effectiveness of networking and mentorship in developing soft skills among undergraduate Bachelor of Dental Surgery (BDS) students. Our research contributes to the growing body of literature that emphasizes the importance of soft skill development in dental education and practice (12). By comparing the impact of networking and mentorship on various soft skills domains, we provide valuable comprehensive understanding into strategies for promoting comprehensive professional growth of dental students.

Consistent with previous research, our findings highlight the significant role of networking activities in enhancing communication, teamwork, problem solving, and adaptability skills among BDS students (13). Networking provides opportunities for students to engage with their peers, faculty members, and professionals in the dental community, facilitating knowledge exchange, collaboration, and exposure to diverse perspectives (14). These interactions not only

enhance students' understanding of dental practice, but also equip them with the interpersonal skills necessary for effective communication and teamwork in clinical settings (15).

Furthermore, our study underscores the importance of mentorship programs in supporting the professional development of BDS students, particularly in providing individual guidance, mentorship, and career support. Mentorship offers students the opportunity to benefit from the wisdom and experience of seasoned professionals, thereby gaining comprehensive understanding into clinical practice, professional ethics, and career pathways (16). While our findings suggest that mentorship may not be as impactful as networking in certain soft skills domains, it remains a valuable component of dental education, offering tailored support and guidance to students as they navigate their academic and professional journeys.

The differences observed between networking and mentorship highlight the complementary nature of these approaches in supporting the holistic development of dental students. By integrating networking and mentorship initiatives into dental curricula, educators can create a supportive learning environment that addresses students' diverse (17). Furthermore, promoting a culture of networking and mentorship within dental institutions can cultivate a sense of community and collaboration among students, faculty, and professionals, enriching their educational experience and promoting lifelong learning (18).

While our study provides valuable comprehensive understanding into the impact of networking and mentorship on soft skill development among BDS students, several limitations should be acknowledged. First, convenience sampling may limit the generalizability of the findings to other dental education contexts. Future research could employ a more diverse sampling strategy to ensure broader representation of BDS students. Second, reliance on self-reported data may introduce response bias, as participants may overestimate or underestimate their involvement in networking and mentorship activities. Employing objective measures, such as observations or longitudinal assessments, could enhance the validity of future studies in this area.

Conclusion:

The study's findings emphasize the value of networking as an additional tactic to mentorship in assisting BDS students' overall professional growth. Dental educators and legislators can create more successful programs to develop well-rounded dental professionals with the critical soft skills needed for job success if they are aware of the special benefits of networking and mentorship. This study highlighted the importance of networking to enhance the soft skills of dental community particularly dental students, practitioners, and faculty.

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