School Nurse Webinar: Why Do We Screen Vision in Young Children?

Debriefing Questions

Be sure to review the debriefing journal rubric prior to submitting this assignment

1. **How does this webinar relate to the course?**

Evidence-based practice in nursing recommends using specific screenings as part of our assessment of the growth and development of pediatric patients. The webinar is focused explicitly on vision screening, which can help identify amblyopia in children and the potential need for a more comprehensive eye examination. Amblyopia, as defined by the webinar and our textbook, is "poor visual development in the otherwise structurally normal eye" (Ramsey, Bradford, Moore, & Block, 2013; Ricci, Kyle, & Carman, 2017, p. e1184). Common causes of amblyopia include strabismus, astigmatism, refractive errors, and central nervous system dysfunction (Ramsey, Bradford, Moore, & Block, 2013; Ricci, Kyle, & Carman, 2017). Without correction, this condition can progress to permanent vision loss in children and young adults (Ramsey, Bradford, Moore, & Block, 2013; Ricci, Kyle, & Carman, 2017). The webinar gives information regarding when to screen children and suggests prompt intervention must be made before 8 to 9 years of age with a diagnosis of amblyopia to avoid permanent loss of vision. The webinar and our textbook recommend that all children receive a vision screen by three years of age, which should subsequently occur annually if no issues are detected (Ramsey, Bradford, Moore, & Block, 2013; Ricci, Kyle, & Carman, 2017). Treatment options for amblyopia include patching the stronger eye (the one with better or healthy vision), placing atropine eye drops in the stronger eye, using glasses to correct refractive errors or surgical intervention, if warranted (Ramsey, Bradford, Moore, & Block, 2013).

2. **How does this webinar contribute to the service provided by the school nurse?**

The webinar contributes to the services provided by highlighting that macroscopic examination of the eye alone can't be relied on to assess visual acuity fully. Underlying issues with visual function may emerge only through visual screening. This screening should include examining the eye using an ophthalmoscope, testing extraocular movement as a proxy for cranial nerve function, and measurement of visual acuity on an annual basis. The webinar also identifies the importance of early intervention. It is strict in its assertion that any issues with vision need to be identified before the age of 8 to 9 to allow appropriate time for treatment to begin to avoid permanent vision loss. Therefore, the school nurse should be sure they are performing thorough screenings for

children in preschool through third grade as they are the most at-risk population, in addition to continuing testing in older groups.

3. Name 3 ways this webinar impacts Pediatric health.

This webinar impacts pediatric health by identifying a condition that may be underdiagnosed, amblyopia, addressing the underlying causes and options for treatment, and reinforcing best practices for vision screening and referral to specialists. Amblyopia affects 1-4% of children, and even with diagnosis and treatment, many children will continue to experience decreases in visual acuity, making early identification crucial (Blair, Cibis, & Gulani, 2019; Ricci, Kyle, & Carman, 2017). We know that failing to identify and treat amblyopia can lead to permanent vision loss, so the webinar has a positive impact by raising awareness of the condition and the necessity of performing regular vision screenings. By revealing that specific pathology related to abnormal visual development and function predisposes to amblyopia, providers are better able to identify children who should receive full eye examinations versus annual vision screenings only. Appropriate referral of children with amblyopia will help correct the underlying cause and avoid permanent damage. Finally, to the point that the webinar highlights best practices, Dr. Moore (2013) identified that there might be a delay between a poor vision screening result and referral for an examination with a specialist, as many providers operate under the assumption that vision may improve before a follow-up screening. Given the severe consequences associated with the development of amblyopia and its persistence, he dissuades providers from not placing a referral immediately. He also points out that some pediatric populations should have vision screenings performed as expected but that the results may be inaccurate or impossible to obtain. Dr. Moore (2013) states this is true for children with autism or learning disabilities, participants in early intervention programs, kids with a family history of amblyopia or any related condition, and children exposed to alcohol, other substances, or certain infections in utero. For these groups, parents and primary care providers should instead jump to a comprehensive eye examination with a specialist instead of relying on vision screening. These recommendations give providers a much clearer idea of which children are more likely to require a referral and allows for earlier and more improved examination and intervention.

4. What are the health risks of the population seen during today's webinar?

Regarding amblyopia, the health risks for this population include loss of visual acuity and permanent vision loss (Ramsey, Bradford, Moore, & Block, 2013). Additionally, since the focus remains on the age range of newborn to 9 years old, with a specific focus on the 3 to 9-year-old age range as we discuss beginning annual vision screening, there are also other areas of health assessment and risk common among this age group to consider. Some additional areas to evaluate and educate on are appropriate sensory, language, psychosocial, and motor development; obesity and

malnutrition; sleep hygiene; personal/dental hygiene; and screen-time. Findings in these areas can point to choices that may also contribute to poor eye health and are important areas to assess along with the vision.

5. How will your experience with this webinar impact your Nursing practice?

As healthcare providers, it is our responsibility to determine whether an annual vision screening has occurred while collecting the health history. A vision screening should then be performed independently during the physical examination for any pediatric patient, but especially those between the ages of 3 and 9. The location in which we work will determine the demographics of the patients we see, however, whether we are inpatient, outpatient, or serving as a healthcare provider in some other setting, we should be aware of this role and the need to provide this service. The frequency of vision screening and expectations for what it includes should also be an essential part of our patient education for kids and their caregivers, emphasizing that screening should begin at three and be performed annually for the remainder of childhood into adulthood. Patient teaching should also explain that if the results of the screening point to a problem, a referral should be made to an ophthalmologist who can evaluate and manage the treatment of the child appropriately.

References

Blair, K., Cibis, G., Gulani, A.C. (2019). *Ambylopia*. StatPearls, National Center for Biotechnology Information Bookshelf. https://www.ncbi.nlm.nih.gov/books/NBK430890/

Ramsey, J.E., Bradford, G.E., Moore, B.D., Block, S.S. (2013). Why we screen vision in young children [Webinar]. Year of Children's Vision Initiative. https://www.schoolhealth.com/webinar-vision-screening-young-children/

Ricci, S.S., Kyle, T., Carman, S. (2017). *Maternity and pediatric nursing* (3rd ed.). Wolters Kluwer.