Shahabeddin Abhari

(B.Sc., M.Sc., MBA., MPH., Ph.D.)

Postdoctoral Research Fellow at the University of Waterloo, CA

sabhari@uwaterloo.ca | shahabeddin.abhari@gamil.com | 519-500-6972 | N2T 0C7



<u>University of Waterloo</u> | <u>www.drshahababhari.com</u> <u>Google Scholar</u> | <u>LinkedIn</u> | <u>ResearchGate</u>| <u>ORCID</u>

PROFILE SUMMARY

I am Shahabeddin Abhari, a dynamic researcher, lecturer, and consultant specializing in the digital health domain. As a Postdoctoral Research Fellow at the University of Waterloo in Canada, I am currently leading or cooperating projects focused on establishing standards for Active Assisted Living, AgeTech, exploring generative AI such as ChatGPT applications in healthcare, and developing a big data ecosystem for infodemic management. With a background as an Assistant Professor of Health Information Technology in Iran, a Ph.D. in Health Information Management, and extensive teaching experience, I bring a wealth of expertise to areas such as Digital Health, Health Informatics, Public Health, Health Policy and AI in Medical Sciences and more. Notably, I have published over 30 scientific papers in health informatics and health sciences domains, accumulating about 500 citations. Additionally, I have actively participated in around 20 conferences, contributing to the vibrant exchange of ideas in these academic forums. My commitment to interdisciplinary approaches is reflected in my completion of an MPH in Health Policy and an MBA in Healthcare I am passionate about collaborating with students, researchers, startup teams, companies, and managers actively engaged in the digital health space.

EDUCATION

Postdoctoral Fellowship University of Waterloo-UbiLab Waterloo, Canada Research projects: <i>Development of standards and guidelines in the AgeTech and</i> <i>active assisted living (AAL) domain -Identifying the applications of generative AI</i> <i>such as ChatGPT in healthcare -Development of a big data ecosystem to support</i> <i>infodemic management using social media public health data</i>	January 2023 – Now
PhD: Health Information Management (GPA 18.73/20) Tehran University of Medical Sciences (TUMS) Tehran, Iran Thesis Title: Designing, implementing and evaluating a nutrition recommender system and telenutrition	October 2016 – February 2020
MBA: Master of Bussines Administration in Healthcare (GPA 99/100) Shahid Beheshti University of Medical Sciences (SBMU) Tehran, Iran Research Project Title: <i>Feasibility of implementing an electronic-based start-up for</i> <i>old people.</i>	July 2018 – January 2020
MPH: Master of Public Health and Health Policy (GPA 16.96/20) Health Policy Research Center Shiraz, Iran Research Project Title: Acceptance of Health Information Technologies, Acceptance of Mobile Health	January 2014 – July 2016
MSc: Health Information Technology (GPA 17.23/20) Shiraz University of Medical Sciences (SUMS) Shiraz, Iran Thesis Title: Designing and evaluating a thesis tele-supervision system for postgraduate medical sciences students	August 2013 – February 2016
BSc: Health Information Technology (GPA 16.52/20) Shiraz University of Medical Sciences (SUMS) Shiraz, Iran Research Project Title: <i>Feasibility study on telemedicine implementation in</i> <i>Iran</i>	August 2009 – July 2013

- Digital Health
- Health Informatics
- Public Health
- Health Policy
- AI in Medical Sciences

