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# Acoustic Objective and Subjective Measurements of Noise Levels in Various Places of Worship and the Potential Consequences on the Auditory System

Celeste Thomas  
*Cleveland State University*

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***Acoustic Objective and Subjective Measurements of Noise Levels in Various Places of Worship and the Potential Consequences on the Auditory System***

College of Sciences and Health Professions

**Student Researcher:** Celeste Thomas

**Faculty Advisor:** Myrita Wilhite

**Abstract**

The purpose of this study is to record the objective and subjective measurements of noise levels in ten religious institutions of various faiths: Apostolic/Pentecostal, Baptist, Catholic, Muslim, Non-Denominational, and Seven-Day Adventist places of worship within the greater Cleveland area; in conjunction with the assessing the hearing sensitivity of the ministerial staff members who are most susceptible to prolonged noise exposure. The objective is to generate a statistical analysis of the objective acoustical measurements of primary church services of all participating religious institutions determine if the noise levels are loud enough to cause potential harm to the auditory system. The researcher would like to raise awareness for hearing conservation programs within religious organizations. Participants: Select ministerial workers of each faith: Pastor/Rabbi/Priest /Imam, wives of religious leaders, ministers of music, and musicians. 20 people were asked evaluate the noise level of their primary religious services. Methods: The acoustical measurement outcomes of each denominations primary church service was recorded with an Extech 40730 Digital model Sound Level Meter at various locations within the church sanctuary/tabernacle/synagogue/mosque. Evaluation assessment sheets asked for the ministerial staff's perception of loudness, in four subjective categories: exceptionally loud, moderately loud, somewhat loud, and not loud. Every ministerial leader was given a pure-tone and impedance hearing screening using a Maico portable.

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