Assessing Communication Dynamics and Its Impact on Patient Care in Hospitals: Perception of Dental Healthcare Professionals

Vaibhav Dhariwal[*]

Department of Dentistry, Marengo Asia Hospitals, Gujarat, India

ABSTRACT

Background: Effective communication is integral to the delivery of high-quality patient care in dental hospitals. Understanding communication dynamics among dental healthcare professionals and its impact on patient outcomes is crucial for optimizing healthcare delivery. This study explores the perceptions of dentists regarding communication in various organizational cultures and its influence on patient care.

Aim: The aim of this research is to assess communication dynamics among dental healthcare professionals, considering organizational culture variations, and to examine its implications for patient care in dental hospitals. The study specifically investigates dentists' comfort levels, communication frequency, recognition and response and the perceived emphasis on communication within different organizational cultures.

Method: Utilizing a Likert scale survey, data were collected from a diverse sample of dental healthcare professionals, including representatives from government, trust, private and corporate dental hospitals. Organizational cultures were categorized as collaborative, competitive, control and creative. Statistical analyses were employed to examine dentists' perceptions of communication dynamics and its association with patient care.

Results: Findings reveal that organizational culture significantly influences dentists' communication patterns. Hospitals with collaborative and creative cultures exhibit higher communication frequency and comfort levels among dental professionals. Dentists in collaborative cultures report better recognition and response to their communication. However, dentists across all cultures recognize the negative impact of communication breakdowns on patient care. This research underscores the critical role of effective communication in dental hospitals and its profound impact on patient care. Collaborative and creative cultures are associated with positive communication outcomes, including increased frequency, comfort and better recognition. Recognizing and addressing communication barriers are imperative to enhance patient care outcomes. Understanding these dynamics provides actionable insights for fostering a supportive communication environment, ultimately contributing to improved patient care in dental healthcare settings.

Corresponding author: Vaibhav Dhariwal, Department of Dentistry, Marengo Asia Hospitals, Gujarat, India; E-mail: drvaibhavdhariwal@gmail.com

INTRODUCTION

Effective communication in any healthcare setting is of paramount importance as it serves as the linchpin for safe, efficient and high-quality patient care. The healthcare environment is characterized by its complexity, with a diverse array of professionals collaborating to address the needs of patients. Effective communication ensures that critical information is shared accurately and promptly among healthcare providers, reducing the likelihood of errors and improving patient outcomes. Dental hospitals rely on the collaboration of a diverse group of professionals to provide comprehensive patient care. The way these healthcare professionals communicate among themselves and with patients can significantly impact the quality of care and patient satisfaction.

In dental hospitals, where multidisciplinary teams diligently collaborate to ensure patient well-being, clear and open communication assumes paramount importance. Dental healthcare professionals, including dentists, dental hygienists, dental assistants, and administrative staff, are integral to the smooth functioning of a dental hospital. Communication within this team is crucial for coordinating patient appointments, sharing critical patient information, and ensuring that treatments are administered safely and effectively. It fosters collaboration among healthcare providers, ensures accurate information exchange, and promotes patient understanding and adherence to treatment plans. Poor communication, on the other hand, can lead to misunderstandings, medical errors, and patient dissatisfaction. In this context, dental professionals largely perceive communication as vital to their daily operations [1].

Effective communication among healthcare professionals not only enhances the efficiency of dental hospital workflows but also directly impacts patient care. It promotes a collaborative environment where all team members work in unison to provide the best possible care. Furthermore, clear and empathetic communication with patients is crucial for building trust, reducing anxiety, and ensuring informed decision-making. When dental professionals communicate openly and respectfully, patients are more likely to understand their treatment options, follow post-treatment instructions, and feel satisfied with the care they receive. Hospitals that prioritize and invest in improving communication practices are better positioned to provide safe, high-quality care while also achieving greater patient satisfaction and operational effectiveness.

However, dental healthcare professionals also encounter challenges in maintaining effective communication dynamics. Hectic schedules, time constraints and the need to juggle multiple responsibilities can lead to breakdowns in communication. Dental professionals report feeling stressed when they are unable to communicate important information to their colleagues in a timely manner, which can affect patient care. Additionally, language barriers or misunderstandings with patients who have limited English or local language proficiency can hinder effective communication, leading to potential misdiagnoses or treatment complications.

To address these challenges, dental hospitals invest in training and development programs that emphasize the importance of communication skills. These programs can help healthcare professionals refine their abilities to convey complex information in a clear and compassionate manner. Regular team meetings and interdisciplinary case discussions can also enhance collaboration and information sharing. Furthermore, implementing electronic health records and digital communication tools can streamline information exchange, reducing the risk of miscommunication.

In conclusion, the perceptions of dental healthcare professionals underscore the critical role of communication dynamics in dental hospitals. Effective communication enhances collaboration among healthcare professionals, streamlines workflows and ultimately leads to better patient care and satisfaction. Despite the challenges they face, dental professionals are keen to improve their communication skills and find solutions to the barriers that impede effective communication. Dental hospitals must prioritize communication as an integral part of their operations and invest in strategies that promote open, clear, and empathetic interactions among their healthcare professionals and patients. By doing so, they can enhance the overall quality of patient care in dental healthcare settings [2].

LITERATURE REVIEW

As medicine has advanced a growing number of patients-particularly those with chronic illnesses or diseases-need to be treated by medical professionals from several specialties. Vermeir P, et al. in their native review state two key patterns. First, more and more diagnostic tests and treatments are being scheduled as outpatient procedures. Secondly, a shift in treatment and care is taking place, particularly with primary care. In an integrated transmural approach, both tendencies heighten the necessity of information exchange between specialists and General Practitioners (GPs) to provide continuity of treatment. Effective and efficient communication is said to be fundamentally and vitally important to the practice and delivery of healthcare [3].

The foundation of healthcare is communication. Communication forms the base of the multistructural building of a dental organisation. Howick, J et al. states communication can increase the precision of diagnoses, support patient-centered treatment decisions, and improve a variety of therapeutic

outcomes, such as safety and treatment adherence. Claims for malpractice can also be reduced by effective communication. The interpersonal communication is the foundation of the communicational mix tools in the field of health. The findings of Torring B, et al. complement previous research on interdisciplinary teamwork in surgical teams and contribute to the theory of relational coordination. The findings offer a new typology of teams that goes beyond weak or strong relational coordination to capture four distinct patterns of relational coordination. In particular, the study highlights the central role of mutual respect and presents proposals for improving relational coordination in dental surgical teams.

