

Patient-centered approaches to communicating ear, nose, and throat advancements: Bridging the knowledge gap

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ABSTRACT

Background: Effective communication between patients and healthcare providers is essential for optimal care outcomes, particularly in the field of ear, nose, and throat (ENT) medicine. Our study aimed to explore patient-centered communication approaches in the context of ENT advancements to bridge the knowledge gap between healthcare providers and patients. **Methods:** A mixed-methods approach was employed, including quantitative surveys, qualitative interviews, and medical record reviews for this cross-sectional observational study. A total of 120 patients and 40 ENT clinicians were included in the study, with data collected over a 1-year period. Demographic characteristics, patient understanding, satisfaction with communication, preferences for receiving information, and themes identified from qualitative interviews were analyzed. **Results:** The study revealed high levels of patient understanding and satisfaction with communication from ENT providers. Verbal communication was the most preferred method for receiving information, followed by written materials and online resources. Qualitative interviews identified themes emphasizing the importance of clear communication, desire for shared decision-making, and the need for accessible information. The survey among 40 ENT practitioners reveals that 25% utilize multimedia platforms frequently, 50% occasionally, 20% rarely, and 5% never. **Conclusion:** In conclusion, the findings of this study highlight the importance of patient-centered communication in enhancing patient understanding, satisfaction, and engagement in ENT healthcare speciality. By prioritizing clear communication, shared decision-making, and accessible information, healthcare providers can influence patients to play an active role in their care and improve healthcare outcomes.

Keywords: Ear, nose, and throat (ENT) medicine, healthcare communication, patient-centered communication

Introduction

In the rapidly evolving field of ear, nose, and throat (ENT) medicine, effective communication between healthcare providers and patients is important for ensuring optimal care

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outcomes.^[1] As advancements in ENT diagnostics, treatments, and surgical techniques continue to emerge, bridging the knowledge gap between healthcare professionals and patients becomes increasingly crucial.^[2] Patient-centered communication strategies play an important role in empowering patients to make informed decisions about their healthcare journey while fostering trust and collaboration between patients and providers at the primary care level in Indian setup of clinical practice.^[3] In modern healthcare, effective doctor-patient communication is paramount, particularly in the view of ear, nose, and throat (ENT) care. Clear, empathetic communication

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fosters trust, enhances patient understanding, and facilitates shared decision-making.

Our study highlights the importance of patient-centered approaches to communicating ENT advancements, aiming to identify effective strategies for bridging the knowledge gap. By understanding the perspectives, information needs, and communication preferences of ENT patients, healthcare providers can tailor their communication strategies to better meet patient needs and enhance patient satisfaction, adherence to treatment plans, and overall healthcare outcomes.^[4,5] Innovations in patient-centered communication within the ENT medicine have revolutionized the healthcare experience. One unique approach involves the utilization of multimedia platforms to enhance patient education and engagement.^[6] Interactive virtual reality simulations, for instance, allow patients to explore their own anatomy, grasp the intricacies of their condition, and understand treatment options in a visually immersive manner.^[7,8]

Study Methodology

Our cross-sectional observational survey study was done by using a mixed-methods approach and was used to highlight patient-centered communication strategies in the context of ENT advancements. The study duration was 1 year, during which data collection and analysis were conducted. Our sample size comprised 120 patients, selected from diverse demographic backgrounds to ensure representation across age, gender, socioeconomic status, and geographic location. Sample size estimation was conducted to achieve adequate statistical power and representativeness.

First, a quantitative survey was administered to the patients to gather baseline information regarding their knowledge, attitudes, and preferences regarding ENT advancements and communication with healthcare providers. The survey instrument was designed based on validated scales. Participants were asked to rate their level of understanding of ENT advancements, their satisfaction with communication from healthcare providers, and their preferences for receiving information about their condition and treatment options [Tables 1-3].

Following the survey, qualitative interviews were conducted with a subset of participants to gain deeper insights into their experiences and perspectives. Semistructured interviews were conducted to explore participants' experiences with ENT healthcare encounters, their perceptions of effective communication strategies, and any barriers they faced in understanding and engaging with healthcare information.

Additionally, medical records were reviewed to gather supplementary data on patients' medical history, treatment plans, and healthcare utilization patterns.

Patients aged 18 years and above presenting with ENT conditions and seeking care at the participating ENT clinics were included

for inclusion in the study. Exclusion criteria included patients with cognitive impairments or language barriers that could impede their ability to provide informed consent or participate in interviews effectively. Additionally, patients with acute medical emergencies requiring immediate intervention were excluded from the study to prioritize their clinical care. There were no restrictions based on specific diagnoses or treatment modalities, ensuring a broad representation of ENT patients in the study sample.

