The Long Term Effects of the Fluctuating, Conductive Hearing Loss Caused by Otitis Media with Effusion on Learning and Behaviour for Adolescent Students.

Janice S. Stenton

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The Long Term Effects of the
Fluctuating, Conductive Hearing Loss
Caused by
Otitis Media with Effusion on
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Faculty of Education
Griffith University
Queensland

By
Janice Shirley Stenton

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Abstract

Children frequently experience fluctuating conductive hearing loss during and following episodes of otitis media with effusion. With the prevalence of the disease increasing in the non-Aboriginal population in Australia, many children may be at risk of long-term learning and behavioural problems. There are conflicting findings in the research literature regarding the effects of this type of hearing loss. Although it is expected that the insertion of tympanostomy tubes (grommets) will reduce the duration and prevalence of both the disease and the conductive hearing loss, this does not always happen. For some primary school aged children it appears that experience with otitis media with effusion with or without grommet insertion is associated with various education problems including poor academic achievement and inappropriate behaviour. A current concern is whether or not these possible effects would continue to influence the learning and behaviour of children as they continue into their high school years.

A review of the literature suggests that multiple factors including interrelationships between experience of otitis media with effusion, family and childcare environments may be involved in explaining why some students do not achieve as expected at school (Roberts et al., 2000). The literature further suggests there may be a cumulative effect in these factors, which introduces both quantitative and qualitative aspects to the discussion.

A study was undertaken to identify the impact of otitis media with effusion and its associated sequelae on the learning and behaviour of high school students. Information from parents of high school students in Years 8 and 9 was used to identify students for inclusion in the study and to provide information on their medical and educational history as well as the parents’ perceptions of various aspects of the students’ learning and behaviour (including social skills). Three groups were formed: a Non-OME/Non-Grommet Group (n = 28), an OME/Grommet Group (n = 17) and an OME/Non-Grommet Group (n = 32). The TORCH, WRAT 3 and the Test of Syntactic Abilities (Screening Test) were administered to the students who also provided their own perceptions of specific aspects of their own learning and behaviour on a survey form. Teachers’ perceptions on these areas were also collected. School academic records as well as data from school behavioural records were used.
Analysis of the results revealed a range of mild effects. These included poorer academic results particularly for girls with a history of grommets, who also exhibited a lack of confidence in their social skills. An increase in behaviour problems for boys with a history of the disease (with or without grommets) was also found. The study identifies a number of associated teaching and learning issues including noise levels in childcare environments and school classrooms, current teaching and learning methodology and the training of new teachers. It recommends a number of areas for future research including more in-depth questioning of parents regarding their awareness of hearing problems in their children, the use of more fine-grained measures to assess learning outcomes and the identification of possible gender differences associated with the disease and experiences with grommets.
This project is dedicated to the researcher who significantly influenced my developing mind. He encouraged me to question and he enthusiastically infected me with the notion of using my imagination in the search for answers while applying a rigorous approach to the process – thanks Dad – I learned more than you expected from those seeds!

Ron Moore
Sorghum Plant Breeder
(1929 – 1974)
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Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Janice S. Stenton

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