

Dog ownership status and self-assessed health, lifestyle and habitual physical activity in chronic hemodialysis patients



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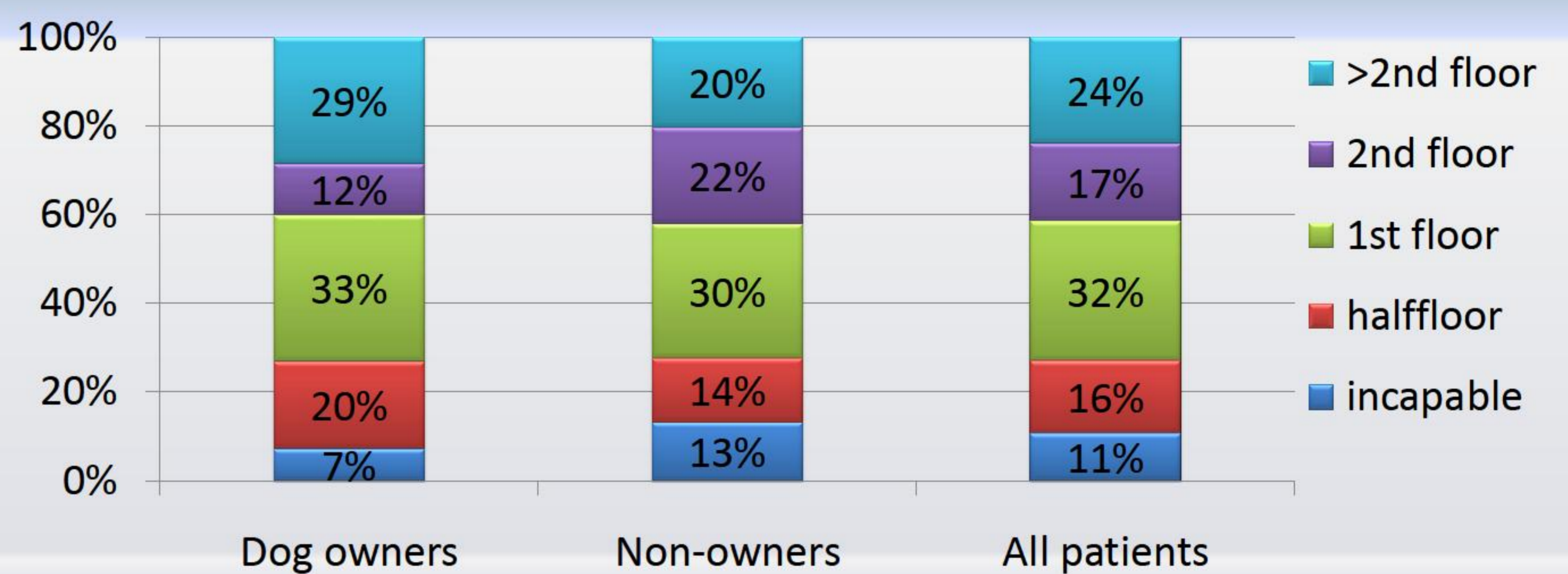
Introduction: The recent Scientific Statement from the American Heart Association on Pet Ownership and Cardiovascular Risk (Circulation 2013; 127) has emphasized that there is a critical need for novel strategies and interventions that can potentially reduce the risk of cardiovascular disease (CVD) and its attendant morbidity and mortality. Dog ownership is associated with every day involvement in caring for animals. Taking a dog for a walk forces its owner to take additional physical activity, which may be of particular importance for chronic hemodialysis patients. Several recent studies performed in various populations have explored the relationship between pet ownership and cardiovascular disease, with many reporting benefits. This issue however has not been investigated in dialysis patients.

The aim of the study was to analyze the influence of pet ownership on self-reported health and habitual physical activity in hemodialysis patients.

