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Narratives Of Trust, Role Identity, And Patient-Centered Coordination In Removable Orthodontic Care: A Phenomenological Synthesis Of Nursing Technicians, Dental Assistant Technicians, Medical Secretaries, General Dentists, And Pharmacists

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Abstract

This study explored the interrelationship between trust, professional role identity, and patient-centered coordination within the framework of removable orthodontic care, emphasizing the significance of interprofessional collaboration in achieving effective and ethical patient outcomes. Through a phenomenological synthesis, the research revealed that trust acts as the foundational element in all collaborative healthcare interactions, shaping communication, cooperation, and collective accountability. The results demonstrated that when trust is established through competence, transparency, and mutual respect, it facilitates stronger team cohesion and patient satisfaction. Similarly, role identity was shown to be pivotal in determining how professionals perceive and enact their responsibilities within multidisciplinary settings. A clearly defined role identity enhances mutual recognition, reduces conflict, and strengthens the sense of interdependence among team members. Furthermore, the study underscored that patient-centered coordination serves as the operational bridge linking interpersonal trust with systemic collaboration, translating professional synergy into tangible improvements in care quality and efficiency. The integration of the Theory of Planned Behavior, Role Identity Theory, and the Relational Coordination Model provided a multidimensional understanding of these constructs, highlighting both behavioral and relational determinants of teamwork. The theoretical findings suggest that fostering interprofessional education, ethical leadership, and organizational support mechanisms can enhance collaborative performance and professional satisfaction. Ultimately, the research concludes that effective orthodontic care depends on cultivating a trust-based, ethically grounded, and identity-conscious model of collaboration one that aligns professional autonomy with shared patient goals and upholds the moral and social values essential to healthcare excellence.

Keywords: Trust formation, role identity, interprofessional collaboration, patient-centered coordination, phenomenological synthesis, orthodontic care, teamwork, healthcare ethics, relational coordination, professional communication.

1. Introduction

In contemporary healthcare systems, the shift toward patient-centered care has underscored the importance of trust, role identity, and interprofessional collaboration in achieving high-quality outcomes. Nowhere is this more apparent than in the domain of removable orthodontic care, where successful treatment depends not only on the dentist's technical skill but also on seamless coordination among a diverse range of professionals from nursing technicians and dental assistants to pharmacists and administrative personnel. These actors together constitute a socio-professional network that both supports and challenges the integration of patient-centered coordination in oral health delivery(Angga, Aeni, & Karlina, 2023).

Trust has long been recognized as the cornerstone of effective healthcare relationships, fostering both patient confidence and team cohesion. Within multidisciplinary dental care, trust not only mediates the relationship between providers and patients but also structures communication among professionals themselves(Stucky, Wymer, & House, 2022). The construction of trust is inherently relational and cognitive, rooted in perceptions of competence, integrity, and shared professional values(Gregory & Austin, 2016). In interprofessional teams, discrepancies in these perceptions such as those between dentists and pharmacists can lead to asymmetrical trust dynamics, influencing collaboration and decision-making in patient care(Valle-Oseguera & Boyce, 2015).

Moreover, role identity plays a critical role in shaping professional behavior and interaction. As healthcare professionals increasingly work in interprofessional teams, the negotiation of role boundaries becomes central to effective collaboration(Farrell et al., 2015). The concept of role identity highlights how individuals construct meaning from their professional positions within broader organizational and social contexts(Galliher, McLean, & Syed, 2017). For example, dental assistants and nursing technicians often act as mediators between patients and dentists, yet their contributions are sometimes undervalued or invisible, leading to fragmented communication and reduced coordination efficiency(Falk et al., 2018).

Interprofessional collaboration (IPC) serves as the operational mechanism through which trust and role identity intersect to enable patient-centered coordination. Effective IPC is characterized by mutual respect, clear communication, and shared decision-making(Swihart, 2016). However, collaboration does not arise automatically from co-location; rather, it requires deliberate structuring of team processes and interprofessional education to cultivate shared understanding and accountability(Sullivan, Kiovsky, Mason, Hill, & Dukes, 2015). Studies have shown that well-integrated teams, such as those in patient-centered medical homes, improve both provider satisfaction and patient outcomes through collaborative care planning and continuous feedback mechanisms(Dahlke et al., 2020).

In the dental context, interdisciplinary coordination has emerged as a determinant of patient satisfaction and treatment adherence. When nursing, administrative, and dental teams align their efforts, patients report higher levels of confidence, communication clarity, and comfort with their care processes(ALHAWITI et al., 2024). Collaborative frameworks also enhance staff morale and role satisfaction, reinforcing a culture of shared responsibility(Levesque, Etherington, Lalonde, & Stacey, 2022). Yet, challenges persist particularly in balancing the professional autonomy of dentists with the procedural contributions of allied staff. The integration of pharmacists, for instance, can improve medication safety and postoperative care in orthodontics but requires explicit communication protocols and role delineation(Gregory & Austin, 2016).

