Ethnic differences in functional limitations: a comparison of older migrants and native Dutch older population

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Background: Although the older migrants population in Europe is expected to grow substantially in the coming years, there is little information about their health status and particularly functional limitations. This study examined the association of ethnicity and mobility, hearing and visual limitations in comparison to the general population in the Netherlands, and whether relevant characteristics explained the potential differences between older migrants and non-migrants. Methods: Secondary data analysis of 12 652 subjects 55 years and older who participated in the health survey in the four largest Dutch cities. To establish limitations in vision, hearing and mobility, the Organization for Economic Co-operation and Development (OECD) questionnaire was used. Logistic regression analysis was used to examine the association between limitations and ethnic background, subsequently adjusting for demographic and socio-economic characteristics and relevant health- and lifestyle-related factors. Results: Older migrants had higher prevalences of functional limitations. The age- and gender adjusted ORs were 2 to 8-fold compared with older non-migrants. After adjusting for socioeconomic status and health-and lifestyle indicators, Moroccan, Turkish and Surinamese migrants still had increased ORs for visual limitations [ORs (95% CI), respectively: 2.48 (1.49–4.14), 3.08 (1.75–5.41) and 1.97 (1.33–2.91)] compared with the Dutch. For mobility limitations, only the Turkish migrants had an OR twice as high (2.19; 1.08–4.44) as the non-migrants. No significant differences were found between Antillean/Aruban migrants and non-migrants. Conclusions: Important ethnic inequalities exist in various functional limitations, particularly in vision. These results underline the importance of tailored preventive interventions in older migrants to detect and prevent these limitations at an early stage.

Introduction

Functional limitations are a serious threat to healthy aging and a major public health concern, especially among the aging population diagnosed with chronic conditions. Studies have shown that as age increases, the chance of functional decline increases too, both among older adults with disabilities as well as among those with none.¹,² Also functional limitation has been linked to numerous consequences, including low quality of life, reduced social capital, increased risk of disabilities, falling, loss of independence, institutionalization, mortality and increased risk of healthcare expenditures.¹⁻³,⁴ Furthermore, the prevalence of poor wellbeing and physical and mental health problems are reported to be greater among aging ethnic minorities and migrants with physical function limitations.¹⁻⁷

Disparities in functional limitations among ethnic minority and migrant groups are widely documented. Studies conducted in the USA show that aging Hispanics and African-American showed significantly higher levels of functional limitations compared with their US-born White counterparts.⁸⁻¹⁰ Similarly, in the UK, older South Asians and African Caribbean minority groups reported higher odds of functional limitations compared with White British older adults.² Furthermore, existing studies have demonstrated significant differences in the causes of functional limitations among ethnic minority and migrant groups. For example, previous work shows that functional limitation inequalities are partly explained by known risk factors including socioeconomic deprivation and unhealthy behaviour.¹⁰⁻¹⁵ That is, ethnic minorities with low socioeconomic status (SES)—a measure of one’s education, income or occupational status—are known to have more functional limitations, are less physically active and are more obese, compared with their native-born older peers.¹⁶,¹⁷

Despite the compelling evidence from the USA and UK of ethnic inequalities in functional limitations, research on these ethnic differences in limitations are currently lacking in other European countries, including the Netherlands. First, most studies in this field have examined African American and Hispanic populations in the USA comparing them to White Americans. However, these comparisons are not applicable to the European context, due to ethnic compositions varying across countries and ethnic groups differing by country of birth. For instance, the proportion and background of ethnic minorities living in Europe differ from country to country, but some ethnic groups are overrepresented in several countries. For example, in Germany, Turkish people form the largest migrant group, while in the Netherlands and Belgium, they are the second largest migrant group. Moroccan migrants are the largest group in Belgium and Spain, while in the Netherlands they are the third largest group.¹⁸ Secondly, in the Netherlands, older ethnic minority group represents
a heterogeneous group that not only includes the so-called former
guest workers mainly from Turkey and Morocco and their reunified
family members, but also those from former colonies such as
Suriname and Netherlands Antilles and refugees and asylum seekers.
Lastly, most earlier Dutch studies on ethnic differences in health
have not paid attention to older adults or have been focusing on
only one category of older migrants,6,19,20 or were carried out at least
15–20 years ago.2,26

Given the projected rise in the prevalence of multimorbidity in
the increasingly aging population,27 and their higher prevalence of
many health conditions,7–20 older ethnic minority groups will be
progressively more affected by functional limitations. Thus, gaining
insight into the differences between ethnic groups in functional
limitations may help contribute to the development of more exten-
sive, tailored and intervention programmes to delay the onset and
progression of functional limitations in these high-risk populations.

