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Health information use after graduation: Are we preparing our students for professional practice?

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Health Information Use After Graduation: Are We Preparing Our Students for Professional Practice?

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Why?

We wanted to know if our health sciences and nursing graduates' experiences at Grand Valley State University (GVSU) prepared them to find, evaluate, and apply information to their clinical practice and patient education needs. While we were most interested in the library's impact, we wanted to know where they learned search skills and which resources they use most frequently as health care professionals.



How?

- Anonymous survey using SurveyMonkey®, included quantitative and qualitative questions
- Emails sent to 3529 alumni of several GVSU health sciences and nursing programs,
 November 2016
- Survey closed early December 2016
- 451 valid responses received (12.8% response rate)



Who?

| Characteristic | n | % |
|---|-----|-----|
| Year Graduated | | |
| Graduated before 2000 | 18 | 4% |
| Graduated 2001-2011 | 240 | 56% |
| Graduated 2012 and later | 174 | 40% |
| Most Recent Health Science Degree From GVSU | | |
| BS Nursing | 220 | 51% |
| Masters Nursing | 23 | 5% |
| Doctor Nursing Practice | 20 | 5% |
| Masters Physician Assistant Studies | 37 | 9% |
| BS Athletic Training | 40 | 9% |
| Masters Physical Therapy | 30 | 7% |
| Doctor Physical Therapy | 62 | 14% |



Resources used most often

| Degree | PubMed | Other | UpToDate | CINAHL |
|---------------------------------|--------|-------|----------|--------|
| Nursing (BSN, n=184) | 40.7% | 38.0% | 32.1% | 31.0% |
| Nursing (MSN, n=20) | 40.0% | 90.0% | 40.0% | 40.0% |
| Nursing (DNP, n=18) | 44.4% | 38.8% | 83.3% | 33.3% |
| Physician Assistants (n=37) | 43.2% | 73.0% | 86.5% | 27.0% |
| Athletic Trainers (n=35) | 88.6% | 22.9% | 29.0% | 22.9% |
| Physical Therapists (MPT, n=26) | 57.7% | 46.2% | 3.8% | 23.1% |
| Physical Therapists (DPT, n=59) | 47.5% | 49.2% | 5.1% | 30.5% |

- "Other" includes hospital policies and procedures, webinars, and continuing education.
- Two other large groups emerged: discipline-specific journals (listed 161 times) and discipline-specific websites (listed 254 times).
- Resources such as AccessMedicine, ClinicalKey, and Lexicomp were listed less than ten times out of all responses.
- Respondents reported they use PubMed, UpToDate, and CINAHL because they are accurate, current, easy to use, and fast.



Confidence in finding, evaluating, and applying research

Across all skills, more than 85% of respondents ranked their confidence as 1 or 2 (very confident or confident).

| How confident are you in | Finding information related to professional practice? | | Evaluating information related to professional practice? | | Applying research to practice? | |
|---------------------------------|---|---------------------------|--|---------------------------|--------------------------------|---------------------------|
| | 1-2 (Confident) | 3-4 (Not confident) | 1-2 (Confident) | 3-4 (Not confident) | 1-2 (Confident) | 3-4 (Not confident) |
| Nursing (BSN, n=184) | 91.8% | 8.2% | 91.3% | 8.7% | 85.4% | 14.6% |
| Nursing (MSN, n=20) | 100.0% | 0.0% | 90.0% | 10.0% | 95.0% | 5.0% |
| Nursing (DNP, n=18) | 94.4% | 5.6% | 94.4% | 5.6% | 94.4% | 5.6% |
| Physician Assistants (n=37) | 100.0% | 0.0% | 97.2% | 2.8% | 100.0% | 0.0% |
| Athletic Trainers (n=35) | 97.0% | 3.0% | 100.0% | 0.0% | 100.0% | 0.0% |
| Physical Therapists (MPT, n=26) | 100.0% | 0.0% | 95.8% | 4.2% | 95.8% | 4.2% |
| Physical Therapists (DPT, n=59) | 98.2% | 1.8% | 98.2% | 1.8% | 98.2% | 1.8% |



Preparing Students for Professional Practice

- Overall, 92.1% of the respondents felt GVSU had prepared them for professional practice.
- Nursing alumni responded that library instruction was an important source of skills, which may be attributed to substantially more face-to-face instruction with a librarian between 2008-2016.

| Degree 2008-2016 | Most important source of skills, 2008-2016 | | | | | Library Instruction Sessions 2008-2016 |
|------------------------------------|--|------------|--|--|--|---|
| | Professor | Classmates | Library instruction during a class session | Online library guides and tutorials | Met with librarian outside of class | |
| Nursing (BSN, n=116) | 58.6% | 36.2% | 56.9% | 29.3% | 14.7% | 138 |
| Nursing (MSN, n=10) | 90.0% | 30.0% | 50.0% | 40.0% | 20.0% | 15 |
| Nursing (DNP, n=17) | 76.5% | 64.7% | 64.7% | 35.3% | 23.5% | 11 |
| Physician Assistants (n=21) | 85.7% | 61.9% | 28.6% | 33.3% | 9.5% | 13 |
| Athletic Trainers (n=30) | 93.3% | 50.0% | 33.3% | 33.3% | 6.7% | 8 |
| Physical Therapists (DPT, n=54) | 96.3% | 59.3% | 25.9% | 20.4% | 3.7% | 8 |



One thing you learned...

"...how to search for research that is both current and relevant to clinical practice. I am confident in my ability to differentiate between reliable sources and non-scholarly authors. As a result, I am able to apply the concepts that I have learned through research to clinical practice and overall improve patient outcomes."

"As a practicing RN I found evidence based practice to be the best way to improve healthcare. Learning how and where to find accurate research articles about it was a very helpful thing that I learned..."

One thing you wish you had learned...

"Learn how to effectively use and find free (non-employer or university based) literature."

"How to use the databases early on freshman year, I didn't learn until later on in my education."

Advice for students...

"Learn how to evaluate your sources. The best ways to find information will probably change over time as new technologies become available, but it will always be important to understand what you're reading and how well it applies to your situation."

"Ask for help, be persistent, don't be afraid to make mistakes, keep trying."





What's next?

- Explore a means by which to measure graduates' actual information seeking skills (versus self-reported skills).
- Develop tools such as online library guides focused on post-graduation resources to help students transition from university-provided databases to freely available resources.
- Collect alumni perceptions about particular types of preparation (e.g., by professors, librarians, working with fellow students, or other methods) to create an understanding of what is optimally effective in empowering graduates to become independent, well-qualified users and creators of research.

