

PROMOTION RECOMMENDATION
The University of Michigan-Flint
School of Nursing

Carman L. Turkelson, assistant professor of nursing, School of Nursing, is recommended for promotion to associate professor of nursing, with tenure, School of Nursing.

Academic Degrees:

D.N.P.	2013	University of Michigan, Nursing, Ann Arbor, Michigan
M.S.N.	2008	Michigan State University, Nursing Education, East Lansing, Michigan
B.S.N.	1993	Michigan State University, Nursing, East Lansing, Michigan

Professional Record:

2014-present	Assistant Professor of Nursing and Associate Director of School of Nursing Simulation Center, School of Nursing, University of Michigan-Flint, Flint, Michigan
2014-present	Clinical Consultant-Nursing Education & Research, William Beaumont Hospital, Royal Oak, Michigan

Summary of Evaluation:

Teaching: Professor Turkelson's teaching philosophy is congruent with the commitment to excellence in teaching and scholarship, student-centeredness, and engagement with community partners at the University of Michigan-Flint (UM-Flint). In her philosophy statement, Professor Turkelson indicates that she believes each student has unique needs, learning styles, interests, and experiences that should be respected and valued. Committed to the belief that teaching should be learner-centered and flexible, she embraces the concept of experiential learning, which she uses as the basis for developing simulation activities as a teaching-learning pedagogy. Her pursuit of fellowships that provide advanced training in simulation is exemplary, as is her ability to create meaningful and varied simulation experiences for her students. For example, Professor Turkelson includes the use of high-fidelity human patient simulators, standardized patients (human actors), cultural diversity, and interprofessional team members from medicine, social work, physical therapy, and other disciplines in the simulation experience. Although most of her simulated learning/teaching scenarios are focused on inpatient settings that take place in the School of Nursing (SON) campus-based simulation center, she also skillfully creates ambulatory, home, and community-based milieu in which students are provided the opportunity to master course and program outcomes.

For the past three years, she has partnered with police, fire, and other first responders in a neighboring community to engage students in a mass casualty disaster simulation, thereby preparing students to assist when serious emergencies occur in community settings. Professor Turkelson also engages nursing students and faculty in a multi-agency, interdisciplinary community-based poverty simulation that prepares students to develop cultural competence while assisting low-income individuals and families with access to community social services and health resources to manage common health-related challenges.

Professor Turkelson developed a student "simulation boot camp" focused on assessing patients, mastering technical skills, making clinical decisions, and solving complex healthcare and social problems. Students have commented that the simulations make them feel more confident when performing skills and procedures for the first time with a real patient. Professor Turkelson also includes virtual reality technology to teach selected technical skills and simulate various disabilities and disease

conditions. Professor Turkelson links these interactive course activities with course content to make the classroom experience an interactive, engaging environment. Professor Turkelson also uses iClicker technology to increase students' active engagement in the classroom. Lastly, along with other SON and Physical Therapy Department faculty, Professor Turkelson was awarded a \$10,000 grant from the International Nursing Association for Clinical Simulation and Learning (INACSL) Chamberlain College of Nursing & DeVry Medical International Institute for Research and Clinical Strategy for their project titled "Using virtual simulation & deliberate practice to promote interprofessional communication and teamwork in healthcare professions education."

In her role as associate director of the SON Simulation Center, Professor Turkelson has mentored multiple faculty members from the SON and other university departments (including Physical Therapy, Radiation Therapy, and Social Work) on the development, design, implementation, and evaluation of simulation-based learning activities for their courses. She also created a student standardized patient program for students at the university to learn how to perform as a standardized patient during a simulation-based learning experience. This program received a Catalyst Course Collaborative grant from the Thompson Center for Learning and Teaching.

In addition to teaching undergraduate courses in pathophysiology and medical-surgical nursing, Professor Turkelson also chairs or co-chairs the supervisory committees for Doctor of Nursing Practice (DNP) research projects. She is a highly respected mentor to students in the undergraduate and graduate programs as well as to newly appointed and junior faculty in the SON. Professor Turkelson's student course evaluations have been outstanding, ranging from 4.0 to 5.0 out of 5 possible points across each of her courses in all semesters since she began teaching at UM-Flint. Comments from students on her end-of-course evaluations contain many favorable remarks such as "excellent teaching style." A student in her pathophysiology course remarked, "The entire course was valuable, Dr. Turkelson is one of the best instructors I have had in my whole college career."

Research: Professor Turkelson has focused her scholarly inquiry and publications on the safe management of low-frequency, high-risk patients in cardiac intensive care units. Professor Turkelson's clinical experience in high-risk, high-acuity specialty units at Beaumont Hospital with patients with the Impella® Left Ventricular Assist Device (heart pump) resulted in the development of two crisis checklists (combined with repetitive simulation sessions using the checklists) that were found to improve nurses' adherence to critical processes of care and reduce medical errors in emergency situations. This work resulted in two published reports and one manuscript currently under review.

Professor Turkelson has embraced active teaching and learning methodologies in her research on simulation to stimulate a deeper understanding, enhance clinical reasoning and creativity, and ultimately inspire lifelong learning in students. She has conducted investigations and published on interprofessional education research with an understanding that healthcare professionals work collaboratively together as a team and, as such, must have opportunities to learn and practice together in order to improve patient safety and health outcomes.

