

# EXPLORING PROFESSIONAL IDENTITY FORMATION AMONG EARLY-CAREER DENTISTS: A QUALITATIVE MULTI-INSTITUTIONAL STUDY

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## ABSTRACT

**Objective:** Professional identity is defined as “the individual’s developing and continuing construction of oneself within the context of one’s profession and the ongoing communication of this to others.” Professional identity formation (PIF) in dentistry is relatively underexplored in the Pakistani context. The unique socio-cultural and educational systems in the country present specific challenges and opportunities for developing professional identity. While PIF has been studied in other disciplines in Pakistan, empirical evidence regarding its development among young dentists remains limited. This study aims to address this gap by exploring the experiences and perceptions of early-career dentists from various institutions in South Punjab.

**Methodology:** This qualitative study employed a phenomenological approach. Data were collected through purposive sampling using a semi-structured interview guide. Participants were licensed dentists practising in South Punjab. Interviews explored factors influencing PIF. Thematic analysis followed Braun and Clarke’s six-phase framework, applying inductive coding to identify themes and subthemes.

**Results:** Four major themes and 21 subthemes emerged. Participants described milestones crucial to PIF, while also highlighting challenges such as limited resources, delayed clinical exposure, job scarcity, heavy workloads, and lack of recognition. Key facilitators included mentorship, patient satisfaction, task accomplishment, and institutional support. Recommendations included integrating undergraduate research, interprofessional collaboration, structured mentorship, and continuous development opportunities.

**Conclusion:** The study identified key contextual factors affecting PIF among early-career dentists. Supporting identity formation during this phase may enhance professionalism, job satisfaction, and patient care. Institutional efforts to address barriers and promote facilitators are essential to fostering professional growth.

**Keywords:** Professional Identity, Qualitative Research, Phenomenology, Dental Education, mentorship, socialization, Pakistan.

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## INTRODUCTION

Professional identity is defined as “the individual’s developing and continuing construction of oneself within the context of one’s profession and the ongoing communication of this to others<sup>1</sup>.” Professional identity formation is a process that starts during education and continues throughout the career. It entails appropriate behavioural rules and following the traditions of a

given community's profession<sup>2</sup>. Enhanced professional identity facilitates a smooth transition to and stability in the professional workplace<sup>3</sup>. PI in medicine, therefore, encompasses the transformation of a layperson into a physician. The students in healthcare are legitimate peripheral participants of the community; they learn within and from the community by observing and then actively practicing basic activities. Communication with the healthcare community is a way of cultivating a PI that resembles learning of knowledge, skills, and behaviours<sup>2</sup>.

PI is the integration of the professional self and the personal self, i.e., the alignment of personal values and beliefs in line with professional practice. As a result, this integration encompasses not only the acquisition of appropriate skills and knowledge but also the internalisation of ethical, behavioural, and societal aspects associated with the profession<sup>4</sup>. Higher education literature suggests that the learning environment provides students with a variety of opportunities to develop Professional Identity (PI). These opportunities include relating the curriculum to work, implementing specific teaching-learning strategies such as incorporating clinical components at earlier stages, setting up the environment, providing fieldwork exposure, and integrating professional socialisation experiences. Teamwork is also considered a beneficial strategy to foster the development of PIF<sup>5</sup>.

PIF critically shapes dentists' clinical decision-making, ethical accountability, patient-centered care, and career fulfillment. Beyond technical expertise, PIF fosters alignment with the values and societal roles intrinsic to dentistry, enabling practitioners to internalize their professional persona<sup>6</sup>. Research highlights PIF as a dynamic interplay of cognitive, affective, and relational dimensions. Cognitively, it involves mastering discipline-specific knowledge and reflective problem-solving. Affectively, it requires embodying compassion and moral judgment. Socially, PIF manifests through collaborative interactions with peers, patients, and mentors, as well as institutional norms<sup>7</sup>. Empirical evidence from Western contexts, such as the United States and Europe, underscores how intentional mentorship frameworks and supportive clinical training environments accelerate PIF during the transition from academia to independent practice<sup>8</sup>.

According to a recent scoping review, constitutive factors, which include individual, relational, and social factors, have an impact on PI formation in undergraduate medical education (UME). Personal factors included intrinsic motivation to achieve competence, ongoing professional development, reflection, and self-directed lifelong learning. Relational factors include communication skills to develop professional relationships

with patients, peers, supervisors, and other members to internalize the profession's core values and ethics. Societal factors pertain to the ability to assimilate societal standards, expectations, and norms associated with the profession<sup>7,9</sup>. Moreover, comparative studies on PIF reveal that medical and nursing students often articulate a clear sense of professional belonging. Dentistry and pharmacy students, on the other hand, tend to define their PI in relation to or in contrast with the medical profession, suggesting variations in how these factors manifest across different fields<sup>10</sup>.