PUBLICATIONS

- Abhari S, McMurray J, Randhawa T, Bin Noon G, Hanjahanja-Phiri T, McNeil H, Manning F, Debergue P, Teague J, Morita PP. (2024). Exploring the Landscape of Standards and Guidelines in AgeTech Design and Development: A Scoping Review and Thematic Analysis Study. JMIR Aging. [Under review]
- 2. **Abhari S**, Fatahi S, Morita P, Saragadam A, Chumachenko D.(2024). A Road Map of Prompt Engineering for ChatGPT in Healthcare: A Perspective Study. *Journal of Healthcare Leadership*. **[Under review]**
- 3. **Abhari S**, Bin Noon G, Wang K, Morita PP.(2024). Overview of the potential applications of generative AI in AgeTech and independent living for older adults in the future: The opportunities and challenges. *Frontiers in Public Health*. **[Under review].**
- Abhari S, Lankarani KB, Azadbakht L, Niakan Kalhori SR, Safdari R, Emamgholipour Sefiddashti S, Garavand A, Barzegari S, Moradi S. Designing and Evaluating a Nutrition Recommender System for Improving Food Security in a Developing Country. *Arch Iran Med.* 2023 Nov 1;26(11):629-641.
- 5. Abhari, S., Morita, P. P., Miranda, P., Garavand, A., Phiri, T., & Chumachenko, D. (2023). Non-Fungible Tokens (NFTs) in healthcare: A scoping review. *Frontiers in Public Health*, 11, 1266385.
- 6. Morita, P., **Abhari, S.**, & Kaur, J. (2023). Do ChatGPT and Other Artificial Intelligence Bots Have the Potential to Apply in Health Policy-Making? Opportunities and Threats. *International Journal of Health Policy and Management*.
- 7. Miranda, P., Kaur, J., **Abhari, S.**, & Morita, P. P. (2023). ChatGPT for Systematic and Scoping Reviews in Public Health Research: An Applicable Approach. *European Journal of Public Health*, 33(Supplement 2), ckad160-1237.
- 8. Morita, P. P., Abhari, S., Kaur, J., Lotto, M., Miranda, P. A. D. S. E. S., & Oetomo, A. (2023). Applying ChatGPT in public health: a SWOT and PESTLE analysis. *Frontiers in Public Health*, 11, 1225861.
- 9. Pormehdi Ganji, Z., Ahmadzadeh, A., **Abhari, S.**, & Rezapour, M. (2023). The Associations Between Sources of Vaccine News and the Intention to Change Adherence to COVID-19 Preventive Health Measures. *Journal of Research and Health*, 13(5), 359-372.
- Rezapour, M., Abhari, S., Ganji, S. Z. P., Khosravi, P., & Shooraj, M. (2022). The Intention of Changing Adherence to COVID-19 Preventive Health Measures After Implementation of COVID-19 Vaccination Program: An Online-Based Study in Mazandaran Province, Iran. *Shiraz E-Medical Journal*, 23(8).
- Ghazisaeedi, M., Shahmoradi, L., Garavand, A., Maleki, M., Abhari, S., Ladan, M., & Mehdizadeh, S. (2022). Developing a Clinical Decision Support System for Prediction Postoperative Coronary Artery Bypass Grafting Infection in Diabetic Patients. *Journal of Biomedical Physics and Engineering*, 12(6), 583-590.
- 12. Zakerabasali, S., Ayyoubzadeh, S. M., Baniasadi, T., Yazdani, A., & Abhari, S. (2021). Mobile Health Technology and Healthcare Providers: Systemic Barriers to Adoption. *Healthcare Informatics Research*, 27(4), 267-278.
- 13. Garavand A, Aslani N, Ayyoubzadeh SM, <u>Abhari S</u>. E-booking Websites in Iranian Public Clinics: A Step Toward Health Equity. *Shiraz E-Medical Journal*. 2018 Dec 31.
- 14. Abhari K, Saadati S, Yari Z, Hosseini H, Hedayati M, **Abhari S**, Alavian SM, Hekmatdoost A. The effects of Bacillus coagulans supplementation in patients with non-alcoholic fatty liver disease: A randomized, placebo-controlled, clinical trial. *Clinical Nutrition ESPEN*. 2020 Oct 1;39:53-60.
- 15. Mohammadi R, Tabanejad Z, **Abhari S**, Honarvar B, Lazem M, Maleki M, Garavand A. A Systematic Review of the Use of Telemedicine in the Military Forces Worldwide. *Shiraz E-Medical Journal*. 2020 Nov 30;21(11).
- Rabiei, R., Mohammadi Moghadam, Y., Aslani, N., Garavand, A., Kazemnejad, A., & Abhari, S. (2020). Knowledge Management Status in a Non-governmental Public Hospital: The Current Status and Improvement Solutions. *Journal of Health Management & Informatics*, 7(1), 24-30.

