

“Auditory screening in a school context”

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INTRODUCTION¹

Hearing screening in a school context has, as a finality, the early diagnose of hearing disabilities. Behavioral tests are used, which subsequently serve as the basis for a more detailed analysis of the situation.

HEARING SCREENINGS^{2,3}: Their main objective is the identification of hearing problems through the application of certain simple and quick criteria. Sensibility and specificity are used to give them credibility. These provide some benefits: raising awareness towards family members and educators regarding the child's hearing loss, preserving a good hearing, and contextualizing the (re)habilitation process.

HEARING LOSS AND COMPLICATIONS^{3,4,5,6}

Hearing is essential to the child's overall development.

Impact in several specificities:

- 👂 Comprehension;
- 🗣️ Verbalization;
- 🗣️ Communication;
- 📖 Academic achievement;
- 👥 Social and emotional behavior;
- 👥 Interpersonal relationships.

Hearing loss:

- ❑ It generates different feelings in the child's relatives, such as doubt, fear, and uncertainty, which can lead to a disruption in the family dynamics.
- ❑ It compromises the evolution on a cognitive and social level.



Children up to fourth grade are more susceptible to pathologies of the inner ear, this factor may aggravate the clinical condition if there's not a diagnosis and early intervention.



A child aged between 2 and 12 years old, which finds themselves in a school environment and has a reduced hearing level needs an adequate (re)habilitation and follow-up.

DIAGNOSIS^{3,8,7}

It should be carried out in the first years of life considering the **neuroplasticity**
Brain's ability to change its own properties

Audiological tests aim towards:

- ❑ Prevention;
- ❑ Awareness;
- ❑ Monitorization;
- ❑ Diagnose;
- ❑ (Re)habilitation.



Hearing screening phases:

- **Anamnesis** - Compilation of clinical information;
- **Pure tone audiometry** - It determines the child's hearing thresholds for the speech spectrum frequencies;
- **Otoacoustic emissions** - Assessment of the state of the outer hair cells;
- **Tympanometry** - Assessment of the mobility of the tympanic membrane.



METHODOLOGY⁹

Resorting to the b-on, PubMed, SciELO, and Google Scholar databases, using the keywords "Hearing screening", "Early intervention", "Children", "Learning" and "Hearing loss in children".

AIM

Based on a review of the literature, we intend to study the impact of hearing screenings in a school context.



(RE)HABILITATION AND CAMPAIGNS^{5,7,6,9}



Public Health	Noisy classrooms	Auditory (re)habilitation in school context
Student Public Health	Conditioning the perception of speech	Moment of intervention
Academic course	Impediments to learning ability	Hearing loss detection
Hindrance in socialization and learning	Social Interaction problems	Child health promotion and awareness



Applications for mobile devices:
These have a promising future in clinical practices, both at a school level and in regions with reduced audiological services, given that, as far as price and accessibility go, they tend to be more beneficial.



BENEFITS^{5,10}

- Economic level
- Allows an early intervention
- Easier assessment due to age
- Allows the detection of hearing loss which is not detected by the UNHS
- Allows an evaluation of the children who change schools throughout the year

Early Prevention²: We must focus on the prevention and early action through hearing assessment throughout the different development stages, especially in the first years of life.

CONCLUSION⁴

When performed early, school hearing screenings allow the reduction of the impact of hearing loss in the overall development of children, specifically in terms of language, interaction, and cognition.

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