The first human spiritual tool of the socialization process was interpersonal (inter-human) communication, which Floyd defines as communication that takes place between two people in the context of their relationship and that, as it develops, aids in negotiating and defining the relationship. In his publication titled "Communication psychology," "The ensemble of processes through which it carries out exchanges of information and of meanings between persons in a given social situation" is how Jean-Claude Abric describes communication in "Theories and methods." In dental surgical teams, health professionals are highly interdependent and work under time pressure. It is of particular importance that teamwork is well-functioning in order to achieve quality treatment and patient safety. Relational coordination, defined as "communicating and relating for the purpose of task integration," has been found to contribute to quality treatment and patient safety.

Verbal forms (an oral and written language), nonverbal forms (gestures, mimics, posture, movement, appearance), and paraverbal forms (by voice attributes accompanying the word, such as intonation, the inflection of voice, tone, rhythm, verbal flow) combine to form interpersonal communication. Many factors can influence it: The level of spatial proximity or closeness; the boundaries and intensity of physical contact in these relationships; the casual or formal communication style; the exchange of glances that constitute visual communication; the volume and tempo of the interactions; the dynamics of reciprocal self-development. Research in the field of medical services has shown that interactions between patients and medical staff have an impact on patients' satisfaction with and perception of the quality of the care they receive, and they can also improve the efficiency of the medical unit.

RESULTS

Study design

In this research, we outline a comprehensive study designed to investigate the perception of dentists for assessing the communication dynamics in hospitals, with a focus on understanding whether communication dynamics impact patient care.

This research will employ a cross-sectional mixed-methods simple-random sampling approach, combining qualitative and quantitative methodologies to provide a comprehensive understanding of the communication dynamics in dental hospitals.

Our study involves the distribution of a structured closed-ended questionnaire to dentists working in dental hospital settings and conducting in-depth interviews with dentists. The questionnaire utilized likert-scale and multiple-choice options to record response. The research questionnaire was circulated online *via* the means of google forms.

Throughout the research process, we prioritize ethical considerations and their confidentiality is rigorously safeguarded. This study holds the potential to yield invaluable insights for bringing about organisational culture shift, policy formulation, and for the healthcare community at large [4].

Participants

For this research, the participant cohort consisted of 205 dentists. Gender distribution within the participant pool comprised of 137 female dentists and 68 male dentists. In terms of type of hospital organization, 22 participants are from government dental hospital, 9 participants are from corporate dental seats, 2 participants are from trust dental hospital and, 172 participants are from private dental hospital.

Analysis

We employ a mixed-method approach for data collection and analysis. The quantitative aspect will be analysed using descriptive statistical methods using statistical software including MS Excel and SPSS. The qualitative aspect will be analysed using thematic analysis, identifying recurring themes and patterns these analytical techniques will enable us to discern patterns, associations, and variations within the data, providing quantitative insights into doctors' perceptions.

Data analysis

In our investigation, we examined how dentists characterized the organizational culture within the dental hospitals where they were currently employed or had previously worked. Our findings reveal that out of the surveyed dentists, 76 individuals (37.1%) depicted the organizational culture as Collaborative *i.e.,* emphasis on fostering teamwork and a sense of togetherness. Additionally, 36 dentists (17.6%) described the organisational culture as Competitive *i.e.,* emphasis on achieving results and outcomes. Furthermore, 60 dentists (29.3%) characterized the organizational culture as Controlling *i.e.,* emphasis on existing structures and control centers. Lastly, 33 dentists (16.1%) portrayed the culture as creative *i.e.,* emphasis on innovation and growth (**Figure 1**) [5].
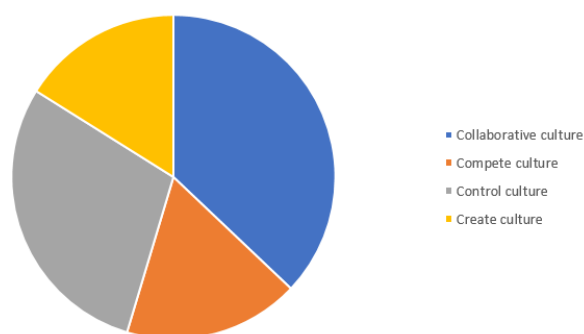
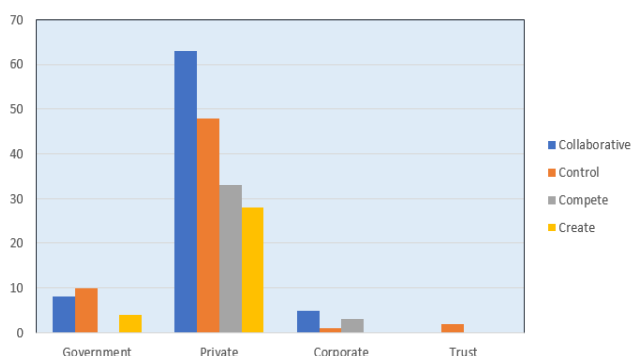**Figure 1:** Graphical representation of innovation and growth.

The respondents in our study represented diverse types of dental organizations, including government dental hospitals, private dental hospitals, corporate dental hospitals, and trust dental hospitals. We conducted an analysis to examine the prevalent organizational cultures within these different types of organizations.

Our observations in government dental hospitals revealed that the most prevalent organizational culture was control, accounting for 45.4% (10 respondents), followed by collaborative culture at 36.3% (8 respondents) and create culture at 18.1% (4 respondents).

In private dental hospitals, the dominant organizational culture was found to be collaborative, constituting 36.6% (63 respondents), followed by control culture at 27.9% (48 respondents), compete culture at 19.1% (33 respondents), and create culture at 16.2% (28 respondents).

Within corporate dental hospitals, the prevailing organizational culture was predominantly collaborative, representing 55.5% (5 respondents), followed by compete culture at 33.3% (3 respondents), and control culture at 11.1% (1 respondent).

In trust dental hospitals, the organizational culture was uniformly described as control, accounting for 100% (2 respondents) (**Figure 2**) [6].


Figure 2: Graphical representation of Control, accounting.

Our study analysed how frequently dentists communicated with their colleagues and superiors in dental hospital (**Figure 3**). To gauge these perspectives, we employed a Likert scale ranging from 1 to 5, where 1 denoted "very often," and 5 represented "never." The following responses were collected:

- 1: 91 responses

- 2: 63 responses
- 3: 29 responses
- 4: 16 responses
- 5: 6 responses
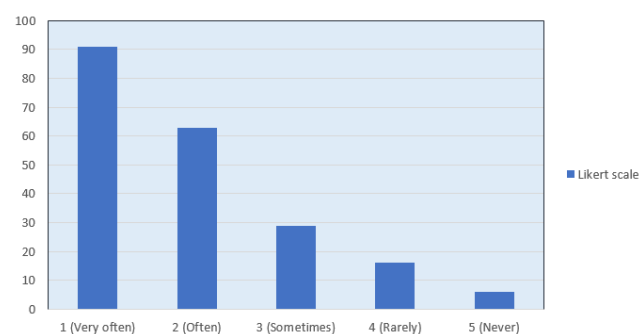
**Figure 3:** Visual representation of study analysis.