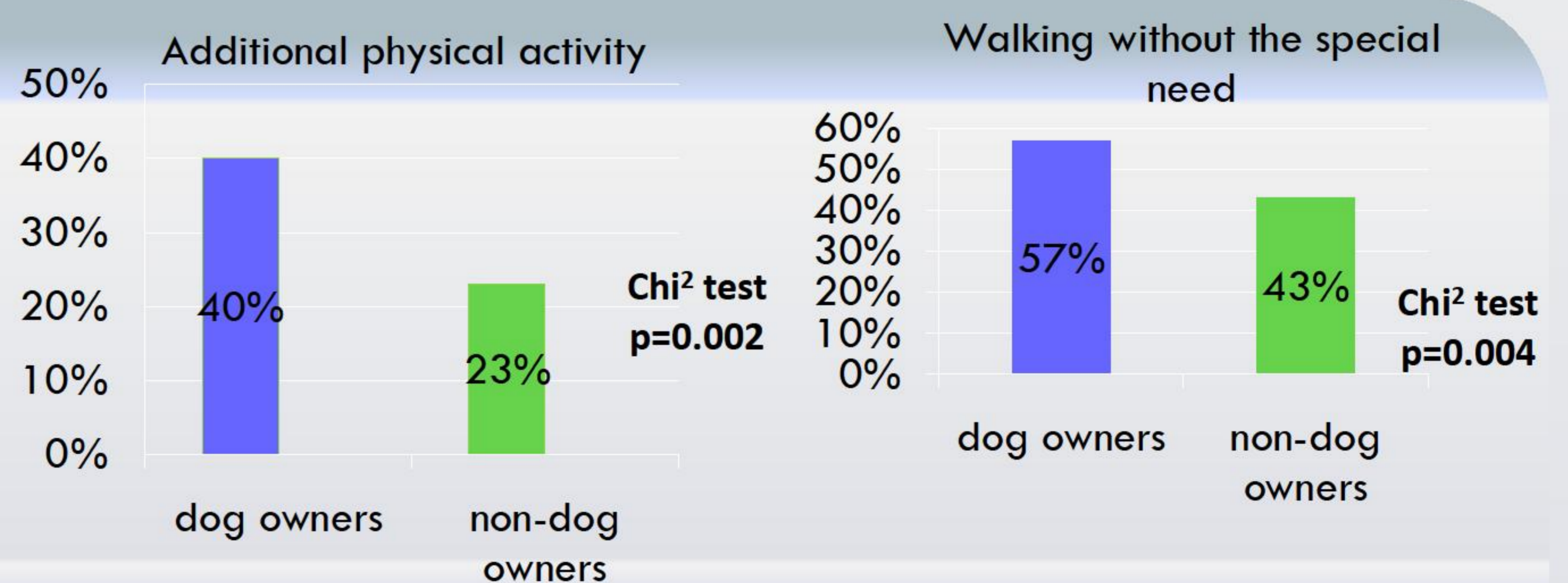
Methods and patients: A self-designed questionnaire aimed at analyzing the general health and physical activity with respect to dog ownership status was carried out in 270 chronic hemodialysis patients (172 male, 98 female, mean age 62.7±14.0 years) in 7 free-standing dialysis centers in 4 cities in central Poland. The survey was anonymous. The interviewees could decide on filling of the survey by themselves or ask a member of the medical staff during dialysis for help. The questionnaire consisted of 38 questions that included demographic data, duration of dialysis, comorbidities, habits, coexisting conditions such as arterial hypertension, diabetes mellitus, nicotine dependence, pain and limitation of joint mobility. The patients were also asked to evaluate their physical functioning and performance, current physical activity and pet ownership status, including the number of pets, pet-keeping time, the information where the pet is kept (inside or outside a house), amount of time spent each day by the owners walking their dogs, and whether the patient was the main caretaker of the pet.

Results: Clinical characteristics of the population of chronic hemodialysis patients.

