CURRICULUM VITAE

PERSONAL DATA

Name:	Pei Hung Liao, RN, NP, PhD.
Current Position:	Professor
Working Address:	365, Mingde Rd., Beitou District, Taipei City 11219
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EDUCATION

Duration	Institution & Location	Degree	Major Subject
2008-2013	National Yang Ming University, Institute of Biomedical Engineering, Taipei, Taiwan,	Ph.D.	Biomedical Engineering (Medical informatics)
2004-2006	National Taipei University of Nursing and Health Sciences, School of Nursing, Taipei, Taiwan,	MSN	Nursing (Nurse Practitioner) (Medical-Surgical)
1996-1998	National Taipei University of Nursing and Health Sciences, School of Nursing, Taipei, Taiwan,	BSN	Nursing

SPECIALTIES & RESEARCH INTERESTS

1. Artificial Intelligence & Data Science
2. Health Informatics
3. Health device design and development
4. Critical care of Nursing

PUBLICATIONS

Journal 期刊

	論文 Journal	author sequence	cata
2026	Chang, C. Y., Su, C. H., Chang, C. H., Ho, C. S., & Liao, P. H. (2025). Applying machine learning to explore association models between environmental hormones, breast cancer, and a dietary and health education improvement program: an investigative study. International Journal of Environmental Health Research, 1–10. https://doi.org/10.1080/09603123.2025.2576144	C	SCI
2025	Chen Y-J, **Liao P-H,** Hung C-L, Chang W-H, Shih S-C. Impact of telehealth care on clinical outcomes in heart failure patients. Journal of Telemedicine and Telecare. 2025;0(0). doi:10.1177/1357633X251318569	C	SCI
2025	Wu, HT., Liao, CC., Peng, CF. Tso-Ying. Lee, **Pei-Hung. Liao**. Exploring the application of machine learning to identify the correlations between phthalate esters and disease: enhancing nursing assessments. Health Inf Sci Syst 13(1), 10 (2025). https://doi.org/10.1007/s13755-024-00324-4	C	SCI
2025	Lee, P-C., Lin, M-W., Liao, H-C., Lin, C-Y. & **Liao, P-H.** (2025). Applying machine learning to construct an association model for lung cancer and environmental hormone high-risk factors and nursing assessment reconstruction. *Journal of Nursing Scholarship*, 57(1), 140–151. https://doi.org/10.1111/jnu.12997	C	SSCI
2025	I-Jui Lee, **Pei-Hung Liao** & Hsu-Wen Hung (02 May 2025): Utilizing VR technology with remote medical guidance for distant collaborative emergency medical training in advanced cardiac life support, Interactive Learning Environments, DOI: 10.1080/10494820.2025.2498541	2	SSCI
