

Dr.ZAHRA ARAB BORZU

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EDUCATIONAL BACKGROUND

Ph.D. in Biostatistics at Shahid Beheshti University of Medical Sciences, Iran.

Thesis: Introduced a joint modeling of recurrent events and a terminal event in the presence of cure fraction.

M.Sc. in statistics at Mashhad Azad University.Mashhad, Iran.

Thesis: Investigating the characteristics of the reversed hazard rate.

M.Sc. in Biostatistics at Mashhad University of Medical Sciences, Iran.

Thesis: Application of frailty models in determining the risk factors of bipolar disorder relapse with Bayesian approach.

B.Sc. in Statistics at University of Birjand, Iran.

CERTIFICATE

Ministry of Health Language Examination (MHLE) English Language Test (Score: 57/100)

HONORES AND AWARDS

Rank 7 in The Nationwide Ph.D. Course Entrance Exam in Iran.

Rank 11 in the Master's exam of Mathematical Statistics of the Ministry of Science.

Rank 13 in the master's exam in biostatistics of the Ministry of Health.

TEACHING EXPERIENCES

Teaching a number of “statistics” courses to the MSc students of Payam Noor Neyshabur University (2010-2016).

Teaching “Biostatistics ” to BSc students in the fields of Radiology, occupational health, and public health, Shahid Beheshti University of Medical Sciences, Tehran, Iran.(2017-2020).

Teaching a number of “Biostatistics and Research Methods” courses to the BSc students of Zahedan University of Medical Sciences (ZAUMS) in the fields of Optometry, Speech Therapy, Public Health, occupational health, environmental health, anesthesia, Radiology, Nursing, operation room, medicine, nutrition, and so on (2021-now).

Teaching “SPSS Software” in a Workshop for Medical Students (12 Hours), Shahid Beheshti University of Medical Sciences, Tehran, Iran (2018).

Teaching “Excell Software” in a Workshop for Medical Students (12 Hours), neyshabur University of Medical Sciences, neyshabur, Iran (2017).

TRAINING EXPERIENCES:

Attendance at a Workshop Called “Advanced topics in regression”, Mashhad University of Medical Sciences, Iran.

Attendance at a Workshop Called “Introduction of multi-level data analysis methods”, Mashhad University of Medical Sciences, Iran.

Attendance at a Workshop Called “Familiarity with software Stata”, Mashhad University of Medical Sciences, Iran.

Attendance at a Workshop Called “Longitudinal data analysis”, Mashhad University of Medical Sciences, Iran.

Attendance at a Workshop Called “Factor analysis in structural equation modeling”, Mashhad University of Medical Sciences, Iran.

Attendance at a Workshop Called “Familiarity with open sampling methods”, Mashhad University of Medical Sciences, Iran.

Attendance at a Workshop Called “Designing a questionnaire and determining validity and reliability”, Mashhad University of Medical Sciences, Iran.

Attendance at a Workshop Called “Functional data analysis”, Mashhad University of Medical Sciences, Iran.

Attendance at a Workshop Called “Ethics in research and publication”, Neyshabur University of Medical Sciences, Iran.

PROFESSIONAL EXPERIENCES:

Membership in Health Promotion Research Center, Zahedan university of medical sciences.

Reviewer of scientific-research Journal, Neyshabur university of medical sciences.

Supervisor and Advisor in the number of MSc students’ theses in Shahid Beheshti, Mashad and Zahedan Universities of Medical Sciences.

PUBLICATIONS IN JOURNALS:

- 1- Arab Borzu, Z.A., Khadembashi, N., Hajifathali, A., Baghestani, A. and Roshandel, E., 2021. Survival Rate and Prognostic Factors Among Patients Undergoing Hematopoietic Stem Cell Transplantation: Using the Joint Model. *International Journal of Cancer Management*, 14(3).
- 2- Arab Borzu, Z., Baghestani, A.R., Talebi Ghane, E., Saeedi, A. and Akhavan, A., 2021. Survival analysis of Iranian patients with breast cancer using joint frailty model with a cure rate. *Middle East Journal of Cancer*, 12(2), pp.228-234.
- 3- Esmaeeli, H., Talaei, A., Borzu*, Z.A., Kheyri, S., Raeesi, M., Borhani, M. and Saeedi, A., 2021. Effective factors on the recurrence of Bipolar mood disorder i in an Iranian population sample using the frailty model with bayesian approach. *Iranian Journal of Psychiatry*, 16(2), p.131.
- 4- Cheli, A.H., Mohtashami, J., Zadehmodares, S. and Arabborzu, Z., 2019. The effect of transactional analysis group behavioral therapy on infertile women. *Crescent Journal of Medical and Biological Sciences*, 6(3).
- 5- Azadmehr, F., ESmaeili, R., Farahani, Z.B. and Arabborzu, Z., 2018. Cancer-related fatigue as a major problem in patients with cancer; a systematic review. *Journal of Advanced Pharmacy Education & Research| Oct-Dec*, 8(S2).
- 6- Arab Borzu, Z., Samiei, A., Esmaili H., Afzal aghaee, M., Jamali, J., Mohammad zadeh, Sh., 2016. Evaluating related factors with sputum smear negation at the end of the second month of tuberculosis treatment. *Medical Journal of Mashhad University of Medical Sciences*. 58(10):547-554.
- 7- Arab Borzu, Z., Samiei, A., Esmaili H., Afzal aghaee, M., Bahrampoor, A., 2016. Determining Factors Affecting Time to Sputum Smear Conversion in Pulmonary Tuberculosis Patients Using Cox Semi-Parametric Method. *Journal of Kerman University of Medical Sciences*, 23(6): 671-682.