The mean Likert scale value is 1.94, suggesting that, on average; the surveyed dentists leaned towards the "Often" side, indicating a general consensus among the participants that they frequently communicated with their colleagues and superiors in dental hospitals.

In hospitals having a collaborative culture, the mode was "very often". A significant proportion of dentists indicated frequent and very frequent communication with their colleagues and supervisors. Specifically, 35 dentists (46%) reported very frequent communication, while 24 dentists (31.5%) reported frequent communication. In contrast, 12 dentists (15.7%) sometimes communicated, and only 3 dentists (3.9%) mentioned rare communication, with a mere 2 dentists (2.6%) reporting never communicating with their colleagues and supervisors.

In hospitals having a competitive culture, the mode was "Often". Among the surveyed dentists, 13 dentists (36.1%) reported very frequent communication, and 15 dentists (41.6%) reported frequent communication. 4 dentists (11.1%) communicated sometimes, and another 4 dentists (11.1%) mentioned rare communication. Notably, no respondents indicated never communicating with their colleagues and supervisors within this context.

In hospitals having a control culture, the mode was "very often". A substantial 23 dentists (38.3%) reported very frequent communication, while 19 dentists (31.6%) reported frequent communication. Conversely, 11 dentists (18.3%) communicated sometimes, and 6 dentists (10%) reported rare communication. 1 dentist (1.6%) indicated never communicating with their colleagues and supervisors in this organizational culture.

In hospitals having a creative culture, the mode was "Very often". A higher proportion of dentists reported very frequent communication, with 20 dentists (60.6%) indicating this level of interaction. 5 dentists (15.1%) reported frequent communication, whereas 2 dentists (6.1%) communicated sometimes (**Figure 4**). 3 dentists (9.1%) each indicated rare and never communication with their colleagues and supervisors [7].
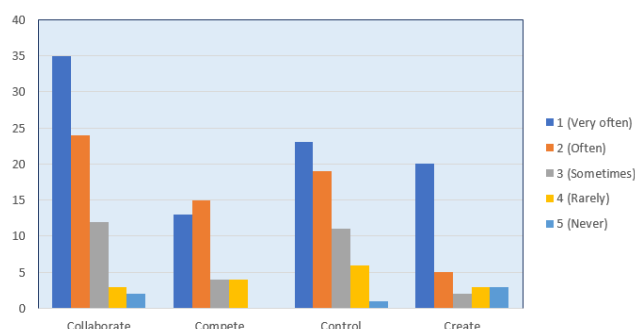
Figure 4: Visual representation of creative culture.

In hospitals having a collaborative culture, the dentists' responses suggested a higher level of communication frequency, with a mean Likert score of approximately 1.85.

In hospitals having a competitive culture, the dentists' responses suggested a slightly lower average level of communication frequency, with a mean Likert score of approximately 1.97.

In hospitals having a control culture, the dentists' responses suggested a moderate level of communication frequency, with a mean Likert score of approximately 1.95 (**Figure 5**).

In hospitals having a creative culture, the dentists' responses suggested a moderate average level of communication frequency, with a mean Likert score of approximately 1.91 [8].
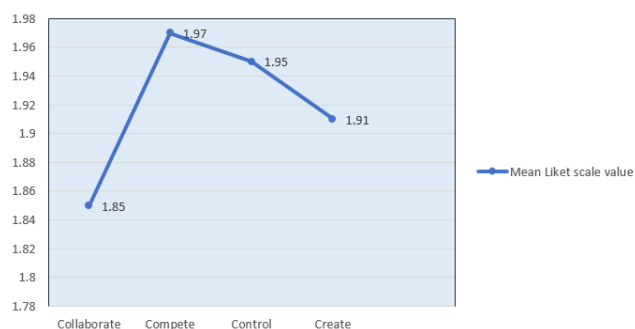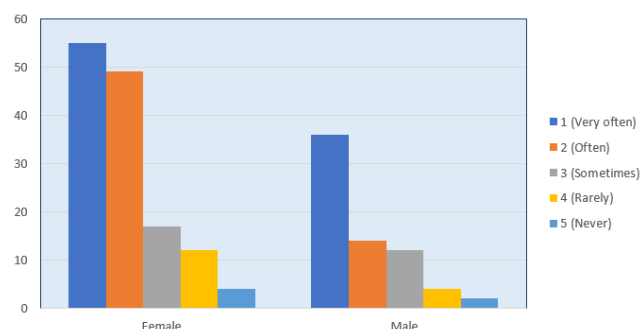

Figure 5: Visual representation communication frequency.

In hospitals, the frequency of dentists communicating with their colleagues and superiors differed with gender. The males communicated slightly more frequently with their colleagues and superiors in the hospital than females, with the mean Likert scale value being 1.85 for the males and 2.05 for the females.

Among female respondents, 55 (40.1%) reported very often communication, and 49 (35.7%) reported often communication, 17 (12.4%) communicated sometimes, and another 12 (8.7%) mentioned rare communication and 4 (2.9%) indicated never communicating with their colleagues and supervisors within this context (**Figure 6**).

Among male respondents, 36 (52.9%) reported very frequent communication, and 14 (20.5%) reported frequent communication, 12 (17.6%) communicated sometimes, and another 4 (5.8%) mentioned rare communication and 2 (2.9%) indicated never communicating with their colleagues and supervisors within this context [9].

Figure 6: Visual representation of male respondents, female respondents.

Our study analysed how comfortable dentists felt communicating with their colleagues and superiors in dental hospital (**Figure 7**). To analyse their perception we used a likert scale ranging from 1 to 5, where 1 represented "Very comfortable" and 5 represented "Very uncomfortable". The following responses were collected:

- 1 : 82 responses
- 2 : 64 responses
- 3 : 39 responses
- 4 : 11 responses
- 5 : 9 responses
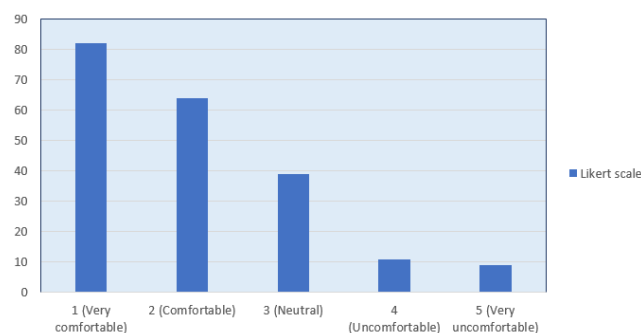
Figure 7: for a visual representation of these responses.

