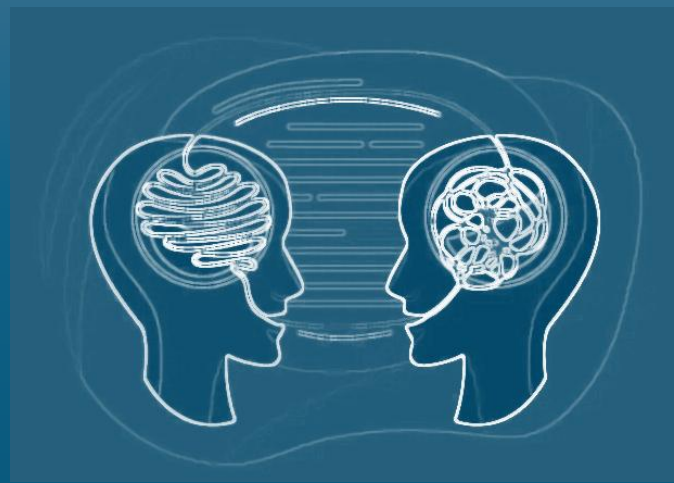




Educating for Accuracy: Improving ENT Abbreviation Recognition

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Introduction:

- Effective interdisciplinary communication remains a fundamental pillar of safe and high-quality clinical care.
 - Although abbreviations are widely used across healthcare settings to streamline documentation and enhance efficiency, their inconsistent interpretation poses a significant risk for miscommunication and clinical error (Kuhn, 2007).
- ## Project aims:
- To evaluate the understanding of commonly used clinical abbreviations among the multi-disciplinary team
 - To assess the effectiveness of a structured educational intervention in improving abbreviation recognition and overall communication within the clinical team.

Method:

- An ENT surgeon developed a survey of eighty-two common abbreviations. Forty-five staff members participated, including doctors below registrar grade in the ENT department.
- Participants were asked to provide the full form of each abbreviation.
- Following the first audit cycle, a targeted educational intervention was implemented.
- This included formal teaching sessions delivered during staff induction as well as the strategic placement of educational posters throughout the hospital to reinforce learning.
- Subsequently, participants completed a pre-intervention and post-intervention quiz. The collected data were used to measure changes in abbreviation recognition and assess the effectiveness of the educational strategy.

Results:

Cycle 1:

- The initial audit demonstrated only 24.3% of responses correct. The mean score was 19.9 out of 82, and no participant scored above 77%, highlighting the need for targeted educational support.

Number of responses that were correct and incorrect

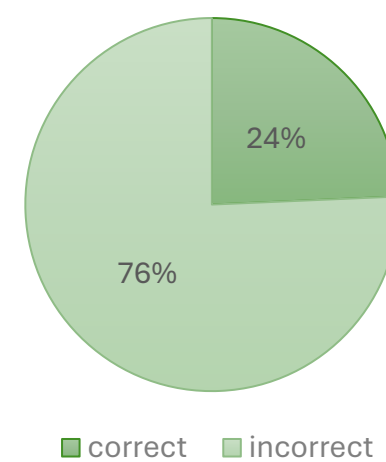


Figure (1): Pie chart illustrating the proportion of correct (24.3%) and incorrect (75.7%) responses from 45 participants in the initial audit cycle.

Number of correct and incorrect responses

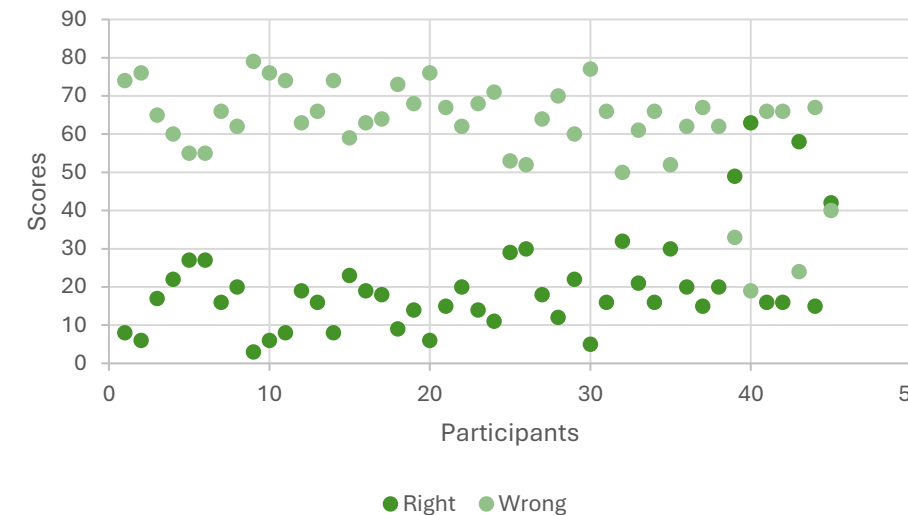


Figure (2): Scatter graph showing scores of 45 participants out of 82 abbreviation responses, highlighting both correct and incorrect answers.

