

DEAF AND HARD OF HEARING PHYSICIANS: ACCOMMODATIONS, EDUCATION, & PRACTICE

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Objectives

- Outline demographics of DHoH medical students, residents, and physicians
- Describe accommodations used
- Propose steps to increase our understanding of how to educate & work with interpreters in this climate

DHoH population

- ⦿ 10-20% of the population
 - Identity variation
- ⦿ Underserved
 - Access providers less often
 - Cancer screening less often
- ⦿ Poorer health knowledge
- ⦿ Unique issues
 - Communication difficulties
 - Deaf community with cultural conflicts

DHoH physicians

- ⦿ Sparse literature

- Physically disabled physicians (Wainapel 1987)
- Faculty with disabilities (Iezzoni 2002)

- ⦿ DHoH physicians new phenomenon in the last 35 years

- Legal
 - Rehabilitation Act of 1976
 - Americans with Disabilities Act of 1990
- Technological reasons
 - Telephone/pager alternatives
 - Stethoscope options and alternatives

DHoH health professionals

- ⦿ Internet as facilitator
 - NOISE, PAH-MD
- ⦿ Professional groups
 - AMPHL
- ⦿ Research and recruitment
 - National Center on Deaf Health Research
 - Task Force on Health Care Careers for the Deaf and Hard of Hearing Community
- ⦿ Few data describe this group

Survey development

- Mostly novel questions
- Iterative review by investigators & others
 - Free-text feedback by survey experts
 - Modified questions from US Census, SGIM, NHIS, standard surveys (PHQ2)
- Focus group tested survey
 - 5 DHoH veterinarians/vet students

Survey recruitment

- ⦿ Studying or practicing in the U.S.
- ⦿ Snowball sampling via forwarded email
 - AMPHL, PAH-MD
 - Known DHoH physicians and trainees
 - AAMC GSA listserve
 - Direct email to MD/DO disability offices

Survey

- July – September 2010
- Self completed via SurveyMonkey.com
- Initial email response >40%
- Three follow-ups: total response 67%
- Analyses
 - Descriptive for demographics
 - Spearman's rank for
 - Accommodation, institutional support, and career satisfaction variables
 - Fisher's exact test for univariate analyses

DESCRIPTIVE DATA

Demographics (N=56)

- ⦿ 25 physicians, 31 trainees
 - (22 medical students, 8 residents, 1 fellow)
- ⦿ 23 women (40%)
- ⦿ Race and ethnicity
 - 39 Caucasian, 2 African-American, 8 Asian-American, 3 Latino, 5 other

Hearing Status

- ⦿ Stated hearing level
 - Mild (1), moderate (10), severe (17), profound (25)
- ⦿ Self-identification
 - 26 as deaf or Deaf
 - 27 as hearing-impaired
 - 19 as having a hearing loss
- ⦿ Etiology
 - Genetic (9), infection (5), trauma (2), unknown (31)
 - 50% born as DHoH
- ⦿ Bilateral hearing loss in 55 (98%)

Current accommodations

Accommodation during current stage of training	Level of training			Total (n=56)
	Medical students (n=22)	Residents (n=9)	Practicing Physicians (n=25)	
Signed interpretation, n (%)	3 (14)*	2 (22)*	8 (32)	13 (23)*
Oral interpretation, n (%)	2 (9)*	1 (11)*	5 (20)*	8 (14)*
Real-time captioning (CART), n (%)	9 (41)*	1 (11)	2 (8)	12 (21)*
Note-taking services, n (%)	10 (45)*	0 (0)	3 (12)	13 (23)*
Modified surgical mask, n (%)	0 (0)	0 (0)	0 (0)	0 (0)
Amplified or modified stethoscope, n (%)	25 (>100)*	5 (56)*	20 (80)*	50 (89)*
Auditory, nonclinical equipment (eg, an FM system), n (%)	11 (50)*	3 (33)*	4 (16)*	18 (32)*

* ≥50% respondents reported use daily or most days.