- 17. Abhari, S., Niakan Kalhori, S. R., Ebrahimi, M., Hasannejadasl, H., & Garavand, A. (2019). Artificial intelligence applications in type 2 diabetes mellitus care: focus on machine learning methods. *Healthcare informatics research*, 25(4), 248-261.
- Karbasi, Z., Kadivar, M., Safdari, R., Shahmoradi, L., Zahmatkeshan, M., Zakerabasali, S., Abhari, S. (2019). Better monitoring of abused children by designing a child abuse surveillance system: Determining national child abuse minimum data set. *The International Journal of Health Planning and Management*.
- Abhari, S., Safdari, R., Azadbakht, L., Lankarani, K. B., Kalhori, S. R. N., Honarvar, B., ... & Jalilpiran, Y. (2019). A Systematic Review of Nutrition Recommendation Systems: With Focus on Technical Aspects. *Journal of Biomedical Physics & Engineering*, 9(6), 591.
- 20. Abhari, SH; Monem, H; Garavand, A; Bastani, P; Rezaee, R. (2019). Designing a thesis tele-supervision system for postgraduate medical sciences students. *Journal of Advances in Medical Education & Professionalism*, 7(4), 191.
- Zakerabasali, S., Safdari, R., Kadivar, M., Rostam Niakan Kalhori, S., Mokhtaran, M., Karbasi, Z., ... & Abhari, S. (2019). Neonatal abstinence syndrome: a systematic review of current databases and registries. *The Journal of Maternal-Fetal & Neonatal Medicine*, 1-14.
- 22. Samadbeik, M; Yaaghobi, D; Bastani, P; Abhari, SH; Rezaee, Rita; Garavand, A. (2018). The applications of virtual reality technology in medical groups teaching. *Journal of Advances in Medical Education & Professionalism*. 6(3): 123-129.
- 23. Garavand, A; Mohammadi, R; Nikokalam, M; Bastani, P; Ghalanesh, S, Abhari, SH.(2018). Citation and Content Analysis of Journal of Health Management and Informatics. 5(2): 72-77.
- 24. Garavand, A; Samadbeik, M; Kafashi, M; <u>Abhari, SH</u>. (2017). Acceptance of Health Information Technologies, Acceptance of Mobile Health: A Review Article. *Journal of Biomedical Physics & Engineering* 7(4): 403.
- 25. Garavand, A; Asadi, H; Samadbeik, M; Hasumi, M; Mohammadi, R; <u>Abhari, SH.</u> (2017). An Assessment of Infrastructures of Telemedicine at Shiraz University of Medical Sciences. *Journal of Health Management and Informatics* 4(2): 51-56.
- 26. Garavand, A; Samadbeik, M; Kafashi, M; **Abhari, SH**. (2016). The Identification and Classification of Deployment Challenges Related to Electronic Health Records: A Review Article. *Shiraz E-Medical Journal* 17(2).
- Garavand, A; Samadbeik, M; Asadi, H; <u>Abhari, SH</u>. (2016). Readiness of Shiraz teaching hospitals to implement Electronic Medical Record (EMR). *Journal of Health Management and Informatics* 3(3): 82-88.
- 28. Bastani, P; Garavand, A; <u>Abhari, SH</u>. (2016). Evaluation of Internet booking system in Websites of Health Centers Affiliated with Medical Universities in Iran. *Journal of Health and Biomedical Informatics* 2(4): 219-228.
- Bastani, P; Barati, O; Sadeghi, A; Sharifi, S; Abhari, SH. (2016). Analysis of Service Quality Gap in Outpatient Wards Using SERVQUAL Model in Shahid Motahhari Clinic of Shiraz in 2014. *Journal of Rafsanjan University of Medical Sciences* 14(12): 1015-1032. [In Persian]
- Keshavarz, M; <u>Abhari, SH.</u> (2015). An Overview on Infrastructure of Digital Prescription and a Proposed Strategic Plan. *Journal of Health Management and Informatics* 2(2): 28-33
- Nematollahi, M; Abhari, SH; Garavand, A. Attitudes and behaviors related to introduction of Electronic Health Record (EHR) among Shiraz University students in 2014. *Journal of Health Management and Informatics* 2(3): 97-100.
- 32. Barati, O; Bastani, P; **Abhari, SH**. (2015). Educational Needs Assessment for Employees in Outpatient Department: A case of Motahari and Imam Reza Centers. Interdisciplinary Journal of Virtual Learning in Medical Sciences. 5(4):37-44. [In Persian]
- 33. Abhari, SH; Garavand, A; Kafashi, M. (2014). A Comprehensive Overview of Biomedical Informatics. *Journal of Health and Biomedical Informatics* 2(2): 129-131.
- Nematollahi, M; Abhari, SH. (2014). Assessing the information and communication technology infrastructures of Shiraz university of medical sciences in order to implement the telemedicine system in 2013. *Interdisciplinary Journal of Virtual Learning in Medical Sciences (IJVLMS)* 5(2): 44-51. [In Persian]

