

INTRODUCTION

An ear and hearing health identification, intervention and rehabilitation project was implemented by the Frank Hilton Organization (FHO) with support from EARS Incorporated in April 2017 throughout the 17 Special Education schools and one Vocational Training Centre that come under the Special Education Department of the Fijian Ministry of Education. The aim of the project is to identify children who have permanent hearing loss or ear disease causing hearing loss, and provide appropriate treatment of ear conditions, hearing rehabilitation devices and ongoing services through continuing case management.

BACKGROUND

Studies in the USA and Canada indicate the incidence of hearing loss in students in special education classrooms is 4-6 times higher than the incidence of hearing loss in regular school classrooms. It is important that hearing disability is not missed or minimised among other obvious disabilities. (Rawool, 2010.)

There are 1206 children and young adults registered under the Special Education System in Fiji. The student's disabilities are often classified at the school without formal diagnosis. Some students with hearing loss may be misidentified as having speech and language delay, learning delay, mild intellectual impairment or other difficulties.

In November 2016, an informal survey of the schools conducted by FHO revealed that students in special schools had not received any form of audiology screening or hearing support over a period of four years. Visiting volunteers had provided hearing aids for students in some schools, but in many cases these devices were fitted without hearing assessment or adjusted to suit the student's individual level of hearing.

GOALS OF THE SCREENING PROGRAM

The outreach screening project for ear and hearing disorders within special schools aims to:

1. Prevent permanent or increased hearing loss through medical management;
2. Enable commencement of intervention and rehabilitation as early as possible to reduce the long-term effects of hearing loss on the student; and
3. Raise teacher, parent and community awareness of hearing loss in children.

PROJECT OUTLINE

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|--|--|
| 1. Training of teachers & staff in schools about the project | * Two teachers from each school attended pre-project training covering the importance of the project and training. |
| 2. Ear and hearing team visit school | * Otoscopy, tympanometry, DPOAEs, audiometry performed. * Staff, parent and community education sessions delivered. * Referrals to medical services if ENT not available. |
| 3. Follow-up of medical cases | * Follow-up with school to check students had visited medical services. * Reassessment after treatment. |
| 4. Reassessment at FHO | * Diagnostic assessment of students with suspected permanent losses and those difficult to assess in school performed. |
| 5. Training of 'hearing aid champs' | * Training of two teachers from each school to be the school's 'hearing aid champs', responsible for daily hearing aid checks. |
| 6. Hearing aid fittings and parent training | * Hearing aids fitted and verified with real ear measures. * Each student and family receive instruction in aid use and care. |
| 7. Hearing aid follow-ups and reviews | * Follow-up after 1 month then student placed on recall list. * If hearing aid champs report any difficulties or change in the student's device use or ability, follow-up arranged. |

