



## EPUAP CURRICULUM VITAE

Name TUBA SENGUL

Work Title Assoc. Prof.

Institution Koç University School of Nursing

E-mail tsengul@ku.edu.tr

Year of joining EPUAP 2025

### Relevant publications for the last two years :

Sengul T, Yantac AE, Gurler N, Guler O, Yilmaz Akyaz D, Kirkland-Kyhn H. Next-generation encyclopedia: An extended reality artificial intelligence-chatbot simulation for pressure injury prevention in nursing education. *Clin Simul Nurs*. 2026 Jun;115:101960.

Sengul T, Yilmaz Akyaz D, Cevizci T, Zeytun O, Lopez V, Kirkland-Kyhn H. Beyond Conventional Risk Scales: Temporal Patterns and Multidimensional Predictors of Early Deep Tissue Pressure Injury in ICU - A Retrospective Cohort Study. *Nurs Crit Care*. 2026 Mar;31(2):e70379. doi: 10.1111/nicc.70379.

Gurler N, Sengul T, Bulbul SH, Yilmaz Akyaz D, Guler O, Yantac AE, Aydın EB, Kirkland-Kyhn H. Secure and accessible AI in nursing education: A modular agentic chatbot framework comparing ChatGPT-4o with an open-source LLM for chronic wound care. *Nurse Educ Pract*. 2026 Mar 18;93:104789. doi: 10.1016/j.nepr.2026.104789.

Teleten O, Smith C, Holte J, Tsang L, Peterson L, Sengul T, Ballesteros R, Kirkland-Kyhn H. Comparative Pressure Mapping of Pediatric Support Surfaces. *J Wound Ostomy Continence Nurs*. 2025 Nov-Dec 01;52(6):499-502. doi: 10.1097/WON.0000000000001228.

Sengul T, Yilmaz Akyaz D, Teleten O, Souza J, Kirkland-Kyhn H. The impact of nurse practitioner-led wound clinic for under-resourced populations: A retrospective study. *J Am Assoc Nurse Pract*. 2025 Oct 7. doi: 10.1097/JXX.0000000000001207.

Kirkland-Kyhn H, Sengul T, Karadag A, Yilmaz Akyaz D, Cevizci T, Teleten O. Exploring Nurses' Acceptability and Readiness for Patient-Centered Artificial Intelligence Systems in Pressure Injury Prevention. *Adv Skin Wound Care*. 2025 Oct 1;38(9):488-495. doi: 10.1097/ASW.0000000000000348.

Acar E, Sengul T. Does Nurses' Fatigue Level Affect Their Self-Efficacy in Pressure Injury Management? A Multi-Center Cross-Sectional Study. *Int Wound J*. 2025 Aug;22(8):e70708. doi: 10.1111/iwj.70708.

Sengul T, Ozakgul A, Akyaz DY, Aydın Y, Karakaya D. The Reflections of Global Climate Change on Wound and Ostomy Care: Awareness, Experiences, and Strategies in Nursing Practices. *Int Wound J*. 2025 Aug;22(8):e70729. doi: 10.1111/iwj.70729.

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Sengul T, Kirkland-Kyhn H, Yilmaz Akyaz D, Cevizci T. Nurses' Insights on the Braden Scale and Their Vision for Artificial Intelligence Innovations: A Mixed Methods Study. *J Clin Nurs*. 2025 Jul 14. doi: 10.1111/jocn.70038.

Sengul T, Howell M, Kirkland-Kyhn H. Advances in Wound Care and Wound Management. *Nurs Clin North Am*. 2025 Mar;60(1):xv-xvi. doi: 10.1016/j.cnur.2024.08.011.

Sengul T, Karadag A, Kirkland-Kyhn H. Wound Care Education in Undergraduate and Graduate Nursing Settings. *Nurs Clin North Am*. 2025 Mar;60(1):197-206. doi: 10.1016/j.cnur.2024.07.002.

Karadag A, Sengul T, Kirkland-Kyhn H. The Role of the Wound, Ostomy, and Continence Nurse in an Earthquake. *Nurs Clin North Am*. 2025 Mar;60(1):185-195. doi: 10.1016/j.cnur.2024.07.009.