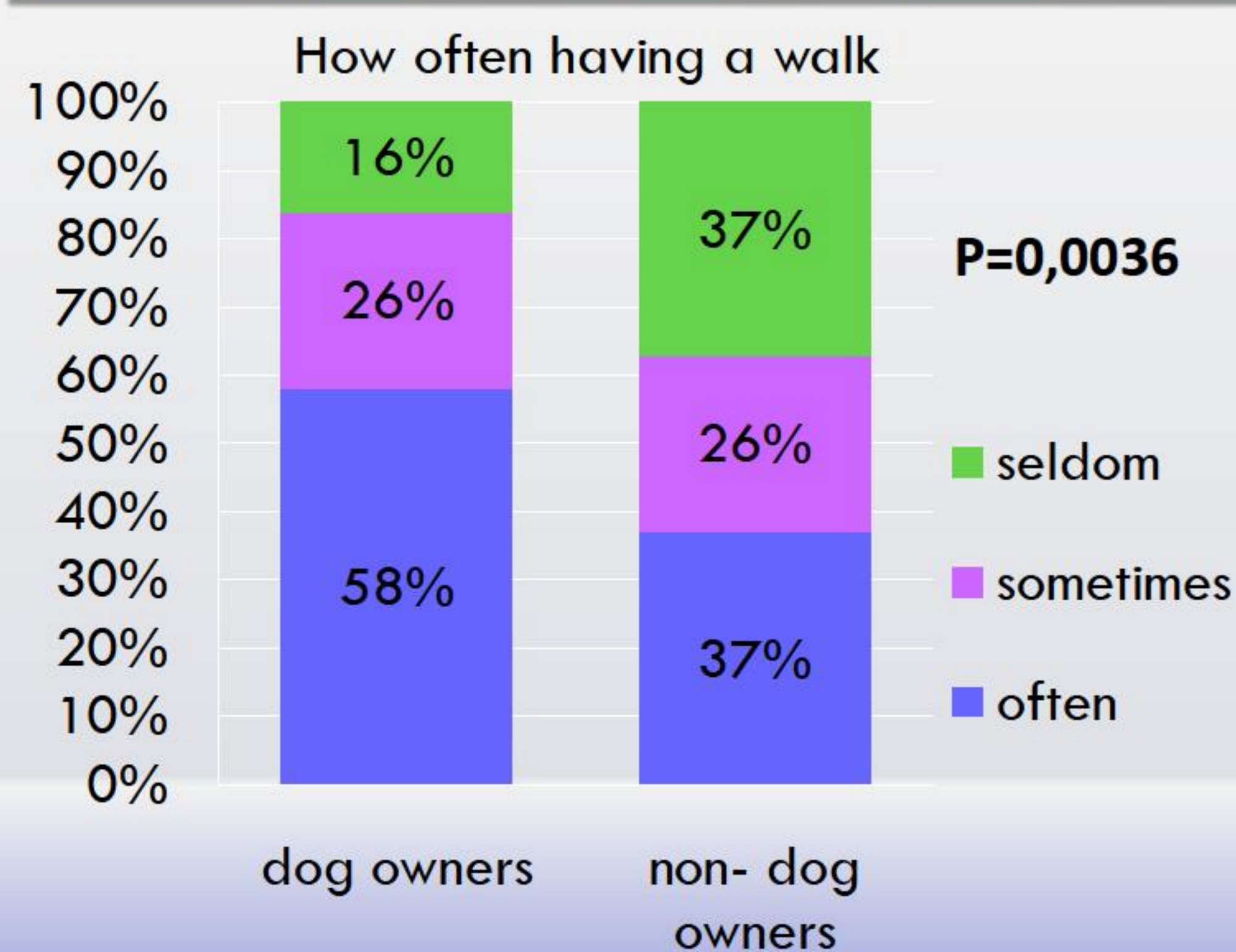
	All	Dog owners	Non-owners
Sex	172 male; 98 female	80 male; 36 female	92 male; 62 female
No of patients	270	116	154
Mean age	62.7±14.0 years	58.3±13.6 years	66.1±13.5 years
Education			
primary	n=76	n=38	n=38
secondary	n=136	n=54	n=82
higher	n=22	n=5	n=17
other or no data	n=36	n=17	n=19
Currently employed	8% (n=21)	10% (n=11)	7% (n=10)
Kind of job	Mental=12% (n=32) Physical =57% (n=155)	Mental=6% (n=7) Physical=57% (n=66)	Mental= 16% (n=25) Physical=58% (n=89)
Time on dialysis	4.2±5.2 years	4.97±6.5 years	3.54±3.7 years
Arterial hypertension	73% (n=197)	77% (n=89)	70% (n=108)
Diabetes mellitus	36% (n=96)	35% (n=41)	36% (n=55)
Diabetes mellitus period	13±11 years	10.3±9.1 years	15.4±12.6 years
Smoking	20% (n=53)	18% (n=21)	21% (n=32)
Smoking period	14±16 years	13.2±13.2 years	15.1±18.3 years
Dog ownership	43 % (n=116)		