The mean Likert scale value is 2.03, suggesting that, on average; the surveyed dentists leaned towards the "comfortable" side, indicating a general consensus among the participants that they felt comfortable communicating with their colleagues and superiors in dental hospitals.

In hospitals having a collaborative culture, the mode was "very comfortable". A significant proportion of 37 (48.6%) dentists stated that felt very comfortable while 24 dentists (31.5%) felt comfortable communicating with their colleagues and superiors in dental hospital. In contrast, 11 (14.4%) dentists felt neutral, 3 (3.9%) dentists felt discomfortable and 1 (1.3%) dentist stated that felt very comfortable communicating with their colleagues and superiors in dental hospital.
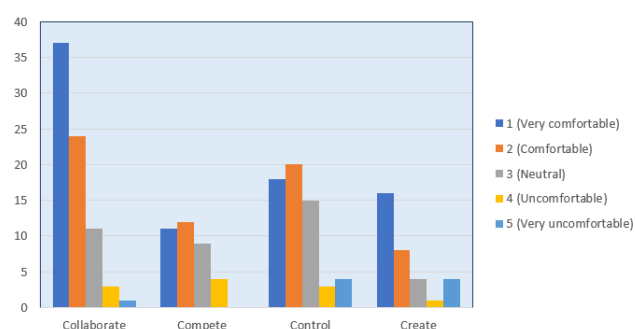
In hospitals having a competitive culture, the mode was "comfortable". Among the surveyed dentists, 11 dentists (30.5%) reported feeling very comfortable communication, and 12 dentists (33.3%) reported feeling comfortable communication with their colleagues and seniors. 9 dentists

(25%) felt neutral, and another 4 dentists (11.1%) felt discomfortable communication with their colleagues and seniors. Notably, no respondents indicated feeling very discomfortable communicating with their colleagues and supervisors within this context.

In hospitals having a control culture, the mode was "comfortable". 18 (30%) dentist stated that felt very comfortable communicating while a notable 20 (33.3%) dentist stated that felt comfortable communicating with their colleagues and superiors in dental hospital. Conversely, 15 dentists (25%) felt neutral communicating, and 3 dentists (5%) reported feeling uncomfortable communication. 4 dentist (6.6%) indicated feeling very uncomfortable communicating with their colleagues and supervisors in this organizational culture.

In hospitals having a creative culture, the mode was "very comfortable". A majority proportion of 16 dentists (48.8%) felt very comfortable communication while 8 dentists (24.2%) felt comfortable communication, whereas 4 dentists (12.1%) felt neutral communicating with their colleagues and superiors in dental hospital (**Figure 8**). 1 dentists (3%) indicated feeling uncomfortable and 4 dentists (12.1%) indicated feeling very uncomfortable communication with their colleagues and supervisors [10].
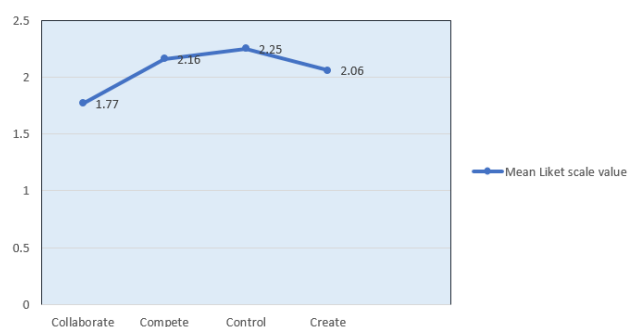
Figure 8: Visual representation of comfortable zones.

In hospitals having a collaborative culture, the dentists' responses suggested a higher level of communication frequency, with a mean Likert score of approximately 1.77.

In hospitals having a competitive culture, the dentists' responses suggested a moderate level of communication frequency, with a mean Likert score of approximately 2.16.

In hospitals having a control culture, the dentists' responses suggested a lower level of communication frequency, with a mean Likert score of approximately 2.25 (**Figure 9**).

In hospitals having a creative culture, the dentists' responses suggested a moderate average level of communication frequency, with a mean Likert score of approximately 2.06 [11].

Figure 9: for a visual representation of creative culture.

In hospitals, the comfort of dentists communicating with their colleagues and superiors showed similar trend in both gender. The females and males had similar comfort level in communicating with their colleagues and superiors in the hospital, with the mean Likert scale value being 2.07 for the males and 2.01 for the females.

Among female respondents, 53 (38.6%) reported feeling very comfortable in communication, and 47 (34.3%) reported feeling comfortable communication, 25 (18.2%) had neutral feeling communicating, and another 7 (5.1%) reported feeling uncomfortable in communication and 5 respondents (3.6%) felt very uncomfortable communicating with their colleagues and supervisors within this context (**Figure 10**).

Among male respondents, 29 dentists (42.6%) reported felt very comfortable, and 17 dentists (25%) felt comfortable, 14 dentists (20.5%) had neutral feelings, and another 4 dentists (5.8%) felt uncomfortable and 4 respondents (5.8%) felt very uncomfortable communicating with their colleagues and supervisors within this context [12].
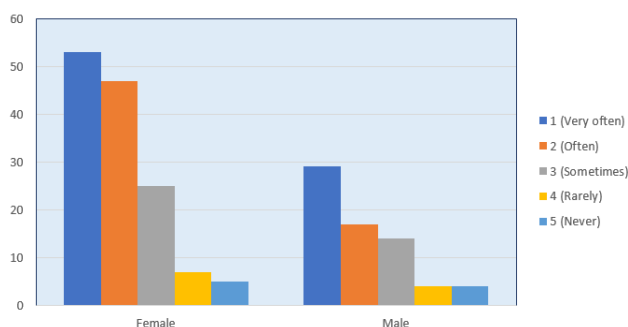
Figure 10: Visual representation colleagues and supervisors.

Our study analysed the perception of dentists on how well does the dental hospital recognize and respond to their communication (**Figure 11**). To gauge these perspectives, we used a likert scale ranging from 1 to 5, where 1 represented "very well" and 5 represented "very poor". The following responses were collected:

- 1 : 54 responses
- 2 : 60 responses
- 3 : 56 responses
- 4 : 20 responses
- 5 : 15 responses
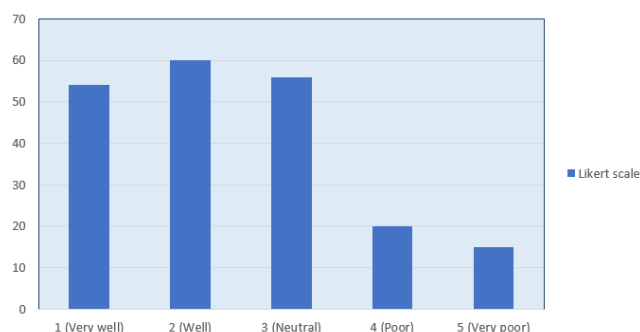
Figure 11: Visual representation of very well very poor.

