



WACEM²³

WORLD ACADEMIC CONGRESS OF EMERGENCY MEDICINE

October, 28 - 31

Pine Beach Belek, ANTALYA / TURKIYE

19TH NATIONAL EMERGENCY MEDICINE CONGRESS
10TH INTERCONTINENTAL EMERGENCY MEDICINE CONGRESS
10TH INTERNATIONAL CRITICAL CARE AND EMERGENCY MEDICINE CONGRESS

FULL TEXT BOOK

**Emergency Medicine
Unites the World**

www.wacem2023.com



WACEM²³



WORLD ACADEMIC CONGRESS OF EMERGENCY MEDICINE

October, 26 - 31 | ISTANBUL | Pine Beach Belek, ANTALYA / TURKIYE

WACEM 2023 WORLD ACADEMIC CONGRESS OF EMERGENCY MEDICINE

CHAIRMAN

Başar Cander (Türkiye)

ACADEMIC DIRECTOR

Sagar Galwanger (USA)

ORGANIZING COMMITTEE

Hassan Al Thani (Qatar)

David Carr (Canada)

Pia Daniels (USA)

Zeynep Çakır (Türkiye)

Salvatore Di Somma (Italy)

Behçet Al (Türkiye)

Sage Wiener(USA)

Mehmet Gül (Türkiye)

David Gaieski (USA)

Bradley Peckler (New Zeland)

Sanjeev Bhoi (India)

Muhammed İkbâl Şaşmaz (Türkiye)

Vivek Kumar (India)

Amin Antoine Kazzi (Lebanon)

Fatimah Binte Abdul Lateef (Singapore)

Fatma Çakmak (Türkiye)

Jean-Louis Vincent (Belgium)

Lisa Moreno -Walton (USA)

Ali Gür (Türkiye)

Mohamed Alwi Abdul Rahman (Malaysia)

İsa Kılıçarslan (Türkiye)

Yasumitsu Mizobata (Japan)

Samjhana Basnet (Nepal)

Turan Aslan (Türkiye)

Khikmat Anvarov (Uzbekistan)

Lukasz Szarpak (Poland)

Nana Afia Nsua Boateng (Ghana)

Himanshu Kataria (England)

Şeref Emre Atiş (Türkiye)

Swee Han Lim (Sri Lanka)

Prabath Nanayakkara (Holland)



WACEM²³



WORLD ACADEMIC CONGRESS OF EMERGENCY MEDICINE

October 26 - 31

ISTANBUL | Pine Beach Belek, ANTALYA / TURKIYE

SCIENTIFIC COMMITTEE

Ahmed Noor (Qatar)
Ajay Ambalakkatte (India)
Ajit Baviskar (India)
Ajith Venugopal (USA)
Ashish Bhalla (India)
Ayman El-Menyar (Qatar)
Binita Pradhan (Nepal)
Donald Doukas (USA)
Donald Jeanmonod (USA)
Firoze Sogiawalla (England)
Gopikrishna Duvvala (India)
Indu Lata Sahu (India)
İbrahim Mh Abdu Jundi (Qatar)
Joydeep Grover (England)
Katia M Lugo (USA)
Linu M Sekha (India)
Luiza Szarpak (Poland)
M Mohammed Wazzan (Saudi Arabia)
Manu Ayyan (India)
Michal Pruc (Poland)
Mohammed Haneef M (India)
Monalisa Muchatuta (USA)

Murtuza Ghiya (India)
Nazmine Güler (France)
Praveen Aggarwal (India)
Rahul Balasubramanian (India)
Rebecca Jeanmonod (USA)
Sagar Galwankar (USA)
Sailesh Pradhan (Nepal)
Sandeep Sahu (India)
Sari Soghoian (USA)
Siddharth Dubhashi (India)
Siddharth P. Dubhashi (India)
Siju V Abraham (India)
Soumya Ghoshal (India)
Soumya Nair (India)
Suman Thakur (India)
Süha Türkmen (Qatar)
Vijay Chanchal A B (India)
Vimal Krishnan S (India)
Vivek Chauhan (India)



WACEM²³



WORLD ACADEMIC CONGRESS OF EMERGENCY MEDICINE

October 26 - 31

ISTANBUL | Pine Beach Belek, ANTALYA / TURKIYE

Football Unites the World

Qatar 2022...We watched a very different world cup. For the first time, it was hosted in a different geography and a different culture. With the perfect organization, the games that broke the rating records all over the world created a storm of excitement until the last moment. Do you remember that a goal to be scored in extra time completely changed the teams that would leave the group at the last moment. The fact that it was Ronaldo and Messi's last world cup competition gave it a different meaning and excitement.