Therefore, the main aims of this study were 2-fold: (i) to assess
whether ethnic differences in functional limitations exist by compar-
ing the prevalence of functional limitations in Turkish, Moroccan,
Suriname and Antillean/Aruban older adults to the general Dutch
population and (ii) to examine whether the association between
ethnicity and functional limitations can be explained by SES and
health- and lifestyle-related factors.

Methods

This study used cross-sectional data (collected in 2012) from the
National Dutch Health Survey (NDHS). Every four years, the Public
Health Services of the four largest cities (Amsterdam, the Hague,
Rotterdam and Utrecht) jointly conduct the NDHS to gain insight
into the health of the local population. The rationale, conceptual
framework, design and methodology of NDHS have been described
in more details elsewhere.22

Data collection and study sample

In each city a random sample of people aged 19 years and older was
drawn from the municipal population registers. Eligible respondents
were approached at least three times to fill out either a web-based
questionnaire or a paper version. At the fourth and final measure-
ment, non-respondents from the three major ethnic groups (i.e.
Moroccans, Turkish and Surinamese), the so-called hard-to-reach
groups, were contacted by phone or visited at their homes and were
offered personal help to either fill out the questionnaire or take part
in a personal interview in their preferred language.

This study used data from 12,652 respondents aged 55 years and older,
including the following ethnic groups: 10,979 (87.4%) Dutch,
869 (6.9%) Surinamese, 298 (2.4%) Moroccan, 282 (2.2%) Turkish
and 134 (1.1%) Antillean/Aruban. The overall response rate was
54% and was higher among the Dutch (57–60%) than among the
migrants (23–35% in Moroccans, 28–35% in Turkish, 30–55% in
Surinamese and 35–66% in Antilleans/Arubans).

Measures

Survey information was collected on socio-demographic and behav-
ioral factors, physical and mental health, social well-being, lifestyle
and healthcare use.

Functional limitations

We defined functional limitations as the inability to carry out func-
tional tasks at the personal level required in activities of daily living,
including mobility limitations and visual and hearing impairments.
To establish these limitations, the validated questionnaire of the
Organization for Economic Co-operation and Development (OECD) was used.23

The following seven questions were used

Hearing limitations

Q1 ‘Can you have a conversation with one other person (with a
hearing aid if required)?’ and Q2 ‘Can you follow a conversation in a
group consisting of three or more persons (with a hearing aid if
required)?’

Visual limitations

Q3 ‘Can you recognize someone’s face from a distance of 4 meters
(with glasses or contact lenses if required)?’ and Q4 ‘Can you read
small print in the newspaper (with glasses or contact lenses if
required)?’

Mobility limitations

Q5 ‘Can you carry an object weighing 5 kilos (such as a full-
shopping bag) for a distance of 10 meters?’ and Q6 ‘Can you walk 400
meters without pausing (with a walking stick if necessary)?’ and Q7
‘Can you bend over from a standing position and pick something up
from the ground?’

A four-point scale was used ranging from ‘yes, without difficulty’,
yes, with minor difficulty’, ‘yes, with major difficulty to ‘no, unable
to do’ Respondents who reported having ‘major difficulty’ or were
‘not able’ to perform at least one activity, were classified impaired
for that function category.23 So, dichotomous variables (0 = without
or with minor difficulty and 1 = major difficulty or unable) were
created to categories older adults having hearing, visual or mobility
limitations, respectively.

Ethnicity

Ethnicity was defined based on the country of birth of the resident
and his/her parents, according to the definition of Statistics
Netherlands.24 A person is considered a minority/migrant if he/she
was born abroad or family born abroad (first-
generation minority) or if he/she was born in the Netherlands
with ≥1 of the parents born abroad (second-generation minority).
In the current study, we considered the four largest migrant groups
from Turkey, Morocco, Suriname and Netherlands Antilles. Dutch
older adults were used as the reference category. A person was
identified as ‘ethnic Dutch’ if both parents were born in the
Netherlands.

Socio-demographic and economic variables

These included age, gender, living conditions, education level and
income. Living conditions was categorized into living alone or living
together with someone else. Education (based on the highest level of
completed education and classified into two groups: no or only
primary school and middle or higher education) and income (an-
ual household income) were used as indicators to measure SES.