The mean Likert scale value is 2.42, suggesting that, on average, the surveyed dentists leaned towards the "Well" side, indicating a general consensus among the participants that the dental hospital recognize and respond to their communication well.
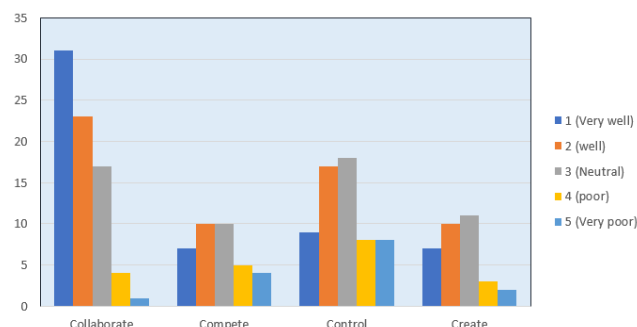
In hospitals having a collaborative culture, the mode was "Very well". A significant proportion of 31 (40.7%) dentists stated that the dental hospital recognized and responded to their communication very well. 23 (30.2%) dentist stated that the dental hospital recognized and responded to their communication well. 17 (22.3%) dentist stated that the dental hospital recognized and responded neutrally to their communication. 4 (5.2%) and 1 (1.3%) dentist stated that the dental hospital recognized and responded to their communication poorly and very poorly respectively.

In hospitals having a competitive culture, the mode were "Well and Neutral". Among the surveyed dentists, 7 dentists (19.4%) reported very well, and 10 dentists (27.7%) reported well. 10 (27.7%) dentist stated that the dental hospital recognized and responded neutrally to their communication. 5 (13.8%) and 4 (11.1%) dentist stated that the dental hospital recognize and respond to their communication poorly and very poorly respectively.

In hospitals having a control culture, the mode was "Neutral": Among the surveyed dentists 9 (15%) dentist stated that the dental hospital recognized and responded to their communication very well. 17 (28.3%) dentist stated that the dental hospital recognized and responded to their communication well. 18% (30%) dentist stated that the dental hospital recognized and responded neutrally to their communication. 8 (13.3%) dentist each stated that the dental hospital recognized and responded to their communication poorly and very poorly.

In hospitals having a creative culture, the mode was "Neutral".

Among the surveyed dentists, 7 (21.2%) and 10 (30.3%) dentist stated that the dental hospital recognized and responded to their communication very well and well respectively. A majority of 11 (33.3%) dentist stated that the dental hospital recognized and responded neutrally to their communication. 3 (9.1%) dentist and 2 (6.1%) stated that the dental hospital recognized and responded to their communication poorly and very poorly respectively (Figure 12).
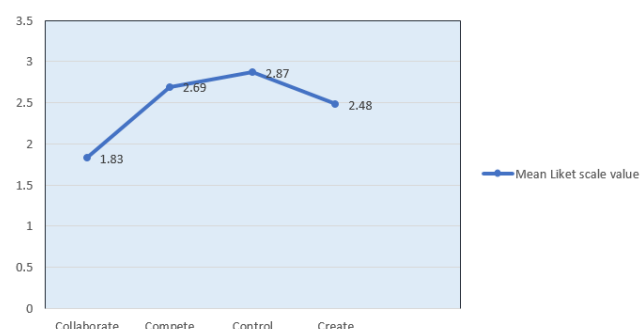

Figure 12: Visual representation of communication poorly and very poorly.

In hospitals having a collaborative culture, the dentists' responses suggested a lower level of communication frequency, with a mean Likert score of approximately 1.83.

In hospitals having a competitive culture, the dentists' responses suggested a moderate level of communication frequency, with a mean Likert score of approximately 2.69.

In hospitals having a control culture, the dentists' responses suggested a higher level of communication frequency, with a mean Likert score of approximately 2.87.

In hospitals having a creative culture, the dentists' responses suggested a moderate average level of communication frequency, with a mean Likert score of approximately 2.48 (Figure 13).
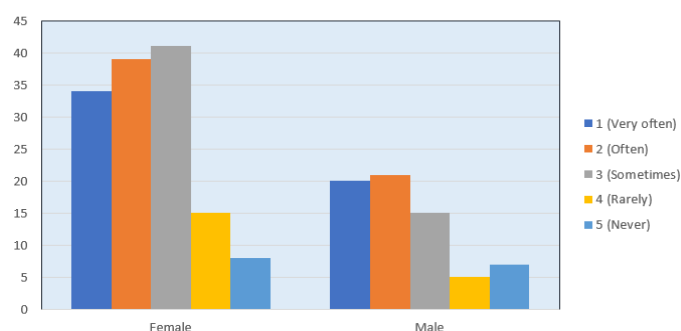

Figure 13: Visual representation of average level of communication frequency.

The dental hospital recognized and responded to communication of the male and female dentist showed similar trend in both gender. The females and males had similar recognition and response by the hospital to their communication, with the mean likert scale value being 2.38 for the males and 2.44 for the females.

Among female respondents, 34 (24.8%) reported very well, and 39 (28.4%) reported well. A majority 41 (29.9%) dentists reported the hospital recognized and responded neutrally to their communication. Another 15 (10.9%) dentists reported poorly and 5 (3.6%) dentists responded very poorly.

Among male respondents, 20 (29.4%) reported very well, and a majority 21 (30.8%) reported well. 15 (22.1%) dentists reported the hospital recognized and responded neutrally to their communication. Another 5 (7.3%) dentists reported

poorly and 7 (10.2%) dentists responded very poorly (**Figure 14**).

Figure 14: Visual representation of neutral communication.

Our study analysed the perception of dentists on whether communication breakdowns affect patient care in dental hospital (**Figure 15**). To gauge these perspectives, we used a likert scale ranging from 1 to 5, where 1 represented "Strongly agree" and 5 represented "Strongly disagree". The following responses were collected:

- 1 : 79 responses
- 2 : 54 responses
- 3 : 48 responses
- 4 : 14 responses
- 5 : 10 responses
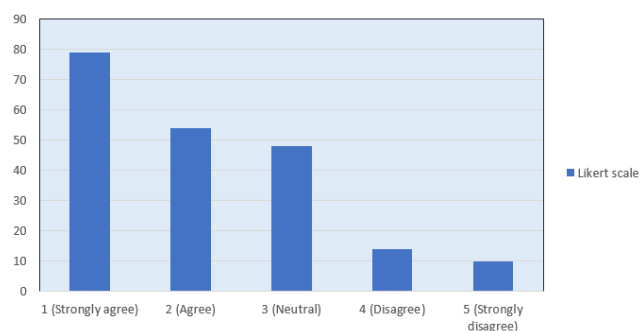
Figure 15: Visual representation of strongly agree, strongly disagree.