PIF in dentistry is a relatively novel and underexplored area, especially in the Pakistani context. In the South Asian context, particularly in Pakistan PIF occurs within unique socio-cultural and educational systems characterized by strict hierarchical norms, gender-based role expectations, limited feedback culture, and strong community perceptions of healthcare professionals<sup>11</sup>. In resource-constrained settings, young dentists experience high patient load, limited employment opportunities, odd work hours, and high expectations from society. Despite these obstacles, it is becoming more widely recognized that strengthening professional identities is necessary to ensure desired competencies among dentists<sup>12</sup>.

Despite the exploration of PIF in various specialties such as nursing, medical faculty, and veterinary professionals in Pakistan, we currently lack empirical evidence on its development among young dentists<sup>13</sup>. Guided by Lave and Wenger's Communities of Practice framework<sup>14</sup>, early career dentists can be viewed as moving from legitimate peripheral participation toward full membership within their clinical and academic communities. This lens shaped study's research questions. Therefore, this study aims, through the Communities of Practice lens, to explore how early career dentists in South Punjab negotiate entry and sustained participation within their professional communities under the influence of local sociocultural pressures.

By understanding the peculiarities of the Pakistani context influencing PIF, the research can identify and promote further development of specific support and development interventions. Such insights could eventually improve patient care quality and healthcare system stability.

## METHODOLOGY

This study adopted a phenomenological approach to investigate the lived experiences of early-career dentists in South Punjab, Pakistan, as they navigated the process of professional identity formation (PIF). Anchored in a social constructivist paradigm, the research views identity as co-constructed through participation in social practices and interactions within professional

communities. The approach captured participants' active role in shaping their professional identities through interactions with sociocultural contexts, institutional norms, and personal reflections. Phenomenology offered a methodological lens to uncover the essence of participants' subjective journeys by prioritizing their first-person accounts, emotions, and interpretations as they navigated their evolving professional roles.

The research team comprised experienced dental educators, clinicians, and health professions education (HPE) scholars. Our shared positionality as insiders to the dental education system enabled contextual sensitivity and facilitated trust with participants. However, we also recognized the potential for interpretive bias due to our proximity to the field. To address this, we engaged in reflexive writing following each interview and held regular peer debriefing sessions to critically examine emerging codes and interpretations. The dual role of the first author as both interviewer and academic mentor to some participants was explicitly acknowledged and reflexively bracketed to minimize over-identification and to preserve analytical distance.

A purposive maximum variation sampling strategy was employed to recruit dentists from April to August, 2024 within their first five years of practice, ensuring diversity across gender, practice settings, and career stages. Inclusion criteria included participants that have permanent licensure from the Pakistan Medical and Dental Council (PMDC) and are practicing within South Punjab, with experience ranging up to 5 years. Exclusion criteria included participants with a lack of permanent license or practicing outside South Punjab and having more than 5 years of experience. From 65 invited candidates, 32 participants expressed initial interest, with recruitment concluding at 20 participants upon achieving thematic saturation, that was rigorously ensured when three consecutive interviews yielded no new codes, documented through an audit trail that tracked the frequency of codes and pattern stabilization.

Data collection utilized a semi-structured interview guide developed through extensive literature review, followed by expert validation. The panel assessed the content of the guide. Pilot testing with two interviews refined question clarity and flow, although these interviews were excluded from the final dataset. Informed written consent was obtained from all participants prior to the start of each interview, after explaining the study's purpose, confidentiality protocols, and voluntary participation. Interviews lasted 32–41 minutes and were conducted in person at a private clinic to ensure confidentiality. All interviews were audio-recorded and transcribed verbatim. Transcripts were returned to participants for member checking, with unanimous

confirmation of accuracy, while field notes captured nonverbal cues and contextual observations.

Inductive thematic analysis followed Braun and Clarke's six-phase approach, including familiarization with the data, generation of initial codes, Collation of codes into candidate themes, review and refinement of themes against raw data, final themes and report

through manual analysis<sup>15</sup>. Two researchers independently coded transcripts with discrepancies resolved via consensus. Thematic saturation and analytic decisions were systematically recorded to enhance transparency.