Howell M, Sengul T, Kirkland-Kyhn H. Ethnicity, Skin Tones, and Cultural Considerations in Wound Care: Challenges and Solutions. *Nurs Clin North Am*. 2025 Mar;60(1):165-174. doi: 10.1016/j.cnur.2024.07.017.

Sengul T, Kirkland-Kyhn H, Gul A. Postacute Overview of Burn Injuries: Pathophysiology, Management, and Future Directions. *Nurs Clin North Am*. 2025 Mar;60(1):15-25. doi: 10.1016/j.cnur.2024.08.009.

Gul A, Sengul T, Kirkland-Kyhn H. Surgical Site Infection Arising from the Operating Room. *Nurs Clin North Am*. 2025 Mar;60(1):143-152. doi: 10.1016/j.cnur.2024.07.003.

Gall B, Kirkland-Kyhn H, Sengul T. Wounds in the Unhoused Population. *Nurs Clin North Am*. 2025 Mar;60(1):119-127. doi: 10.1016/j.cnur.2024.07.007.

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Kirkland-Kyhn H, Sengul T, Akyaz DY. Using technology to enhance prevention of pressure injuries in the spina bifida population. *J Pediatr Rehabil Med*. 2025 Feb;18(1):57-60. doi: 10.1177/18758894251316073.

Sengul T, Senol Celik S, Kirkland-Kyhn H. The Role of Simulation in Pressure Injury Education: A Systematic Review. *Nurs Adm Q*. 2025 Jan-Mar 01;49(1):35-43. doi: 10.1097/NAQ.0000000000000661.

Sengul T, Kaya N. Unlocking Excellence: Improving Nursing Students' Knowledge of Pressure Injury Prevention through an Escape Room Experience. *Adv Skin Wound Care*. 2024 Nov-Dec 01;37(11&12):1-8. doi: 10.1097/ASW.0000000000000228.

Sengul T, Kaya N, Kirkland-Kyhn H, Akyaz DY, Cevizci T, Oldaç T, Koyun HC. Investigation of nursing students' knowledge levels and attitudes in incontinence-associated dermatitis management through game-based learning: a mixed methods study. *Wound Manag Prev*. 2024 Jun;70(2). doi: 10.25270/wmp.23077.

Sengul T, Karadag A, Kilic H. Exploring Nursing Students' First Experiences Providing Wound and Ostomy Care to Patients: A Qualitative Study. *Adv Skin Wound Care*. 2024 Jun 1;37(6):304-310. doi: 10.1097/ASW.0000000000000151.



Yilmaz Akyaz D, Cevizci T, Sengul T. Everyday Prevention: The Impact of Daily Comprehensive Skin Assessments on Pressure Injury Healing in the General ICU. *Adv Skin Wound Care*. 2024 May 1;37(5):248-253. doi: 10.1097/ASW.000000000000143.

Sengul T, Erden S, Karadağ A, Yilmaz D, Gokduman T. Overlooked Pain Assessment Records in Patients with Pressure Injuries During the COVID-19 Pandemic: A Retrospective Data Analysis. *Adv Skin Wound Care*. 2024 Mar 1;37(3):162-166. doi: 10.1097/ASW.000000000000105.

**Clinical:**

Certified Wound Ostomy Nurse (CWON) with extensive clinical and academic experience in chronic wound care, pressure injury prevention and management, ostomy care, continence care, and surgical nursing. Clinical expertise includes pressure injury risk assessment, skin assessment, wound dressing selection, prevention strategies, ICU-related pressure injury management, and care of patients with complex wound conditions and vulnerable populations. Actively involved in wound care education, interdisciplinary wound management initiatives, and Ministry of Health-approved wound care certification programs in Türkiye. Clinical and research interests particularly focus on evidence-based pressure injury prevention, chronic wound management, and technology-supported innovations in wound care practice.