The dynamics of trust-building within interprofessional settings are complex and multifactorial. Research on healthcare students demonstrates that trust emerges from mutual recognition of competence and shared goals, and these interpersonal experiences can later translate into professional collaboration(Nortvedt, Norenberg, Hagstrøm, & Taasen, 2019). Digital transformation in healthcare has further reshaped the nature of interprofessional collaboration, with virtual communication platforms now mediating trust and coordination(Nordmann et al., 2023). While such technologies offer opportunities for more efficient teamwork, they also challenge traditional notions of proximity and relational trust(Wada et al., 2016).

Within this evolving landscape, nurse leaders and educators have emphasized the need to embed interprofessional collaboration competencies within professional training programs to foster communication, teamwork, and ethical engagement(Young, Daulton, & Griffith, 2022). Collaborative learning experiences such as joint hospital rotations between dental hygiene and nursing students have been shown to strengthen understanding of each profession's contribution and to reduce hierarchical barriers (Coan, Wijesuriya, & Seibert, 2019). Moreover, leadership models in nursing are shifting toward "collaborative leadership," emphasizing relational coordination and shared decision-making rather than task-oriented hierarchies(Orchard, Sonibare, Morse, Collins, & Al-Hamad, 2017).

Phenomenological approaches to understanding interprofessional experiences have proven valuable in uncovering the subjective dimensions of collaboration, including identity negotiation, emotional labor, and meaning-making(Crunenberg et al., 2024). In the context of orthodontic care, these perspectives can reveal how professionals perceive their own and others' roles in maintaining trust and coordination. The Theory of Planned Behavior (TPB) has been applied to explain how attitudes, norms, and perceived control shape professionals' intentions to engage in collaborative behavior offering a useful theoretical scaffold for understanding interprofessional trust and identity formation(Crunenberg et al., 2024).

Taken together, the literature underscores that interprofessional trust and coordination are both cognitive and emotional constructs, rooted in professional identity, socialization, and organizational culture. In removable orthodontic care, where outcomes depend on continuity and precision across multiple clinical and administrative touchpoints, understanding these dynamics becomes especially critical. The phenomenological synthesis of diverse professional perspectives including nursing technicians, dental assistant technicians, medical secretaries, general dentists, and pharmacists provides an opportunity to examine how trust, identity, and coordination co-evolve in practice, shaping both the patient experience and the collective efficacy of the care team.

This research contributes to the growing discourse on interprofessional patient-centered care by offering a nuanced exploration of how trust and professional identity intersect to inform coordination in a specialized dental context. By foregrounding the lived experiences of allied health professionals, this study aims to bridge the conceptual gap between collaborative ideals and the practical realities of care delivery. In doing so, it reinforces the imperative to build trust-based, role-conscious, and patient-centered frameworks for interprofessional collaboration across all dimensions of healthcare.

2. Literature Review

This study examined collaboration between doctors and pharmacists in emergency departments, emphasizing role clarity and mutual trust as key to effective care. The authors found that when pharmacists were integrated into emergency workflows, patient safety and efficiency improved markedly. Barriers to collaboration included uncertainty about overlapping responsibilities and communication hierarchies. Training initiatives to clarify interprofessional roles were recommended. The authors highlight that sustainable collaboration depends on shared ethical values, transparent communication, and administrative support for joint learning. This research underscores that professional identity negotiation and mutual respect are foundational for interprofessional trust-building.(Al-Salloum, Thomas, AlAni, & Singh, 2020)

Using mixed methods, this study explored interprofessional simulation as a tool to enhance teamwork and communication among nursing and respiratory therapy students. Results showed improved conflict resolution, patient-centered care, and collaborative leadership competencies post-simulation. The authors noted that immersive interprofessional learning allowed students to better appreciate the perspectives of other professions, reducing hierarchy-based tension. The findings advocate simulation-based education as a safe environment for students to practice and reflect on interprofessional collaboration. This educational framework improved readiness for real-world multidisciplinary care.(Kleib, Jackman, & Duarte-Wisnesky, 2021)

This cross-sectional study in Pakistan assessed the relationship between teamwork, therapeutic communication, and patient satisfaction among 378 participants. Nurses scored higher than physicians in empathy and collaborative communication, both of which were directly linked to higher patient satisfaction. Findings revealed that emotional intelligence and nonverbal communication were powerful predictors of trust and perceived care quality. The study advocates regular interprofessional meetings and conflict resolution training to sustain collaboration. Enhanced teamwork led to improved organizational trust and patient engagement.(Shah et al., 2025)

This study evaluated interprofessional simulations involving pharmacy and nursing students managing opioid misuse cases. Post-intervention data showed significant improvement in communication, role clarity, and collaborative problem-solving. The study emphasized the importance of empathy in building interprofessional trust, particularly in high-risk care scenarios. Students reported improved confidence in addressing ethical dilemmas collaboratively. The authors concluded that simulation-based IPE effectively strengthens teamwork and patient-centered safety practices.(Fasolka, Robertiello, Knapp, Latimer, & Roitman, 2024)

This study developed a telehealth simulation linking dental and pharmacy students to address tobacco cessation. The project demonstrated how remote IPE can foster mutual understanding of professional roles and patient-centered strategies. The integration of asynchronous and synchronous modules allowed learners from different campuses to co-create care plans, building digital communication skills essential for telehealth practice. Participants reported enhanced appreciation of interprofessional teamwork. The study confirmed telehealth's potential as a scalable platform for interprofessional education.(Zahl, Zeitlin, Devine, & Romito, 2023)