Ethical approval was obtained from Bakhtawar Amin Medical & Dental College (ERB #1246-24/E.C./BAM&DC), with participants receiving detailed written and verbal explanations of their rights, including voluntary withdrawal. Anonymity was ensured through pseudonyms and secure, password-protected data storage. The Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist guided comprehensive reporting<sup>16</sup>.

## RESULTS

Table 1 presents the demographic details of the 20 early-career dentists that participated in the study. The sample comprised 12 male respondents (60%) and 8 females (40%). Participants' ages were distributed across two ranges: 25-30 years (11 participants, 55%) and 31-35 years (9 participants, 45%). In terms of professional experience, 11 participants had 1-2 years (55%) and 9 had 3-5 years (45%) of experience. The participants were from various institution types, including public dental institutions (6 participants, 30%), private dental institutions (5 participants, 25%), and private dental clinics/hospitals (9 participants, 45%). Their professional roles included general dentists (6 participants, 30%), demonstrators (4 participants, 20%), registrars (4 participants, 20%), and postgraduate residents (PGRs) (6 participants, 30%) (Table 1).

The study revealed four themes and twenty-one sub-themes related to the professional identity formation, including the PIF journey, challenges, facilitators, and future perspectives of early-career dentists in South Punjab (Figure 1).

Participants considered key milestones and influential support from mentors, seniors, and teachers as critical in shaping professional identity. Successfully handling complex clinical cases under supervision and independently was a significant moment for many participants.

Most of the participants faced challenges like inadequate resources and outdated equipment that impacted their learning and practice. Moreover, pressure from

family and society to be perfect in every clinical task effected learning capabilities. Participants also believed that dental education is not recognised or considered a critical field that also has a negative impact on the PIF of young dentists. Moreover, role blurring within the established institutions created confusion in the ad-

TABLE 1: DEMOGRAPHIC CHARACTERISTICS OF THE PARTICIPANTS

Characteristics	Frequency (n)	Percentage (%)
Gender		
Male	12	60
Female	8	40
Age Range (Years)		
25-30	11	55
31-35	09	45
Professional Experience (Years)		
1-2	11	55
3-5	9	45
Institution Type		
Public Dental Institution	6	30
Private Dental Institution	5	25
Private Dental Clinic/Hospital	9	45
Professional Roles		
General Dentists	6	30
Demonstrators	4	20
Registrars	4	20
Postgraduate Residents (PGRs)	6	30

TABLE 2: EARLY-CAREER DENTISTS PERSPECTIVES ON PROFESSIONAL IDENTITY FORMATION

Themes	Subthemes	Representative Quotations
PIF Journey	Milestones and Influences	“Becoming a dentist was a journey with many challenges, but achieving and celebrating milestones with peers and guidance and support from seniors and role models was crucial in shaping my identity.” (M26PR07)
	Pivotal Moments	“I still have flashbacks of my first encounter with patients in the periodontology department; however, I had good knowledge. Still, I was feeling a lot of pressure due to high expectations from patients and supervisors.” (F32PR02)
Challenges in Professional Identity Formation	Inadequate Training Resources	“We struggled with limited equipment and material; we had to spend a lot of time searching for patients to complete the allocated quota of patients, which affected our ability to learn and practice effectively in the limited time off clinical rotations.” (M28PR11)
	Societal Pressures and Expectations	“The pressure to diagnose and treat all the dental problems and lack of awareness of different subspecialties of dentistry resulted in pressure from friends, relatives, and society.” (M32GR04)
	Lack of Recognition of Dental Education as a Field	“Lack of recognition as a critical field during early years by the faculty of basic medical sciences and then during clinical years by medical consultants and taunts from medical peers making fun by labelling that you guys are not even doctors was discouraging and affected PIF.” (F29GR13)
	Institutional Ambiguity around Roles	“Due to a lack of clarity by the institution, I worked as a demonstrator for basic medical science. However, during inspection, I was transferred as a registrar for teaching clinical subjects and then part-time lectures in fundamental dental sciences, which had a negative impact on my PIF.” (F28PR05)

vancement of careers among young dental professionals. Participants also highlighted limited job opportunities as a significant cause of burnout, thus impacting PIF. Late clinical exposure during undergraduate education was also highlighted as a potential contributor to delayed PIF among dentists.

Participants believe that educational institutes can play a significant role in PIF through facilitation. Moreover, participants considered mentorship and support from seniors and peers as key contributing factors for PIF.