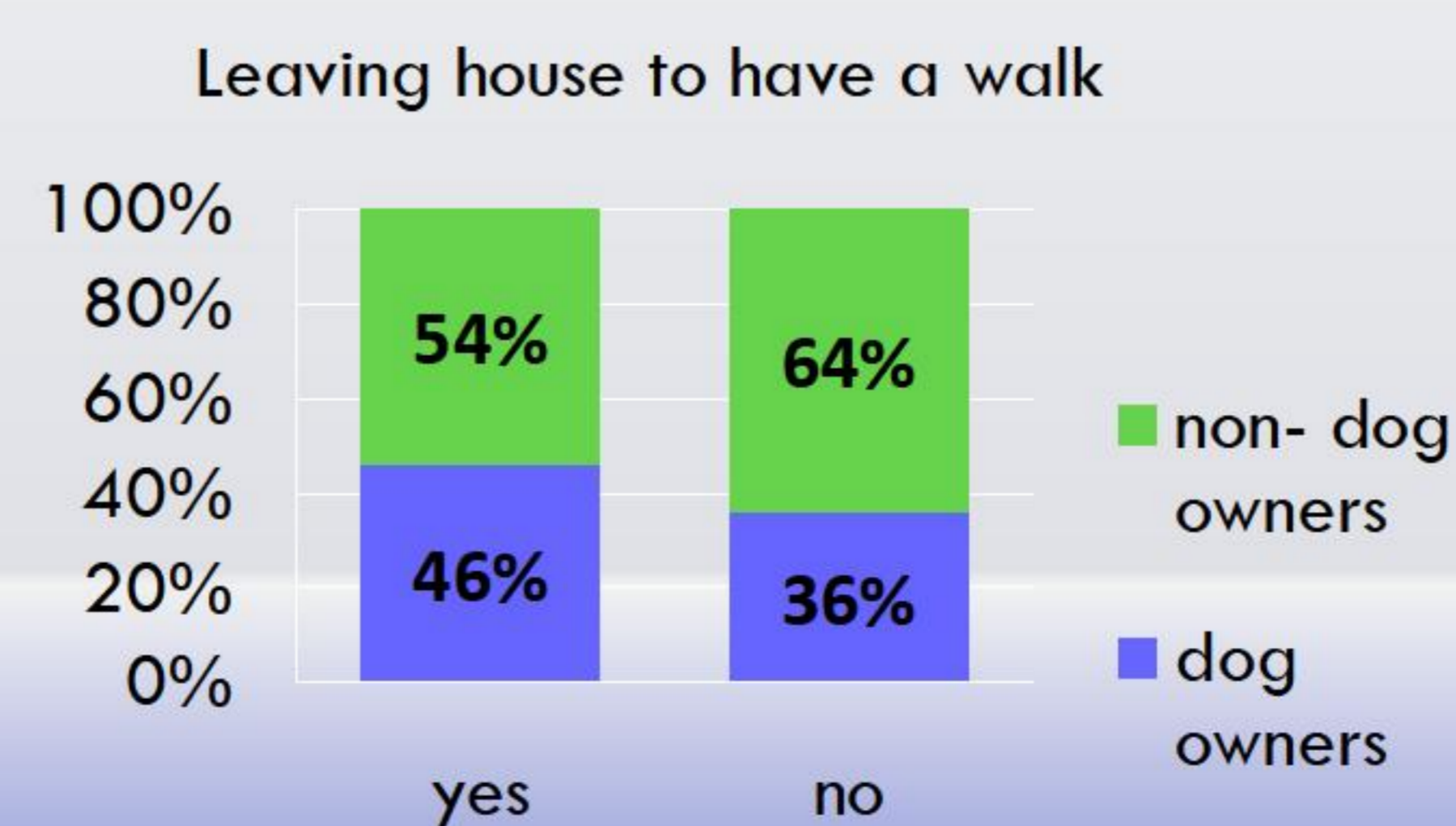
Climbing stairs without fatigue.



