How loud is your music? Beliefs and practices regarding use of personal stereo systems

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A modified mannequin (dubbed 'Jolene') was equipped with a calibrated sound level meter to measure the listening levels of people who use personal stereo systems. Curious visitors at a science museum (n= 221, average 17 years.) completed questionnaires about their beliefs and listening practices regarding personal stereo systems. Participants set the listening level of an MP3 player to their 'typical' level and sound pressure levels were measured by coupling the headphone in Jolene's ear. Participants received a brief explanation on their risk for noise-induced hearing loss. A TFOE (transfer function for the outer ear) was computed to determine a diffuse-field equivalent sound pressure correction. Using these measurements, and the participant's self-reported duration of device usage per day, typical listening levels were classified as safe or dangerous listening levels relative to NIOSH recommended daily exposure levels.

RESULTS

1. At least some participants in every age group exceed NIOSH recommended exposures on a daily basis.
2. Over 86 % of participants believe that loud sounds can permanently damage hearing, while 3.2 % did not and 10.5 % were unsure.
3. 28 % of those whose listen at dangerous levels did not think that they listened at dangerous levels.
4. 44 % of those who listen at dangerous levels said that they would change their listening practices in the future after this single interactive intervention.

CONCLUSION

Even though most understood that loud sound can be dangerous, a significant number of those listening to unsafe levels were unaware of it. Even one, simple educational intervention can impact intended behaviors.