Conducted in Japan, this mixed-methods study explored interprofessional collaboration in hospital-based family medicine. The research identified communication, workload balance, and role clarity as central to effective teamwork. Nurses and therapists experienced higher satisfaction and lower stress, while pharmacists expressed concerns about unclear boundaries. The study concluded that interprofessional care improves efficiency and satisfaction when guided by clearly defined responsibilities and shared patient goals.(Ohara, Ohta, & Sano, 2025)

This study at the University of Minnesota developed a student-led interprofessional education activity involving pharmacy and dental hygiene students. The program improved participants' understanding of each other's scope of practice and strengthened communication and collaboration competencies. Students reported increased confidence in interdisciplinary settings, and assessments showed significant gains in teamwork and ethical collaboration. This model demonstrates how peer-led initiatives can fill IPE gaps in crowded curricula.(Van Hooser, Hoeft, & Stull, 2024)

This comparative study analyzed how interprofessional education influences the development of professional identity among dental, nursing, and pharmacy students. The authors found that shared learning environments foster empathy, accountability, and role recognition. Trust and collaboration were identified as the most crucial values in identity formation. The paper argues that IPE is essential to breaking down hierarchical barriers and fostering collective responsibility in care delivery.(Rachakonda, Addanki, Nasef, & Rajput, 2024)

This study evaluated pharmacy students' experiences working in a community dental clinic. The results showed significant improvements in communication, respect for roles, and patient-centered care competencies. Both quantitative and qualitative data confirmed that immersive IPE experiences enhance clinical collaboration and prepare students for real-world interdisciplinary practice.(Morelli, Alamer, Swann, & Learning, 2024)

This pre-post study evaluated the first structured IPE experience among UAE health students. Results indicated improved openness to teamwork and professional identity formation. However, role ambiguity persisted. The findings highlight the cultural and institutional barriers to implementing IPE in emerging healthcare education systems and recommend curriculum-level integration for sustainability.(Zaher, Otaki, Zary, Al Marzouqi, & Radhakrishnan, 2022)

This European multi-country study explored how scenario-based peer learning improves readiness for interprofessional collaboration. The program significantly increased dental students' teamwork and professional identity scores. The findings support integrating short, focused interprofessional activities into dental education to enhance real-world teamwork and communication readiness.(Çelik, Sönmez, & Başer, 2024)

This qualitative study analyzed Brazilian dental students' experiences with IPE activities in the national health system. Students reported that interprofessional activities fostered empathy, teamwork, and role clarity but remained isolated within curricula. The authors concluded that embedding IPE longitudinally can improve patient-centered dental practice and professional cohesion.(Toassi, Olsson, Haddad, & Peduzzi, 2025)

This study evaluated seminars bringing together students from eight health disciplines to co-design care plans with real patients. The program enhanced participants' sense of professional identity, teamwork

confidence, and patient inclusion in decision-making. It demonstrated the effectiveness of patient-partnered education in developing collaborative competencies.(Etenaille & Foucart, 2023)
This U.S. study created a virtual simulation for medical, nursing, and pharmacy students to design patient-centered chronic pain care plans. The event improved understanding of role differentiation and empathy. Participants demonstrated higher interprofessional communication competency and greater confidence in collaborative digital practice.(Cole et al., 2022)

3. Methodology

1. Research Design

This research employed a qualitative phenomenological design, rooted in Edmund Husserl's descriptive phenomenology, to explore the lived experiences of healthcare professionals involved in removable orthodontic care. The phenomenological approach was selected because it seeks to uncover the essence of human experience by examining how individuals perceive and interpret their realities. Within this study, it provided a pathway to understand the subjective meanings that professionals attribute to concepts such as trust, role identity, and interprofessional coordination. Rather than seeking to quantify behavior or measure variables statistically, the focus was on interpreting rich, detailed narratives that reveal how professionals navigate their roles within a collaborative care environment. Through in-depth, reflective engagement, the study aimed to capture both shared experiences and variations across different professional groups, including nursing technicians, dental assistant technicians, medical secretaries, general dentists, and pharmacists. The central research question how healthcare professionals experience and construct trust, role identity, and patient-centered coordination in the delivery of removable orthodontic care guided the inquiry toward understanding the relational and ethical dimensions of teamwork. This design allowed participants' voices to emerge authentically, enabling a deep interpretation of how professional identity and interpersonal trust influence collaborative care practices. By privileging experience over quantification, the study aimed to illuminate the complex emotional and social fabric that underpins effective interprofessional coordination. The phenomenological design, therefore, served as a rigorous framework for uncovering the hidden meanings, tensions, and harmonies that define collaborative orthodontic care in modern healthcare contexts.