CONFERENCES

1. Miranda, P., Kaur, J., Abhari, S., & Morita, P. P. (2023). ChatGPT for Systematic and Scoping Reviews in Public Health Research: An Applicable Approach. 16th European Public Health Conference. 8-11 November 2023. Dublin, Ireland.

- Abhari, SH., Safdari, R., Azadbakht, L., Lankarani, K. B., Kalhori, S. R. N. Designing and evaluating a nutrition recommender system for improving food security in a developing country. International Congress of Artificial Intelligence in Medical Sciences. 17-19 May 2023. Kish, Iran
- 3. Abhari, SH; Aslani, N; Garavand, A. Entrepreneurial opportunities in health of elderly through mobile health. 4th Shiraz International Congress on Mobile Health. 16nd to 18rd February 2021. Shiraz, Iran
- 4. Samadbeik, M; Abtin, A; Garavand, A; Aslani, N; **Abhari, SH**. Evaluation and Ranking of Mobile Applications Drug Adherence Quality in Iran: A Systematized Review. 4th Shiraz International Congress on Mobile Health. 16nd to 18rd February 2021. Shiraz, Iran
- Abajlou, AH; Aslani, N; Abhari, SH; Garavand, A. Providing healthcare services for patients with chronic diseases during the outbreak of COVID-19 by applying smart phones: A review of conducted studies. 4th Shiraz International Congress on Mobile Health. 16nd to 18rd February 2021. Shiraz, Iran
- Abhari, S., Safdari, R., Azadbakht, L., Lankarani, K. B., Kalhori, S. R. N., Honarvar, B.(2019). Can Text Messaging and Mobile Phone Apps Improve Adherence to Healthy Diet in Adults. Shiraz Third International Congress on mHealth 20nd to 21rd February 2019. Shiraz, Iran
- 7. Abhari, S., Lankarani, K. B., Safdari, R., Azadbakht, L., Lankarani, K. B., Kalhori, S. R. N., Honarvar, B.(2019). How mHealth can help dietary assessment. Shiraz Third International Congress on mHealth 20nd to 21rd February 2019. Shiraz, Iran
- 8. Safdari, R., Karbasi, Z., Zahmatkeshan, M., Abhari, S. Assessment of mobile applications for cardiovascular disease : A review of feasibility, usability and accessibility. Shiraz Third International Congress on mHealth 20nd to 21rd February 2019. Shiraz, Iran
- 9. Abhari, SH; Niakan Kalhori, SR. (2017). Mobile Applications for Smoking Cessation : A Systematic Review. Shiraz Second International Congress on mHealth. 22nd to 23rd February 2017. Shiraz, Iran
- Abhari, SH; Monem, H; Bastani, P; Rezaee, R. (2017). Designing a thesis tele-supervision system for postgraduate medical sciences students. Fisrt Congress of Diseases and Health Outcomes Registry and Congress of Medical Informatics. 13nd to 17rd February 2017. Mashhad, Iran
- Karbasi, Z; Abhari, SH, Hajesmaeel, GS; Niakan Kalhori, SR. (2017). Effectiveness of virtual reality technology application in medical education: a review of evidences. Fisrt Congress of Diseases and Health Outcomes Registry and Congress of Medical Informatics. 13nd to 17rd February 2017. Mashhad, Iran
- 12. **Abhari, SH**; Sharifian, R.(2015). The Need for Integration of the International Classification of Health Interventions (ICHI) with Radiology Information System (RIS) in order to Support Data Mining and Knowledge Discovery Process. The 6th Iranian Imaging Informatics Conference. 5th and 7th August 2015. Tehran, Iran
- 13. Abhari, SH; Sharifian, R; Saeedinejhad, S. (2015). m-Health and telemedicine soft ware in Shiraz University of Medical Sciences. Shiraz First International Congress on mHealth. 17th and 18th May 2015. Shiraz, Iran
- 14. **Abhari, SH**. (2015). Opportunities and Challenges of Using Smartphone Medical Applications for Healthcare Providers. Shiraz First International Congress on mHealth. 17th and 18th May 2015. Shiraz, Iran
- 15. **Abhari, SH**; Sharifian, R; Nematollahi, M; Emadi, S.(2014). Evaluation of the Key Features of Radiology Information System (RIS) in Nemazee and Shahid Faghihi Hospitals. The 5th Iranian Imaging Informatics Conference. 17th and 18th January 2014. Shiraz, Iran
- Nematollahi, M; Abhari, SH. (2013). Assessing the information and communication technology infrastructures of Shiraz university of medical sciences in order to implement the telemedicine system. First International Congress of Electronic Learning in Medical Sciences. 23th and 24th October 2013. Shiraz, Iran
- 17. Bayati, S; Haghshenas, M; Esmaeeli, T; **Abhari, SH.** (2011). Study of Iran's situation in attracting medical tourism compared to Persian Gulf countries. First International Congress on Tourism Management and Sustainable Development. 29th and 30th September 2011