Cycle 2:

- Pre-teaching scores ranged from 18% to 34%, reflecting continued variability in abbreviation comprehension.
- Following the educational intervention, post-teaching scores improved significantly, ranging from 24% to 52%. The mean score increased by up to 40%, with 83% of participants demonstrating measurable improvement, indicating the effectiveness of targeted educational strategies.

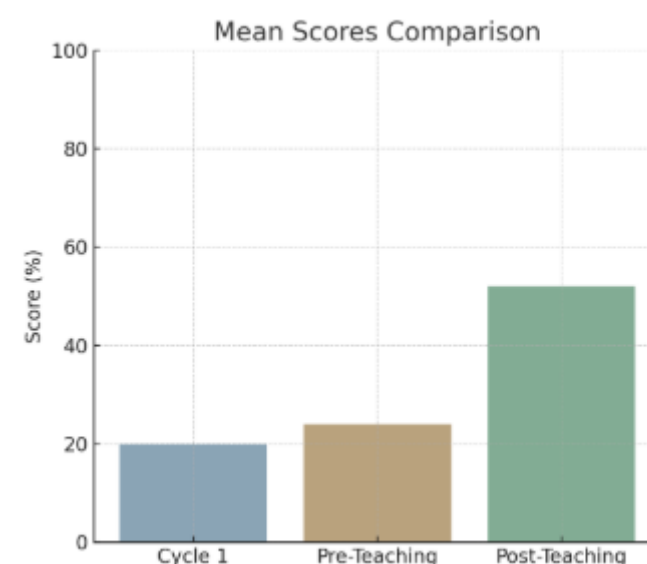


Figure (3): Bar chart comparing scores from Cycle 1, pre-teaching, and post-teaching, showing improved abbreviation recognition following the educational intervention.

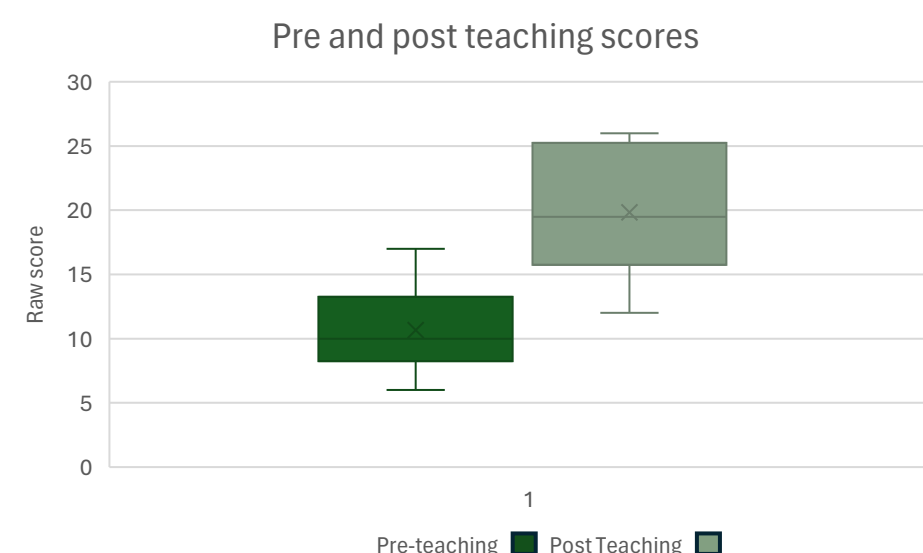


Figure (4): Box and whisker plot comparing pre-teaching and post-teaching scores, illustrating the distribution, median, and variability of participants' abbreviation recognition before and after the educational intervention.

Education



Reinforcement



Safer Communication

Do you know what they mean?

