

DEPARTMENTAL EVALUATION OF SPEECH RECOGNITION WHEN USING AN ADHEAR DEVICE FOR CHILDREN WITH GLUE EAR

CLAIRE STUART

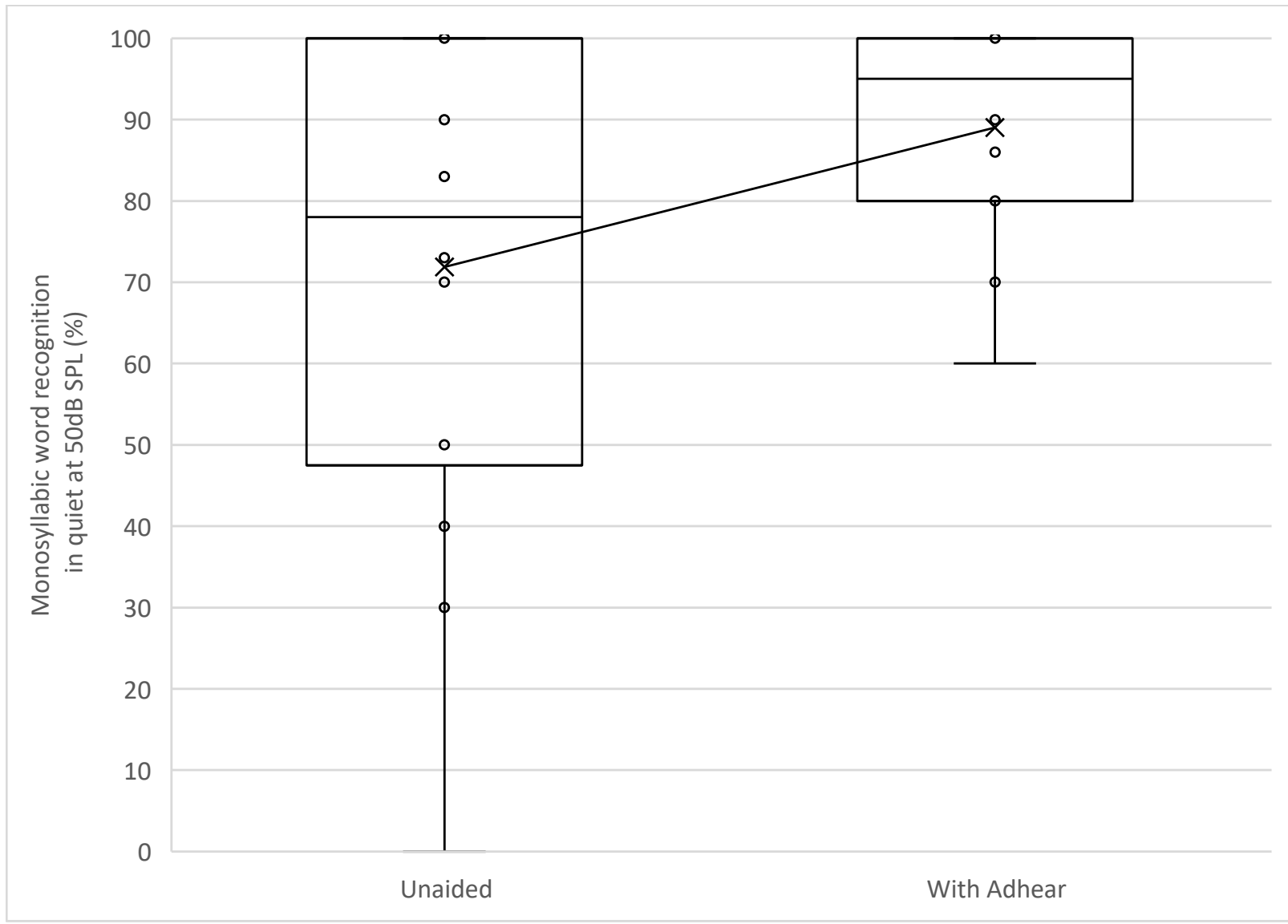


1. BACKGROUND

- There are an estimated 5.5 million children under the age of 10 that have experienced glue ear in their lifetime^(1, 2).
- Post COVID19, ENT have waits of 12-18 months (or longer) for grommets.
- Hearing support during education is vital during this wait and SEN Teams and TODs are already overstretched.
- NICE notes that traditional AC hearing aids are suboptimal when hearing fluctuates i.e. in most glue ear cases⁽³⁾.

3. RESULTS - OVERALL

- Average SRS improved from 72% to 89%.
- This is a **statistically significant** improvement in SRS of 17%.



5. NEXT STEPS

- **SUGGESTIONS FOR FURTHER STUDY -**
 - Benefit of Adhear with moderate hearing losses caused by glue ear.
 - Complete speech test evaluations for those who subjectively do **NOT** like the Adhear (and so would normally return the device) to see if similar objective benefit is found.