Despite Ronaldo holding all the records, Messi was the most profitable player of the world cup.

The promotion started with Ronaldo and ended with Messi. Once again, we saw that the excitement of the World Cup is really different. It is much different and much more important than continental tournaments, including Europe. You get excited with Ecuador, you see Japan, Canada, Brazil, Argentina, USA and while the fact that everyone is there from Ghana to France, from Spain to Algeria to Tunisia makes this organization reach the climax, you realize that football has become a common language.

What about EMERGENCY

In our country, more than 400 million patients were examined in outpatient clinics last year and about 130 million of them were emergency. As they say, medicine is divided into two: Emergency and others. The situation is totally like that quantitatively. When we look at it in terms of quality, emergency is one of the most common points of everyone. Visits to the emergency room are not planned trips. For example, 112 brings the critically ill patient to the nearest unit. Therefore, everyone, whether rich or poor, bureaucrat or shepherd, is in the same situation in the ER. The patients are in one of the weakest moments of their lives. As in the past, even if you are the owner of university hospitals where the world's most respected professors work, you live the most critical moment of your life in a second level emergency room in case of an arrest. This is how Emergency unites people.

Emergency Unites the World

And here we come to that year. World Emergency Medicine Congress is in our country in 100 years. As in the World Cup, all world emergencies from Japan to Malaysia, from Ghana to Ecuador, from Italy to Canada, from New Zealand to the USA, from Russia to Ukraine are coming together at the meeting point of the world; in our country, in Istanbul and Antalya. We will all be working and trying to shine a light on the world from our country...to the 2023 congress of this huge organization WACEM -the largest academic network-. The world's most comprehensive emergency medicine organization has also a great importance for the promotion of our country.

This Year Is Very Different

Emergency Medicine Physicians Association of Turkey (EPAT) is an exemplary formation that is deeply rooted with its leadership aspect, which became more evident during the pandemic period. Its top-level position was followed with envy and such It is not affected by simple winds and does not change direction according to the wind. The gigantic organization that brings the world together at such a meaningful time, suits EPAT very well.

I wish this year to be a turning point for our country and for the World Emergency Medicine and invite to organize the biggest organization ever and to take a giant step for the future of emergencies where everyone comes together.

Let's all come together with all our might...

Prof. Dr. Başar Cander
Chairman of the Board of Directors

Dr. Sagar Galwankar
Academic Director of WACEM



Pub No: OP-171

AN INVESTIGATION OF THE VARIABLES AFFECTING THE EVIDENCE OF HOME RELATED-INJURY IN THE ELDERLY; THE CASE OF TURKEY, LOGIT REGRESSION RESULTS

Mevlana Gül¹, Esra Bayrakçeken¹, Omer Alkan¹, Ali Gür¹

¹Ataturk University

1. Introduction

Home-related injuries (HRI) constitute a significant public health issue in both developed and developing nations. (Ferrante et al., 2013). Especially individuals over the age of 65 constitute a high-risk group for home accidents due to their physical, psychological, and social deficiencies. Similarly, issues related to the musculoskeletal system, loss of sensory and motor functions, increase the risk of accidents for elderly individuals (Samanci Tekin & Kara, 2019).

Accidents at home are a significant health problem for the geriatric population, associated with morbidity and mortality. (Altiparmak & Horasan, 2012). 80% of injuries requiring medical care occur at home and two-thirds of these are serious injuries (mainly falls and burns) (Bonnal et al., 2023)

The percentage of elderly individuals in Turkey is steadily rising, approaching the global average. (Umutlu & Tekin Epik, 2019) (TUİK, 2023) To guarantee their safety at home, it is imperative to examine the factors that contribute to the occurrence of household accidents among this demographic. The objective of this research is to investigate the variables that have an impact on such accidents involving elderly people in Turkey.

2. Method

2.1. Data

This study utilizes the microdataset from the 2019 Household Information Technology (IT) Usage Survey conducted by the Turkish Statistical Institute. The Household Information Technology Survey has been conducted since 2004 to collect information on the ownership and use of information and communication technologies by households and individuals. This survey is the primary data source for information regarding the use of these technologies. The data is



obtained through the use of a two-stage clustered sampling method. As a result, the data of 3,595 individuals who participated in the Household Information Technologies Survey in 2019 were analyzed. Data for 2022 will be collected from the system, processed and analyzed, and added to the study in the future.

2.2. Outcome Variables

The dependent variable of the study is the number of HRI resulting in injury in the last 12 months. The participants were coded "1" if they had an accident during the survey period and "0" if they had not.