Appreciation and patient satisfaction were also highlighted as significant elements of motivation and PIF. Participants stated that reflective practice and a sense of accomplishment after major rehabilitation procedures also reinforced PIF. Intrinsic self-regulation was a critical source of this professional construct. Acknowledgement and positive feedback from the institutional administration, peers, and seniors also induce PIF.

Most participants highlighted the need for structured research programs at the undergraduate level to

Facilitators of Professional Identity Formation	Burn out	“Limited job opportunities significantly affected PIF; I opted for unpaid residency with duties during public holidays and sometimes in evening. To earn money, I also joined a private clinic, which resulted in a very tough and stressful work schedule.” (M33PR19)
	Delayed Clinical Exposure	“During the undergraduate period's first two years, there was very limited exposure to clinical subjects; this delayed exposure resulted in delayed development of professional identity as dentists.” (M35GR16)
	Institutional Support	“I think institutions can play a significant role in PIF. My institution provided me with opportunities like dental camps and community visits that triggered PIF.” (M27PR06)
	Mentorship and Peer Support	“My relationships with seniors, peers and teachers have been instrumental in my growth as a dental professional.” (M30PR09)
	Patient Interactions	“Appreciation and positive feedback from patients after performing difficult procedures, releasing their pain and discomfort, has reinforced my commitment to the profession.” (F26PR03)
	Reflective Practice	“Over the years, I've seen significant growth in my clinical skills and professional behaviour through reflection immediately after procedures and discussion on areas of improvement with seniors.” (F26PR12)
	Sense of Accomplishment	“When I see the patients smile again after my complete rehabilitation cases, the hope patients see in me boosts my confidence and motivation and reinforces my professional identity.” (M32PR17)
Future Perspectives	Intrinsic Motivation	“My best motivation comes from within. When I'm satisfied with my work, it gives me peace and confidence.” (F29PR15)
	Acknowledgment and Recognition	“Recognition of work by the institution, peers, and superiors boosts my motivation and reinforces my professional identity.” (M27GR10)
	Undergraduate Research	“Research initiatives at the undergraduate level can reinforce and strengthen PIF among young dentists. by aspiring to contribute to dental education.” (F26PR20)
	Interprofessional Collaboration	“Collaboration with other healthcare professionals during surgical procedures, CPCs, or other collaborative tasks can result in motivation to strengthen PIF as a dental professional.” (M31GR08)
	Leveraging Technology	“Utilising and opting for the latest technology can provide new opportunities for PIF in this digital era of AI.” (M30PR01)
	Public Awareness Campaigns	“Raising public awareness about the role and importance of dental education to enhance its recognition and value ultimately strengthens PIF.” (F32PR02)
	Mentorship	“Structured mentorship programmes can facilitate early development of PIF.” (F29PR18)
Continuous Professional Development	“CPD/CDE opportunities like workshops, courses, or conferences by institutions and regulators can strengthen PIF among dentists.” (M32GR14)	

strengthen PIF. Collaboration with other healthcare professionals was also considered beneficial for reinforcing PIF. The use of the latest technology was also considered a significant factor for PIF in the current digitisation era. Moreover, participants emphasised the necessity to increase public awareness of the role and significance of dental education to increase its relevance and recognition in the community. Participants believed mentoring and continuous professional development opportunities can strengthen PIF (Table 2).

**DISCUSSION**

The study explored the journey of professional identity formation among early-career dentists in South Punjab, Pakistan. The findings demonstrated a complex process with influences from institutional, sociocultural, and personal factors on PIF. Participants shared varied experiences and perspectives, highlighting both

common challenges, facilitators, areas of improvement, and pivotal moments in their professional development, moving beyond linear or universalist models of identity acquisition.

Participants described the transition from dental school to professional practice as challenging yet transformative. Achieving and celebrating milestones, supportive mentorship, and peer interactions were crucial in the PIF journey. These findings align with previous research indicating that mentorship and peer support are vital in the early stages of professional identity formation in healthcare professions<sup>17</sup>. Interpreted through the lens of the Communities of Practice (CoP) framework (Lave & Wenger, 1991), this study findings suggest that professional identity is not constructed in isolation but emerges through engagement in social practices, shared experiences, and meaning-making processes<sup>18</sup>. Participants' narratives reflect a gradual transition