2025	Ying-Ju Chen, Chiu-Hsiang Lee, Chia-Jung Hsieh, **Pei-Hung Liao**, Yu-Da Chen, Kuei-Ru Chou, Shu-Liu Guo, Li-Fang Chang, Tso-Ying Lee, Effect of online mindfulness intervention on anxiety, depression, and stress in patients with chronic diseases, EXPLORE, 2025, 103214, https://doi.org/10.1016/j.explore.2025.103214.	4	SSCI
2025	Albert C. Yang, Wei-Ming Ma, Dung-Hung Chiang, Yi-Ze Liao, Hsien-Yung Lai, Shu-Chuan Lin, Mei-Chin Liu, Kai-Ting Wen, Tzong-Huei Lin, Wen-Xiang Tsai, Jun-Ding Zhu, Ting-Yu Chen, Hung-Fu Lee, **Pei-Hung Liao,** Huey-Wen Yien, Chien-Ying Wang,(2025) Early prediction of sepsis using an XGBoost model with single time-point non-invasive vital signs and its correlation with C-reactive protein and procalcitonin: A multi-center study,Intelligence-Based Medicine, Volume 11,https://doi.org/10.1016/j.ibmed.2025.100242.	8	SCI
2025	Ching-Fu Wang, Mu-En Lee, Cherng-Chia Yang, **Pei-Hung Liao,** Enhancing VBAC Prediction with AI-Powered Temporal Dynamics: Integrating Decision Support into a Shared Decision-Making Platform for Intrapartum Care, 17 March 2025, PREPRINT (Version 1) available at Research Square [https://doi.org/10.21203/rs.3.rs-6188292/v1]	7	SCI
2024	Chen, Ying-Ju PhD; Hung, Chung-Lieh PhD; Liao, Pei-Hung PhD. Design and Development of an Interactive Assessment Application for the Observation of Heart Failure Self-Health Management. CIN: Computers, Informatics, Nursing 42(12):p 905-912, December 2024.	DOI: 10.1097/CIN.0000000000001187	C	SSCI
2024	**Liao, PH**., Chu, W. Exploring the impact of an instructional web-based healthcare app for relieving back pain from spinal compression fractures: an observational study. *Multimed Tools Appl* **83**, 33295–33311 (2024). https://doi.org/10.1007/s11042-023-16801-z	1	SCI
2024	Chen CH, Hsiao CH, Liao PH, Hu HW, Wei S-J, Chen SW. Characteristics, utilization of reproductive health services and AI prediction among Taiwanese adolescent mothers during the COVID-19 pandemic. *DIGITAL HEALTH*. 2024;10. doi:10.1177/20552076241292675	3	SCI
2024	Lee, H. F., & **Liao, P. H.** (2024). The development and impact of an app for a smart drug interaction reminder system. *Technology and health care : official journal of the European Society for Engineering and Medicine*, *32*(3), 1595–1608. https://doi.org/10.3233/THC-230650	2	SCI