Situations in which accommodations were used

Accommodation	Situation in which accommodation was used							
	Lectures	Small group discussion	Clinic-based patient care	Hospital-based patient care	Other clinical tasks (e.g. phone calls, rounds)	Teaching	Research	Administration
Real-time captioning (CART)	11	6	1	0	0	0	0	0
Signed interpretation	7	8	5	6	4	3	1	3
Oral interpretation	2	4	4	3	4	1	0	0
Note-taking services	9	2	0	0	0	0	0	0
Modified surgical mask	0	0	2	1	0	0	0	0
Amplified or modified stethoscope	3	3	36	28	8	5	0	0
Auditory, nonclinical equipment	14	6	2	3	3	2	1	1

Accommodations over time

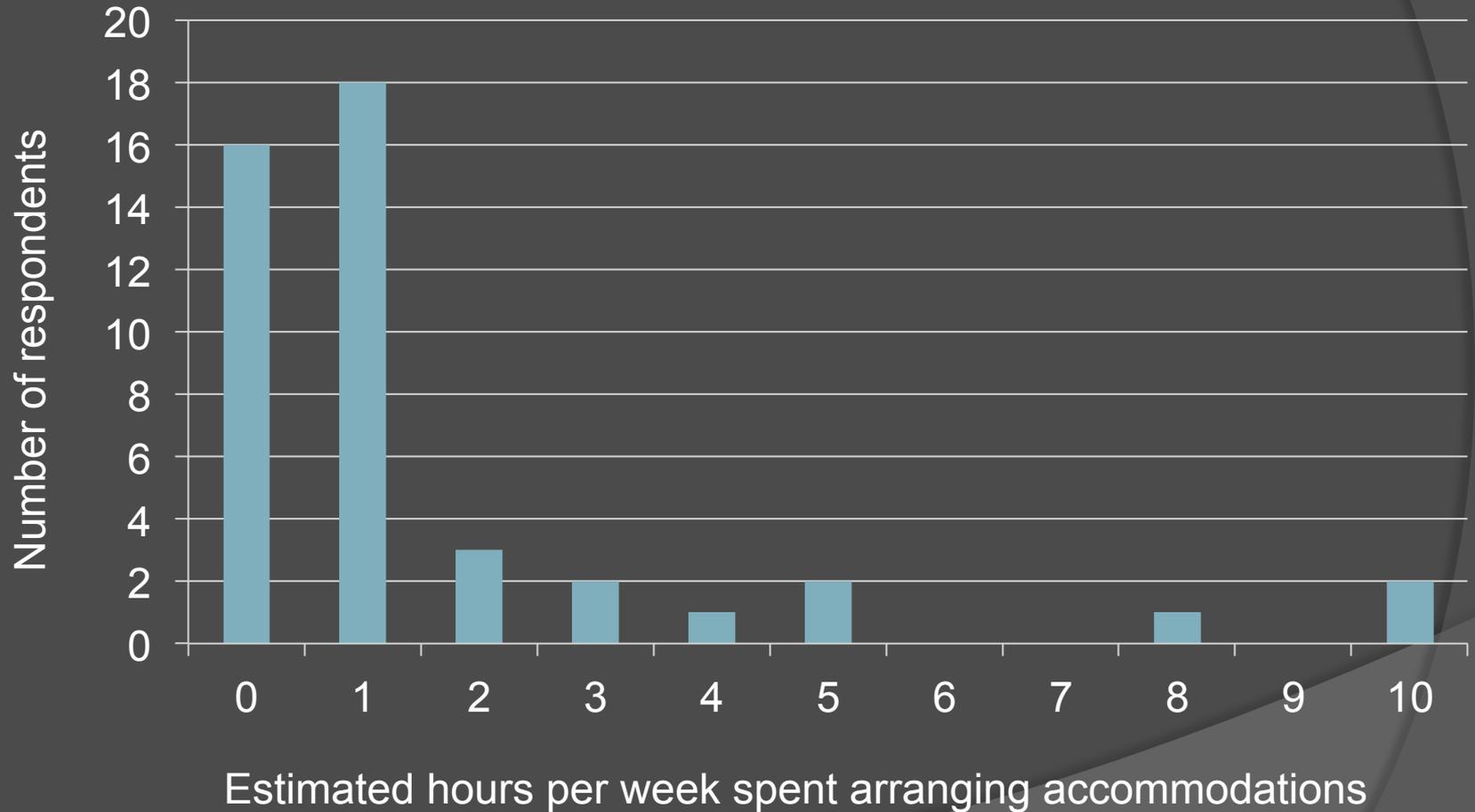
Accommodation used	Stage of training or practice			
	Medical school	Residency	Fellowship	Practice after training
Signed interpretation	7	7	5	8
Oral interpretation	8	5	2	5
CART	6	4	1	2
Note-taking services	16	4	3	3
Modified surgical mask	6	1	0	0
Amplified or modified stethoscope	17	12	6	11
Auditory, nonclinical equipment	11	5	3	4

Accommodations

- How well do accommodations satisfy needs?