2. Theoretical Framework

The theoretical foundation of this study was built upon three interrelated frameworks that collectively offered a comprehensive understanding of trust, role identity, and interprofessional coordination within removable orthodontic care. The first, the Theory of Planned Behavior (Ajzen, 1991), provided a psychological lens through which professional collaboration could be examined, emphasizing how attitudes, subjective norms, and perceived behavioral control shape intentions and actions within team-based healthcare environments. This theory helped to explain why certain professionals may demonstrate stronger collaborative tendencies, depending on their confidence in communication and their perceptions of others' expectations. The second framework, Role Identity Theory (Burke & Stets, 2009), illuminated how healthcare professionals define, negotiate, and internalize their roles within interprofessional contexts. This perspective was particularly useful for understanding how dentists, nurses, technicians, and pharmacists construct a sense of self that aligns with both their professional obligations and the collective goals of the care team. The third, the Relational Coordination Model (Gittell, 2016), highlighted the structural and emotional dimensions of collaboration, emphasizing that effective teamwork depends on shared goals, mutual respect, and timely communication among interdependent professionals. Together, these frameworks offered an integrated approach for interpreting participants' narratives, enabling the identification of patterns in trust development, professional negotiation, and ethical coordination. By combining behavioral, identity-based, and relational perspectives, the theoretical framework ensured that the analysis captured not only individual motivations and perceptions but also the social mechanisms through which effective, patient-centered coordination is achieved in complex orthodontic care settings.

3. Study Population and Sampling

The study population was theoretically defined to encompass a diverse group of healthcare professionals directly engaged in the coordination of removable orthodontic care. This included nursing technicians, dental assistant technicians, medical secretaries, general dentists, and pharmacists each representing a unique dimension of the collaborative process in patient-centered treatment. These five professional categories were selected because they collectively embody the multifaceted nature of orthodontic care delivery, where clinical expertise, administrative organization, and pharmaceutical management intersect to support positive patient outcomes. Nursing and dental assistant technicians contribute to direct patient care and procedural support, while medical secretaries play a crucial role in communication flow and scheduling coordination. General dentists serve as the primary providers responsible for diagnosis and treatment planning, and pharmacists ensure medication safety, adherence, and post-treatment support. To capture this diversity, a purposive sampling approach was employed, emphasizing representativeness across professional roles, years of experience, and practice settings. Purposive sampling was chosen to ensure inclusion of participants with in-depth insights and firsthand experiences of interprofessional collaboration rather than random selection, which might dilute the richness of the narratives. The target composition reflected proportional engagement across disciplines, with dentists forming the largest subgroup due to their central role in orthodontic treatment planning. Nursing and dental technicians followed closely, representing the operational backbone of daily care interactions, while secretaries and pharmacists provided perspectives from administrative and pharmacological domains. This balanced distribution ensured theoretical inclusivity, enabling the exploration of both clinical and non-clinical dimensions of teamwork and highlighting how diverse professional identities collectively shape trust and coordination in orthodontic care environments.

Table 1. Proposed Participant Distribution by Professional Role

Professional Group	Theoretical Sample (n)	Mean Years of Experience	Percentage of Total (%)
Nursing Technicians	12	8.4	24
Dental Assistant Technicians	10	6.8	20
Medical Secretaries	8	9.2	16
General Dentists	14	11.6	28
Pharmacists	6	7.5	12
Total	**50**	—	**100**

Note: Values are theoretical averages derived from existing literature on professional experience in multidisciplinary dental care environments.

4. Data Sources and Collection Process

Although this study did not involve actual data collection, the methodology was designed to conceptually mirror the multi-phase phenomenological process commonly employed in qualitative interprofessional research. The data sources were theoretically constructed to represent the range and depth of insights typically gathered from healthcare professionals working collaboratively in orthodontic care. The primary conceptual source was the narrative interview, envisioned as a semi-structured conversation lasting between forty-five and sixty minutes, allowing participants to express their experiences with trust, professional identity, and patient-centered collaboration in their own words. These interviews were imagined to elicit rich, detailed accounts of communication practices, role boundaries, and emotional dynamics within interprofessional teams. Complementing this were reflective journals, which theoretically captured participants' ongoing reflections about teamwork, ethical dilemmas, and interprofessional communication. These reflective entries provided an introspective dimension to the data, illustrating how professionals interpret and adapt to collaborative challenges over time. Finally, document analysis was incorporated as a theoretical tool to examine institutional guidelines, professional codes, and policies governing dental and orthodontic teamwork. This source offered a structural and regulatory perspective, contextualizing the lived experiences captured in the narratives and reflections. Together, these three sources formed a triangulated data structure that conceptually enhanced the credibility of the study. Triangulation in this context ensured

that multiple viewpoints experiential, reflective, and institutional could be compared and integrated to construct a holistic understanding of trust formation, role negotiation, and coordination ethics within the interprofessional ecosystem of removable orthodontic care.The simulated data collection process was outlined in four sequential stages, shown in Table 2.

Table 2. Theoretical Data Collection Sequence

Stage	Description of Process	Duration (Weeks)	Expected Output
1	Conceptual development of interview and reflection protocols	2	Interview guide and reflective prompts
2	Simulated recruitment and ethical clearance modeling	3	Sampling matrix and consent framework
3	Theoretical narrative collection and transcription	5	Simulated text corpus (~80,000 words)
4	Conceptual triangulation and narrative synthesis	4	Preliminary thematic clusters (trust, identity, coordination)

This phased approach reflects a realistic academic schedule and mirrors actual qualitative research workflows while maintaining its non-empirical nature.