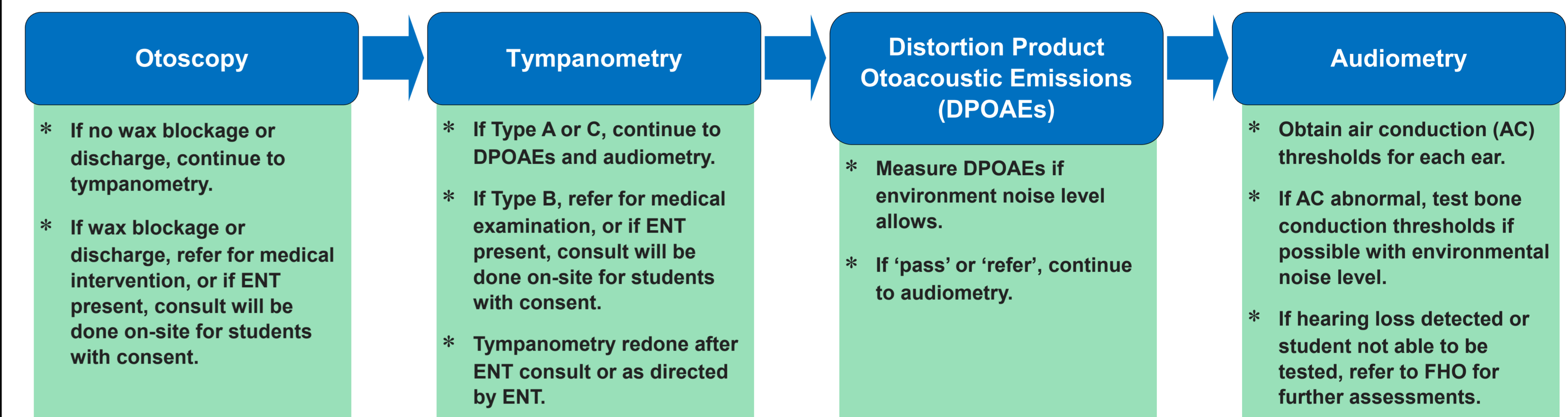
PARENT & TEACHER TRAINING

The aim of the training is that teachers, parents and community should:

- * gain critical knowledge about hearing and ear health;
- * be aware of the availability and types of assessments available in Fiji for children; and
- * be more educated about healthy hearing practices.



4-STEP ASSESSMENT PROCESS



RESULTS OF SCREENING

From April 2017 to April 2018 in 17 Special Schools.

| No. of school visits | Total school roll | Number of assessments 2017-2018 | Not screened by end of 2018 | Total no. patients assessed | Number of children who Passed | Referred to ENT/ GP* | Referred to FHO* |
|----------------------|-------------------|---------------------------------|-----------------------------|-----------------------------|-------------------------------|----------------------|------------------|
| 31 | 1206 | 1325 | 210 | 954 | 45% (n=431) | 44% (n=421) | 55% (n=346) |

* 102 students were referred for medical attention as well as further assessment.

DIAGNOSIS & INTERVENTION FOR PERMANENT HEARING LOSS

| Attended for hearing assessment at FHO | Did not attend/ Still to attend | Fitted with hearing aids |
|--|---------------------------------|--------------------------|
| 269 | 77 | 69 |

Of the **269 students** who attended further assessment at FHO, more than a quarter (**26%**, n=69) were fitted with a hearing device or devices. This represents just over **7%** of the total population of students in special education settings assessed for hearing loss.

MEDICAL TREATMENT

| Referred for medical treatment | Seen by ENT during the 6 days ENT attended | Seen on project but require further ENT consultation# | Seen on project, no follow-up required |
|--------------------------------|--|---|--|
| 421 | 303 | 122 (40%) | 181 (60%) |

When a doctor was unable to attend the project, students were referred to local medical services. The schools and the FHO audiology department followed up to ensure the students attended.

All of these students have received or are on the list for follow up for repeat testing on next school audiology visit.



CHALLENGES

- * **Trained personnel required** to continue to conduct regular screening programs in the schools and communities.
- * **Raising awareness** of ear and hearing difficulties in the community, health care professionals and policy makers.
- * **Social and cultural challenges** - changing pre-existing mindset about what is hearing loss and deafness.
- * **Referrals for treatment** - lack of knowledge of treatment of ear pathology by local medical clinics.
- * **Lack of communication** from schools at all stages.
- * **Changes of staff** - regular training of new 'hearing aid champs'.
- * **Follow up** of students when families move towns or leave school.

CONCLUSION

The project has been successful in identifying students with temporary and permanent hearing loss and providing intervention and rehabilitation. It also highlights the critical need to develop the capacity of the primary health care workers to manage simple ear disease. This project has indicated the need for ongoing ear and hearing assessment and monitoring for students in special schools in Fiji.

BIBLIOGRAPHY

Rawool, V. (2010.). *Invisible Hearing Loss Among Obvious Multiple Disabilities, Part 1: Ensuring Auditory Care. Hearing Review, 17 (1), 18-21.50.*