

Shravan Asthana, BS¹; Swati Yarlagadda, BS¹; Dania Jaamour, MPH¹; Evan Patel, MS²; Nasiruddin Shaik, BS³; Paavali Hannikainen, MD¹; Jeffrey Larson, MD¹; James C. Wang, MD, PhD¹

¹Department of Otolaryngology – Head & Neck Surgery, Feinberg SOM, Northwestern University, Chicago, IL; ²Department of Otolaryngology – Head & Neck Surgery, Rush University Medical Center, 1611 West Huron Street, Suite 550, Chicago, IL; ³University of Illinois at Chicago College of Medicine, Chicago, IL

Introduction

- Complementary and Alternative Medicine (CAM) includes non-mainstream practices like acupuncture, ear candling, and herbal medicine, **and is not part of conventional medicine**.
- CAM often lacks robust scientific evidence; existing studies are frequently flawed due to poor methodology, bias, and small sample sizes.¹
- CAM usage in the U.S. varies widely, with reported prevalence ranging from **24% to 72% of patients annually**.^{2,3}
- Question:** To what extent are otolaryngologists knowledgeable about CAM, perceive its utility in clinical practice, and engage in discussions about it with their patients?
 - Furthermore, how does practice setting (community health center, academic hospital, etc.) affect provider knowledge or approach to CAM?

Methods

- Validated IM-30 survey instrument adapted from Hsiao et al. 2005 focusing on 5 domains:
 - awareness and openness
 - readiness to refer
 - learning from alternate paradigms
 - patient-centered care
 - safety of integrative medicine
- Convenience sample of 6 Chicagoland academic medical centers and 9 private community practices
- Statistical analysis for survey responses included:
 - Chi-square testing of independence for multi-level or Fisher's exact testing for single level variables
 - Monte Carlo simulation computational technique was utilized to approximate the p-value for low data counts

Discussion

- Community ENTs more frequently discuss CAM-related harms with patients and tend to be more cautious, possibly due to greater exposure within diverse populations.
- Conclusion:** Practice setting influences ENT attitudes and engagement with CAM, with community providers showing more interaction and concern, while academic providers may be more receptive due to scholarly exposure.

Results

	Characteristic	Total N=30	Academic (N=17)	Community (N=13)	P-Value
Gender	Male	19 (63)	12 (71)	7 (54)	0.575
	Female	11 (37)	5 (29)	6 (46)	
Practice Locality	Suburban	12 (40)	0 (0)	12 (92)	<0.001
	Urban	18 (60)	17 (100)	1 (8)	
Practice Setting	Academic Practice	17 (57)	-	-	-
	Community Practice	13 (43)	-	-	
Subspecialty	Neurootology	0 (0)	0 (0)	0 (0)	0.080
	Sleep	1 (3)	1 (6)	0 (0)	
Years in Practice	Thyroid and Parathyroid Surgery	1 (3)	0 (0)	1 (8)	0.676
	General Otolaryngology	10 (33)	3 (18)	7 (54)	
	Facial Plastic Surgery	4 (13)	4 (24)	0 (0)	
	Rhinology	6 (20)	3 (18)	3 (23)	
	Pediatric Otolaryngology	4 (13)	4 (24)	0 (0)	
	Head and Neck Surgery	4 (13)	2 (12)	2 (15)	
	>10	16 (53)	9 (53)	5 (38)	
	< 10	14 (47)	8 (47)	8 (62)	

Table 1: Surveyed sample demographic and practice characteristics.

Survey Question	Total N=30	Academic (N=17)	Community (N=13)	P-Value
With approximately what percentage of your patients do you talk about possible benefits of using CAM therapies?	0-25% 26-50% 51-75% 76-100%	25 (83) 3 (10) 2 (7) 0 (0)	16 (94) 0 (0) 1 (6) 0 (0)	0.105
With approximately what percentage of your patients do you talk about possible harms of using CAM therapies?	0-25% 26-50% 51-75% 76-100%	24 (80) 5 (17) 1 (3) 0 (0)	16 (94) 0 (0) 1 (6) 0 (0)	0.016
What role does CAM play in your practice?	Complementary therapy Integrated medicine No role	11 (33) 3 (10) 16 (57)	7 (41) 1 (6) 9 (53)	0.643
Have you ever recommended CAM therapies to a patient?	No Yes	13 (43) 17 (57)	6 (35) 11 (65)	0.519

Table 2: CAM's role in surveyed Otolaryngologists' patient encounters and daily practice.

Survey Question	Total N=30	Academic (N=17)	Community (N=13)	P-Value
Specialists in my field should have knowledge about the most common CAM therapies	Strongly agree Agree Neither Disagree Strongly Disagree	3 (10) 22 (73.33) 5 (16.67) 0 (0) 0 (0)	0 (0) 13 (76) 4 (24) 0 (0) 0 (0)	0.043
Some CAM therapies hold promise for treatment of symptoms, conditions and/or diseases	Strongly agree Agree Neither Disagree Strongly Disagree	0 (0) 18 (60) 6 (20) 6 (20) 0 (0)	0 (0) 11 (65) 4 (24) 2 (12) 0 (0)	0.423

Table 3: Surveyed Otolaryngologists' positive attitudinal perception of CAM in their field.

Survey Question	Total N=30	Academic (N=17)	Community (N=13)	P-Value
CAM therapy usage decreases patient adherence to guideline directed therapy	Strongly agree Agree Neither Disagree Strongly Disagree	0 (0) 8 (26.67) 13 (43.33) 9 (30) 0 (0)	0 (0) 4 (24) 7 (41) 6 (35) 0 (0)	0.755
CAM therapies are not reliably tested and require more study prior to my recommendations	Strongly agree Agree Neither Disagree Strongly Disagree	3 (10) 11 (36.67) 14 (46.67) 0 (0) 2 (6.67)	0 (0) 0 (0) 12 (71) 5 (29) 0 (0)	0.002
CAM therapies are risky and may negatively impact my patients or practice	Strongly agree Agree Neither Disagree Strongly Disagree	0 (0) 3 (10) 16 (53.33) 11 (36.67) 0 (0)	0 (0) 0 (0) 12 (71) 5 (29) 0 (0)	0.019

Table 4: Surveyed Otolaryngologists' negative attitudinal perception of CAM in their field.

References

- Shakeel M, Newton JR, Bruce J, Ah-See KW. Use of complementary and alternative medicine by patients attending a head and neck oncology clinic. *J Laryngol Otol*. 2008 Dec;122(12):1360-4. doi: 10.1017/S0022215108001904.
- Lee EL, Richards N, Harrison J, Barnes J. Prevalence of Use of Traditional, Complementary and Alternative Medicine by the General Population: A Systematic Review of National Studies Published from 2010 to 2019. *Drug Saf*. 2022 Jul;45(7):713-735. doi: 10.1007/s40264-022-01189-w.
- Mbizo J, Okafor A, Sutton MA, Leyva B, Stone LM, Olaku O. Complementary and alternative medicine use among persons with multiple chronic conditions: results from the 2012 National Health Interview Survey. *BMC Complement Altern Med*. 2018 Oct;18(1):281. doi: 10.1186/s12906-018-2342-2.
- Hsiao AF, Hays RD, Ryan GW, Coulter ID, Andersen RM, Hardy ML, Diehl DL, Hui KK, Wenger NS. A Self-Report Measure of Clinicians' Orientation toward Integrative Medicine. *Health Serv Res*. 2005 Oct;40(5 Pt 1):1553-69. doi: 10.1111/j.1475-6773.2005.00425.x.