

Parental Satisfaction with Rooming-In Newborn Hearing Screening Services



J. Bentley AuD¹, G. Matheson RN¹, W. Mao MS¹, J. Stewart, MD^{1,2}
¹Department of Neonatology, Beth Israel Deaconess Medical Center and
²Harvard Medical School, Boston MA



Introduction

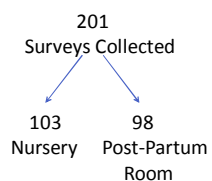
- Rooming-in, the practice of keeping newborns in the mother's room instead of in a nursery, has been shown to provide numerous benefits to families and babies, including improved sleep, better bonding, and more successful breastfeeding with increases in milk production and duration of nursing.¹
- In order to help promote the family-centered environment, the BIDMC audiology technicians started performing screenings in the post-partum rooms in May 2013.
- Previous studies show that while most families express high levels of satisfaction with the hearing screening process, those parents expressing worry or skepticism often feel less informed.³
- Parental presence at the time of hearing screening has shown to decrease skepticism and was the most frequent suggestion made by parents on a survey of families in Massachusetts.^{3,2}

Purpose

The purpose of this study was to compare objective test measures and satisfaction levels of parents with newborn hearing screening services when testing was conducted in the post-partum room versus in the Newborn Nursery.

Methods

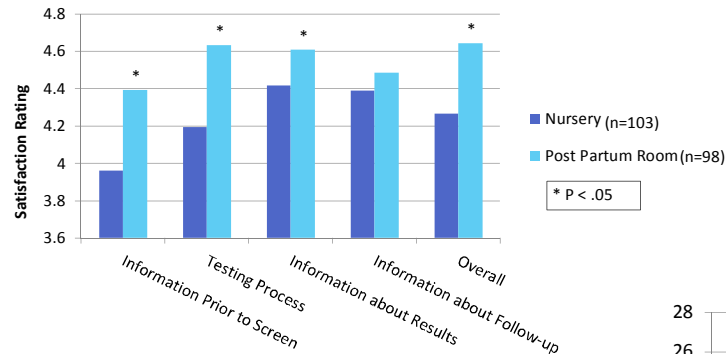
- Battery packs were obtained for the screening equipment making them portable (May/September 2013)
- Technicians were asked to screen infants in the parents room, unless the infant was already in nursery or if otherwise requested by parents.
- At the completion of testing, the technicians verbally shared the screening results with all the parents and provided them with written information on the results and further information on hearing loss.
- After screen, parents were asked to complete an anonymous satisfaction survey using a 5-point Likert scale (1=Not at all satisfied; 5=Extremely Satisfied).



- Additional test parameters (i.e. duration of screen, infant's myogenic noise levels, and screen results) were compared between September and December 2013.

Results

Satisfaction with Newborn Hearing Screening Services



Satisfaction Measure

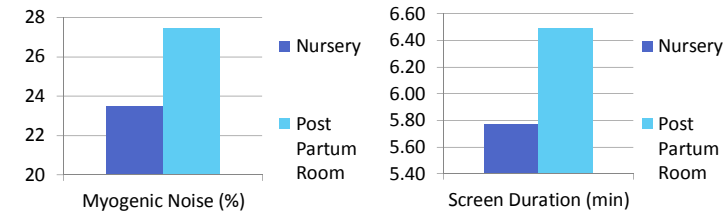
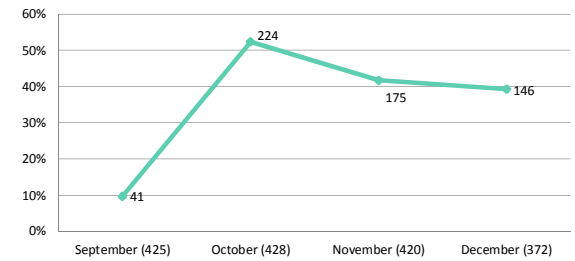
- Families showed statistically higher levels of satisfaction with:
 - The information they received prior to testing
 - The test process
 - The results of the screen
 - The overall hearing screening program
- Although there was no significant difference in satisfaction levels with information on follow-up, this was the most frequently unanswered question (N=12, 6%)

Objective Measures

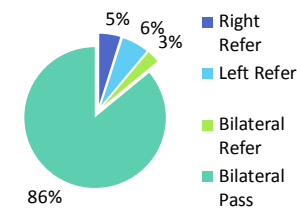
- From September through December 2013, 1647 screenings were conducted; 36% were performed in post-partum rooms.
- There was a significant increase in test time (p=.005) and % of myogenic interference (p=.001) between settings.
- There was no difference in test results between the two settings.

Objective Test Measures

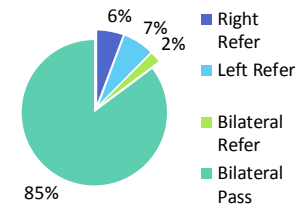
Screenings Conducted in the Room



Nursery Results



Post Partum Room Results



Conclusions

- We believe families expressed greater satisfaction because they were able to obtain a greater amount of information as a result of being able to observe the testing procedure and having immediate access to the technicians for questions.
- Although only minimally significant, it is surprising that there was a difference in satisfaction with test results, as based on the objective measures there was no influence of test site on the test outcome.
- It is unclear whether the question on follow-up information was not understood or more training of the technicians is required.
- We hypothesize that the increase in test time and myogenic noise may be a result of limited parental ease at calming their newborn during testing and less involvement by the technicians to soothe infants in the presence of the family.
- Future goals include increasing in-room testing to 60% for FY 14 and eventually to 100%.

References

- Crenshaw, J. (2007). Journal of Perinatal Education, 16(3): 39-43
- MacNeil, J.R. et al. (2007) American Journal of Audiology, 16(1): 29-56
- Weichbold, V., Welzl-Mueller, K., Mussbacher, E. (2001) British Journal of Audiology, 35: 59-66