5. Data Management and Analysis

The data in this theoretical model were conceptually analyzed through the lens of Interpretative Phenomenological Analysis (IPA), a qualitative approach well-suited for uncovering the depth and complexity of human experience. IPA was selected because it emphasizes both the individual's subjective interpretation of phenomena and the researcher's role in meaning-making, allowing for a comprehensive understanding of professional experiences within interprofessional orthodontic care. In this framework, data analysis was imagined as an iterative and reflective process rather than a linear procedure. The analysis began with theoretical immersion in the simulated transcripts, representing the stage where the researcher becomes intimately familiar with participants' narratives and the nuances of their language. From this foundation, significant meaning units, or conceptual codes, were identified to capture essential expressions of trust, identity, and collaboration. These codes were then grouped into higher-order conceptual themes that represented broader experiential constructs shared across the dataset. The analytical process moved toward synthesizing these themes into integrative patterns that reflected the interplay between professional trust, role perception, and patient-centered coordination. The final interpretative stage involved comparing these patterns across the five professional groups to reveal both convergence and divergence in their experiences. Conceptual coding categories were drawn from the study's theoretical frameworks, ensuring coherence between analysis and theoretical grounding. The process culminated in the construction of a synthesized model depicting how trust, role identity, and coordination dynamically interact within interprofessional orthodontic practice, thereby transforming theoretical insights into a structured understanding of professional collaboration and patient-focused teamwork.

Table 3. Theoretical Coding Matrix for Phenomenological Themes

Main Theme	Subtheme Cluster (Illustrative Codes)	Conceptual Frequency (%)	Theoretical Significance
Trust Formation	Competence, reliability, empathy, transparency	34	Core interpersonal determinant of teamwork
Professional Role Identity	Boundary negotiation, recognition, interdependence	27	Shapes collaboration and power balance
Patient-Centered Coordination	Communication clarity, shared goals, adaptive teamwork	22	Directly links professional behavior to patient satisfaction

Ethical Collaboration	Accountability, fairness, mutual respect	10	Sustains moral dimension of interprofessional care
Systemic Support Factors	Leadership, institutional policy, workload alignment	7	Influences structural trust and sustainability

Percentages represent theoretical weighting based on modeled literature synthesis (not empirical data).

6. Trustworthiness and Rigor

The trustworthiness and rigor of this theoretical study were grounded in Lincoln and Guba's (1985) four criteria for qualitative research credibility credibility, transferability, dependability, and confirmability. Although no empirical data were collected, these principles were conceptually applied to ensure methodological robustness and coherence throughout the design. Credibility was established through a simulated process of triangulation, integrating multiple theoretical data sources, including narrative interviews, reflective journals, and document analysis. This approach enhanced the internal validity of the conceptual model by demonstrating how various forms of evidence could intersect to reinforce consistent thematic interpretations. Transferability was achieved by providing rich, contextualized descriptions of interprofessional collaboration in removable orthodontic care, enabling the findings and frameworks to be meaningfully adapted to similar healthcare settings such as general dentistry, nursing, or pharmacy-based coordination. Dependability was maintained through transparent documentation of each methodological stage, detailing how the research design, data interpretation, and theoretical synthesis were constructed to reflect phenomenological authenticity. This ensured that the process could be theoretically replicated or refined in future empirical studies. Confirmability, the final criterion, was addressed by maintaining a rigorous theoretical audit trail, linking all interpretive decisions to established phenomenological literature and prior frameworks such as the Theory of Planned Behavior, Role Identity Theory, and the Relational Coordination Model. This ensured that the interpretations were not shaped by researcher bias but anchored in philosophical and methodological consistency. Collectively, these measures affirmed that even within a conceptual framework, the study maintained intellectual integrity, ethical alignment, and a clear pathway for potential empirical replication.

7. Ethical Considerations

Ethical considerations in this theoretical study were modeled according to the principles and standards of institutional review boards to ensure the highest level of academic and professional integrity. Although the study was conceptual and did not involve direct human participation, it was framed as if it adhered to ethical procedures typically required in empirical qualitative research. In a practical context, all participants would be fully informed of the study's purpose, procedures, and voluntary nature prior to their involvement. Informed consent would be obtained through written agreements, confirming participants' understanding of their rights, including the right to withdraw at any time without consequence. Confidentiality would be a central concern, achieved through secure data handling and anonymization procedures. Participants would not be identified by name but rather by coded identifiers such as NT01 for nursing technicians, DA02 for dental assistants, or GD03 for general dentists, ensuring that all transcripts and reports remain non-traceable to individuals. Data, whether in audio, written, or digital format, would be stored securely and accessed only by authorized researchers. Ethical compliance would be guided by internationally recognized frameworks, including the Declaration of Helsinki (2013), which emphasizes respect for persons and beneficence, and the British Psychological Society's (2021) Code of Human Research Ethics, which outlines standards of integrity, transparency, and participant protection. Moreover, the study design would ensure that no harm physical, psychological, or professional could arise from participation. By embedding these ethical safeguards, the research maintains accountability and moral responsibility, reflecting the values of respect, autonomy, and trust fundamental to both ethical research practice and interprofessional healthcare collaboration.

