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Vaccinations and Immunizations in Undergraduate Curricula

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Outbreaks of vaccine-preventable diseases such as measles and pertussis still occur in the United States. Infectious travelers, who have visited areas in the world where these illnesses are still widespread, import them into the country and spread them through contact with unvaccinated or under-vaccinated people in local communities.

In December 2014, a large measles outbreak originated from a contagious visitor at a Disney theme park in California. A total of 111 people were sickened from January to mid-February 2015 (Clemmons, Gastanaduy, Fiebelkorn, Redd, & Wallace, 2015). The spread of infectious disease through travel, coupled with an insidious "anti-vaccination" sentiment in America, has led to an increasing number of cases of vaccine-preventable diseases. The views of "anti-vax" celebrities, such as Jenny McCarthy, and social media communities on platforms such as Facebook®, continue to perpetrate misinformation about the safety and efficacy of vaccines. A national spotlight was focused on immunizations during the September 2015 Republican debate, when debunked myths such as the "autism-vaccine" link, and an alternate vaccination schedule were reintroduced by the candidates. The following day, the American Academy of Pediatrics (AAP) drafted a response to the public that reiterated the safety and efficacy of vaccinations, as well as its position that all children should be fully vaccinated, according to the timeline described in the childhood immunization table (AAP, 2015). The AAP's position mirrors the objectives of the Healthy People 2020 initiative to "increase immunization rates and reduce preventable infectious diseases." The goal

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is that 80% of children ages 19-35 months will be fully vaccinated by the year 2020 (Healthy People 2020, 2015).

According to the nursing fundamentals textbook by Craven, Hirnle, and Jensen (2013), "Nurses participate in establishing programs for people to receive immunizations. They help to identify outbreaks of infectious diseases in the community, give vaccinations, establish record-keeping mechanisms and counsel people about precautions and possible complications of immunizations" (p. 1001). In addition to teaching nursing students the theory and administration techniques of vaccinations, attention needs to be directed to providing comprehensive and understandable patient education as an essential component to allaying fears and clarifying the misinformation that is prevalent in society today. To listen to faculty who teach in undergraduate nursing programs about *what* they teach and *how* they teach about vaccines is a first step to making recommendations about immunization education in nursing curricula.

The purpose of this brief survey of the faculty members of the National Student Nurses' Association (NSNA) was to explore how they report instruction of vaccination and immunization in their nursing curricula. Using a brief online survey, a large representative sample of nursing faculty was questioned about this important area of nursing education.

Method

The NSNA membership provides a national database of nursing students and faculty to examine a variety of education experiences and practices. The NSNA

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Note: The "two-minute" survey on vaccinations and immunizations was developed and distributed by Diane Mancino, Executive Director of the NSNA. The additional analyses were done by the Center for Nursing Research and Scholarly Practice. The opinions in this article are the sole responsibility of the authors.

"two-minute surveys" are designed to tap a variety of responses that are easy to answer, brief, and targeted for important issues of the day. They give voice to respondents and the results give a snapshot of timely evidence to inform educators and administrators about these issues.

The "immunization in undergraduate curriculum" survey was distributed to the faculty members of NSNA who typically report their areas of teaching in clinical areas (5%), lecture classes (17%), and both (82%), as reported by Feeg and Mancino (2015). The brief study was approved by the Institutional Review Board (IRB) and the questionnaires were emailed via SurveyMonkey® (n=1,909). Participants were assured that their answers would be anonymous and the survey was limited to only eight brief questions with some open-ended responses. A total of 580 faculty responded from Associate, Diploma, Baccalaureate, and RN to BSN programs, yielding a 30.4% response rate. Results were cleaned for analysis using only subjects from Associate Degree (AD) (n=283, 52%) and Baccalaureate programs (BS) (n=263, 48%).

Results

Questions on the survey were designed to elicit when, where, and what was taught to nursing students related to vaccination and immunization. Additional questions asked what technologies and resources were included in the instruction. Descriptive analysis is presented by type of program.

In response to when the content and/or skills related to vaccination and immunization is taught, participants could select all that apply from a variety of choices. The most common response for AD and BS programs was in core courses (91% and 86%, respectively). In response to where content and/or skills are taught, almost twice as many BS faculty reported learning in immunization clinics (responses combined with and without course credit) (67%), compared to AD faculty (39%) (see Table 1). Similarly, in response to where vaccination and immunization is taught, the most common response for AD and BS programs was in didactic courses (90% and 87%, respectively) (see Table 2).

