Motivating diverse adults to take action for better hearing health: an exploration of barriers and facilitators

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INTRODUCTION

Hearing loss (HL) can have detrimental effects on an individual's communicative behavior, social-emotional wellbeing, earning power, and quality of life. Although hearing aids (HAs) are usually considered the most preferred solution to these problems, less than 50% of the individuals that could benefit from them actually use them. Some frequently identified reasons for lack of hearing health care (HHC) uptake have included lack of recognition of problems, stigma related to HL, negative expectations of HAs, and treatment-related costs.[1] Research has demonstrated that individuals who identify as belonging to racial and ethnic minority backgrounds are even less likely to move toward taking action for their HL compared to White/Caucasian adults with hearing loss.[2] Efforts should be made to further our understanding of the barriers to hearing interventions specifically experienced by racially diverse individuals with hearing difficulties who have not taken action to resolve their hearing problems and explore the specific assistance that these individuals believe they would need to progress to the next step in their hearing health journey. This study aimed to shed light onto these issues.

Research Questions:

1. What beliefs are shared among individuals with hearing loss regarding what they need to overcome barriers to seeking hearing healthcare?
2. How do these beliefs differ for individuals who identify as belonging to African American versus Caucasian racial/ethnic groups?

METHODS

Research design: An interpretive phenomenological approach was used for qualitative data collection and analysis.
Procedures: Participants completed standard air conduction audiometry, speech audiometry, and tympanometry, followed by a standardized measure of personality (the International Mini Markers; IMM), and a measure of readiness to pursue hearing help (the University of Rhode Island Change Assessment; URICA). Next, a semi-structured guide, structured around the Transtheoretical Model of Behavioral Change (TTM), was established to facilitate the interview.

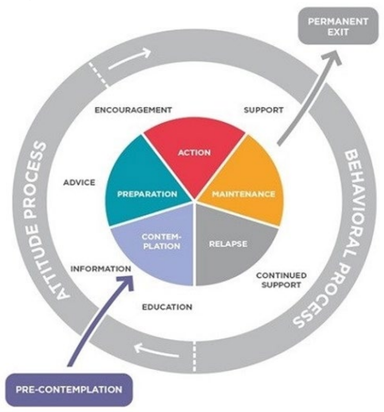


***Figure 1**. Representation of the Transtheoretical Model of Behavioral Change (TTM).*

PARTICIPANTS

Five participants from each of the 2 largest racial/ethnic groups in Memphis, TN were recruited. Table 1 summarizes participant characteristics and are sorted left to right according to their reported readiness to pursue hearing help (URICA readiness score).

***Table 1**. Demographic information and results of assessments (IMM Personality Traits and URICA Readiness Score).*

Pseudonym	Jennifer	Annie	Henry	Harvey	Katie	Catherine	John	Sarah	Quinn	Grace
Age (yrs)	59	77	65	66	52	75	77	67	51	79
Gender	Female	Female	Male	Male	Female	Female	Male	Female	Female	Female
Race/Ethnicity	African American	Caucasian	Caucasian	Caucasian	African American	Caucasian	Caucasian	African American	African American	African American
Duration of HL (yrs)	10+	2	8	3	3	3	2	30+	4	5+
Mean PTA (dB HL)	34	48	34	49	45	39	33	46	45	29
Order of Enrollment	6	1	9	4	7	2	5	8	10	3
IMM Personality Traits										
Extroversion	4.06	3.25	2.25	3.88	4.5	4.31	4.13	4	4.13	4.63
Openness	4	2.5	3.63	3.13	4	4.25	3.88	2.88	4.75	5
Neuroticism	3.31	2.13	3.13	3.06	1.5	1.5	2	2.13	2.31	2.13
Conscientiousness	4.63	4.38	3.19	4.69	4.5	3.88	3.25	4.13	5	3.69
Agreeableness	4.75	3.88	4.13	3.69	4.88	4.63	4.63	4.75	5	4.88
URICA										
Readiness Score	6.23	6.46	7.26	8.08	10.11	10.72	11.12	11.14	13.63	14
Readiness Stage	Pre-Cont.	Pre-Cont.	Pre-Cont.	Cont.	Cont.	Cont.	Prep	Prep	Prep	Prep
Reported Readiness Stage	Prep	Cont.	Cont.	Cont.	Cont.	Prep	Prep	Prep	Prep	Prep

HL, Hearing Loss; PTA, Pure Tone Average; IMM, International Mini Markers; URICA, University of Rhode Island Change Assessment; Pre-Cont., Pre-contemplation; Cont., Contemplation; Prep, Preparation.

RESULTS

The results of the qualitative content analysis were compared against several models of behavioral change to gain insight into how they fitted with the components identified as most important to impacting participants' hearing health behaviors. The COM-B model was the closest fit for these data. This model, summarized at right, proposes 3 components that interact with one another to initiate behavior (B), including physical and psychological capabilities (C), social and physical opportunities (O) and reflective and automatic motivations (M).[3]

Figure 3 below summarizes the common themes identified by these participants organized using the COM-B framework. Themes in blue are those that differed for African American and Caucasian participants.