2.3. Independent variables

The study will include independent variables that are available from the Household Information Technologies Survey, as well as variables identified through literature research. The variables will be chosen objectively based on their relevance to the research question. The study examined several independent variables, including age, gender, marital status, general health status, and the presence of chronic conditions such as arthritis, urinary incontinence, depression, and alcohol consumption.

Ordinal and nominal variables are defined as binary variables to analyze the impact of all variable categories included within the model.

2.4. Analysis method

SPSS 20 and Stata 15 software were employed to perform data analysis. Frequencies and percentages were calculated for study participant demographics and variables. Logistic regression analysis, a statistical method used to investigate the correlation between the dependent variable and independent variable(s), was utilized to examine the relationship between variables in the study when the dependent variable is dichotomous.

3. Results

3.1. Descriptive Statistics and Crosstabs

The frequencies and percentages of the variables utilized in the study are presented in Table 1. When the table is analyzed, it was determined that 5.8% of women, 6.1% of single people, and 7.6% of people with poor/very poor general health status had a HRI in individuals aged 65 years and over. It was found that 7.3% of individuals with arthrosis, 7.9% of those with urinary incontinence, 8.4% of those with depression, and 3.9% of alcohol users experienced a HRI.

Table 1: Variable related Findings

Variables		Home-related Accident				VIF
		No		Yes		
		n	%	n	%	
Gender	Male	1594	97,6	39	2,4	1,24
	Female	1848	94,2	114	5,8	
Age	60-64	1089	95,8	48	4,2	1,08
	65 and over	2353	95,7	105	4,2	
Marital Status	Married	2419	96,6	86	3,4	1,17
	Single	1023	93,9	67	6,1	
General Health Status	Very good / Good	958	97,9	21	2,1	1,68
	Medium	1529	96,6	54	3,4	1,49
	Poor / Very poor	955	92,4	78	7,6	Ref.
Arthrosis	Yes	860	92,7	68	7,3	1,09
	No	2582	96,8	85	3,2	
Urinary Incontinence	Yes	816	92,1	70	7,9	1,11
	No	2626	96,9	83	3,1	
Depression	Yes	394	91,6	39	8,4	1,05
	No	3048	96,3	117	3,7	
Alcohol use	Yes	294	96,1	12	3,9	1,10
	No	3148	95,7	141	4,3	

3.2. Model Prediction

The results of the analysis of the factors associated with home accidents among the elderly persons in the study are presented in Table 2. In the estimated model, variables such as gender, age, general health status, arthrosis, urinary incontinence, depression, and alcohol use were found to have an effect on the likelihood of experiencing a home accident.

Table 2: Estimated model and marginal effects

Variables	Home-related Accident			
	β	S.E	M.E	S.E
Gender (reference category: Male)				
Female	0,459 ^c	0,229	0,442 ^c	0,222
Age (reference category: 60-64)				
65 and over	-0,393 ^c	0,216	-0,376 ^c	0,206
Marital status (reference category: Single)				
Married	-0,393 ^c	0,196	-0,321 ^c	0,188
General health status (reference category: Poor/ Very poor)				
Very good/Good 1	-0,800 ^a	0,301	-0,768 ^a	0,290
Medium 2	-0,664 ^a	0,207	-0,636 ^a	0,198
Arthrosis (reference category: No)				
Yes	0,710 ^a	0,192	0,679 ^a	0,183
Urinary Incontinence (reference category: No)				
Yes	0,691 ^a	0,210	0,662 ^a	0,201
Depression (reference category: No)				
Yes	0,543 ^b	0,220	0,519 ^b	0,208
Alcohol (reference category: No)				
Yes	0,629 ^c	0,349	0,597 ^c	0,327
Constant value	-3,241^a	0,340		

^ap<.01; ^bp<.05; ^cp<.10

Older women were 44.2% more likely to have a home accident when analyzing Table 2. Individuals aged over 65 were 37.6% less likely to experience a home-related accident than those aged 60 to 64. Married individuals assessed in the study had a 32.1% lower likelihood of experiencing a HRI. Those with very good/good general health status were 76.8% and 63.6%



less likely to have a HRI than those with very bad/poor general health status, respectively. Elderly individuals with arthrosis had a 67.9% higher likelihood of experiencing domestic accidents compared to those without arthrosis. The probability of having a home accident was found to be 66.2% higher in the elderly with urinary incontinence compared to those without urinary incontinence. Elderly people who were depressed were 51.9% more likely to fall compared to those without depression. Compared to non-drinkers, older adults who consume alcohol are 59.7% more likely to have a home accident.