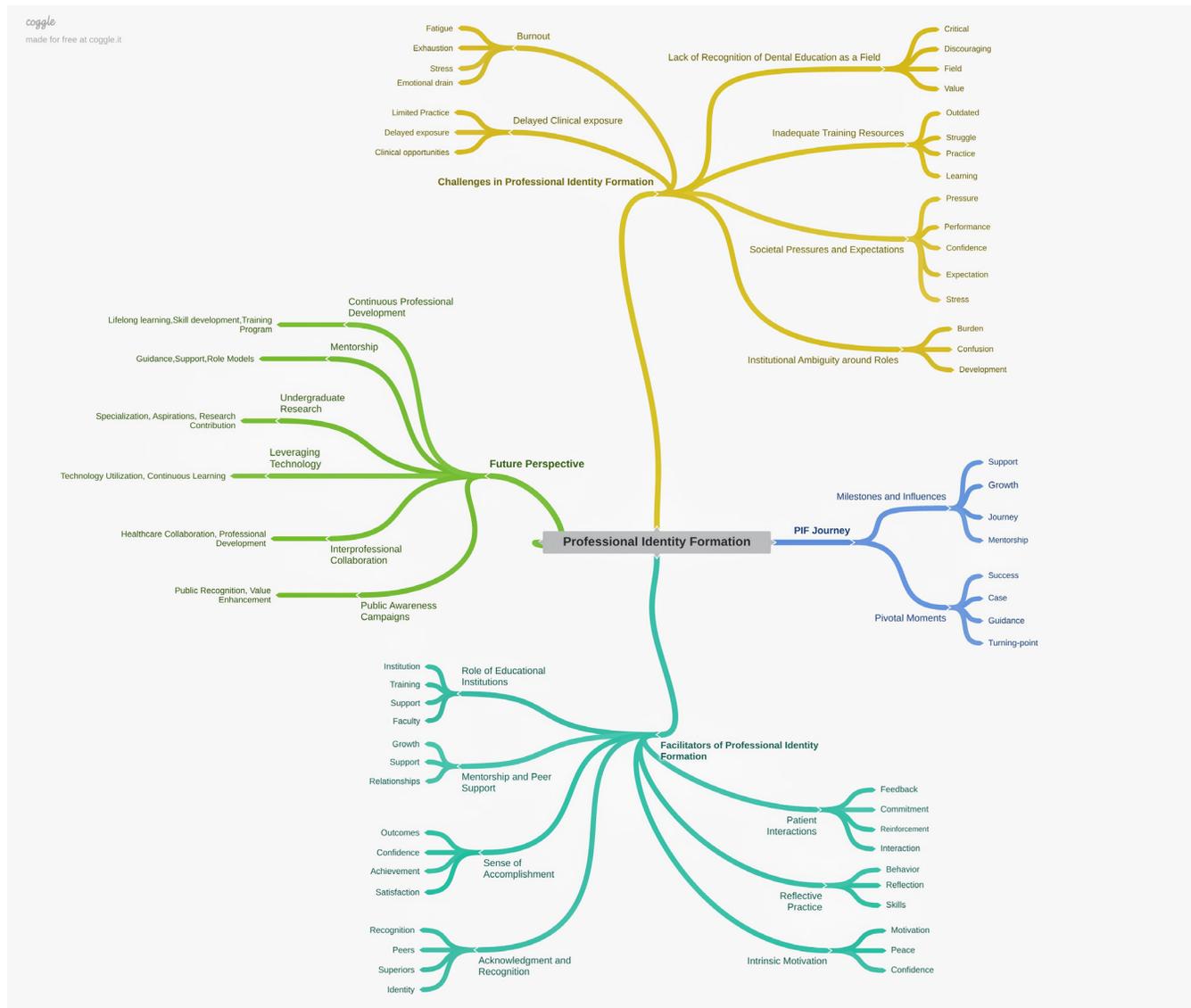


Fig 1: Themes, subthemes and codes Media element by [coggle.it]

from legitimate peripheral participation toward fuller engagement in the clinical and academic communities they are part of. Mentorship, in particular, facilitated this development that helped participants internalize their emerging professional roles.

