THE EVALUATION OF THE RELATION BETWEEN FRAILTY LEVEL AND QUALITY OF LIFE IN ELDERLY WITH DIABETES

Yağmur Sönmez
Koc University Graduate School of Health Sciences, Istanbul
Karadeniz Ereğli State Hospital, Zonguldak, Turkey.

Şeyda Özcan
Koç University School of Nursing, Istanbul, Turkey.

INTRODUCTION

Frailty is characterised by a decline in functioning across multiple organ systems and is associated with a greater risk of adverse outcomes—including falls and fractures, admission to long-term care, and early death. Frailty occurs by ageing. It is a state of increased sensitivity caused by low physiological reserve resulting in limited capacity to maintain homeostasis and decreased body functions.[1,2] It is a consequence of cumulative decline in multiple physiological systems over a lifespan.[3,4]

Diabetes is a chronic metabolic disease that affects quality of life and can lead to frailty. It is a serious global health problem that is considered an aging-related disease and continues to gain acceleration.

AIM

Study aimed to investigate the relation between frailty and quality of life with the elderly people with diabetes.

RESEARCH QUESTIONS

1. What is frailty (Edmonton Frailty Scale average score) in elderly people with diabetes?
2. Is there a relationship between the frailty level and quality of life in elderly with diabetes?
3. What are the socio-demographic factors affecting the level of frailty?
4. What are the factors related to diabetes and its treatment that affect the level of frailty?

METHODS

The study was conducted with elderly with diabetes who applied to a family health center and a research and training hospital. People with type 2 diabetes over 65 years old was included in the study. Power analysis was performed by referring to a study in which the frailty rate was found %15 in individuals over 65 years of age (5) and the sample size was calculated as 196. Possible data removal was considered and the target sample was determined as 210.

Data was collected with;
- A *Patient Information Form* that includes 19 questions regarding socio-demographic features and characteristics of diabetes;
- *The Edmonton Frailty Scale (EFS)* and
- *EuroQol- Quality of Life Assessment Scale (EQ-5D-5L)*.

Data was analysed with frequencies, percentages, mean, median, standard deviation, Spearman's correlation, multiple regression analysis in SPSS 24 programme.

Of the cases, 18% (n = 38) were not frail, 24.3% (n = 51) were vulnerable, 20.5% (n = 43) were mild frailty, 20.5% (n = 43) were moderate frailty and 16.7% (n = 35) were severe frailty.

There was a negative and moderate correlation between Edmonton Frail Scale (EFS) and EQ-5D-5L-EuroQol- Quality of Life Assessment Scale (r=-0,659; p<0,01).

The VAS score (β=-0,040; p<0,05) had a negative and significant effect on the frailty level. Age (β=0,273, p<0,001), women than men (β=0,157, p<0,05) and living with family compared to living alone (β=0,163, p<0,05) had a positive effect and being married by being single (β=-0,277, p<0,01) had a negative effect on the frailty. (F(15,161)=6,692, R2=0,384, p<0,001).

Table 1. Sociodemographics characteristics of samples.

		n	%
Gender	Female	139	66,2
	Male	71	33,8
Marital Status	Married	156	74,3
	Single	54	25,7
Health Insurance	Yes	200	95,2
	No	10	4,8
Education Level	Illiterate	41	19,5
	Primary school	128	61,0
	Highh school or more	41	19,6

Table 2. Multiple regression model of farilty and quality of life scores.

Subdimensions of EFS	B	Standard error	β	T	p
Constant	6,079	0,766		7,934	0,001
Self-care	0,978	0,180	0,327	5,428	0,001
Pain/Discomfort	0,824	0,178	0,297	4,624	0,001
Anxiety/Depression	0,175	0,186	0,058	0,942	0,347
VAS	-0,040	0,008	-0,262	-4,872	0,001
R=0,748	R^2=0,559				
$F_{(4,205)}$=65,030	p=0,000				

CONCLUSION

Elderly with diabetes with poor quality of life have greater frailty. Frailty and quality of life should be evaluated regularly in diabetes management. In future researches, it is recommended to examine the dimensions of this relationship and the contributors.

Individuals with diabetes who apply to the health institutions should be directed to the necessary units and monitored by a multidisciplinary team to reduce diabetes-related frailty and thus increase the quality of life.

KAYNAKLAR

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