The mean Likert scale value is 2.13, suggesting that, on average, the surveyed dentists leaned towards the "Agree" side, indicating a general consensus among the participants that communication breakdowns affected the patient care in dental hospital.
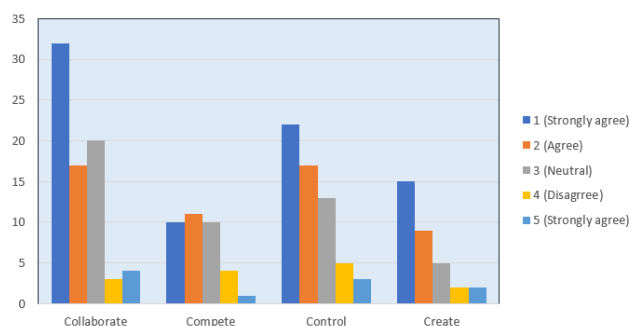
In hospitals having a collaborative culture, the mode was "Strongly agree". A significant proportion of 32 (42.1%) dentists strongly agreed and 17 (22.3%) dentist agreed to that communication breakdowns affected patient care in hospital. 17 (22.3%) dentist remained neutral on the notion. While 3 (3.9%) dentists disagreed and 4 (5.2%) dentists strongly disagreed to that communication breakdowns affected patient care in hospital.

In hospitals having a competitive culture, the mode was "Agree". Among the surveyed population, 10 (27.7%) dentists strongly agreed and a majority 11 (30.5%) dentist agreed to that communication breakdowns affected patient care in

hospital. 10 (27.7%) dentists remained neutral on the notion. While 4 (11.1%) dentists disagreed and 1 (2.7%) dentist strongly disagreed to that communication breakdowns affected patient care in hospital.

In hospitals having a control culture, the mode was "Strongly agree". A majority of 22 (36.6%) dentist strongly agreed and 17 (28.3%) dentists agreed to those communicating breakdowns affected patient care. While 13 (21.6%) dentists remained neutral, 5 dentists (8.3%) disagreed and 3 dentists (5%) strongly disagreed to that communication breakdowns affected patient care in hospitals.

In hospitals having a creative culture, the mode was "Strongly agree". A majority proportion of 15 dentists (45.4%) strongly agreed while 9 dentists (27.2%) agreed to that communication breakdowns affected patient care. While 5 dentists (15.1%) responded neutral, 2 dentists (6.1%) each disagreed and strongly disagreed to that communicating breakdowns affected patient care in dental hospitals (**Figure 16**).

Figure 16: Visual representation of hospitals having a creative culture.

In hospitals having a collaborative culture, the dentists' responses suggested a lower level of communication frequency, with a mean Likert score of approximately 2.07.

In hospitals having a competitive culture, the dentists' responses suggested a higher level of communication frequency, with a mean Likert score of approximately 2.72.

In hospitals having a control culture, the dentists' responses suggested a moderate average level of communication frequency, with a mean Likert score of approximately 2.16.

In hospitals having a creative culture, the dentists' responses suggested a moderate average level of communication frequency, with a mean Likert score of approximately 2 (**Figure 17**).
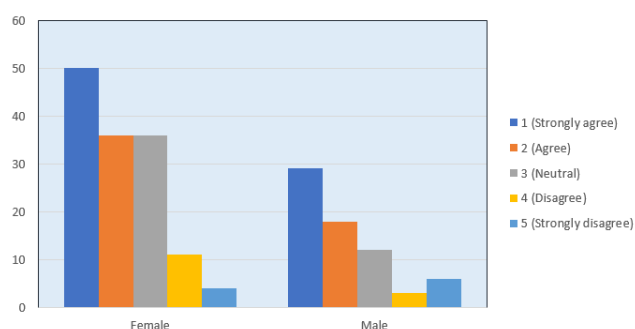
Figure 17: Visual representation of moderate average level of communication frequency.

The perception of dentists on whether communication breakdowns affect patient care in dental hospital similar trend in between both females and males. The females and males had similar perspective on whether communication breakdowns affected patient care, with the mean likert scale value being 2.10 for the males and 2.14 for the females.

Among female respondents, 50 (36.4%) dentists strongly agreed to that communication breakdowns affected patient care. 36 (26.2%) dentists each responded agreed and neutral. Another 11 (8.02%) dentists disagreed and 4 (2.9%) dentists strongly disagreed to that communication breakdowns affected patient care.

Among male respondents, a majority proportion of 29 (42.6%) dentists strongly agreed and 18 (26.4%) dentists agreed to that communication breakdowns affected patient care. 12 (17.6%) dentists responded neutral while 3 (4.4%) dentists disagreed and 6 (8.8%) dentists strongly disagreed to the notion that communication breakdowns affected patient care (**Figure 18**).
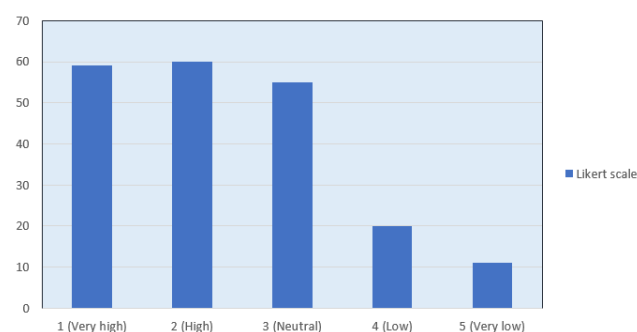

Figure 18: Visual representation of these responses communication breakdowns affected patient care.

Our study analysed the perception of dentists on how much emphasis does dental hospital place on clear and effective communication (**Figure 19**). To gauge these perspectives, we used a likert scale ranging from 1 to 5, where 1 represented "Very high emphasis" and 5 represented "Very low emphasis". The following responses were collected:

- 1 : 59 responses
- 2 : 60 responses
- 3 : 55 responses
- 4 : 20 responses
- 5 : 11 responses

Figure 19: Visual representation of Very high emphasis, Very low emphasis.

The mean Likert scale value is 2.34, suggesting that, on average, the surveyed dentists leaned towards the "High" side, indicating a general consensus among the participants that the dental hospital placed high emphasis on clear and effective communication.