Physical health

Perceived health was measured using the question: ‘How good is
your health in general?’ Answers were dichotomized into fair or
(very) bad vs. good to very good. The presence of chronic disorders
was assessed using self-reported data on 19 chronic conditions for
which the subject reported to be monitored or treated by a general
practitioner/medical specialist. For this study information about the
presence of diabetes, hypertension, asthma/COPD, cardiovascular
disease (CVD), musculoskeletal disorders and urine incontinence
was used. Obesity was measured by the body mass index (BMI)
and categorized as being obese (BMI ≥ 30 kg m⁻²) or not (BMI
<30 kg m⁻²).

Mental health

The 10-item Kessler Psychological Distress Scale (K10) was used to
measure anxiety and depressive symptoms,25 and loneliness was
measured using the 11-item Loneliness Scale. Social exclusion was measured using the Social Exclusion Index for Health Surveys (SEI-HS), a four-dimensional index, which includes 'lack of social participation', 'material deprivation', 'lack of normative integration' and 'inadequate access to basic social rights'.

**Behavioural variables**

Lifestyle indicators included alcohol consumption (defined as consuming alcohol or not), smoking (yes or no) and physical inactivity (based on whether or not participants fulfilled the norm for healthy physical activity representing half an hour a day of physical activity for at least 5 days/week).

**Analysis**

All analyses were performed using SPSS version 24.0. We used \( \chi^2 \) tests to compare the characteristics of the different ethnic groups. To examine the association between ethnicity and the various types of limitations, multivariate logistic regression analyses were conducted. Five models were used to examine the data. Model 1 adjusted for demographic variables (age and gender). Model 2 additionally adjusted for SES including living conditions to examine whether SES moderates ethnic differences in functional limitations. Model 3 further adjusted for physical health (perceived health, obesity and the presence of chronic disorders) and model 4 further adjusted for mental health indicators (anxiety and depressive symptoms, loneliness and social exclusion). Finally, model 5 further adjusted for lifestyle risk factors (alcohol consumption, smoking and physical activity). A P value < 0.05 was considered statistically significant.

**Results**

**Background and health characteristics of the study population**

Table 1 shows the demographic and health characteristics of the research sample. There were more women than men, but their proportions were not equally distributed according to ethnicity. Older migrants were, on average, younger, more poorly educated and were more likely to have the lowest household income than the Dutch.

Compared with the Dutch, older migrants less often perceived their health as (very) good, with Moroccans having the lowest scores, followed by the Turkish, Surinamese and Antilleans/Arubans.

Older Moroccans, Turkish and Surinamese had a higher prevalence of chronic diseases, mainly hypertension, diabetes and musculoskeletal disorders and reported more visual, hearing and mobility limitations and psychological health problems, such as loneliness and depression/anxiety symptoms than their Dutch counterparts. About one quarter of the four older minority groups had to deal with social exclusion (22.1–28.1%) compared with 5.0% among Dutch people. With regard to lifestyle, few ethnic differences were found for smoking, but alcohol intake varied largely according to ethnicity, with the Dutch having the highest proportion. All ethnic minority groups were more likely to be physically inactive and overweight than the Dutch.

**Multivariate association between ethnicity and limitations**

Table 2 presents the unadjusted and adjusted results for ethnic differences in mobility, visual and hearing limitations.

**Mobility limitation**

With the exception of the Antilleans/Arubans, all ethnic minorities were more likely to report mobility limitations compared with the Dutch older adults. The ORs increased even slightly after adjusting for age and gender. Older migrants had higher ORs for mobility limitation [OR = 5.05 (95% CI: 3.56–7.15) in Moroccan; OR = 8.48 (95% CI: 5.93–12.14) in Turkish; OR = 2.01 (95% CI: 2.33–3.61) in Surinamese and OR = 2.03 (95% CI: 1.17–3.53) in Antilleans/Arubans]. Adjustment for age, gender, living conditions and socio-economic variables (model 2), attenuated the ethnic differences but removed significant differences only in Antilleans/Arubans. After further adjustment for physical health/chronic disorders (perceived health, diabetes, hypertension, CVD, obesity, asthma, musculoskeletal disorders, visual limitations and urine incontinence), Turkish migrants still had higher OR of mobility limitations (OR = 2.15; 95% CI: 1.22–3.78) than the Dutch. In the fully adjusted model (model 5) controlling for mental health and lifestyle indicators, Turkish older adults were significantly more likely to report mobility limitations than the Dutch. This relationship was not observed among the other three ethnic groups.