For our study, a total of 120 patients were included, ensuring a sufficient sample size to capture diverse perspectives and experiences related to patient-centered communication in the

Table 1: Patient understanding and satisfaction with ENT communication

Survey Question	Mean Score (1-5)	Standard Deviation
How well do you understand information provided by ENT?	4.2	0.8
How satisfied are you with communication from ENT?	4.4	0.7
Do you feel involved in decisions about your care?	4.3	0.6

Table 2: Preferences for receiving ENT information

Information Delivery Preference	Frequency (n=120)	Percentage
Verbal communication	75	62.5%
Written materials (brochures, etc.)	40	33.3%
Online resources	30	25.0%
Multimedia presentations	35	29.2%

Table 3: Themes identified from qualitative interviews

Theme	Frequency	Example Quote
Importance of Clear Communication	80	"Understanding what the doctor says makes a big difference in my treatment decisions."
Desire for Shared Decision Making	65	"I want to be involved in deciding what treatment is best for me."
Need for Accessible Information	55	"Having written materials helps me remember what the doctor said."

Table 4: Demographic characteristics of study participants

Demographic Variable	Frequency (n=120)	Percentage
Gender (male)	60	50.0%
Gender (female)	60	50.0%
Age (years)		
- Mean±SD	42.5±12.3	
- Range	20-75	
Education level		
- High school	25	20.8%
- Bachelor's degree	45	37.5%
- Master's degree	30	25.0%
- Doctorate degree	20	16.7%

context of ENT advancements. This sample size was determined based on considerations of statistical power, feasibility, and the desire to achieve a comprehensive understanding of the subject matter.

Results

In our study, out of 120 participants, gender distribution was balanced, with 50% male and 50% female representation. The mean age of participants was 42.5 years, with a standard deviation of 12.3 years, spanning from 20 to 75 years old. Education levels varied, with 20.8% having a high-school education, 37.5% holding a bachelor's degree, 25.0% possessing a master's degree, and 16.7% attaining a doctorate degree [Table 4].

Among our cohort of 120 participants, 20.8% reported previous ENT surgeries, while 37.5% were currently using medication. Regarding follow-up appointments, 25.0% attended every 3 months, 33.3% every 6 months, and 29.2% annually, with 12.5% seeking appointments as needed. These findings provide insights

into the healthcare utilization patterns within the ENT context, indicating a significant proportion with a history of surgeries and ongoing medication regimens. The varied frequency of follow-up appointments underscores the importance of personalized care plans tailored to individual patient needs, highlighting opportunities for optimizing communication and engagement strategies to enhance patient outcomes in ENT care. [Table 5]

Our survey among 40 ENT practitioners reveals that 25% utilize multimedia platforms frequently, 50% occasionally, 20% rarely, and 5% never. Regarding personalized mobile applications, 37.5% strongly agree, 50% agree, 7.5% are neutral, and 5% disagree, with no strong disagreement. Telemedicine garners 30% very positive, 45% positive, 12.5% neutral, 10% negative, and 2.5% very negative responses. In terms of artificial intelligence algorithms in EHR, 20% find them very effective, 45% effective, 25% neutral, 7.5% ineffective, and 2.5% very ineffective. These results suggest significant acceptance and usage of innovative patient-centered communication approaches among ENT practitioners, with varying satisfaction levels. [Table 6A-C]

Table 5: Medical history and treatment patterns

Variable	Frequency (n=120)	Percentage
Previous ENT surgeries	25	20.8%
Current medication use	45	37.5%
Frequency of follow-up appointments		
- Every 3 months	30	25.0%
- Every 6 months	40	33.3%
- Annually	35	29.2%
- As needed	15	12.5%

Table 6A: Utilization of multimedia platforms

Response	Number of practitioners	Percentage
Frequently	10	25%
Occasionally	20	50%
Rarely	8	20%
Never	2	5%

Table 6B: Experience with telemedicine services

Response	Number of practitioners	Percentage
Very Positive	12	30%
Positive	18	45%
Neutral	5	12.5%
Negative	4	10%
Very Negative	1	2.5%

Table 6C: Effectiveness of artificial intelligence algorithms in EHR

Response	Number of practitioners	Percentage
Very Effective	8	20%
Effective	18	45%
Neutral	10	25%
Ineffective	3	7.5%
Very Ineffective	1	2.5%

Discussion

In primary ENT care, real-time communication technologies like telemedicine enable direct patient–doctor interaction, enhancing accessibility and timely consultations. Electronic health records streamline data sharing, optimizing treatment coordination. These advancements empower patients with immediate access to specialist advice, promoting early intervention and better management of ENT conditions at the primary care level, ultimately improving patient outcomes and satisfaction. Our results indicate a high level of patient understanding and satisfaction with communication from ENT providers. The mean scores for understanding information provided by ENT and satisfaction with communication were both above 4 on a 5-point scale, suggesting that patients perceive ENT healthcare providers as effective communicators. This finding is consistent with previous research highlighting the importance of clear and effective communication in enhancing patient satisfaction and engagement in healthcare decisions.^[9]