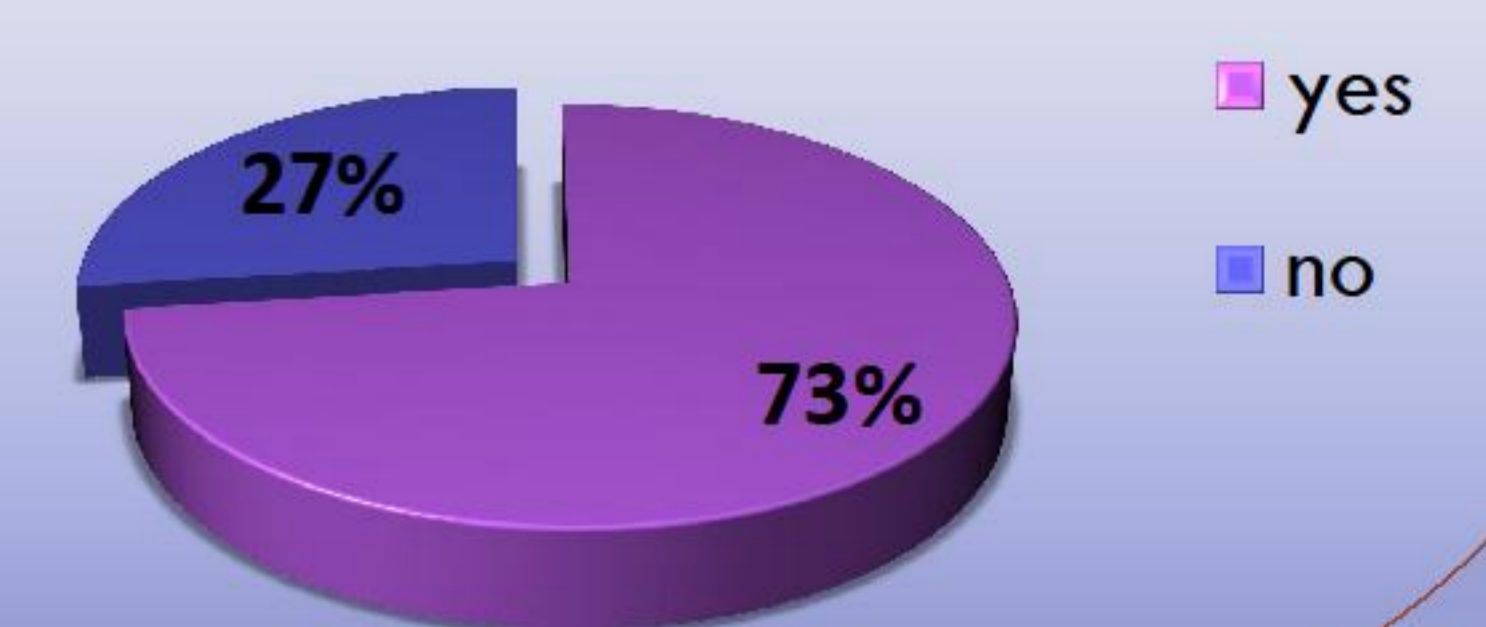
Additional physical activity in dog owners vs. non-owners.



Physical activity in chronic hemodialysis patients.



Are you more physically active because of being a dog owner ?



Conclusion: Dog ownership appears to positively influence the level of physical activity among dialysis patients. Age but not time on dialysis seems to be the most important factor determining the decision to own a pet and undertake an additional physical activity.