**Visual limitation**

Older migrants had higher OR’s of reporting visual limitations compared with older Dutch. After adjusting for age and gender in model 1, the associations increased somewhat for all the ethnic groups but was not significant in Antillian/Aruban older adults. The ORs were respectively: 6.07 (95% CI: 4.29–8.60) in Moroccans, 7.13 (95% CI: 5.03–10.09) in Turkish and 3.24 (95% CI: 2.56–4.10) in Surinamese. Adding SES variables and living conditions to the model reduced the ethnic differences in visual limitations. Further adjustment for physical health, mental health indicators and lifestyle lowered the ORs for reported visual limitations in Moroccan, Turkish and Surinamese migrants, but the ethnic differences remained statistically significant. With the exception of Antillian/Aruban older adults, older migrants were 2–3 times more likely to report visual limitations than the Dutch.

**Hearing limitation**

The age and gender adjusted findings (model 1) revealed that older migrants were more likely to report hearing limitations as compared with the Dutch. The ORs were respectively: 2.32 (95% CI: 1.46–3.68) in Moroccans; 6.65 (95% CI: 3.79–8.42) in Turkish and 1.87 (95% CI: 1.29–2.72) in Surinamese. Further adjustment for SES variables and living conditions (model 2) removed the significant ethnic differences for hearing limitations, except for Turkish migrants who still had a 2.72 times higher OR than the Dutch. In the fully adjusted model (model 5) all older migrants were not more likely to report hearing limitations than their Dutch counterparts.

**Discussion**

The findings from this representative sample of the older population from the largest Dutch cities add new evidence to the existing literature about functional limitations by taking into account the diversity in ethnic backgrounds of the older adults. This study shows that older migrants have increased ORs for reporting mobility, visual and hearing limitations compared with their Dutch counterparts. With the exception of hearing limitations, these associations did not disappear entirely after adjusting for socio-economic and health-related factors. With regard to mobility limitations, after adjustment for relevant variables, only Turkish migrants, had increased ORs compared with the Dutch. No significant differences were found between Antilleans/Arubans and the Dutch in any functional limitations.

Our results of higher prevalences of functional limitations in the older migrants are consistent with previous research showing an association with ethnicity and self-reported functional limitations. An important finding of our study was that SES and health and lifestyle indicators could not explain the ethnic differences in visual limitations and the differences in mobility limitations in Turkish migrants compared with the Dutch. Although no such data are
Table 1 Socio-demographic characteristics of participants according to ethnicity (N unweighted numbers, % weighted*)

| Ethnicity (Dutch ref) | Model 0 OR (95% CI) | Model 1 OR (95% CI) | Model 2 OR (95% CI) | Model 3 OR (95% CI) | Model 4 OR (95% CI) | Model 5 OR (95% CI) |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Dutch, N (%)          | Moroccon, N (%)     | Turkish, N (%)      | Surinamese, N (%)   | Antillean/Aruban, N (%) | Total, N (%)        | P-value             |
| Male                  | 5003 (45.7)         | 175 (53.9)          | 155 (55.9)          | 259 (44.6)          | 63 (46.9)           | 5755 (46.3)         | <0.05               |
| Female                | 5976 (54.3)         | 123 (46.1)          | 127 (44.1)          | 510 (55.4)          | 71 (53.1)           | 6807 (53.7)         | <0.001              |
| Age                   |                     |                     |                     |                     |                     |                    |
| 55–64                 | 2510 (39.9)         | 105 (58.3)          | 83 (55.8)           | 274 (61.4)          | 53 (61.8)           | 3025 (43.6)         | <0.001              |
| 65–74                 | 4597 (31.5)         | 150 (31.8)          | 154 (33.1)          | 426 (27.0)          | 63 (29.7)           | 5390 (31.1)         | <0.001              |
| Living alone          | 3872 (28.6)         | 43 (9.9)            | 45 (11.1)           | 169 (11.6)          | 18 (8.5)            | 4147 (25.4)         | <0.001              |
| Education level       | 4048 (41.2)         | 34 (12.4)           | 64 (25.4)           | 438 (51.3)          | 69 (45.6)           | 4653 (40.5)         | <0.001              |
| None/primary          | 1628 (13.50)        | 224 (79.3)          | 203 (73.9)          | 323 (29.1)          | 30 (19.2)           | 2408 (19.5)         | <0.001              |
| Middle/higher         | 8668 (86.5)         | 40 (20.7)           | 40 (26.1)           | 473 (70.9)          | 94 (80.8)           | 9329 (80.5)         | <0.001              |

