

Retrospective Study on Effectiveness of Mobile Clinics on Visual Acuity of K-12 Students Nitin Kanuri

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Background

- Visual screening of kindergarten to twelfth grade (K-12) students has been adopted nationwide in the United States, yet approximately 20% of all school children have vision problems.
- These advanced mobile eye clinics with portable equipment such as an optical shop are models for vision screening.
- Research indicates that areas with low socioeconomic status tend to have students with vision problems.
- Due to the simple logistics of the mobile clinics, the follow up report had high satisfaction with students reporting that their academic participation has greatly improved, and adults did not have to face financial complications with these free services being provided.
- In 2011-12 the Eagles Eye Mobile (EEM) visited schools for vision screenings.
- This study addresses the impact of the Wills on Wheels (WOW) mobile clinic.

Methods

- Children were referred if their visual acuity was below the normal
- 132 students were included in this study that were referred by an optometric program.
- Children were seen my mobile clinics which contained the same equipment as an ophthalmologic office.

100% 90% 80% 70% 60% 50% 20% 10% WOW EEM Mobile Unit

Figure 1. Successful completion ophthalmology consultation of Wills on Wheels (WOW) Mobile Eye Unit (62% of students) which brings the ophthalmology consultation to the children in comparison to EEM (Eagles Eye Mobile) (53% of students)

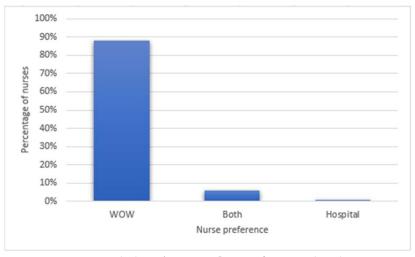


Figure 2. Twenty school nurses' responses to "Do you prefer escorting the students to hospitals for follow-up care through the free transport program or do you prefer Wills on Wheels (WOW)?" 88% prefer WOW, 6% like both equally, and 1% liked going to the hospital.

Discussion

- 83 of 132 people were successfully seen by the mobile clinic which is 62% compared to the original 53% seen by a previous mobile clinic..
- School nurses polled if they would like to have a mobile clinic back at the school and all the nurses responded in favor of mobile clinics.

Conclusions

- The study corroborated that there was a significant increase in eye doctor consultations.
- There is an evident correlation in socioeconomic status and vision.
- Establishing mobile clinics helps alleviate barriers when concerning visual acuity of students.
- Mobile clinics give students a chance to get eye care while also increasing ophthalmic consultation rates.
- With better vision, students will be able to perform better in school and this is possible through mobile clinics, especially in communities with lower socioeconomic status.

Future Directions

For future studies, a larger sample of students should be taken while the results are analyzed in real time to see the impact it makes on students. Future studies can also involve adults and investigate the practicality of including more advanced technology on mobile units and mobile units in other fields of medicine

References

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