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Establishing and enforcing evidence-based standards for nursing education is an essential part of the Nursing Care Quality Assurance Commission's (NCQAC) duty to protect the public's health and safety. As a practice discipline, nursing requires experiential learning opportunities to adequately prepare students for practice. In the past, these experiential learning opportunities were primarily traditional clinical experiences where students "provide[d] direct care under the guidance of an instructor or preceptor" (NCSBN, 2016). More recently, nurse educators have used various types of simulation to replace or augment traditional clinical experiences and achieve learning objectives. Like many nursing regulatory bodies, the NCQAC regulates the minimum number of required clinical experience hours and the use of simulation for nursing education programs.

Internationally, nursing education programs in the US require relatively few clinical hours when compared with those in the UK, New Zealand, and Australia (Hungerford et al., 2019). Within the US, requirements vary by state and program type. Data from the National Council of State Boards of Nursing (NCSBN) National Nursing Education Annual Report (Spector et al., 2022) show the mean number of direct patient care hours was 386.3 for licensed practical or vocational nursing (LPN/VN) programs, 437.61 for associate degree in nursing (ADN) programs, and 625.64 for bachelor's degree in nursing (BSN) programs. This report indicated, "more time is needed in clinical experiences (skills labs, simulation and direct care clinical experiences)" (p.8). In our state, WAC 246-840-531 states the number of clinical or direct patient care experience hours must be at least 300 hours for LPN program, 500 hours for (ADN), and 600 hours for (BSN) programs. These requirements are similar to the national means (Figure 1). The NCSBN *Model Rules* (2021) do not include a recommendation or rule about the number of clinical hours pre-licensure nursing programs should include. There is currently a lack of evidence to support such a recommendation or rule (Spector, 2018).

The *Model Rules* (NCSBN, 2021) say up to 50% of required clinical hours can be replaced with simulation if it adheres to specific standards. This is reflected in WAC 246-840-534 and is supported by evidence from NCSBN's National Simulation Study (Hayden et al., 2014) that found up to 50% of required clinical time could be replaced with high-quality simulation without negatively impacting outcomes. This study used a 1:1 ratio where each hour of simulation replaced one hour of traditional clinical experience. There has been interest in considering a 1:2 ratio where each hour of simulation replaces two hours of required clinical time. Emerging evidence suggests time spent in simulation is more "intense" and "efficient" than time spend in traditional clinical (Sullivan et al., 2019, p. 41) and a one hour of simulation may be equal to two hours of traditional clinical under certain circumstances (Curl et al., 2016, p. 77). At least one state currently allows nationally accredited programs to replace up to 50% of their required clinical hours (400 hours for practical and 750 for professional nursing programs) with simulation using the 1:2 ratio (Colorado State Board of Nursing, 2022). This ratio is not reflected in the *Model Rules* (NCSBN, 2021) or Healthcare Simulation Standards of Best Practice™ (INACSL, 2021).

The NCQAC recently partnered with the University of Washington Tacoma and the NCSBN Center for Regulatory Excellence to further investigate the 1:2 ratio. In this multi-site, randomized controlled study

of prelicensure nursing students enrolled in their first in-patient clinical course and focused on specific learning objectives, students who participated in two hours of high-quality mannequin-based simulation performed as well or significantly better on measures of cognitive learning and patient care performance than students who participated in four hours of traditional clinical experience. This finding supports the 1:2 ratio under very specific conditions and emphasizes the need for additional evidence to guide policy. This study also underscored the importance of quality simulation experiences. Additional questions about how to best employ the unique resources of traditional clinical and simulation-based learning opportunities remain. Further investigation of these questions will inform thoughtful, evidence-based regulation of simulation in nursing education in Washington State.