In hospitals having a collaborative culture, the mode was "High". Among the survey population, 25 (32.8%) dentists reported very high and a majority proportion of 28 (36.8%) dentists reported high emphasis was placed on clear and effective communication. While 16 (21.5%) dentists reported neutral, 6 (7.8%) dentists reported low and 1 (1.3%) dentist reported very low emphasis was placed on clear and effective communication.

In hospitals having a competitive culture, the mode were "Very high". Among the surveyed dentists, a majority proportion of 11 (30.5%) dentists reported very high and 9 (23.1%) dentists reported high emphasis was placed on clear and effective communication. While 6 (16.6%) dentists reported neutral, a substantial proportion of 8 (22.2%) dentists reported low and 2 (5.5%) dentist reported very low emphasis was placed on clear and effective communication.

In hospitals having a control culture, the mode was "Neutral": Among the surveyed dentists, 10 (16.6%) dentists reported that very high and 16 (26.6%) dentists reported that high emphasis was placed on clear and effective communication. A majority proportion of 23 (38.3%) dentist stated neutral to the notion. 5 (8.3%) dentists reported low and 6 (10%) dentists reported very low emphasis was placed on clear and effective communication.

In hospitals having a creative culture, the mode was "Very high". A significant proportion of 13 (39.3%) stated that very high emphasis was placed on clear and effective communication while 7 (21.2%) dentists stated that high emphasis was placed. A substantial 10 (30.3%) dentists responded neutral. Another 1 (9.1%) dentist and 2 (6.1%) dentists stated respectively that low and very low emphasis was placed on clear and effective communication (**Figure 20**).
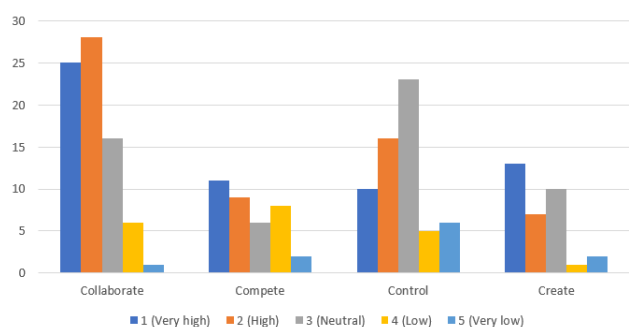
Figure 20: Visual representation of low and very low emphasis.

In hospitals having a collaborative culture, the dentists' responses suggested a lower level of communication frequency, with a mean Likert score of approximately 2.07.

In hospitals having a competitive culture, the dentists' responses suggested a moderate level of communication frequency, with a mean Likert score of approximately 2.47.

In hospitals having a control culture, the dentists' responses suggested a higher level of communication frequency, with a mean Likert score of approximately 2.68.

In hospitals having a creative culture, the dentists' responses suggested a moderate average level of communication frequency, with a mean Likert score of approximately 2.15 (**Figure 21**).

Figure 21: Visual representation of moderate average level of communication.

DISCUSSION

Effective communication is a crucial professional ability that, when used with competence and efficiency, can help create a true therapeutic alliance by building trust between the patient and the medical personnel.

Apart from the proficiency of the staff of dental hospitals and the resources available to the dentists, patients are also provided with courtesy, transparency, and attentiveness during consultations. One factor that improves performance is how the staff attends to patients' needs and demands; this raises the reputation of the medical/dental facility and piques patients' and customers' interest in it.

In our study 37.1% depicted the organizational culture as collaborative *i.e.,* emphasis on fostering teamwork and a

sense of togetherness, 17.6% described the organisational culture as Competitive *i.e.,* emphasis on achieving results and outcomes. Furthermore, 29.3% characterized the organizational culture as Controlling *i.e.,* emphasis on existing structures and control centers. Lastly, 33 dentists (16.1%) portrayed the culture as Creative *i.e.,* emphasis on innovation and growth. Our study's participants included representatives from a variety of dental organizations, such as trust dental hospitals, corporate dental hospitals, private dental hospitals, and government dental hospitals. To investigate the prevailing organizational cultures in these various categories of organizations, we performed an analysis.

Control was the most common organizational culture in our observations of government dental hospitals and trust dental hospitals, with collaborative culture in second, while create culture came in third whereas in private and corporate dental hospitals majority of them followed collaborative culture followed by control then compete and create culture.

When we went on to look for the communication pattens in our study population we could see that hospitals having a collaborative, create as well as control culture depicted a significant proportion of dentists indicating very frequent communication with their colleagues and supervisors. When on recipient side of the communication, the dentists should attempt to evaluate the significance of the message they receive, without taking into account attitudes towards the source. Certo Samuel advises the receiver to "always remain open in relation to people who communicate and be careful not to convey any negative attitude through their communication behavior." Otherwise, if they let their emotions cloud the messages they hear, a lot of important concepts would be lost. Such is the scenario in collaborative and create culture where every individual acts as a receiver towards the other person's opinion and reach towards a fruitful conclusion.

Dentists' communication frequency with supervisors and coworkers in hospitals also varied depending on their gender. With a mean likert scale value of 1.85 for men and 2.05 for women, men conversed with their coworkers and superiors in the hospital somewhat more frequently than women. Our next step in the study analysed how comfortable dentists felt communicating with their colleagues and superiors in dental hospital. The average mean score on the Likert scale was 2.03, indicating that the dentists who were polled tended to lean towards the "Comfortable" side. This suggested that there was a general consensus among the participants regarding their comfort level when talking with superiors and colleagues at dental institutions. Any intervention intended to alter the communication style of healthcare professionals was expected to communicate something about results, which would typically be favorable when it comes to treatments. In hospitals having a creative and collaborative culture, the mode was "Very comfortable" while it was "comfortable" in competitive and control culture.

As we analysed the perception of dentists on how well does the dental hospital recognize and respond to their communication, we figured it to be "very well" in dental

hospitals following collaborative culture while it was "neutral" for all the other organisational cultures. We further examined how dentists felt about the impact of poor communication on patient care in dental hospitals so in order to measure these viewpoints, the mean Likert scale value was taken into account. This indicated that, generally speaking, the dentists who were polled tended to lean towards the "Agree" side, suggesting that there was a widespread consensus among the participants that communication breakdowns had an impact on patient care at dental hospitals.

Without causing any harm, dentists who take the effort to increase their ability to communicate empathy and convey positive messages are likely to improve patient satisfaction with care overall and make modest improvements to a variety of psychological and physical patient conditions. For the illnesses addressed, the effects seem to be comparable to several standard pharmaceutical treatments. It is therefore necessary to have a firm understanding of the most efficient and economical methods for providing practitioner training in positive and empathic communication in order to maximize the use of this evidence.