Year	Citation		
2024	Lee MC, Liu CC, Wang WH, Lin MH, Liao PH, Chen MQ. Effectiveness of Mobile Application Disease Self-Management Programme on Mental Health and Self-Management of Patients With Hypertension: A Randomised Controlled Trial. Int J Nurs Pract. 2024 Dec;30(6):e13312. doi: 10.1111/ijn.13312. Epub 2024 Oct 21. PMID: 39431412.	5	SSCI
2023	**Pei-Hung, Liao**., Yu-Jie Huang., Chen-Shie Ho. & William Chu_* (2023). Application of machine learning and its effects on the development of a nursing guidance mobile app for sarcopenia. *BMC nursing*, *22*(1), 369. https://doi.org/10.1186/s12912-023-01545-w	1	SCI
2022	**Liao, Pei-Hung,** William Chu, and Chen-Shie Ho*. (2022). An Analysis of Waiting Time for Emergency Treatment and Optimal Allocation of Nursing Manpower. *Healthcare* 10, no. 5: 820. https://doi.org/10.3390/healthcare10050820	1	SCI
2022	**Liao P-H*,** Kang SJ. The mindset and realization of precision care provided by the science of ambient-assisted living. *Hu Li Za Zhi*. (2022) ;69(2):19-24. doi: https://doi.org/10.6224/JN.202204_69(2).04.	1	TSCI
2022	**Liao P-H,** Tsuei Y-C, Chu W. Application of Machine Learning in Developing Decision-Making Support Models for Decompressed Vertebroplasty. *Healthcare*. (2022); 10(2):214. https://doi.org/10.3390/healthcare10020214	1	SCI
2022	Chu, W., Ho, C. S., & Liao, P. H. (2021). Comparison of different predicting models to assist the diagnosis of spinal lesions. Informatics for Health and Social Care, 47(1), 92–102. https://doi.org/10.1080/17538157.2021.1939355	C	SCI
2022	Yi-Tsao Chen., Yi-Cheng Chiu., Meng-Lan Teng. & **Pei-Hung, Liao*** (2022) The effect of Medical Material Management System APP on Nurse Workload and Stress *BMC Nurs* **21,** 243 (2022). https://doi.org/10.1186/s12912-021-00767-0	C	SCI
2021	Pei-Ying, K.O., Chen-Shie, H.O. & **Pei-Hung, L.I.A.O.*** (2021) The impact of a multilevel interactive nursing quality control and audit application on nursing quality management. *BMC Nurs* **20,** 243 (2021). https://doi.org/10.1186/s12912-021-00767-0	C	SCI
2021	Pei- Li Chien, Hui-Ting Huang, Hei-Jen Jou, Shih-Ming Chen, Tzuu-Guang Young, Yi-Feng Wang, **Pei-Hung Liao*** (2021) Application of Artificial Intelligence in the Establishment of an Association Model between Metabolic Syndrome, TCM Constitution, and the Guidance of Medicated Diet Care. *Journal of Evidence-Based Complementary and Alternative Medicine* vol. 2021, Article .ID 5530717, 9 pages, 2021. https://doi.org/10.1155/2021/5530717	C	
2020	Chiou, P-Y.; ,**Liao, P.-H**.; Liu, C.-Y.; Hsu, Y.-T.(2020) Effects of mobile health on HIV risk reduction for men who have sex with men. *AIDS Care - Psychological and Socio-Medical Aspects of AIDS/HIV* Vol. 3*2* (3).,DOI: 10.1080/09540121.2019.1668531	2	SCI
2018	Chen, Y. J., Tsou, M. T., Hung, C. L., Chang, W. L., & **Liao, P. H*.** (2018). Predicting Long-Term Mortality with Biomarkers Level for Homecare Patients. *Studies in health technology and informatics*, *250*, 269.	C	
2015	**Pei-Hung Liao**, Pei-Ti Hsua1,William Chu, and Woei-Chyn Chu (2015) Applying artificial intelligence technology to support decision making in nursing: A case study in Taiwan ,*Health Informatics Journal Vol. 21*(2) 137–148.	1	SCI
2014	**Pei-Hung Liao**, William Chu, and Woei-Chyn Chu (2014) Evaluation of the Mining Techniques in Constructing a Traditional Chinese-Language Nursing Recording System, *Journal of Computer Informatics Nursing vol 5* No5, 223-231.	1	SSCI
2014	Pei-Ti Hsua1, **Pei-Hung Liao**, William Chu, Shiu-Yan Yanga and I-Ju Chena (2014) Exploration and forecasting of behaviours and factors relating to fruit and vegetable intake among seniors in the community. *Public Health Nutrition. 30;18(6):1052-9.*	2	SCI
2012	William Chu, Yu-Chuan Tsuei, **Pei-Hung Liao**, Woei-Chyn Chu (2012) · Decompressed Percutaneous Vertebroplasty : A Secured Bone cement Delievery Procedure for Vertebral Augemention in Osteoporotic Compression Fracture. *Injury- Internetional Journal of the Care of the Injury*.)	3	SCI