All participants were asked open-ended questions to describe teaching materials used at their schools and resources that they believe would be useful or needed. All responses were listed, and each line was coded to identify patterns of responses for each of these questions. In some cases, responses for both questions were redundant or combined. They were also asked what technologies are used to deliver the content or instruction, and AD and BS faculty were similar in their responses with simulations the most frequent (57% and 59%, respectively).

Finally, faculty were asked what additional content beyond skills was taught in the program, and the most frequent response for both AD and BS programs was the immunization schedules for children and the Centers for Disease Control and Prevention (CDC) vaccine information statements (see Table 3). Overall, it appears that content and strategies were not uniform, and more theory and simulation rather than actual clinical experiences were reported.

Table 1.
When are content and/or skills related to vaccination and immunization taught? Select all that apply. (n=531)

Program Type	Clinical Rotations	Core Courses	Elective Courses	Pre-Requisite Course Materials	Immunization Clinics, Community Health with and without Clinical Hours	Total Responses
Associate Programs	146 (53%)	249 (91%)	2 (1%)	11 (4%)	106 (39%)	519
Baccalaureate Programs	156 (61%)	222 (86%)	6 (2%)	12 (5%)	172 (67%)	570

Table 2.
Where is vaccination and immunization taught? Select all that apply. (n=537)

Program Type	Didactic Courses	Skills Simulation Lab	Clinical Settings	Don't Know	Total Responses
Associate Programs	250 (90%)	142 (51%)	184 (66%)	2 (1%)	579
Baccalaureate Programs	224 (87%)	159 (66%)	187 (72%)	4 (2%)	585

Implications for Faculty

Hands-on clinical experiences allow students to demonstrate both psychomotor and communication skills about vaccinations. Coordinating such experiences may prove to be challenging logistically, in some cases. Online, interactive programs such as the Nursing Initiative Promoting Immunization Training or NIP-IT (nip-it.org) may help to bridge that gap. This program addresses the six components of an immunization program including: vaccine-preventable diseases, vaccine recommendations, vaccine concerns, nursing roles, vaccine administration, and mass immunizations, through a variety of teaching methods such as videos, polls, and quizzes.

Understanding the factors associated with parental refusal of vaccinations will help students anticipate potential barriers or resistance to the administration of childhood vaccinations, and to be understanding and empathetic when parents are conflicted or ambivalent as a result of misinformation. In 2013, the Institute of Medicine (IOM) issued the *Childhood Immunization Schedule and Safety* report, which included concerns parents have expressed about immunizations such as: that it is painful for children to receive so many shots during one visit, that the children are getting too many vaccines in one doctor's visit, and that children are getting too many vaccines during the first year of life. Additional concerns included a lack of trust that the vaccines were actually safe, the fear of serious side effects, that too many vaccines can overwhelm children's immune systems, and that, in general, children are immunized with too many vaccines.

As reported in this survey, the majority of nursing faculty referred to and incorporated information from the CDC in their teaching about vaccines and other resources. Directing students to appropriate websites such as the CDC's page for Vaccinations and Immunizations, the Immunization Action Coalition, The Children's Hospital of Philadelphia Vaccine Education Center, and the American Academy of Pediatrics' Healthy Children page will help enhance their own learning, and allow students to familiarize themselves with information that is publicly available for parents.

Table 3.
In addition to the skills related to vaccination and immunization, are any of the following included in education about immunization? Select all that apply. (n=524)

Additional Education Related to Vaccination and Immunization	Associate Programs	Baccalaureate Programs
History of immunization and vaccination	127 (46%)	141 (56%)
Theories of immunotherapy	85 (31%)	96 (38%)
Statistics related to vaccination/immunization	123 (45%)	147 (59%)
Multi, routine, and non-routine vaccinations	136 (50%)	132 (53%)
Efficacy of vaccination	137 (50%)	160 (64%)
CDC vaccine information	230 (84%)	208 (83%)
Immunization schedule for children	253 (92%)	253 (93%)
Immunization schedule for adults	186 (68%)	174 (70%)
National Vaccine Childhood Information Act	50 (18%)	77 (31%)
Vaccination/immunization record keeping	116 (42%)	128 (51%)
Vaccination and other administration techniques	183 (67%)	178 (71%)
Side effects of vaccination and immunization	203 (74%)	202 (81%)

Open and honest communication is essential to gaining and maintaining parental trust. Topics such as the potential for side effects of vaccines should be discussed, as well as the health impacts of the diseases themselves in a straightforward manner.

