Educational Tools to Decrease Vaccine Hesitancy

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Purpose
Our presentation reviews the literature regarding current vaccine information and parental attitudes towards vaccines. We offer an educational approach to increase vaccination rates of children, while at the same time assisting healthcare professionals to become vaccine confident, and able to address the needs of vaccine hesitant parents.

Core Beliefs
School health professionals should be highly qualified in and practice evidence based health and education strategies.

Schools should be safe, nurturing environments that facilitate learning for all.

Significance to School Health
The successful reduction of certain infectious diseases has shown immunization through vaccination to be one of the most successful and cost effective public health interventions available in the developed world.

Significance to School Health
"Increase Immunization Rates and Reduce Preventable Infectious Diseases" is a Healthy People 2020 goal in the United States.
Significance to School Health

Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package.

Childhood immunization programs provide a very high return on investment. For example, for each birth cohort vaccinated with the routine immunization schedule (this includes DTaP, Td, Hib, Polio, MMR, Hep B, and varicella vaccines), society:

➢ Saves 33,000 lives.
➢ Prevents 14 million cases of disease.
➢ Reduces direct health care costs by $9 billion.
➢ Saves $33.4 billion in indirect costs.

In The Past 3 Years, Research Has Reported Parents Biggest Vaccine Related Concerns As:

1. Uncertainty in vaccine effect

2. Overloading or overburdening the immune system

3. Vaccine safety
   ○ Distrust of big pharma and government agencies
   ○ Difficulty building trust with doctor

4. Misinformation on internet and through social media
   ○ Found that parents are asking provider to space out time between vaccinations

Uncertainty in Vaccine Effect

1. If you approach the question from the perspective of our natural immunity, you will see from the evidence that natural immunity does not always provide lifelong immunity. In fact, natural immunity does not necessarily provide longer lasting protection than a vaccine.

2. Common for immunity to wane over time…which is why we use booster shots to achieve a stronger immune system reaction.

3. Waning immunity is not the fault of neither the disease or the vaccine…It is a facet of our immune system…being human.

4. Thanks to vaccines, we can harness our bodies natural reaction to pathogens. Our bodies need information about which threats to take seriously…
   ➢ With remarkably little side effects, vaccines manage the great feat of delivering that information to our bodies, creating immunity, and keeping the population healthy. Before vaccines, this was not possible without first enduring the risk of death or disability.

Overloading or Overburdening the Immune System

From the moment babies are born, they are exposed to numerous bacteria and viruses on a daily basis.

Eating food introduces new bacteria into the body
Numerous bacteria live in the mouth and nose
Placing his or her hands or other objects in his or her mouth hundreds of times every hour, exposing the immune system to still more germs.

When a child has a cold, he or she is exposed to up to 10 antigens, and exposure to “strep throat” is about 25 to 50 antigens.

Each vaccine in the childhood vaccination schedule has between 1-69 antigens. A child who receives all the recommended vaccines in the 2014 childhood immunization schedule may be exposed to up to 315 antigens through vaccination by the age of 2.

Significance to School Health

To Vaccinate or Not To Vaccinate.....
Vaccine safety

Since 2001, with the exception of a few influenza vaccine products, thimerosal has not been used as a preservative in any routinely recommended childhood vaccines.

No link between thimerosal containing vaccines and Autism.

No link between vaccines and Autism.

Aluminum is the most common metal found in nature. It is in the air and in food and drink. Infants get more aluminum through breast milk or formula than vaccines.

(www.immunize.org; www.cdc.gov/vaccinesafety/concerns)

Misinformation: Internet and Social Media

A 2011 study showed who parents' trust for certain sources of Vaccine-Safety information

- 78% of parents trust what doctors say about vaccine safety
- 27% of parents trust Web sites from doctor groups like the American Academy of Pediatrics
- 23% of parents trust government vaccine experts
- 74% of parents do not trust celebrities for vaccine safety information

Solution: Open communication using Evidence Based Research

Findings

Analysis shows that the use of pictographs improves vaccine compliance. The studies further demonstrate that when healthcare providers supplement their verbal instructions with health data containing pictographs, brochures, or infographic, patients' understanding and compliance with health care recommendations are significantly improved.

Conclusion of our collaborative study: Tools to Decrease Vaccine Hesitancy

- The literature conclusively demonstrates that the use of pictographs will improve the vaccination rates of children as compared with verbal explanations alone, thus, moving us closer to the Healthy People 2020 goal.
- We recommend that further research utilizing a pictograph of evidence-based data in populations of undervaccinated children or vaccine hesitant families be performed.

Concluding the study means......

The beginning of applying our knowledge gained to our various fields of practice through dissemination of our findings and improving healthcare outcomes.
Concerns professionals have about vaccinations (objective 4)

Doctors:
Younger health care providers were shown to have a 15% decreased odds of believing vaccines are efficacious compared to older health professionals who have had experience with vaccine preventable disease (Mergler et al, 2013).

Civic leaders:
The general population looks to civic and faith leaders to help support and guide population decisions. Many cultures and countries require close collaboration and trust with the government to reduce suspicions about new vaccines that may arise in the introduction of vaccines, especially in developing countries (Cover et al, 2012).

Does your school need a revised vaccination education program?
1. Who is in charge at your school?
2. How are you communicating to parents?
3. Do you follow up?
4. Do you have the support you need at your school?
5. Check out these resources
   - http://www.immunize.org/laws/

The National Education Association: Advocacy for Vaccines:
A Leadership Guide for School Nurses and Allied Health Professionals


Family Health Perspective

- Open, honest, nonjudgmental communication is key
- Addressing vaccine hesitant questions
- Formation of a trusting relationship where your guidance can be heard
- Having information on latest vaccine research as well as the information that is circulating on the internet
- Changing perception of the risk-benefit ratio that suggests a critical change in immunization beliefs of the new generation of providers and patients compared to their older counterparts

School Health Perspective

Primary Prevention
- Generalized health promotion and specific protection against disease
- Actual disease protection
- School nurses serve students as well as teachers, and staff expanding the role to be a reliable and credible immunization resource for the health of the community.

As a future DNP:
- I will utilize Idaho IRIS (Idaho Reminder Immunization System). Ensuring school nurses/schools have the information they need ASAP.
- Take time to communicate with parents to help them make informed healthcare decisions.
- Make community partners with schools to make vaccination clinics and health fairs a reality.
- Transparency is a key factor. Knowledge is always evolving, staying current on research, and being able to provide parents with science-based evidence, while at the same time addressing concerns and building vaccine confidence.

Current Vaccine Administration Rates
Routine 12: Measles, Mumps, Pertussis, Polio, Meningitis, Hep B. Pneumonia, Influenza, Rotavirus, Chickenpox, Hib, Hep A

My Recent DNP Scholarly Project Data

- Vaccination History for Group

- Millions of U.S. Children Are at Risk for Serious Disease
- The Healthy People 2020 goal is 95%
1. Vaccine safety gets more attention than vaccine effectiveness.

2. Global World Travel

https://www.youtube.com/watch?v=yx7_yzypm5w

Rise in Vaccine Preventable Disease

3. Vaccines prevent six million deaths worldwide & protect against other related diseases
   - Six diseases that have reemerged are: measles, mumps, rubella, pertussis and polio. Influenza is always a problem.

4. Confusion regarding Herd Immunity
Herd Immunity 101

a: hard immunity
b: moat around a castle

References