1. ABR: auditory brainstem response	46. MTC: medullary thyroid cancer
2. AC: air conduction	47. NOE: necrotizing otitis externa
3. ADAM: acute otitis media	48. NPC: nasopharyngeal carcinoma
4. BAHK: bone anchored hearing aid	49. OSE: otitis externa
5. BCAL: bone conduction hearing aid	50. OM: otitis media
6. BC: bone conduction	51. BPPV: benign paroxysmal positional vertigo
7. BOT: base of tongue	52. BTE: Behind The Ear (hearing aids)
8. BPPV: benign paroxysmal positional vertigo	53. Bx: biopsy
9. BTE: Behind The Ear (hearing aids)	54. CHL: conductive hearing loss
10. Bx: biopsy	55. CI: cochlear implant
11. CHL: conductive hearing loss	56. CPA: cerebellopontine angle
12. CI: cochlear implant	57. CSR: chronic rhinosinusitis
13. CPA: cerebellopontine angle	58. CROS: contralateral routing of signal
14. CSR: chronic rhinosinusitis	59. CT: computed tomography
15. CROS: contralateral routing of signal	60. DB: decibel
16. CT: computed tomography	61. DCR: dacryocystorhinostomy
17. DB: decibel	62. EAC: external auditory canal
18. DCR: dacryocystorhinostomy	63. EBV: Epstein-Barr virus
19. EAC: external auditory canal	64. ENT: Ear, Nose and Throat
20. EBV: Epstein-Barr virus	65. ETD: eustachian tube dysfunction
21. ENT: Ear, Nose and Throat	66. ETT: endotracheal tube
22. ETD: eustachian tube dysfunction	67. EUA: Exam under anesthesia
23. ETT: endotracheal tube	68. FB: foreign body
24. EUA: Exam under anesthesia	69. FEES: functional endoscopic sinus surgery
25. FB: foreign body	70. FEES: flexible endoscopic evaluation of swallowing
26. FEES: functional endoscopic sinus surgery	71. FOM: floor of mouth
27. FEES: flexible endoscopic evaluation of swallowing	72. FNE: flexible nasendoscopy
28. FOM: floor of mouth	73. FNA: fine needle aspiration
29. FNE: flexible nasendoscopy	74. GBRAS: grade, roughness, breathiness, asthema, strain
30. FNA: fine needle aspiration	75. HA: Hearing Aids
31. GBRAS: grade, roughness, breathiness, asthema, strain	76. H&N: head and neck
32. HA: Hearing Aids	77. HHT: hereditary haemorrhagic telangiectasia
33. H&N: head and neck	78. I&D: incision and drainage
34. HHT: hereditary haemorrhagic telangiectasia	79. IFS: intra-tympanic steroid injection
35. I&D: incision and drainage	80. JNA: juvenile nasopharyngeal angiofibroma
36. IFS: intra-tympanic steroid injection	81. LN: lymph node
37. JNA: juvenile nasopharyngeal angiofibroma	82. LPR: laryngopharyngeal reflux
38. LN: lymph node	83. MLR: microlaryngoscopy and bronchoscopy
39. LPR: laryngopharyngeal reflux	84. MLTB: microlaryngoscopic transbronchoscopic
40. MLR: microlaryngoscopy and bronchoscopy	85. MND: modified radical neck dissection
41. MLTB: microlaryngoscopic transbronchoscopic	86. MUA: manipulation under anesthesia
42. MND: modified radical neck dissection	87. MTC: medullary thyroid cancer
43. MUA: manipulation under anesthesia	88. NOE: necrotizing otitis externa
44. MTC: medullary thyroid cancer	89. NPC: nasopharyngeal carcinoma
45. NOE: necrotizing otitis externa	90. OM: otitis media

Figure (5): Flow chart illustrating the proposed strategy for safer communication. The process begins with enhancing education, followed by reinforcement through informative posters, ultimately leading to improved communication safety as depicted in the diagram.

Figure (6): Poster displaying commonly used abbreviations in ENT.

Conclusion:

- These findings suggest that even brief, low-resource educational strategies can lead to substantial improvements in clinical comprehension.
- The findings underscore a notable lack of understanding of common abbreviations, which poses a potential risk to patient safety.
- The implementation of a standardized abbreviation index, such as targeted reference cards, has been demonstrated to enhance comprehension and mitigate errors (Samaranayake et al., 2014). Such structured educational strategies and accessible resources foster improved communication, ultimately promoting safer and more effective clinical practice.

- References:
- Kuhn, I.F. (2007) 'Abbreviations and Acronyms in Healthcare: When Shorter Isn't Sweeter', Pediatric Nursing, 33(5), pp. 392-398. Available at: <https://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=27464318&site=ehost-live&scope=site> (Accessed: 28 February 2025).
 - Samaranayake, N.R., Cheung, D.S., Lam, M.P., Cheung, T.T., Chui, W.C., Wong, I.C. and Cheung, B.M., 2014. The effectiveness of a 'Do Not Use' list and perceptions of healthcare professionals on error-prone abbreviations. International journal of clinical pharmacy, 36, pp.1000-1006.