

THE GRADUATE COLLEGE OF THE
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER

ANNOUNCES THE FINAL EXAMINATION OF

Anna Marie Jilla

FOR THE DEFENSE OF THE DOCTOR OF PHILOSOPHY DEGREE
GRADUATE COLLEGE

Department of Communication Sciences and Disorders



Thursday, July 11, 2019 | 1 pm
Allied Health Building, Room 1047

Affordability and Willingness to Pay: Applications of Healthcare Economics in Audiology

COMMITTEE IN CHARGE: Carole E. Johnson, PhD, AuD, Chair; Mary A. Hudson, PhD; Nick C. Huntington-Klein, PhD; Andrew B. John, PhD; Catherine V. Palmer, PhD; Ying Zhang, MD, MS, PhD

ABSTRACT

Background: Hearing aids (HAs) are the most common treatment for sensorineural hearing loss (SNHL) but are seldom covered by insurance policies and cost over \$4,500 on average for a pair. Untreated hearing loss gives rise to negative health consequences and has been associated with other chronic health concerns such as dementia. Cost is a common barrier to the use of HAs by those with SNHL. The present study assessed the affordability and willingness to pay (WTP) for HAs and related services using health economics approaches. ***Methods:*** The catastrophic and impoverishment health economic analyses were applied to the American Community Survey to determine the overall affordability of a single HA and in relation to self-reported serious hearing difficulty (SRSHD), race, age, gender, geographic location, and educational attainment. Additionally, WTP for advanced digital technology (ADT) HAs, over-the-counter (OTC) devices, and associated services was obtained by postal survey of 500 experienced ADT HA users and was examined in relation to patient-related variables (e.g., HA benefit and income). ***Results:*** The hypothetical purchase of one HA at an average selling price of \$2,366 would exceed 3% of annual income for 61% of Americans. At the same price, 2.4% of Americans would fall under the US FPL for the same purchase. Rates of HA affordability were lower among those with SRSHD, those of non-white race, females, and lower educational attainment. With a return rate of 16%, Average WTP for one ADT HA was \$1,800, while WTP for an OTC device was most commonly \$0 (i.e., not willing to pay). HA services were commonly valued between \$0 and \$250. The only significant patient-related variable was income, which was directly associated with WTP for an ADT HA. ***Conclusions:*** Most Americans could not afford to purchase HAs, especially those with SRSHD who may need them. Provision of lower-cost HAs may alleviate the financial burden associated with their costs. However, experienced users of ADT HAs would not be willing to pay for low-cost OTC options. Determining a fair market price must take in account consumers' income and preferences to increase affordability of and accessibility to HAs.