

Is there an association between the vaccination of children with MMR and the diagnosis of children with Autism?

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Introduction

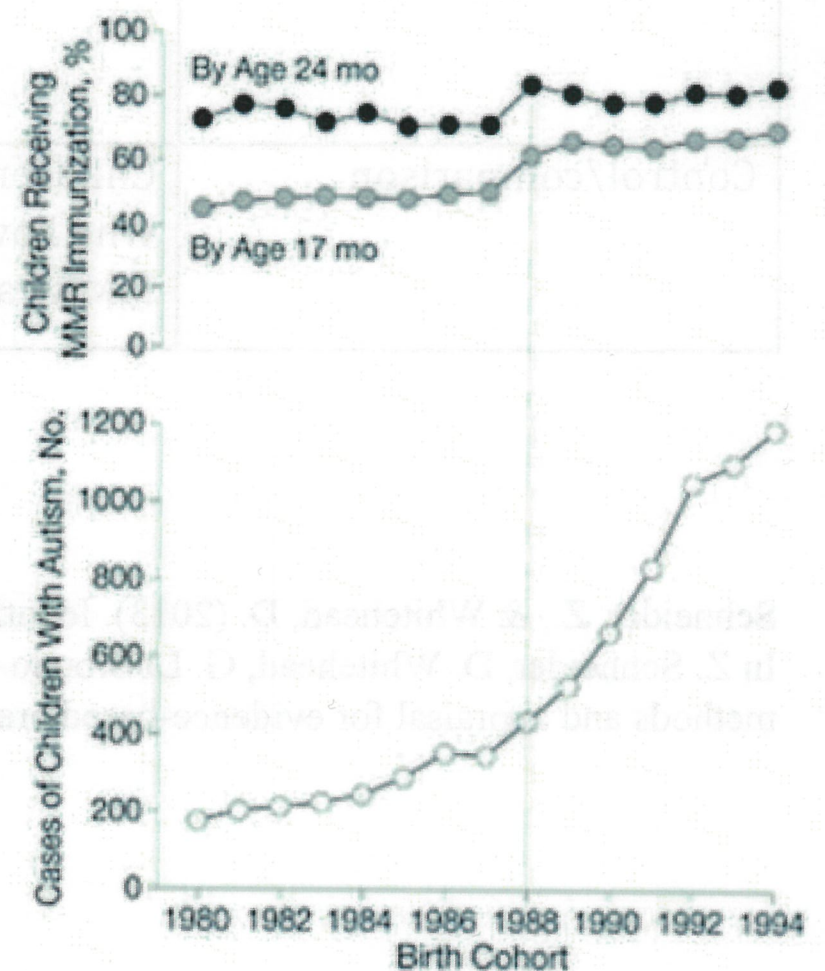
As a primary health nurse, providing immunizations is part of the responsibility around promoting health. Parents have concerns about immunizing their children and are worried about the risks and other complications, such as Autism which can result in parents not immunizing their children (Hamilton, Corwin, Gower & Rogers. (2004). Measles is one of the most common vaccine preventable causes of death and it is one of the most infectious. From the literature I have found that there was an assumption made that if the MMR vaccinations were given at the same time or in relatively quick succession it might be a cause of Autism.

Key findings

- The association made between MMR vaccination and autism onset could be just by coincidence itself, as the age of vaccination is 12-15 months and average age that signs of autism are noticed is 18-19 months (Dales, Hammer, & Smith. (2001).
- Autism is not a well understood disorder and is hard to diagnose because the way it presents clinically differs (Dales, Hammer, & Smith. (2001).
- No link has been found between the developments of autism and the age that the child is vaccinated (Destefano, Bhasin, Thompson, Yeargin- Allsapp, & Bayle. (2004).
- No link has been found between the coverage of MMR and the increase in autistic children (Dales, Hammer, & Smith. (2001).

Recommendations for Nurses

- Nurse's need to be aware of the controversy around this vaccination and have knowledge about the literature so that they are aware of the pros, cons, and the concerns of parents in their community.
- Educate your patients and their family members about the MMR vaccination and the diseases that it prevents so that they have all the knowledge to make a fully informed decision.



Upper 2 curves indicate the percentages of children receiving MMR immunization by 17 and 24 months of age. Lower curve indicates the number of cases of children with autism (Dales, Hammer, & Smith. (2001).

References

- Dales, L., Hammer, S., & Smith, N. (2001). Time trends in Autism and in MMR immunization coverage California. *Jama: Journal of the American Medical Association*, 285(9), 1183
- Destefano, F., Bhasin, T., Thompson, W., Yeargin-Allsapp, M., & Bayle, C. (2004). Age at first MMR vaccination in children with Autism and school-matched control subjects: a population based study in metropolitan Atlanta. *Pediatrics*. 113(20), 259-266.
- Hamilton, M., Corwin, P., Gower, S., & Rogers, S. (2004). Why do parents choose not to immunize their children? *The New Zealand Medical Journal*, 117(1189).

PECOT category	Information relating to question	Explanation
Population	Children between the ages of 1-10 years	These are the years when children are immunized with the MMR vaccine
Exposure	Children with autism who have received the MMR vaccine	I will be looking for articles that have done a study comparing MMR vaccinated children with autism to MMR vaccinated children without autism
Control/comparison	Children without autism who have received the MMR vaccine	I am interested to see if there is an association with MMR and autism

Schneider, Z., & Whitehead, D. (2013). Identifying research ideas, questions, statements and hypotheses. In Z. Schneider, D. Whitehead, G. LoBiondo-Wood & J. Haber (Eds.), *Nursing and midwifery research methods and appraisal for evidence-based practice* (pp.63-64). Sydney, Australia: Mosby