However, this identity development process was neither linear nor uniform. The study also highlighted the main barriers within sociocultural and environmental contexts in framing the PI. The participants expressed the negative impact of societal and cultural pressure, high expectations, financial constraints, job insecurity, role confusion, a challenging schedule, inconsistent access to mentoring, and delayed patient exposure on PIF that also frequently interrupted or delayed participants' progression toward PIF. The educational institutions have a responsibility in the facilitation of PIF through curriculum development, availability of clinical resources, and faculty support and mentorship<sup>19</sup>. These findings are consistent with another study conducted in 2017, which highlights the importance of contextual and cultural factors in professional identity development<sup>20</sup>. The study findings are also in line with another study conducted in 2024 that demonstrated limited training resources, tough schedules, and a lack of recognition result in demotivation and hinder PIF<sup>21</sup>. Delayed clinical exposure, and inconsistent institutional support led some participants to question their preparedness or legitimacy as dental professionals resulting in identity tensions and dissonance. In these situations, the role of a 'dentist' conflicted with the realities of their institutional environments. These findings highlight the importance of accessible and structured social integration mechanisms during early career phases, particularly in environments marked by hierarchy and limited feedback systems.

Mentors, peer support, and patient satisfaction were identified as key aspects that regulated the professional identity formation among dentists. Moreover, reflective practice, workplace accomplishments, and recognition by the institution strengthened the professional identity formation. The findings are consistent with the previous study conducted in 2021 that suggested that for an individual, especially in such specialized areas as healthcare, a supportive and constructive environment along with acknowledgement and recognition is essential for the development of PIF<sup>22</sup>. Another study conducted in 2021 also supported the current findings by stating structured mentorship and peer-assisted learning can stimulate self-directed learning and stimulate a sense of belonging with the profession<sup>23</sup>. However, PIF among Pakistani dentists is deeply influenced by cultural norms and institutional hierarchies. Factors like respect for seniority, gender-based role expectations, and community-level perceptions of dentists significantly shape their confidence, acceptance, and practice style.

Similarly, female dentists face additional barriers in accessing clinical opportunities due to cultural sensitivity<sup>24</sup>. Such sociocultural forces, while seldom addressed explicitly in global literature, significantly affect how identity is constructed, constrained, or contested within regions of Pakistan like south Punjab.

The study findings also suggested future improvements like integration of undergraduate research opportunities and incorporation into interprofessional activities to foster PIF. The findings are consistent with the existing literature that stated incorporation of research at the undergraduate level triggers PIF in healthcare students<sup>24</sup>.

Moreover, the study also concluded that awareness campaigns regarding acknowledgement of dentistry and opportunities for continuous professional and dental education can serve as a bridge in filling the gaps of PIF. The previous findings also reinforced these suggestions that continuous medical and professional activities are essential for growth and development in any field<sup>25</sup>. Hence, this study contributes to the evolving understanding of PIF by demonstrating that it is a socially negotiated, context-dependent process, rather than a mere transition. It challenges the universality of existing Western-centric identity models and highlights the need for contextualized frameworks that account for hierarchical mentorship, gender norms, and institutional variability within LMIC dental education systems.

## LIMITATIONS

Although study design provided nuanced insights into professional identity formation through thematic saturation, the study's reliance on a regionally confined sample from South Punjab may limit the transferability of findings to other institutional contexts within Pakistan or internationally. Additionally, the qualitative focus, while uncovering rich subjective perspectives, precludes quantitative comparisons with existing frameworks.

## RECOMMENDATIONS

Future studies can adopt mixed-methods designs to quantify identity development stages, expand recruitment to multi-regional/international cohorts to account for sociocultural and infrastructural variability, and integrate longitudinal approaches to track identity evolution over time.

## CONCLUSION

The study highlighted key factors affecting professional identity formation among dentists. The findings demonstrated key challenges affecting PIF that included limited resources, societal pressure and expectations, lack of recognition, ambiguous roles, burnout, and

delayed clinical exposure. The study also highlighted facilitators of PIF among dentists, like institutional facilitation, mentoring opportunities, positive feedback, reflection, a sense of accomplishment, and recognition. Dentists also believed achieving and celebrating key milestones strengthened their PIF. Moreover, the study suggested undergraduate research, interprofessional collaboration and use of the latest technology, structured mentorship, awareness, and continuous professional development as the key areas to reinforce PIF among dentists. The findings also revealed that professional identity formation (PIF) is a dynamic, contextually shaped, and socially negotiated process rather than a linear developmental path. Facilitating professional identity formation in early career dentists may result in improved job satisfaction, enhanced patient care, an increase in professionalism, and a sense of belonging to the community.

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| <b>4 Qasim Saleem:</b>          | Contribution to the design & Data collection                    |
| <b>5 Rabia Ashraf:</b>          | Data analysis & Manuscript draft                                |
| <b>6 Fizzah Ali:</b>            | Data analysis & Critical review                                 |
| <b>7 Ammar Ahmed Siddiqui:</b>  | Contribution to the design & Critical review Supervision        |