Professor Turkelson has seven published peer-reviewed articles (five as first or second author and two as third author) and two journal articles under review. She has also published one book chapter. She has delivered 14 national and state peer-reviewed podium presentations and 31 poster presentations as well as 7 invited speaker presentations since 2010. She has mentored 13 DNP students in the research process as well as undergraduate and graduate student research assistants. She has consistently shown a commitment to mentoring future nursing researchers.

Since 2014, Professor Turkelson has been awarded internal and external grant funding totaling approximately \$115,000. This funding has facilitated the development of a student standardized patient program for the SON; stimulated the development and ongoing implementation of simulation-based interprofessional experiences for more than 500 students across the university in multiple programs; enabled the exploration of virtual simulation and telehealth to improve interprofessional teamwork and communication; and permitted the exploration of virtual or standardized patient simulation experiences for students to enhance cultural competence, empathy, and caring for vulnerable patient populations. In the future, she plans to seek federal funding in the area of interprofessional education in simulation to improve outcomes for vulnerable populations.

Professor Turkelson is a University of Michigan Interprofessional Leadership Fellow (2017-2018), which enhances her scholarship in the area of interprofessional simulation. The SON also supported her participation in the INACSL & CAE Simulation Fellowship (2015-2016) and the INACSL Research Fellowship (2016-2017). Professor Turkelson is a co-investigator in a multi-institutional study using virtual reality simulation to teach Foley catheter insertion. Professor Turkelson is a highly productive scholar and has demonstrated high potential for future scholarship and grant funding.

Recent and Significant Publications:

Turkelson, C., Keiser, M., Yorke, A., & Smith, L. (2018). Piloting a multifaceted interprofessional education program to improve physical therapy and nursing students' teamwork skills. *Journal of Acute Care Physical Therapy*, 9(3), 107-120.

Smith, L., Keiser, M., Turkelson, C., Yorke, A., Sachs, B., & Berg, K. (2018). Simulated interprofessional education discharge planning meeting to improve skills necessary for effective interprofessional practice. *Professional Case Management*, 23(2): 75-83. doi: 10.1097/NCM.0000000000000250

Keiser, M., & Turkelson, C. (2017). Using students as standardized patients: Development, implementation, and evaluation of a student-based standardized patient training program. *Clinical Simulation in Nursing*, 13(7), 321-330.

Turkelson, C., & Keiser, M. (2017). Using checklist and repetitive simulation to improve patient safety: A pilot project with the Impella® left ventricular assist device. *Clinical Simulation in Nursing*, 13(2), 53-63.

Service: Professor Turkelson has provided extensive service to the school, university, profession, and community. Her passion for simulation-enhanced interprofessional education has resulted in ongoing volunteer activities in Flint and neighboring communities. For example, she has served as a member of the Lapeer County Disaster Exercise Planning Team since 2016. In this capacity, Professor Turkelson served as a University and SON liaison by assisting with the planning, implementation, and evaluation of five disaster simulations, creating opportunities for numerous nursing students to participate in large-scale community events. Professor Turkelson engages in numerous other community services including, but not limited to, volunteering her professional services at marathons and local high schools.

External Reviewers:

Reviewer (A): "Professor Turkelson is highly regarded by her peers in simulation education across the country, as demonstrated in the number and quality of presentations and presentation venues, publications, grants, and invited dissemination opportunities."

Reviewer (B): "Her research in simulation in both the healthcare settings as well as academia has resulted in some valuable interventions and has propelled her work forward in simulation. She has

shown a passion for quality simulation and has made herself a national leader, extensively qualified in simulation. ... Her publications on simulation and communication in Critical Care are peer reviewed and in quality journals. ... I believe her scholarship in simulation and translational research is outstanding.”

Reviewer (C): “Her work has tackled many important issues related to simulation, interprofessional education/practice/communication, and the use of standardized patients in simulation.”

Reviewer (D): “The quantity, quality, focus, and scholarly impact of Dr. Turkelson is quite impressive ... Her publications are all outstanding and in highly regarded nursing journals. Her standing appears to be far superior to others in the same field.”

Reviewer (E): “Professor Turkelson’s scholarly works ... have made a contribution to the science of simulation in nursing, other disciplines and interprofessional education. ... I believe *Intensive care unit using simulation and nursing crew resource management strategies: An implementation project* has the greatest contribution to the science of simulation education. The project described in this publication was significant, and the background, project details and results were described in a clear and concise manner.”

Summary of Recommendations:


Professor Turkelson is a multi-talented, exceptionally effective teacher who is nationally recognized for her research and scholarship on patient safety and simulated learning/teaching methods. Health professionals and health professions students report that her use of simulated learning/teaching actively engages them in interprofessional communication and teambuilding. It also develops their self-confidence in critical thinking, clinical problem-solving, and mastery of complex technical skills. Her teaching, scholarship, and service to the school, University, profession, and community are exemplary. I enthusiastically recommend Carman L. Turkelson for promotion to associate professor of nursing, with tenure, School of Nursing.

Recommended by:



Margaret M. Andrews,
Dean and Professor, School of Nursing

Recommendation endorsed by:



Susan E. Alcock, Interim Provost and
Vice Chancellor for Academic Affairs



Susan E. Borrego, Chancellor
University of Michigan-Flint

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