4. Discussion

Conditions that increase injury at home are reported as advanced age, economic difficulties, obesity, comorbidity.(Bonnal et al., 2023). Risk factors for falls include advanced age, a history of falls, muscle weakness, gait and balance problems, poor vision, and chronic medical conditions such as arthritis, diabetes, stroke, Parkinson's disease, dementia, and incontinence (Hopewell et al., 2018). 10-38% of falls among community-dwelling older adults result in non-fatal injury, hospitalization, disability or loss of independence (Bergen et al., 2016; Morrison et al., 2012; Tinetti et al., 1988).

In this study, we analyzed data from 3,595 individuals who took part in the 2019 Household Information Technology Usage Survey conducted by the Turkish Statistical Institute. The study used binary logistic regression analysis to investigate the factors influencing elderly people living in Turkey who had a home-related injury. According to the analysis results, age, gender, marital status, general health status, urinary incontinence, arthrosis, depression, and alcohol consumption were associated with injuries. We found that home-related injuries were more prevalent among females and less frequent among individuals over the age of 65. However, a recent study by Torun et al. examining risk factors for fall prevention in the elderly concluded that these two variables were not significant (Torun et al., 2023).

5. Conclusion

Older adults may also be exposed to trauma from home-related accidents. Trauma in older adults is associated with high morbidity and mortality. Therefore, risk factors should be assessed, preventive measures taken, and warnings given by primary care workers and health care providers.



References

- Adams, S. D., & Holcomb, J. B. (2015). Geriatric trauma. *Curr Opin Crit Care*, 21(6), 520-526.
<https://doi.org/10.1097/mcc.0000000000000246>
- Altıparmak, S., & Horasan, G. D. (2012). ACCIDENT PREVALENCE AND ACCIDENT ASSOCIATED RISK FACTORS AMONG ELDERLY PEOPLE LIVING IN NURSING HOMES IN. *Turkish Journal of Geriatrics-Turk Geriatri Dergisi*, 15(3), 292-298. <Go to ISI>://WOS:000311019000009
- Banks, S. E., & Lewis, M. C. (2013). Trauma in the elderly: considerations for anesthetic management. *Anesthesiology clinics*, 31(1), 127-139.
- Bergen, G., Stevens, M. R., & Burns, E. R. (2016). Falls and fall injuries among adults aged ≥ 65 years—United States, 2014. *Morbidity and Mortality Weekly Report*, 65(37), 993-998.
- Bonnal, L., Gamez, G. B., Favard, P., & Oros, C. (2023). Who gets injured at home? Evidence from older people in France. *Bulletin of Economic Research*, 75(2), 450-475.
<https://doi.org/10.1111/boer.12366>
- Braubach, M., & Power, A. (2011). Housing Conditions and Risk: Reporting on a European Study of Housing Quality and Risk of Accidents for Older People. *Journal of Housing for the Elderly*, 25(3), 288-305. <https://doi.org/10.1080/02763893.2011.595615>
- Esechie, A., Bhardwaj, A., Masel, T., & Raji, M. (2019). Neurocognitive sequela of burn injury in the elderly. *Journal of Clinical Neuroscience*, 59, 1-5. <https://doi.org/10.1016/j.jocn.2018.10.089>
- Espinosa, N. M. M., Piriz-Campos, R. M., Cordeiro, R., Bermejo, L. M., Verdejo, I. C., & Mota, S. P. (2016). SAFETY IN THE ELDERLY: HOME ACCIDENTS. *Revista Rol De Enfermeria*, 39(5), 62-67. <Go to ISI>://WOS:000454019500010
- Ferrante, P., Marinaccio, A., & Iavicoli, S. (2013). Home injuries in Italy: patterns of injury and the most exposed people. *International Journal of Injury Control and Safety Promotion*, 20(1), 36-41. <https://doi.org/10.1080/17457300.2012.663761>
- Florence, C. S., Bergen, G., Atherly, A., Burns, E., Stevens, J., & Drake, C. (2018). Medical costs of fatal and nonfatal falls in older adults. *Journal of the American Geriatrics Society*, 66(4), 693-698.
- Hopewell, S., Adedire, O., Copsey, B. J., Boniface, G. J., Sherrington, C., Clemson, L., Close, J. C., & Lamb, S. E. (2018). Multifactorial and multiple component interventions for preventing falls in older people living in the community. *Cochrane Database Syst Rev*, 7(7), Cd012221.
<https://doi.org/10.1002/14651858.CD012221.pub2>
- Karam, B. S., Patnaik, R., Murphy, P., DeRoon-Cassini, T. A., Trevino, C., Hemmila, M. R., Haines, K., Puzio, T. J., Charles, A., Tignanelli, C., & Morris, R. (2022). Improving mortality in older adult trauma patients: Are we doing better? *Journal of Trauma and Acute Care Surgery*, 92(2), 413-421. <https://doi.org/10.1097/ta.00000000000003406>
- Keall, M. D., Guria, J., Howden-Chapman, P., & Baker, M. G. (2011). Estimation of the social costs of home injury: A comparison with estimates for road injury. *Accident Analysis and Prevention*, 43(3), 998-1002. <https://doi.org/10.1016/j.aap.2010.11.027>
- Mikos, M., Trybulska, A., & Czerw, A. (2021). Falls - the socio-economic and medical aspects important for developing prevention and treatment strategies. *Ann Agric Environ Med*, 28(3), 391-396.
<https://doi.org/10.26444/aaem/122409>
- Morrison, A., Fan, T., Sen, S. S., & Weisenfluh, L. (2012). Epidemiology of falls and osteoporotic fractures: a systematic review. *ClinicoEconomics and Outcomes Research*, 9-18.
- Saberian, P., Farhoud, A. R., Hasani-Sharamin, P., Moghaddami, M., & Keshvari, F. (2019). Epidemiological Features of Injured Patients Examined by Tehran Emergency Medical Service Technicians. *Advanced Journal of Emergency Medicine*, 3(4), Article e40.
<https://doi.org/10.22114/ajem.v0i0.198>