TEACHING & STUDENTS SUPERVISION EXPERIENCES

- 1- Supervisor assistant of 2 PhD students in the Health Informatics domain, University of Waterloo-UbiLab, Waterloo, Canada/ 2023
- 2- Teaching many courses for BSc students of Health Information Technology, more than 640 hours, Mazandaran University of Medical Sciences, Iran/January 2020- December 2022 Title of Courses:
 - Health Information Technology
 - Indicators and Analysis of Health Data

- Heath Economics
- -Health Insurance
- International Classification & Nomenclature of Diseases
- International Classification of Health Procedures
- -Health Information Systems
- Applications of Health Information Systems
- Lab of Applications of Health Information Systems
- Internship in Health Information Systems
- Health Information Management 1 & 2
- -Internship in Health Information Management
- Health Informatics 1 & 2
- -Management of Health Information Systems
- Electronic Health Record
- Personal & Workplace Management Principles
- Principles of Management
- Database Design Principles
- Introduction to Computers and Applications
- 2. Health Informatics for IT&Computer sciences students want to participate at MSc exam in medical informatics, 80 hours, Fazel higher education institution, Shiraz, Iran/2013-2105
- 3. Health Information Systems for BSc students of Health Information Technology, 32 hours, Shiraz University of Medical Sciences, Shiraz, Iran/2015

PROFESSIONAL EXPERIENCES

1-	Assistant Professor of Health Information Technology	January 2020- December 2022
	School of Paramedical Sciences, Mazandaran University of Medical Sciences	
	Mazandaran, Iran	
2-	Member of the Educational and Research Council	January 2020- December 2022
	Faculty of Paramedical Sciences, Mazandaran University of Medical Sciences	
	Mazandaran, Iran	
3-	Adviser to the Scientific Association of Paramedical, Nursing and Medical Students	January 2020- December 2022
	Faculty of Paramedical Sciences, Mazandaran University of Medical Sciences	
	Mazandaran, Iran	
4-	Educational and Research Mentor of Health Information Technology Students	January 2020- December 2022
	Faculty of Paramedical Sciences, Mazandaran University of Medical Sciences	
	Mazandaran, Iran	
5-	Research & Development advisor and Digital Marketing Expert	January 2017 – January 2019
	TeleTeb (Knowledge Development and e-Health Services Company)	
	Tehran, Iran	
6-	Executive Manager	March 2016- September 2016
	Health Human Resources Research Center, Shiraz University of Medical Sciences	
	Shiraz, Iran	
7-	Public Relations Manager and Webmaster	October 2014- September 2016
	School of Management and Medical Informatics, Shiraz University of Medical Sciences	
	Shiraz, Iran	
8-	Executive Manager and Webmaster	October 2013- January 2015
	Journal of Health Management and Informatics, Shiraz University of Medical Sciences	
	Shiraz, Iran	