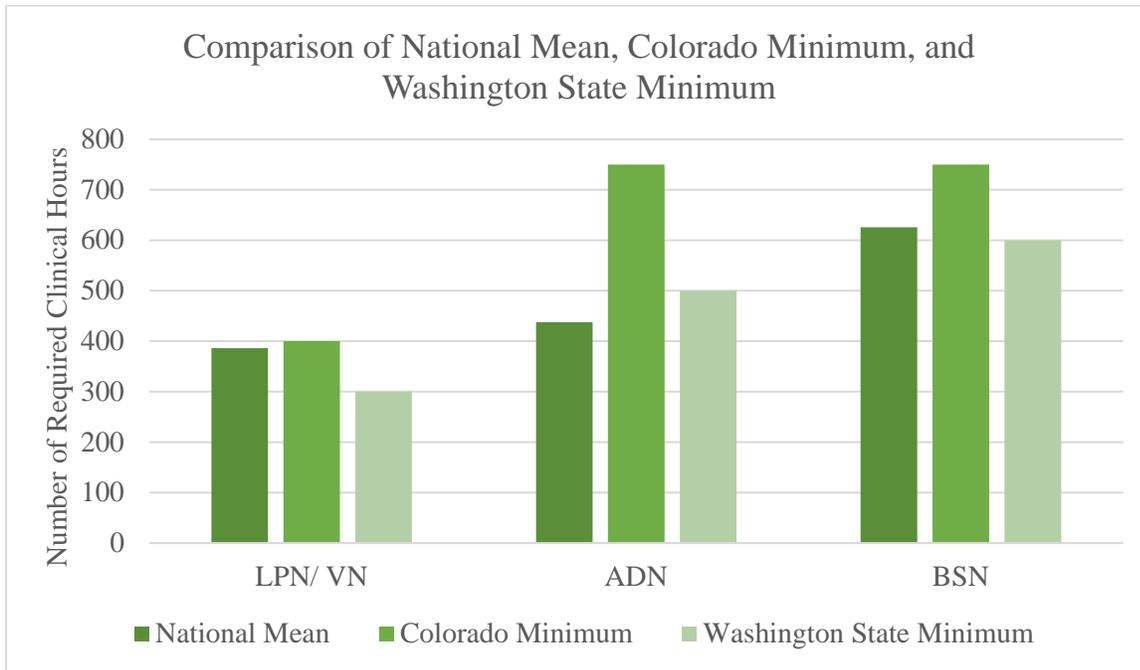


Figure 1. A comparison of the national mean number of direct patient care hours in surveyed nursing programs (Spector et al., 2022), Colorado minimum required clinical hours (Colorado State Board of Nursing, 2022) and Washington State minimum required clinical hours (WAC 246-840-531)

References

- Colorado State Board of Nursing. (2022). *Code of Colorado Regulations 3 CCR 716-1*. <https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=10462&fileName=3%20CCR%20716-1>
- Curl, E., Smith, S., Chisholm, L., McGee, L., & Das, K. (2016). Effectiveness of integrated simulation and clinical experiences compared to traditional clinical experiences for nursing students. *Nursing Education Perspectives*, 37(2), 72–77. <https://doi.org/10.5480/15-1647>
- Hayden, J. K., Smiley, R. A., Alexander, M., Kardong-Edgren, S., & Jeffries, P. R. (2014). The NCSBN National Simulation Study: A longitudinal, randomized controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Regulation*, 5 (2), S1–S64.
- Hungerford, C., Blanchard, D., Bragg, S., Coates, A., & Kim, T. (2019). An international scoping exercise examining practice experience hours completed by nursing students. *Journal of Nursing Education*, 58(1), 33-41.
- INACSL Standards Committee. (2021). Healthcare Simulation Standards of Best Practice™. *Clinical Simulation in Nursing*, <https://doi.org/10.1016/j.ecns.2021.08.018>.
- National Council of State Boards of Nursing. (2021). *Model Rules*. www.ncsbn.org
- National Council of State Boards of Nursing (2016) *Simulation Guidelines for Prelicensure Nursing Education Programs*. <https://ncsbn.org/null/null/national-simulation-guidelines#:~:text=Simulation%20Guidelines%20for%20Prelicensure%20Nursing%20Programs%20are%20meant,based%20simulation%20programs%20for%20the%20undergraduate%20nursing%20curriculum>.
- Spector, N., Hooper, J. I., Silvestre, J., & Qian, H. (2018). Board of nursing approval of registered nurse education programs. *Journal of Nursing Regulation*, 8(4), 22–31. [https://doi.org/10.1016/S2155-8256\(17\)30178-3](https://doi.org/10.1016/S2155-8256(17)30178-3)
- Spector, N., Silvestre, J., Alexander, M., Martin, B., Hooper, J., Squires, A., & Ojemeni, M. (2020). NCSBN Regulatory Guidelines and Evidence-Based Quality Indicators for Nursing Education Programs. *Journal of Nursing Regulation*, 11(2), S1-S64.
- Spector, N., Silvestre, J., McIntosh, Q. & Kaminski-Ozturk, N. (2022). *National Council of State Boards of Nursing National Nursing Education Annual Report (2020-2021) Aggregate Data*.
- Sullivan, N., Swoboda, S. M., Breymier, T., Lucas, L., Sarasnick, J., Rutherford-Hemming, T., Budhathoki, C., & Kardong-Edgren, S. (S.) (2019, May). Emerging evidence toward a 2:1 clinical to simulation ratio: A study comparing the traditional clinical and simulation settings. *Clinical Simulation in Nursing*, 30 (C), 34-41. <https://doi.org/10.1016/j.ecns.2019.03.003>.
- WAC 246-840-531 Clinical and practice experiences for students in approved nursing education programs.
- WAC 246-840-534 Use of simulation for clinical experiences in LPN, RN, or RN to BSN nursing education programs located in Washington state.