- Sahin, H., & Erkal, S. (2016). EVALUATION OF HOME ACCIDENTS AND FALL BEHAVIORS OF ELDERLY. *Turkish Journal of Geriatrics-Turk Geriatri Dergisi*, 19(3), 195-201. <Go to ISI>://WOS:000391285800011
- Samanci Tekin, C., & Kara, F. (2019). INCIDENCE OF HOME ACCIDENTS IN 65 YEARS OF AGE AND OLDER INDIVIDUALS AND RELATED FACTORS. *Turkish Journal of Geriatrics-Turk Geriatri Dergisi*, 22(1), 38-47. <https://doi.org/10.31086/tjgeri.2019150571>
- Spano, G., Caffo, A. O., & Bosco, A. (2018). Cognitive functioning, subjective memory complaints and risky behaviour predict minor home injuries in elderly. *Aging Clinical and Experimental Research*, 30(8), 985-991. <https://doi.org/10.1007/s40520-017-0858-9>
- Stalenhoef, P., Diederiks, J., Knottnerus, J., Kester, A., & Crebolder, H. (2002). A risk model for the prediction of recurrent falls in community-dwelling elderly: a prospective cohort study. *Journal of clinical epidemiology*, 55(11), 1088-1094.
- Şeker, A., & Kurt, G. (2018). BİR SOSYAL POLİTİKA ALANI OLARAK YAŞLILIK VE SOSYAL HİZMET UYGULAMALARI. *Nüfusbilim Dergisi*, 40, 7-30.
- Tinetti, M. E., Speechley, M., & Ginter, S. F. (1988). Risk factors for falls among elderly persons living in the community. *New England journal of medicine*, 319(26), 1701-1707.
- Torun, E., Az, A., Akdemir, T., Solakoğlu, G. A., Açıksarı, K., & Güngörer, B. (2023). Evaluation of the risk factors for falls in the geriatric population presenting to the emergency department. Acil servise başvuran geriatric hastalarda düşme risk faktörlerinin değerlendirilmesi. *Ulusal travma ve acil cerrahi dergisi = Turkish journal of trauma & emergency surgery : TJTES*, 29(8), 897-903. <https://doi.org/10.14744/tjtes.2023.07433>
- TÜİK. (2023). *Dünya Nüfu Günü* (49688). <https://data.tuik.gov.tr/Bulten/Index?p=Dunya-Nufus-Gunu-2023-49688>
- Umutlu, S., & Tekin Epik, M. (2019). TÜRKİYE'DE YAŞLI NÜFUS VE SOSYAL POLİTİKA UYGULAMALARI. *Sosyal ve Beşerî Bilimler Dergisi*, 11(1), 29-43.
- Yapici, G., Kurt, A. O., Oner, S., Sasmaz, T., & Bugdayci, R. (2019). Determination of the Home Accident Frequency and Related Factors Among the People Older than 65 Years Old Living in Mersin City Center, Turkey. *Sage Open*, 9(2), Article 2158244019844083. <https://doi.org/10.1177/2158244019844083>