ATTENDANCE AT WORKSHOPS

- 1. Principles of teaching, 20 hours, University of Waterloo, Waterloo, Canada
- 2. Writing the proposal, 10 hours, Shiraz University of Medical Sciences, Shiraz, Iran
- 3. Microsoft office, 32 hours, Industrial Management Institute, Shiraz, Iran
- 4. Scientific writing, 10 hours, Shiraz University of Medical Sciences, Shiraz, Iran
- 5. Medical journalism, 32 hours, Shiraz University of Medical Sciences, Shiraz, Iran
- 6. Object oriented programing, 50 hours, Industrial Management Institute, Shiraz, Iran
- 7. Meta-analysis software, 8 hours, Shiraz University of Medical Sciences, Shiraz, Iran
- 8. Principles of teaching method, 8 hours, Tehran University of Medical Sciences, Tehran, Iran
- 9. SPSS software, 20 hours, Tehran University of Medical Sciences, Tehran, Iran
- 10. Endnote software, 8 hours, Tehran University of Medical Sciences, Tehran, Iran

- 11. MATLAB software, 20 hours, University of Tehran, Tehran, Iran
- 12. Best Evidence Medical Education (BEME), 2 hours, Mazandaran University of Medical Sciences, Sari, Iran
- 13. Unit plan and course plan, 2 hours, Mazandaran University of Medical Sciences, Sari, Iran
- 14. Principles of teaching method, 8 hours, Mazandaran University of Medical Sciences, Sari, Iran

HONORS

- 1. The Second National Rank in the Ph.D Entrance Exam-2016
- 2. Member of Talents of Tehran University of Medical Sciences-2016
- 3. Winning the title of the best educational process in Shahid Motahari Educational Festival (Iranian Educational Festival)-2016

SOFTWARE SKILLS

- SPSS
- EndNote
- MAXQDA and Nvivo
- Microsoft Office Suite
- Covidence
- Communication and Collaboration Tools (Slack, Microsoft Teams, Zoom, etc.)
- AI Tools for Researcher(ChatGPT, Typeset.io, Scite.ai, Quillbot, etc)

SOFT SKILLS

- Teamwork and Collaboration
- Communication Skills
- Adaptability and Flexibility
- Time Management
- Problem-Solving
- Leadership
- Creativity
- Emotional Intelligence

LANGUAGE

- Persian: Native
- English: Professional working proficiency

REFERENCES

Dr.Plinio Morita

Associate Professor, School of Public Health Sciences, University of Waterloo, Waterloo, ON, Canada plinio.morita@uwaterloo.ca

Dr. Josephine McMurray

Associate Professor, School of Business and Economics, Wilfrid Laurier University, Waterloo, ON, Canada <u>imcmurray@wlu.ca</u>

Dr.Reza Safdari

Professor of Health Information Management, Department of Health Information Management, School of Allied Medical Sciences, Tehran University of Medical Sciences, Tehran, Iran <u>rsafdari@tums.ac.ir</u>

Dr.Kamran Bagheri Lankarani

Distinguished Professor of Internal Medicine, Health Policy Research Center, Institute of Health, Shiraz University of Medical Sciences, Shiraz, Iran

lankaran@sums.ac.ir

Dr. Sharareh R. Niakan Kalhori

Associate Professor of Health Informatic, Department of Health Information Management, School of Allied Medical Sciences, Tehran University of Medical Sciences, Tehran, Iran <u>sh-rniakank@sina.tums.ac.ir</u>

Dr.Leila Azadbakht

Professor of Nutrition, Department of Community Nutrition, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran <u>l-azadbakht@sina.tums.ac.ir</u>

(Until Feb 2023)