Conference

1. Hsieh CY, **Liao PH**, Wu MW. Nursing Documentation Interface Configuration Based on Demand Assessment for AI System Development. Stud Health Technol Inform. 2025 Aug 7;329:2014-2015. doi: 10.3233/SHTI251326. PMID: 40776343.
2. Wu PH, **Liao PH.** Applying Text Mining to Identify the Need for Long-Term Care Facilities to Introduce Smart Technology. Stud Health Technol Inform. 2025 Aug 7;329:1726-1727. doi: 10.3233/SHTI251184. PMID: 40776201.
3. Wen-Ting Li、Pei-Hung Liao* (2025) Machine learning approaches to Establishment of an Predicting Model in early detection arteriovenous shunt tube occlusion. 2025 28th East Asian Forum of Nursing Scholars (EAFONS). Poster. Seoul. Korea.
4. Ching-Yi Hsich、Pei-Hung Liao* (2025) Interface Optimization of the Nursing Handover system based on Clinical user assessment. 2025 28th East Asian Forum of Nursing Scholars (EAFONS). Poster. Seoul. Korea.
5. Ying-Ju Chen, Pei-Hung Liao (2024) Diagnostic Yield and Model Prediction Using Wearable Patch Device in HFpE. 2024 International Conference on Nursing Informatics · Oral · UK.
6. Chih-Yen CHANG, Pei-Hung Liao (2024) Applying Artificial Intelligence Constructing a Prediction Model Related to Environmental Hormones and Breast Cancer Incidence. 2024 International Conference on Nursing Informatics · Poster · UK.
7. Chia-Yi Chao, Pei-Hung Liao (2024) Feasibility Study on Detecting Breast Cancer Lymph Node Metastasis and Optimizing Nursing Workflow. 2024 International Conference on Nursing Informatics · Poster · UK.
8. You-Ping Wang, Pei-Hung Liao (2024) Enhancing Citizen Health Literacy Through Digital Technology . 2024 International Conference on Nursing Informatics · Poster · UK.
9. Chen-Shie Ho, Pei-Hung Liao* (2021) Applying Deep Neural Network Scheme to Improve Efficiency and Satisfaction of Nursing Diagnosis. The 2nd International Conference on Modern Medicine and Application (ICMMA2021). Poster, China.
10. Chia-Min Kao, Pei-Hung Liao* (2020) Preliminary Exploration of the Effectiveness of an App Developed for Nursing Audits. 2020 Taiwan International Nursing Conference Endorsed by ICN.E-Poster, Taipei.
11. Pei Li Chien, Shih-Ming Chen, Hui-Ting Huang , Hei-Jen Jou, Pei-Hung Liao* (2019) Applying Data Mining Technology to Establish a Personalized Disease Risk Prediction Model. 27TH INTERNATIONAL CONFERENCE ON HEALTH PROMOTING HOSPITALS AND HEALTH SERVICES. Oral . WARSAW, POLAND

12. Pei-Hung Liao, William Chu (2019) Development and effectiveness of Smart Drug Interaction Nursing Guidance System: A preliminary study. 2019 International Council of Nurses Conference. Poster. Singapore.
13. Ying-Ju Chen ,Meng-Ting Tsou , Chung-Lieh Hung , Wen-Ling Chang , Pei-Hung Liao (2018) Predicting Long-term Mortality with Biomarkers level for Homecare Patients. 2018 International Conference on Nursing Informatics · Poster · Mexico.
14. Chen Yi-Chao, Liao Pei-Hung, Lee Ya-Hui, Hsieh Yu-Ling, Chiu, Yi-Cheng, Keng Li-Ta (2018) Proving Nursing Care to Tracheostomy Patients with Shared Decision

Making. The International Forum on Quality and Safety in Healthcare. Poster · Netherlands

15. <u>Pei-Hung Liao</u>*, Chen-Shie Ho (2016) The Effectiveness of Applying APP Techniques to Establishment drug interaction with health care reminding system. The 5th International Conference on Biomedical Engineering and Biotechnology (ICBEB 2016). Poster · China.

16. <u>Pei-Hung Liao</u>*, (2016) The Effectiveness of Using Creative Teaching Method to Enhance Students' Practical Capability of Nursing. 2016 Asian Congress in Nursing Education (2016 ACiNE). Poster · Taipei.

17. Szu-ying Lee、<u>Pei-Hung Liao</u>* (2016) Leadership Challenges for Advancing Doctoral Education in Nursing · Investigation of the effectiveness of Article Retrieval and Application course in information search and literature writing for nursing students. 2016 19th East Asian Forum of Nursing Scholars (EAFONS). Poster. Japan. Chiba.

18. <u>Pei-Hung Liao</u>* (2015) The Effectiveness of Using QR Code Nursing Care Instructions in Relieving Back Pain of Spine Compression Fracture. 2015 International Council of Nurses Conference. Poster. South Korea.