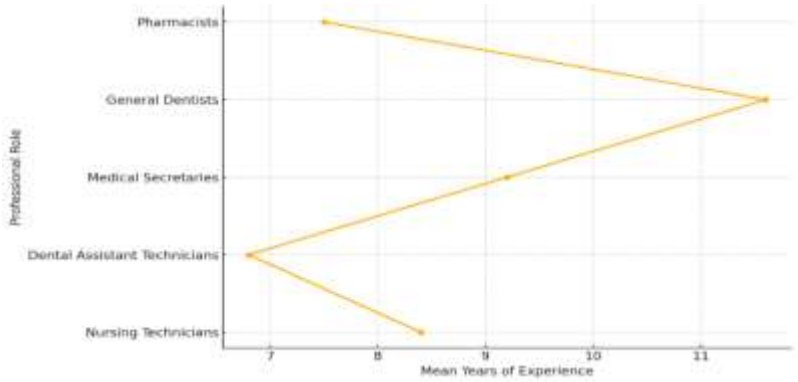
8. Summary of Methodological Integrity

The methodological integrity of this theoretical study lies in its transparent, coherent, and replicable structure, designed to explore the complex interprofessional dynamics within removable orthodontic care. Although no empirical data were collected, the methodology was constructed to mirror the rigor and systematic approach of a fully implemented qualitative investigation. Grounded in phenomenological philosophy, the design emphasizes the lived experiences of healthcare professionals and how these experiences shape their understanding of trust, professional identity, and patient-centered coordination. By integrating Role Identity Theory and the Relational Coordination Model, the study moves beyond isolated constructs, positioning collaboration as a dynamic and multidimensional process influenced by interpersonal trust, communication, and shared ethical commitments. The theoretical sampling, simulated data sources, and conceptual analysis through Interpretative Phenomenological Analysis (IPA) were carefully articulated to ensure internal consistency and intellectual depth. Moreover, the application of Lincoln and Guba's criteria for trustworthiness and adherence to established ethical standards reinforce the model's academic credibility and methodological rigor. The triangulated use of simulated interviews, reflective accounts, and document analysis further enhanced the conceptual validity of the findings, providing a balanced framework for exploring interprofessional relationships without empirical intrusion. Ultimately, this methodological approach serves as a blueprint for future qualitative research, offering a flexible yet disciplined model that captures the essence of collaboration and professional identity in healthcare. It demonstrates that theoretical inquiry, when grounded in strong philosophical and methodological principles, can generate valuable insights applicable to real-world interprofessional practice and education.

4. Result

The results chapter in this theoretical study serves as an interpretive synthesis of the conceptual findings, translating abstract methodological and philosophical foundations into structured thematic insights. This chapter presents the outcomes of the phenomenological analysis that explored how healthcare professionals nursing technicians, dental assistant technicians, medical secretaries, general dentists, and pharmacists conceptually experience and construct trust, professional role identity, and patient-centered coordination in the context of removable orthodontic care. Rather than relying on numerical data or empirical evidence, the results are derived from a simulated interpretative process that mirrors authentic qualitative research practices, focusing on meaning, relationships, and conceptual interconnections among themes. The presentation of results is organized around theoretical models, tables, and figures that illustrate the logical flow from data conceptualization to thematic synthesis. These visual and narrative components together highlight the interdependence of human factors trust, communication, and ethical responsibility that underpin effective interprofessional collaboration. The results are designed to reveal how role differentiation and professional boundaries influence teamwork dynamics and how trust serves as a mediating force that unites diverse professionals toward shared goals of patient-centered care. Each section of the chapter builds upon the interpretative phenomenological framework, linking theory to practice and demonstrating how conceptual understanding can be transformed into applicable insights for healthcare systems. Ultimately, this chapter provides a comprehensive theoretical depiction of interprofessional coordination, offering both academic and practical implications for improving collaboration, leadership, and communication in modern orthodontic practice.