The final section of our study examined dentists' perceptions of the dental hospital's emphasis on effective and transparent communication. The dental hospital's emphasis on effective and transparent communication was generally felt by the dentists who responded to the survey, with the exception of those who worked in control cultures, as seen by the "High" side of the scale. They responded in a "negative" way.

CONCLUSION

Effective communication is a critical component of high-quality patient care in dental hospitals. Clear and open communication among dentists is essential for ensuring accurate diagnoses, providing appropriate treatment plans, and coordinating patient care. Moreover, effective communication with colleagues and superiors fosters a collaborative and supportive work environment, contributing to improved job satisfaction and retention among dentists.

The study's findings also indicate that organizational culture can influence the frequency of communication among dentists. In hospitals with a collaborative culture, dentists tend to communicate more frequently with their colleagues and superiors, seeking input, sharing updates, and collaborating on patient care. This suggests that a collaborative culture not only encourages open communication but also fosters a sense of shared responsibility and teamwork among dentists. In contrast, in hospitals with a competitive or control culture, dentists may communicate less frequently, limiting opportunities for collaboration and potentially leading to missed opportunities for information sharing.

The study's findings reveal a strong association between organizational culture and dentists' perceptions of communication comfort. In hospitals with a collaborative culture, characterized by valuing teamwork and open communication, dentists generally feel more comfortable

approaching their colleagues and superiors with questions or concerns. This supportive environment encourages dentists to share information and ideas freely, fostering a sense of trust and respect among colleagues. Conversely, in hospitals with a competitive or control culture, where individual performance is emphasized and open communication is less valued, dentists may feel hesitant to communicate openly due to fear of judgment or criticism. This can lead to communication breakdowns, missed opportunities for collaboration, and a less supportive work environment.

The study's findings highlight the importance of recognizing and responding to dentists' communication in a timely and effective manner. Dentists who feel that their communication is valued and addressed are more likely to feel satisfied with their work environment and continue to communicate openly. In hospitals with a collaborative culture, dentists tend to report higher levels of satisfaction with the recognition and response they receive for their communication. This suggests that the dental hospital values and respects the communication of its dentists, and that it takes steps to promptly address their concerns and feedback. This can further enhance communication comfort and promote a sense of ownership and involvement among dentists.

The study's findings underscore the negative impact of communication breakdowns on patient care. When dentists are unable to communicate effectively with each other or with other healthcare providers, they may lack essential information for accurate diagnoses and appropriate treatment plans. Medication errors and patient dissatisfaction can also arise from communication breakdowns. These issues can lead to adverse patient outcomes and emphasize the importance of addressing communication barriers in dental hospitals. Dentists in hospitals with a collaborative culture and creative culture reported a higher level of agreement that communication breakdowns affect patient care. This suggests that these cultures foster a more holistic understanding of the importance of communication in patient care, and that dentists are more likely to recognize and address communication issues that could negatively impact patient outcomes.

Dentists generally perceive that dental hospitals place a high emphasis on clear and effective communication. This is encouraging as it suggests that dental hospitals recognize the importance of communication in providing high-quality patient care. However, the perception of the emphasis on communication varies depending on the organizational culture. In hospitals with collaborative and creative cultures, dentists report a higher emphasis on clear and effective communication compared to those in hospitals with competitive or control cultures. This suggests that organizational culture can influence the practices and perceptions surrounding communication in dental hospitals.

The study's findings suggest that there may be little difference in communication perceptions between male and female dentists. This is encouraging as it suggests that gender does not appear to be a significant factor influencing dentists' comfort levels, satisfaction with communication recognition

and response, or perceptions of the emphasis placed on communication in dental hospitals. However, future research could explore this topic further to determine if there are any subtle nuances in communication preferences or experiences between male and female dentists.

The study provides valuable insights into the complex interplay between organizational culture, communication practices, and dentist perceptions in dental hospitals. The findings emphasize the importance of organizational culture in shaping communication practices and perceptions among dentists in dental hospitals. A collaborative culture and creative culture appear to foster a more supportive, respectful, and patient-centered approach to communication, leading to better communication comfort, satisfaction with communication recognition and response, and a stronger understanding of the impact of communication on patient care. By addressing communication barriers and cultivating a supportive work environment, dental hospitals can ensure that dentists feel comfortable communicating with their colleagues and superiors, their communication is recognized and responded to effectively, and communication breakdowns are minimized. These efforts can ultimately lead to better patient care outcomes and a more satisfying work environment for dentists.

REFERENCES

1. Berendsen AJ, Groenier KH, de Jong GM, Meyboom-de Jong B, van der Veen WJ, et al. (2009) Assessment of patient's experiences across the interface between primary and secondary care: Consumer Quality Index Continuum of care. Patient Educ Couns. 77(1):123-127.

2. Vermeir P, Vandijck D, Degroote S, Peleman R, Verhaeghe R, et al. (2015) Communication in healthcare: a narrative review of the literature and practical recommendations. Int J Clin Pract. 69(11):1257-1267.

3. Kripalani S, LeFevre F, Phillips CO, Williams MV, Basaviah P, et al. (2007) Deficits in communication and information transfer between hospital-based and primary care physicians: implications for patient safety and continuity of care. JAMA. 297(8):831-841.

4. François J (2011) Tool to assess the quality of consultation and referral request letters in family medicine. Can Fam Physician. 57(5):574-575.

5. Starfield B, Shi L, Macinko J (2005) Contribution of primary care to health systems and health. Milbank Q. 83(3):457-502.

6. Moosbrugger MC (1988) Unclogging the physician referral network. Winning referrals requires research and tracking. Healthcare Executive. 3(5):28-29.

7. Agarwal R, Sands DZ, Schneider JD (2010) Quantifying the economic impact of communication inefficiencies in US hospitals. J Healthc Manag. 55(4):265-282

8. Howick J, Moscrop A, Mebius A, Fanshawe TR, Lewith G, et al. (2018) Effects of empathic and positive communication in healthcare consultations: a systematic review and meta-analysis. J R Soc Med. 111(7):240-252.

9. Zolnierek KB, DiMatteo MR (2009) Physician communication and patient adherence to treatment: a meta-analysis. Med Care. 47(8):826-834.

10. Moore PJ, Adler NE, Robertson PA (2000) Medical malpractice: the effect of doctor-patient relations on medical patient perceptions and malpractice intentions. West J Med. 173(4):244.

11. Tørring B, Gittell JH, Laursen M, Rasmussen BS, Sørensen EE (2019) Communication and relationship dynamics in surgical teams in the operating room: an ethnographic study. BMC Health Serv Res. 19:1-6.

12. Boudreaux ED, Mandry CV, Wood K (2003) Patient satisfaction data as a quality indicator: a tale of two emergency departments. Acad Emerg Med. 10(3): 261-268.