The Sound Localization Ability of Students with Visual Impairment in Goalball players, Non- goalball Player Groups and Their Peers with Normal Vision

Poster Presentation

1Saheb Yousefi; 2Saeid Hassanzadeh *

[1]Phd student of Psychology and Exceptional Children Education, Faculty of Education and Psychology, Allameh Tabataba'i University, Tehran, Iran

[2]Department of Education and Psychology, University of Tehran, Iran(shasanz@ut.ac.ir)

Abstract

Introduction: Sound localization is the listener's ability to detect the location of the sound depending on the direction and distance. The aim of this study was to evaluate the skills of orientation sounds in blind goalball players, blind non-players and their, sighted peers.

Methods: The population consisted of all students studying in a high school for the blind and sighted students. The sample consisted of 20 blind goalball players selected by purposive sampling and 20 sighted non-goalball players selected by random sampling. 20 sighted students were also randomly selected. The subjects were placed at the center of an acoustics room with four speakers to verify the sound localization through the related protocol. Different sounds were presented with an intensity of 70 db.

Results: The results showed that blind goalball players have better performance (p=0.001). Based on these findings, it can be concluded that such sports for the blind as goalball can improve sound localization performance.

Conclusion: Furthermore, given that in the process of a goalball game, precision, concentration, and attention are required, such skills as sound localization can lead to more accuracy in the game and better performance than their peers. Implications for Practitioners: the subject was placed at the center of an acoustics room equipped with four speakers with 4x4 dimensions speakers were arranged both horizontally and vertically and placed all around the individual, i.e., up and down left and right of the subject. The speakers face the individual from all directions, and they are placed at a distance of 1 meter from the subject. There was no noise at first, but then noisy car horn sounds, followed by ringtones and voices, were broadcast for the individuals, and they were asked to point at the direction (up, down, left, right) of the sound as they detected them.

Keywords

Sound localization; visual impairment; goalball