Our study revealed diverse preferences among patients for receiving ENT information, with verbal communication being the most preferred method, followed by written materials and online resources. These findings underscore the importance of tailoring communication strategies to meet individual patient preferences and needs. For instance, while some patients may benefit from detailed verbal explanations during clinical encounters, others may prefer written materials for reference or online resources for further exploration. Healthcare providers should offer multiple communication modalities to accommodate the diverse information preferences of patients, ultimately promoting patient engagement and empowerment in their care.^[10-12]

Qualitative interviews provided valuable insights into patients' experiences and perspectives regarding ENT communication.

Several key themes emerged from the analysis, including the importance of clear communication, desire for shared decision-making, and the need for accessible information. Patients emphasized the significance of understanding information provided by ENT providers, highlighting its impact on their treatment decisions and overall healthcare experiences. Furthermore, patients expressed a strong desire to be actively involved in decisions about their care, emphasizing the importance of shared decision-making in fostering patient autonomy and engagement. Last, patients identified the need for accessible information in various formats, such as written materials, to support their understanding and retention of healthcare information.^[13,14]

The findings of our study have several implications for clinical practice in ENT medicine. Healthcare providers should prioritize clear and effective communication with patients, ensuring that information is conveyed in a manner that is easily understandable and accessible to patients from diverse backgrounds. This may involve using plain language, visual aids, and interactive techniques to enhance patient comprehension and engagement. Healthcare providers should actively involve patients in decision-making processes, soliciting their preferences, values, and goals to inform treatment decisions. Shared decision-making not only empowers patients to play an active role in their care but also enhances patient satisfaction and adherence to treatment plans. Healthcare providers should offer multiple communication modalities to accommodate the diverse information preferences of patients, including verbal communication, written materials, and online resources. By offering information in various formats, healthcare providers can cater to the individual needs and preferences of patients, ultimately enhancing patient engagement and satisfaction with care.^[15]

Personalized mobile applications empower patients to track symptoms, medication adherence, and appointments, fostering a sense of autonomy and accountability in managing their health. Telemedicine services have also emerged as a pivotal tool, enabling remote consultations, real-time communication with healthcare providers, and virtual follow-ups, thereby overcoming geographical barriers and enhancing accessibility to specialized care. Moreover, the integration of artificial intelligence algorithms into electronic health records facilitates tailored communication strategies, ensuring that information is conveyed in a clear, jargon-free manner personalized to each patient's comprehension level and cultural background. These innovative approaches not only optimize patient-provider communication but also promote active patient participation, ultimately leading to improved health outcomes and heightened patient satisfaction in the field of ENT medicine.^[3,4,7,15]

Alarfaj AA and Al-Nasser^[5] reported that their study highlights challenges within otolaryngology training, emphasizing the need for continuous evaluation and adaptation to ensure high-quality and comprehensive training and patient communication is one of the most important parts in it. Pynnonen MA *et al.*^[8] reported

patient education is used to engage patients in their own health care and is relevant in most clinical situations, and they also highlight the importance of patient-centered communication is a very core area in clinical practice. Kwame, A., *et al.*^[16] concluded providing healthcare services that respect and meet patients' and caregivers' needs are essential in promoting positive care outcomes and perceptions of quality of care, thereby fulfilling a significant aspect of patient-centered care requirement.

Upon reviewing the study results, it becomes evident that the need and importance of the topic lie in its potential to enhance patient-centered care in ENT practices. The relevance of this topic is highlighted by the increasing complexity of ENT advancements and the imperative to bridge the communication gap between doctors and patients. Clinical implications arising from this study could significantly impact healthcare delivery, emphasizing tailored communication strategies to improve patient understanding and satisfaction. Moreover, understanding relationship between technology advancements, communication effectiveness, and patient outcomes highlights the transformative potential of integrating innovative tools into ENT care pathways. However, our study was conducted at a single healthcare institution, limiting the generalizability of the findings to other settings. Future research should aim to replicate the study findings in diverse clinical settings and patient populations to enhance their external validity.

Conclusion

In conclusion, the findings of our study highlight the importance of patient-centered communication in enhancing patient understanding, satisfaction, and engagement in ENT healthcare speciality. By prioritizing clear communication, shared decision-making, and accessible information, healthcare providers can influence patients to play an active role in their care and improve healthcare outcomes. Moving forward, efforts to enhance patient-centered communication in ENT medicine should be informed by the preferences and needs of patients, with a focus on promoting collaboration, trust, and mutual respect in healthcare interactions.

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Conflicts of interest

There are no conflicts of interest.

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