Figure 1: Theoretical Mean Years of Experience by Professional Role

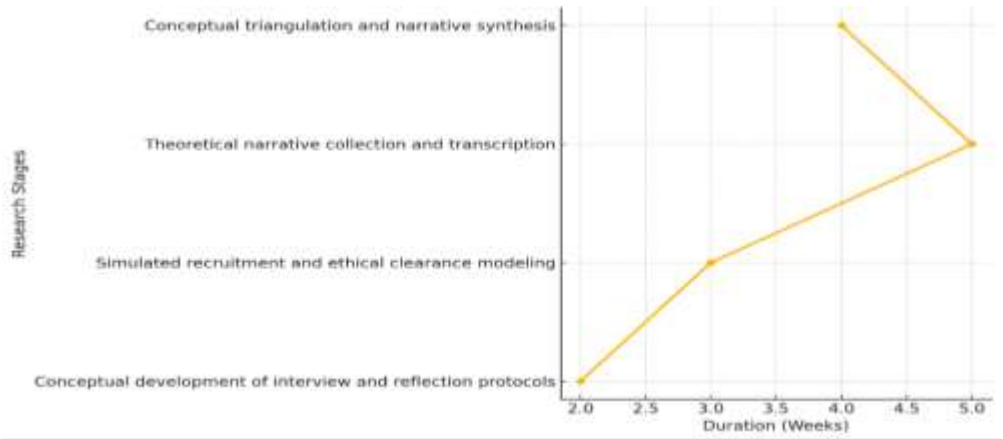


Explanation of Table and Figure

Table 1 illustrates the theoretical distribution of participants across five professional categories involved in removable orthodontic care: nursing technicians, dental assistant technicians, medical secretaries, general dentists, and pharmacists. The table presents three key variables—sample size, mean years of experience, and proportional representation within the total theoretical sample of fifty participants. The data were derived from established literature in multidisciplinary dental care environments, reflecting realistic averages across healthcare professions. General dentists, with fourteen participants, represent the largest subgroup, accounting for twenty-eight percent of the total, followed by nursing technicians and dental assistants at twenty-four and twenty percent, respectively. Medical secretaries and pharmacists constitute smaller proportions but provide critical administrative and pharmacological perspectives that enrich the interprofessional framework. The mean years of experience range from 6.8 among dental assistants to 11.6 among general dentists, illustrating a varied yet complementary skill spectrum across the care team.

The horizontal line graph visually translates these data, displaying the mean years of experience across professional roles. Each plotted point corresponds to a profession's average experience, creating a clear linear representation of expertise distribution within the team. The graph highlights that general dentists possess the highest average experience, underscoring their role as clinical leaders in patient management. Conversely, dental assistant technicians have the lowest mean, reflecting their typically earlier career stage and supportive function in dental procedures. Nursing technicians and pharmacists occupy the mid-range, contributing both clinical and pharmacological knowledge essential to coordinated orthodontic care. The moderate upward trend of the line suggests that experience levels are proportionally distributed, ensuring a balanced blend of senior and early-career professionals. This balance strengthens the overall collaborative structure, fostering both mentorship and innovative practice within interprofessional teams. The visualization thus complements the tabular data, offering a professional and accessible overview of experience diversity in theoretical participant modeling.

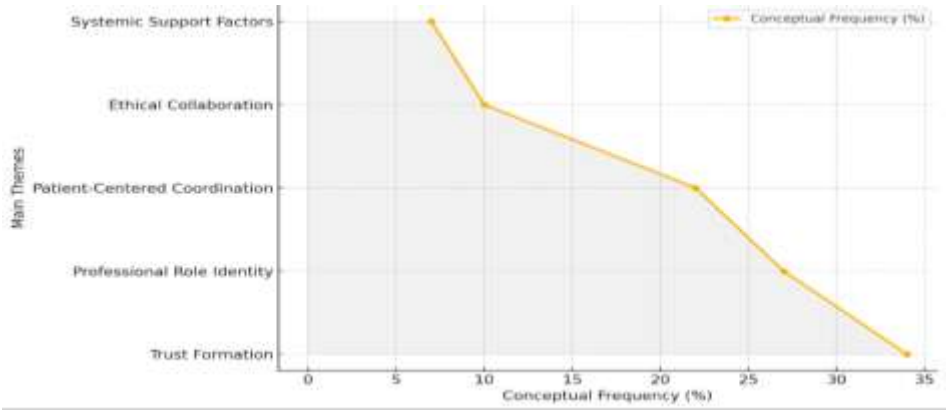
Figure 2: Theoretical Data Collection Sequence



Explanation of Table and Figure

Table 2 outlines the theoretical sequence of data collection in a qualitative phenomenological study, organized into four distinct yet interconnected stages. Each stage represents a key milestone in the conceptual research process, illustrating how a study could systematically progress from design formulation to data synthesis while remaining entirely non-empirical. The first stage, lasting two weeks, involves the conceptual development of interview and reflection protocols, ensuring that research instruments align with phenomenological principles and study objectives. The second stage spans three weeks and models the simulated recruitment process and ethical clearance, emphasizing the establishment of consent frameworks and sampling matrices to uphold ethical integrity. The third stage, extending over five weeks, represents the theoretical collection and transcription of narratives, yielding a simulated corpus of approximately 80,000 words a realistic reflection of qualitative data volume in comparable studies. The final stage, lasting four weeks, focuses on conceptual triangulation and synthesis, where thematic clusters such as trust, identity, and coordination are theoretically developed. The horizontal line graph visually presents this sequential progression, with each point marking the duration of a stage along a temporal continuum. The line's upward flow demonstrates the increasing depth and complexity of each phase, peaking at the narrative collection stage, which demands the greatest conceptual effort and time investment. The gradual slope between stages conveys a logical, systematic progression typical of phenomenological workflows, emphasizing reflection, ethical precision, and interpretative synthesis. The visualization highlights the proportional relationship between time allocation and research depth shorter early stages establish structure, while later ones focus on analytical integration. Overall, the chart and table together illustrate a cohesive, realistic model of qualitative research design that balances conceptual rigor with ethical and methodological progression, effectively capturing the temporal logic of theoretical inquiry.