**Scientific research:**

My scientific research focuses on pressure injury prevention, chronic wound care, artificial intelligence-supported wound assessment, machine learning-based prediction systems, extended reality (XR) technologies, simulation-based wound education, and digital innovations in nursing care. My work particularly explores the integration of artificial intelligence, machine learning, predictive analytics, chatbot systems, and immersive educational technologies into pressure injury prevention and chronic wound management. I have authored multiple peer-reviewed publications related to pressure injury prevention, chronic wound management, Braden Scale evaluation, artificial intelligence-supported prevention systems, wound care education, and technology-enhanced nursing education. My recent studies include machine learning and multidimensional predictive approaches for early deep tissue pressure injury detection, AI-supported decision systems, XR-AI integrated educational simulations, and interdisciplinary wound care collaborations.

As a Visiting Scholar at the Betty Irene Moore School of Nursing, University of California Davis (2023 and 2024), I collaborated on artificial intelligence-supported pressure injury prevention systems and interdisciplinary digital health initiatives. I also contributed as a research collaborator to the CITRIS and the Banatao Institute interdisciplinary seed-funded project titled “Persistent, autonomous, patient-centered monitoring and its application to pressure injury prevention.”

I am currently the Principal Investigator of the Koç University Seed Research Fund project (2024–2026) titled “The Impact of Artificial Intelligence and Extended Reality Supported Educational ChatBot Platform on Accurate Assessment, Classification of Chronic Wound Types, and Self-Learning Process.” I am also involved in the TÜBİTAK International Bilateral Cooperation project “Collaboration for AI in Research & Education on Pressure Injuries – Malta & Türkiye (CARE-MT)” focusing on international collaboration in artificial intelligence-supported pressure injury research and education.



My broader research interests also include evidence synthesis, simulation-based education, patient-centered care technologies, and innovative strategies to improve clinical decision-making, nursing competencies, and pressure injury prevention outcomes across diverse healthcare settings.

**Organisational:**

Actively involved in national and international interdisciplinary collaborations related to wound care, pressure injury prevention, nursing education, and digital health innovation. Served as Chair of the Education Commission of the Wound Ostomy Incontinence Nurses Association (YOİHD) between 2024–2026, contributing to professional education activities and dissemination of evidence-based wound care practices. Served as Guest Editor for an Elsevier special issue focusing on chronic wounds and wound management, coordinating international collaborations with authors and researchers from multiple countries, resulting in 17 peer-reviewed publications. Contributed to multicenter research projects, peer-review activities, academic mentorship, and scientific dissemination activities in wound care and pressure injury prevention. Actively engaged in professional and scientific networking through memberships and collaborations with international wound care organisations, including the European Pressure Ulcer Advisory Panel (EPUAP) and the European Wound Management Association (EWMA).

**Educational :**

Associate Professor at Koç University School of Nursing with extensive experience in undergraduate, graduate, and professional nursing education focused on wound, ostomy, and continence care, chronic wound management, and pressure injury prevention.

Coordinator of the Wound, Ostomy, and Continence Nursing Certification Program and actively involved in the Ministry of Health-approved wound care certification education programs in Türkiye since 2017. Since 2015, actively involved as an educator in chronic wound care courses organized by the Semahat Arsel Nursing Education, Practice and Research Center (SANERC).

For more than 10 years, teaching undergraduate and graduate nursing courses, including Advanced Wounds, Stoma and Chronic Wound Care Nursing, and Chronic Wound Management. Also actively involved in undergraduate track programs related to stoma and chronic wound care nursing.

Developed innovative educational initiatives integrating artificial intelligence, simulation, escape room methodology, extended reality technologies, and digital learning approaches into wound care and pressure injury prevention education.

**Strengths not utilised:**

Strong potential to contribute to international guideline development, interdisciplinary wound care collaborations, and innovative educational initiatives within EPUAP. Extensive expertise in integrating artificial intelligence, machine learning, extended reality technologies, simulation-based learning, and digital health innovations into pressure injury prevention and chronic wound care education. Experienced in international scientific collaboration, multicenter publication coordination, evidence synthesis, and technology-supported nursing education. Particular interest in developing future-oriented, evidence-based, and technology-enhanced strategies for pressure injury prevention, wound assessment, and professional education across diverse healthcare systems.



**Membership of other organisations**

European Pressure Ulcer Advisory Panel (EPUAP)

European Wound Management Association (EWMA)

Wound Ostomy Incontinence Nurses Association (YOiHD)

Wound, Ostomy and Continence Nurses Society (WOCN)