SYNOPSIS

KEY POINT SUMMARY

OBJECTIVES

The study examined the acoustic privacy of conversations in clinic consultation rooms.

DESIGN IMPLICATIONS

Waiting areas must be positioned so that waiting patients sit at a distance from consultation rooms.

How Private Is Your Consultation? Acoustic and Audiological Measures of Speech Privacy in the Otolaryngology Clinic

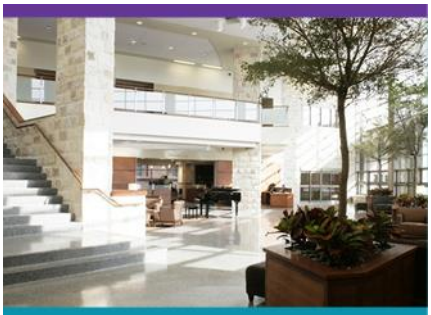
Clamp, P. S., Grant, D. G., Zapala, D. A., Hawkins, D. B.
2011 | European Archives of Otorhinolaryngoly
Volume 268, Issue 1, Pages 143-146

Key Concepts/Context

Although acoustic privacy is desirable during healthcare-related conversations, the authors show that patient-doctor conversations in clinic consultation rooms may not be acoustically private.

Methods

Data were collected in an actual otolaryngology outpatient consultation room and the nearby hallway. Information was not provided about acoustic shielding in the consultation room's walls or door, the size of the consultation room, or the distance from the consultation room door at which data were collected. The hallway data collection points were described by the authors as the probable locations of seated waiting patients. Two measures of acoustic privacy were used: the articulation index (AI) and the Bamford-Kowall-Bench (BKB) speech discrimination test. The AI and BKB measurements were taken in four locations, described by the researchers as "within the consultation room [where the patient would be seated], outside the consulting room door, in the nearest waiting area chair and in the farthest waiting area chair." Data were collected with the consultation room door open and closed. The study was done in an actual clinic at night, when the clinic was closed. Normal sources of background noise in the clinic, such as air conditioners and refrigerators remained turned on as data were collected. AI scores are calculated using measurements of background noise and pure tone signals. BKB scores were determined by playing test sentences at normal conversational noise levels (50 dB SPL) through an amplifier placed where the doctor would sit in the consultation



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room. One set of four human volunteers sat in each of the listener positions, rotating between the seats as different sentences were presented.

Findings

Measures of the AI were highest in the consultation room whether the door was open or closed and decreased linearly as distance from the door of the consultation room increased. The scores on the BKB were also highest in the consultation room and also decreased as distance from the consultation room increased when the door of the clinic room was closed, but did not decrease when the door was open. Based on industry standards, the AI was only in a range that would be considered "confidentially private" in the two patient waiting seats furthest from the consultation room door and then only when the consultation room door was closed. The BKB scores when the door was closed were 58%, 52%, and 41%, with the lowest scores found farthest from the door of the consultation room. The researchers state that these BKB levels are so high that no conversations in the consultation room can be considered confidential using this criteria—even those taking place when the door to the consultation room was closed.

Limitations

- The physical locations at which data were collected were not clearly described, i.e., it was not possible to tell how far from the door of the consultation room measurements were made.
- The materials used in the walls and door of the consultation room were not described. An outstanding question, therefore, is if there was any sort of acoustic shielding in these walls or the door.