REFERENCES

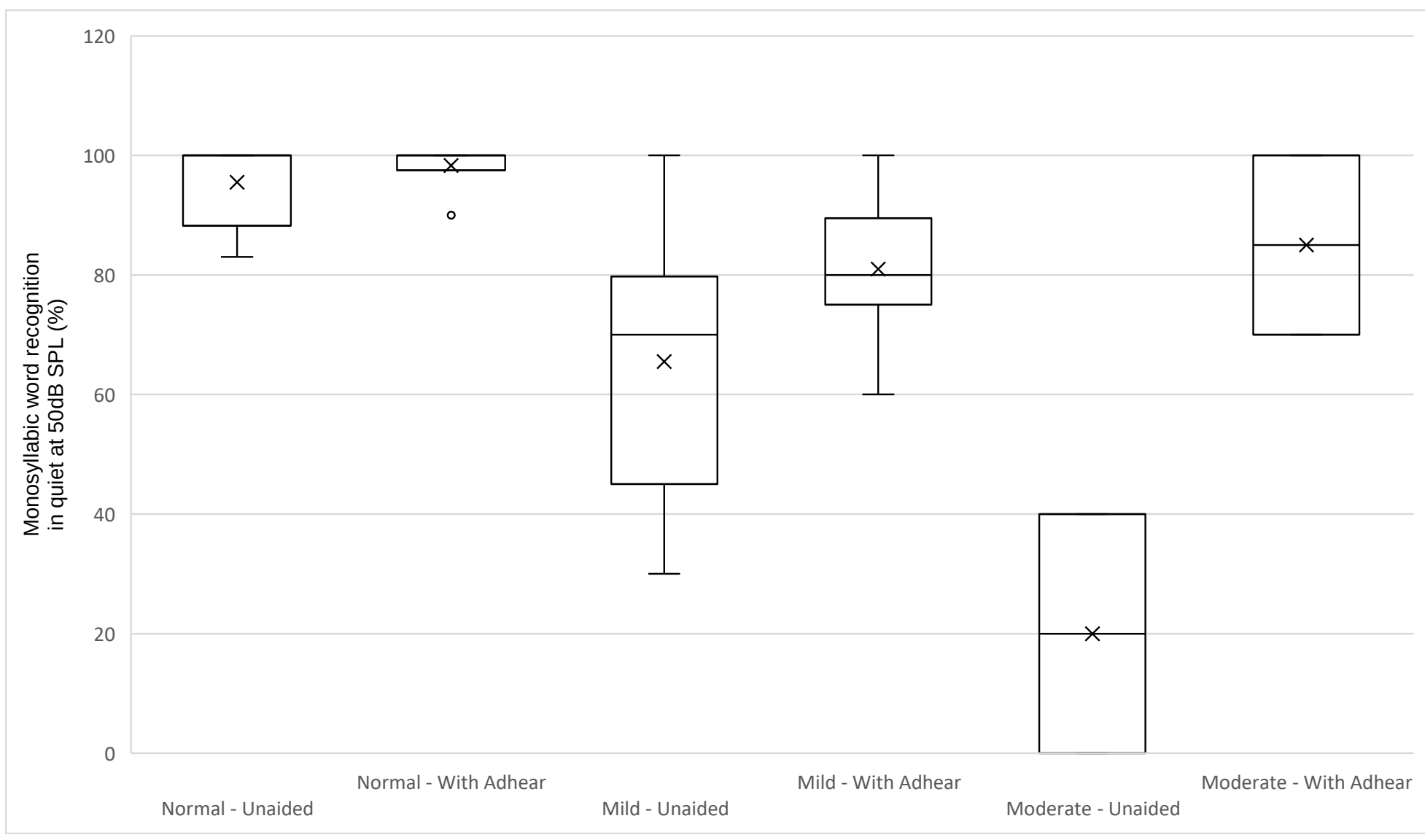
1. National Deaf Children's Society (2021). Glue ear: A guide for parents
2. Clark, D (2025). UK population by age group - 2023
3. NICE. (2023). Otitis media with effusion in under 12s, NICE Guideline

2. METHODS

- When it became apparent there would be unacceptable delays for grommet surgery, and also long waits between audiology appointments, as a department we decided to trial use of the Adhear as an alternative to AC aids as there is less risk to the ear health if hearing improves naturally between appointments.
- An in-department review was completed looking at the speech benefit when using Adhear devices for children with glue ear.
- The Speech Recognition Scores (SRS) and hearing levels of 14 school age children with glue ear were reviewed in an aided and unaided situation.

4. RESULTS - DETAILED

- **NORMAL HEARING in better ear but glue ear still present** - there is **NOT** a statistically significant improvement, though the scores do improve (2% improvement in SRS scores noted).
- **MILD HEARING LOSS in better ear** - there **IS** a statistically significant improvement of 15% in SRS.
- **MODERATE HEARING LOSS in better ear**—SRS improvement of 65%, which is likely to be statistically significant, but the sample size was too small to confirm this.



6. CONCLUSIONS

- Adhear can improve Speech Recognition Scores in a glue ear paediatric population.
- This review has added evidence and made us re-evaluate our local glue ear policy.