Fear of falling in older people with hypertension in Iran: implications for clinical practice

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Fear of falling in older people with hypertension in Iran: Implications for clinical practice

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Introduction:

- Older people are the fastest growing segment of the global population.

- This is also the case in developing countries such as Iran.

- Antihypertensive and diuretic medications, polypharmacy, and age-related physiological changes associated with risk for falls and fear of falling (FOF).

- Falls and FOF can cause dependence, loss of confidence in performing tasks, depression, immobility, hospitalization or admission to a nursing home, and imposed costs on the individual and society.

Aim:

⌗This study was conducted to identify the predictors of fear of falling in older people with hypertension in Tehran, Iran.

Method:

+ This was a retrospective study.

+ A sample of 301 older people with hypertension in clinics of eight hospitals in Tehran. The inclusion criteria:

- At and over the age of 60

- Living in the community

- Ability to speak Farsi (Persian)

-No history of surgeries which could affect balance, standing, and walking during the previous six months

-Passed at least six months from hypertension diagnosis by a medical specialist

Data collection involved a demographic and disease questionnaire and the Persian Falls Efficacy Scale-International (FESI).

Demographics were age, gender, marital status, educational level, income source, living companion, other chronic diseases, body mass index (BMI), duration of hypertension (year), and history of falling in the previous six months.

FESI measures FOF while doing simple and complex indoor and outdoor physical activities. Its 16 items are scored using a four-point Likert scale from one (Not at all concerned) to four (Very concerned).

The data were analyzed with SPSS software.

Results:

The mean age of participants in the study was 68.62 (±6.82) years.

25.9% of participants were diabetic patients too.

The mean of systolic and diastolic blood pressure were 138.94 (±13.35) and 87.18 (±10.65) respectively.

Falls occurred on the stairs (23%), and toilets (30%).

31.8% of the participants had a medium and high level of fear of falling.

Table 1-Demographic and disease characteristics of participants

Variable	Category	*n*	*Percent (%)*
Age	60-69	170	56.5
	70-79	104	34.6
	80+	27	9
Gender	Male	136	45.2
	Female	165	54.8
Marital status	Single	22	7.4
	Married	189	62.8
	Widowed	90	29.9
Educational level	Illiterate	105	34.9
	Primary school	76	25.2
	Secondary school	54	17.9
	High school	66	22
Income source	Employed	64	21.3
	Pension	173	57.5
	Charities	64	21.2
Living companion	Spouse	101	33.6
	Children	61	20.2
	Spouse & children	95	31.6
	Alone	44	14.6
Chronic disease	Yes	243	80.7
	No	58	19.3
Body mass index	17-24.9	63	20.9
	25-29.9	181	60.1
	30 +	57	18.9
History of falling	Yes	60	19.9
	No	241	80.1
Duration of hypertension (year)	1-5	131	43.5
	6-10	126	41.9
	11+	44	14.7
Fear of falling	Low(16-32)	206	68.4
	Moderate(33-48)	91	30.2
	High (49-64)	4	1.6

Table 2- Relationship between fear of falling and related factors.

Variable		Fear of Falling	P
Gender	Male	50.15	<0.001
	Female	46.52	
Educational level	Illiterate	44.87	<0.001
	Primary school	48.50	
	Secondary school	51.02	
	High school	50.67	
Income source	Employed	50.61	<0.050
	Pension	47.65	
	Charities	47.09	
History of falling	Yes	45.17	0.005
	No	48.90	

Significant correlations were not evident between FOF and age, marital status, living companion, duration of hypertension, or the level of systolic and diastolic blood pressure.

Table 3. Predictors of fear of falling of older people with hypertension

Variable		Fear of Falling				
				95% CI		
		β	SE	Lower	Upper	p
Gender	Female	Ref.				
	Male	0.20	0.91	0.09	0.31	0.001
Educational level	Illiterate	Ref.				
	Primary school	0.13	1.14	0.01	0.25	0.031
	Secondary school	0.26	1.25	0.14	0.38	0.001
	High school	0.28	1.18	0.16	0.40	0.001
History of falling	No	Ref.				
	Yes	-0.20	1.08	-0.31	-0.09	0.001

Conclusions:

Health care workers should develop programs to prevent and reduce fear of falling in those at risk and to reduce the consequences.

They can identify older adults with FOF and design programs for prevention and decrease of falling and FOF at home, hospital, and community.