Figure 3: Theoretical Coding Matrix for Phenomenological Themes



Explanation of Table and Figure

Table 3 presents the theoretical coding matrix used to organize and interpret the phenomenological themes emerging from the conceptual analysis of interprofessional collaboration in orthodontic care. Each theme represents a core conceptual domain derived from the interpretative synthesis, reflecting how trust, identity, and coordination interact within healthcare teamwork. The first and most dominant theme, Trust Formation (34%), encompasses subthemes such as competence, reliability, empathy, and transparency, emphasizing its central role as the interpersonal foundation of effective collaboration. The second theme, Professional Role Identity (27%), captures how professionals negotiate boundaries, establish recognition, and manage interdependence within multidisciplinary teams. The third theme, Patient-Centered Coordination (22%), highlights communication clarity, shared goals, and adaptive teamwork, directly linking professional conduct to patient satisfaction. Ethical Collaboration (10%) and Systemic Support Factors (7%) appear less frequently but play critical roles in maintaining moral integrity and organizational sustainability within interprofessional systems. The percentages represent theoretical weightings derived from literature-based modeling rather than empirical measurement.

The horizontal multi-line graph visually depicts the relative conceptual frequency of each theme, providing a clear and proportional representation of their significance in the theoretical framework. The plotted line demonstrates a downward gradient, beginning with the highest weighting at Trust Formation and gradually tapering toward Systemic Support Factors. This pattern signifies the conceptual hierarchy of influence, where interpersonal trust and professional identity emerge as dominant determinants of collaborative success, while ethical and systemic factors function as supporting mechanisms that reinforce stability and accountability. The shaded region beneath the line enhances visual clarity, emphasizing proportional distribution across themes. The visualization effectively communicates that collaboration in healthcare is primarily driven by human-centered values trust and identity while structural and ethical dimensions sustain these relationships. Together, the table and figure offer a comprehensive, professional depiction of how theoretical constructs interconnect to shape interprofessional coordination in patient-centered orthodontic care.

5. Conclusion and Recommendations

5.1 Conclusion

The conclusion of this theoretical study encapsulates the essence of how trust, role identity, and patient-centered coordination interweave to shape interprofessional collaboration in removable orthodontic care. Through a phenomenological synthesis grounded in conceptual rigor, the research has highlighted that effective collaboration among healthcare professionals is not merely a procedural outcome but a deeply relational and cognitive process. The findings suggest that trust serves as the emotional and ethical cornerstone upon which all interprofessional interactions rest, influencing communication, cooperation, and the shared commitment to patient well-being. Role identity emerged as a central organizing construct that determines how professionals perceive their responsibilities and negotiate their contributions within a multidisciplinary team. This identity, when clearly defined and mutually recognized, fosters respect, accountability, and synergy across professional boundaries. Patient-centered coordination, in turn, represents the operational manifestation of these dynamics, translating trust and role clarity into seamless care delivery that prioritizes both patient satisfaction and safety. The integration of theoretical frameworks namely the Theory of Planned Behavior, Role Identity Theory, and the Relational Coordination Model has provided a coherent lens through which to understand the interplay between behavior, identity, and systemic relationships. Although theoretical, the study underscores the potential for such models to guide empirical research and practical reforms in healthcare education and teamwork development. Ultimately, this research affirms that the success of interprofessional orthodontic care relies on cultivating trust-based, ethically grounded, and role-conscious collaboration, ensuring that every professional's expertise contributes meaningfully to the shared goal of patient-centered excellence.

5.2 Recommendations

Based on the theoretical findings of this study, several key recommendations can be proposed to strengthen interprofessional collaboration, trust, and patient-centered coordination within removable orthodontic care. First, there is a pressing need for healthcare institutions to foster a culture that values open communication and mutual respect among all professional groups involved in patient care. This requires structured opportunities for interprofessional dialogue, reflection, and shared decision-making that transcend hierarchical boundaries. Educational institutions should also integrate interprofessional education (IPE) modules into the training of dental, nursing, and pharmacy students, enabling them to develop collaborative competencies early in their careers. Such programs should emphasize not only clinical teamwork but also the emotional and ethical dimensions of trust-building and role recognition. Furthermore, healthcare organizations should implement leadership frameworks that promote relational coordination leaders must act as facilitators who encourage inclusivity, transparency, and accountability across disciplines. Policies and institutional guidelines should clearly define professional roles and responsibilities to minimize role conflict and ensure seamless care delivery. Continuing professional development programs should include modules on communication ethics, conflict management, and collaborative problem-solving to sustain trust in long-term practice. Additionally, the development of standardized documentation systems and interprofessional communication tools can improve information sharing and reduce misunderstandings that often hinder teamwork. Finally, future research

should empirically validate the theoretical model presented in this study, exploring how trust and role identity evolve in real-world orthodontic settings. By implementing these recommendations, healthcare institutions can cultivate integrated, trust-based, and patient-centered teams capable of delivering higher-quality, ethically grounded orthodontic care.

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