- 8- Gholizadeh, A., Kheiri, S., Sedehi, M., Esmaily, H., Arab Borzou, Z., 2018. Identification of some individual and social factors on relapse intervals in bipolar disorder: Bayesian analysis of log-skewnormal accelerated failure time model. 20 (2):384-390.
- 9- Arabborzoo Z, mohtashami borzadaran G. Reversed hazard rate of the mixture distributions. *Andishe*. 2014; 18 (2) :21-25.
- 10- Arab Borzu, Z.A., aliyari, R., Baghestani, A. Survival Analysis of Breast Cancer Data Using Multi state Model. *International Journal of Cancer Management*. (accepted)
- 11- Arab Borzu, Z.A., Baghestani, A., Talebi-ghane, E., Khadem maboudi, A., Akhavan, M., Saeedi, A. Joint frailty model of recurrent and terminal events in the presence of cure fraction using a Bayesian approach, *journal of biostatistics and epidemiology* (accepted)

PUBLICATIONS IN CONFERENCES

- 1- Arab Borzu, Z.A., Baghestani, A., Sensitivity analysis of bayes factor for categorical data with emphasis on sparse multinomial data. 14th International Statistical Conference, University of Shahrood, Shahrood, Iran. 2018. (Oral Presentation)
- 2- Arab Borzu, Z.A., Mohtashami, G. Relationship of concave log function with hazard rate and inverse hazard rate. 12th International Statistical Conference, Razi University is a public university based in Kermanshah, Iran., Kermanshah, Iran. 2018. (Oral Presentation).
- 3- Arab Borzu, Z.A., Esmaily, H., Bayesian analysis of frailty models for survival data. National Biomathematics Conference in Neishabur, Neyshabur university, neyshabur, Iran.

RESEARCH PROJECTS

- 1- Investigation of the epidemiology of tuberculosis patients in Razavi Khorasan
- 2- Evaluating related factors with sputum smear negation at the end of the second month of tuberculosis treatment.
- 3- Application of frailty models in determining the risk factors of bipolar disorder relapse with Bayesian approach.
- 4- Investigating the factors affecting the survival of patients with upper esophageal cancer referred to Omid and Imam Reza (AS) Mashhad Hospital using parametric survival models.
- 5- Studying the survival of breast cancer patients referred to Omid Shahr Hospital in Mashhad during the years 2010 to 2012 using frailty models.
- 6- Investigating the relationship between vasectomy and prostate cancer, a systematic study

- 7- Evaluation of clinical trial articles in the journal of the Faculty of Dentistry of Mashhad University of Medical Sciences: published from 2003 to 2013 based on the consort checklist.
- 8- Studying the survival of breast cancer patients referred to Omid Shahr Hospital in Mashhad during the years 2010 to 2012 using frailty models.
- 9- Application of combined model for survival and longitudinal data in hematological malignancies after bone marrow transplantation with Bayesian approach.
- 10- Presenting a healed fragility model for recurrent events and final event in the presence of cure fraction.
- 11- The effect of mutual analysis behavioral therapy group on marital satisfaction of infertile women.
- 12- The application of flexible parametric survival models in determining the factors related to the time to the first relapse in bipolar disorder patients.
- 13- The state of outpatient education from the point of view of medical students and interns of Zahedan University of Medical Sciences in 2022.
- 14- Investigating the relationship between factor 7 level and clinical and laboratory symptoms, type of treatment and prognosis of patients with factor 7 deficiency in Sistan and Baluchistan province during 2016-2019.
- 15- Investigating the status of justice in access to outpatient services in urban households covered by Zahedan University of Medical Sciences, year 2022.
- 16- The relationship between health literacy and the knowledge, attitude and behaviors of the prevention of Covid 19 in women referring to Zahedan health center.
- 17- Factors related to covid-19 vaccination using the health belief model among pregnant and lactating women referring to health centers in Zahedan.
- 18- The relationship between eating habits and physical activity with rheumatoid arthritis in patients referred to selected hospitals in Zahedan, year 2022.

RESEARCH INTERESTS

Survival analysis, Bayesian Inference, Machine Learning.

ADDITIONAL INFORMATION

Computer skills Achieved Extensive Knowledge of R Statistical Programming Language, SPSS, and PASS.

Microsoft Office (Word, Power Point, Excel) and Internet