***Figure 2.** COM-B Model*

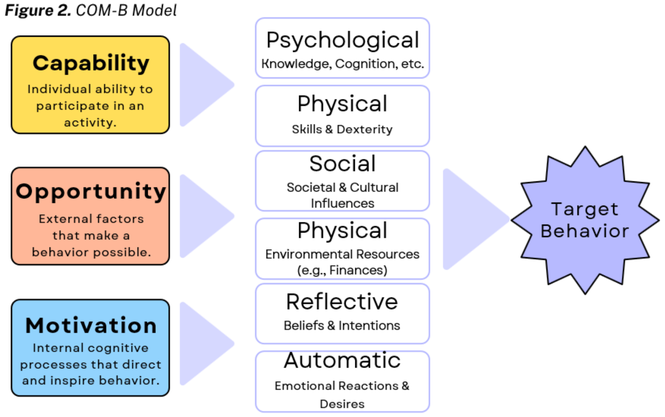
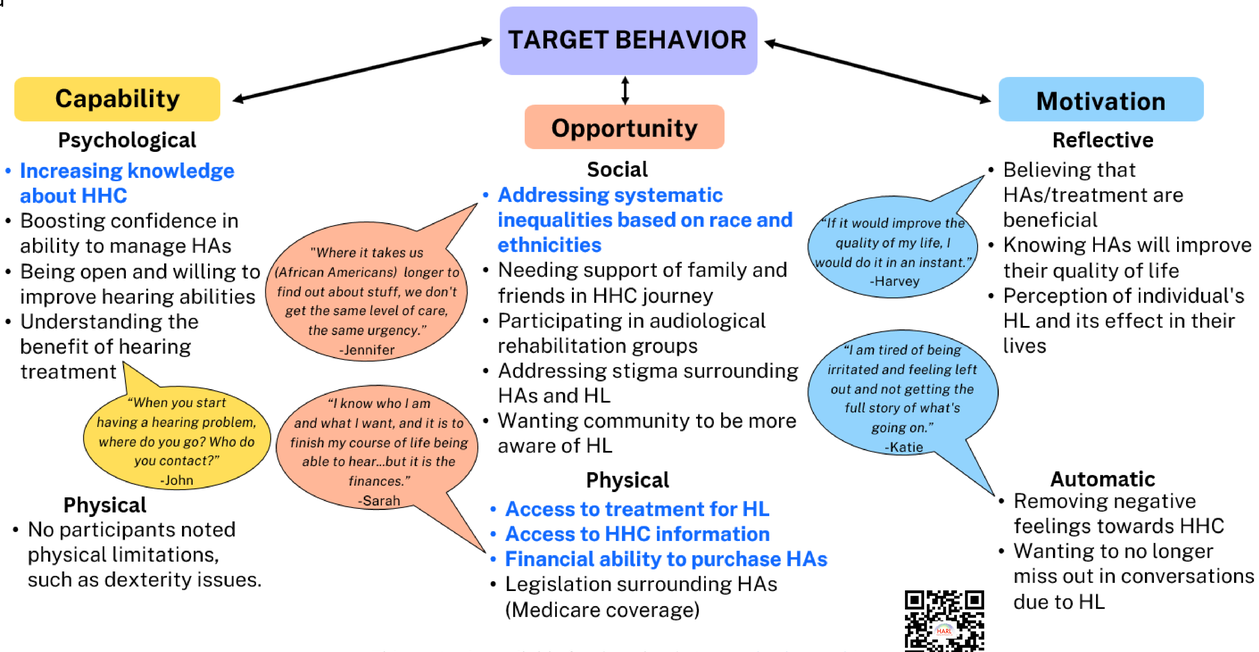


***Figure 3**. Summary of participant-identified facilitators of hearing-healthcare seeking, organized using the COM-B framework.*



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Q & A

Q1. What beliefs were shared among individuals with HL regarding what they need to overcome barriers to seeking HHC?
A1: Similar to previous research, participants experienced barriers such as cost, lack of information, and stigma related to HL and HAs. Participants indicated that having regular access to information about HHC could not only improve awareness of available services, but also reduce social stigmas surrounding HHC. Several participants expressed a need for better understanding of the benefits of hearing treatments and wanting other individuals to become more conscious and supportive of those with hearing difficulties. Participants in the earlier stages of their HHC journey emphasized needing reassurance that HAs will improve their quality of life. Several participants indicated that reducing negative feelings towards HL would motivate them to seek help. In addition, these participants suggested that policies surrounding education and insurance coverage of HAs would facilitate HA adoption.

Q2. How did these beliefs differ for individuals who identified as belonging to African American and Caucasian racial groups?
A2: Although many themes were shared across participants of both groups, individuals who identified as African American presented additional challenges, specifically in the areas of physical and social opportunities to accessing HHC services. Participants noted that communities of color were disadvantaged in terms of income, living situations, and available healthcare services in general. Many felt they lacked easy physical access to HHC information and treatment for HL and expressed that hearing screenings should be required in yearly physicals. All emphasized that gaining more knowledge about hearing treatment options, such as hearing aids, assistive listening devices and audiological rehabilitation, would be beneficial in their HHC journey. In addition, all mentioned cultural self-reliance for health management, and noted that relying on alternative coping strategies for dealing with hearing difficulties was a barrier to HHC seeking.

CONCLUSION

This study highlighted shared barriers and facilitators of HHC seeking among non-HA adopters in a metropolitan area in the American South. Although some models of behavioral change were useful for exploring shared experiences according to a given timeline and highlighting barriers at specific stages of change, the COM-B model was most useful in highlighting additional barriers experienced by participants of color and provided a framework to explore potential actions to improve disparities in these areas. These results suggest that targeted efforts to improve community awareness surrounding HL and hearing treatment, and policies designed to improve community education and local access to affordable HHC are critical to improving outcomes for all individuals but are likely to be particularly impactful for individuals who identify as belonging to underserved groups such as communities of color.

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