Conclusions

Presently, the content of immunization and vaccination is taught over a number of core courses, including fundamentals and pediatrics and varies based on program type. There is a need to create uniformity in the development and delivery of this content. On April 20, 2015, the *Advisory Committee on Integration of Immunization into Undergraduate Nursing Curriculum (ACIIUN)* was convened to reduce this fragmentation. The three main objectives of the Committee are developing: (1) a framework for the integration of immunization education in undergraduate nursing programs, (2) a resource repository on this topic, and (3) additional teaching resources (Association for Prevention Teaching & Research [APTR], 2015). A graduate nursing fellowship has been created to facilitate the implementation of the recommendations that came from the Committee. Until infectious diseases are eradicated worldwide, the risk for vaccine-preventable diseases still exists, and nurses must be adequately prepared to fully participate in immunizations programs. DN

References

Association for Prevention Teaching & Research (APTR). (2015, April). *Advisory Committee on Integration of Immunization into Undergraduate Nursing Curriculum.*

Clemmons, N.S., Gastanaduy, P.A., Fiebelkorn, A.P., Redd, S.B., & Wallace, G.S. (2015). Measles – United States, January 4–April 2, 2015. *Morbidity and Mortality Weekly Report (MMWR), 64*(14), 373-376.

Craven, R., Hirnle, J., & Jensen, S. (2013). *Fundamentals of nursing* (7th ed.). Philadelphia: Lippincott.

Feeg, V., & Mancino, D. (2015). *Ethical dilemmas of students and faculty: In their own voices.* Presentation at the Annual NSNA Convention, Phoenix, AZ.

Healthy People 2020. (2015). *Immunization and infectious diseases.* Retrieved on November 3, 2015, from http://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases

Institute of Medicine (IOM). (2013). *The childhood immunization schedule and safety: Stakeholder concerns, scientific evidence, and future studies.* Washington, DC: The National Academies Press.

Remley, K. (2015). *AAP reiterates safety and importance of vaccines.* Retrieved on November 3, 2015, from https://www.healthychildren.org/English/news/Pages/AAP-Reiterates-Safety-Importance-Vaccines.aspx

Open Letter to Deans/Directors of Pre-Licensure Nursing Programs from the NSNA Board of Directors

We have just returned from an exciting MidYear Career Planning Conference, which took place in Atlanta, GA, November 5-7, 2015. From beginning to end, we learned new issues and trends in nursing practice, research, and education. Several programs designed to help us develop our leadership style and management skills prepared us to better serve the NSNA and the profession in the future.

The support of deans/directors and faculty is of utmost importance to NSNA's success. We heard wonderful feedback from students who receive clinical and academic recognition for the time they spend leading and managing boards and committees on the local, state, and national levels of NSNA. Their teachers and mentors understand the value of practicing teamwork, delegation, organizational structure, communication skills, conflict-resolution, and policy development. For example, at the upcoming 64th Annual NSNA Convention, March 30-April 3, 2016, the NSNA House of Delegates will be revising the NSNA Code of Ethics as well as debating over 50 resolutions. Non-delegates will choose from over 35 sessions to improve their test-taking skills, add to their nursing knowledge, and plan their careers.

The struggles that many students have in securing faculty support to attend NSNA events, state conventions, and even local meetings were also shared. Even when the dean/director is supportive, faculty seem uninformed about the value of NSNA participation. For example, with leadership questions on the NCLEX, faculty may consider allowing participation in NSNA leadership opportunities count as clinical time. This is actually happening in many schools around the country. With a shortage of clinical sites, NSNA can be a viable alternative to gaining the skills needed with a hands-on "practicum in leadership."

From the exhibitors at the conference, we heard that seeing NSNA involvement on résumés sets the new graduate apart from those who were not involved in leadership as students. Shared-governance in clinical practice settings is gaining in popularity and is a requirement for Magnet Recognition. New graduates who know how to chair and serve on com-

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mittees are of high value. Those who understand policy development are even more sought after. In our complex delivery systems, it is not only clinical skill, but the development and mastery of team leadership and management skills that leads to institutional success.

NSNA's Core Values provide the inspiration for our passion to be the best nurse possible:

- Leadership and Autonomy
- Quality Education
- Advocacy
- Professionalism
- Care
- Diversity

NSNA involvement prepares us to meet the challenges and demands of our profession in the future. We hope you will carry our message to the entire faculty in your pre-licensure nursing education program. You are invited to join us in Orlando, FL, for the Annual Convention, where you will experience the incredible energy of our future nurse leaders and be recognized at the Opening Ceremony for your invaluable support. We hope to see you there! DN

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