	Physicians	Trainees
• Very well	10	7
• Well	6	14
• Neutral	3	7
• Not well	1	0
• Not well at all	2	1

Time spent arranging accommodations



Current or planned specialties

Current or planned medical specialty	Medical student * (n=22)	Resident/fellow* (n=9)	Practicing physician (n=25)
Pediatrics, n (%)	3 (14)	1 (11)	2 (8)
General internal medicine or subspecialty, n (%)	0 (0)	1 (11)	8 (32)
Family/community medicine, n (%)	1 (5)	1 (11)	7 (28)
Otolaryngology, n (%)	3 (14)	1 (11)	0 (0)
General surgery, n (%)	0 (0)	0 (0)	1 (4)
Geriatrics, n (%)	0 (0)	0 (0)	1 (4)
Psychiatry, n (%)	1 (5)	0 (0)	3 (12)
Not sure, n (%)	12 (55)	0 (0)	0 (0)
Other	oncology	radiology, pathology, urology, gastroenterology	palliative medicine, pediatric neurology, radiology

* Two participants chose not to answer this question: 1 medical student and 1 resident/fellow.

Working with DHoH patients

- ⊙ Physicians: % patients DHoH
 - Range 0-60, mean 9.3, median 2.0
- ⊙ Trainees: Anticipated % patients DHoH
 - 18 stated not sure
 - 3 stated 0
 - 1 person each stated
 - 2, 15, 20, 40, 50, “more than average”

Communication modality

- ① When using English
 - 48 felt very comfortable, 4 felt comfortable
- ① When using signed communication
 - 8 very comfortable, 9 comfortable
 - 10 not comfortable, 25 not comfortable at all

Career satisfaction

- ◎ Satisfied with career
 - 22 strongly agree, 24 agree
 - 3 neutral, 2 disagree, 0 strongly disagree
- ◎ Would recommend medicine to a DHoH student
 - 13 strongly agree, 17 agree
 - 19 neutral, 3 disagree, 0 strongly disagree

UNIVARIATE ANALYSIS

Demographics

⦿ Documented

- Gender, marital status, ethnicity, hearing & language
- DHoH family member or spouse

⦿ No significant associations with

- Satisfaction with current accommodations
- Career satisfaction
- Recommending medicine as a career
- Intent to serve DHoH patients

Increased accommodation satisfaction associated with

Practicing physicians ($p \leq .05$)

- Greater career satisfaction
- Recommending medicine to DHoH persons
- Increased institutional support
- Greater comfort with sign language

Trainees ($p \leq .05$)

- No associations found

Career satisfaction associated with

Physicians ($p \leq .05$)

- Increased institutional support

Trainees ($p \leq .05$)

- Hearing loss: Severe/profound (vs. mild/moderate)

More likely to recommend medicine to DHoH students

Physicians ($p \leq .05$)

- Higher percent of DHoH patients

Trainees ($p \leq .05$)

- No associations found

Conclusions

- DHoH trainees & physicians vary widely
- Broad variety of accommodations (if any)
- Accommodations & institutional support may contribute to career satisfaction
- DHoH physicians appear more likely to work with DHoH patients

Implications for interpreters?

Implications for interpreters?

- ⦿ DHPs are not an isolated phenomenon
 - (You might work with one)
 - Varied communication methods, utilization
- ⦿ Quality of the DHP/interpreter team may influence work satisfaction
 - Time invested
 - Potential subsequent effects

Implications for interpreters?

- Designated, traditional interpreters
- Patients (DHoH, hearing)
- Future DHPs
- And their colleagues

Future directions

- ◎ Best practices for health professional/interpreter teams
- ◎ Mutual education of interpreters (& DHPs)
 - A small but crucial group

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