Income                                                                                                         <0.001
Max < 15 200, –       1221 (13.0)         140 (44.2)         148 (57.2)         298 (31.3)         56 (45.0)         1863 (17.9)         <0.001
Max > 19 400, –       3020 (29.7)         70 (20.1)           223 (21.8)         26 (18.4)          3435 (23.8)        7230 (58.3)         <0.001
Smoking                6712 (63.0)         62 (26.1)           63 (22.7)           345 (46.9)         48 (36.6)          7230 (58.3)         <0.001
Alcohol intake         8129 (80.3)         10 (4.8)            41 (19.3)           448 (64.7)         85 (73.1)          8713 (73.7)         <0.001
Physical activity      6774 (71.1)         150 (60.7)          127 (54.5)          421 (59.0)         65 (61.4)          7537 (68.8)         <0.001
Obesity (BMI ≥ 30 kg · m–2) 1879 (17.4)    61 (24.6)           117 (44.7)          176 (22.8)         42 (28.6)          2275 (19.2)         <0.001
Good perceived health  6408 (61.6)         49 (17.6)           59 (22.7)           258 (37.8)         58 (49.1)          6832 (56.1)         <0.001
Hypertension           2842 (31.6)         113 (47.7)          89 (39.0)           326 (45.8)         42 (34.3)          3412 (34.0)         <0.001
Diabetes               1504 (13.4)         117 (37.2)          92 (31.9)           390 (29.4)         28 (19.4)          2031 (16.9)         <0.001
≥ 1 cardiovascular disease 1356 (11.6) 35 (9.2)             71 (20.4)           167 (14.6)         11 (6.7)           1640 (12.0)         <0.01
≥ 1 musculoskeletal disorders 2500 (27.3) 106 (41.4)          131 (58.3)          283 (63.6)         31 (29.4)          3051 (29.9)         <0.001
Asthma/COPD            885 (9.6)           33 (10.2)           48 (21.4)           85 (12.5)          8 (7.0)            1059 (10.2)         <0.001
Urine incontinence     574 (6.2)           26 (11.0)           47 (18.0)           86 (9.9)           5 (2.9)            738 (7.1)           <0.001
Vision limitations     1122 (9.9)         119 (40.3)          113 (44.0)          250 (27.3)         21 (14.2)          1625 (14.0)         <0.001
Hearing limitations    834 (6.4)           42 (11.0)           66 (23.0)           87 (9.3)           8 (7.6)            1037 (7.4)         <0.001
Mobility limitations   2577 (21.4)         150 (48.3)          170 (60.4)          396 (37.1)         43 (28.6)          3336 (25.4)         <0.001
Loneliness             4946 (46.8)         176 (32.8)          185 (37.1)          454 (45.8)         55 (11.6)          5826 (49.3)         <0.001
Depression/anxiety     4602 (42.1)         200 (73.5)          213 (77.1)          480 (52.5)         52 (38.1)          5547 (45.5)         <0.001
Social exclusion       537 (5.0)           63 (22.1)           83 (28.1)           196 (24.9)         36 (24.8)          915 (8.6)           <0.001

Model 0: crude; model 1: model 0 + age and gender; model 2: model 1 + SES (education level and income) + living alone; model 3: model 2 + physical health indicators (perceived health, obesity, hypertension, diabetes, cardiovascular diseases, musculoskeletal disorders, asthma/COPD and urine incontinence); model 4: model 3 + psychological health indicators (loneliness, depression/anxiety and social exclusion); and model 5: model 4 + lifestyle (smoking, alcohol intake and physical activity).
and relevant health variables. However, previous research shows contradictory findings. For example, Pugh and Crandell found that differences between African American and White American seniors in self-report of hearing problems were not statistically significant; while Lin et al. showed that African Americans were more likely to have normal to mild hearing loss than the White population.

There are several explanations for our finding of the persistent ethnic differences in visual limitations, even after adjustment for relevant variables. First, compared with older migrants, Dutch older adults are more likely to use and benefit from increased screening of chronic disease and vision impairment. When diagnosed at an earlier age, these problems may be better managed, and thereby reducing the risk of developing impairments. Secondly, the higher prevalence of health problems in ethnic minorities, such as diabetes and hypertension compared with the Dutch people may increase their risk of visual impairment. Earlier research had shown that the proportion of undiagnosed diabetes is high, particularly in disadvantaged populations. For example, although the proportion of undiagnosed diabetes in the USA fell from 2005 to 2010, this was mainly accounted for by White Americans while in minorities, these rates rose. In the Netherlands, despite the higher rate of awareness and treatment for hypertension and diabetes among ethnic minorities compared with Dutch participants, control rates are lower, which might contribute to the higher rate of complications such as glaucoma (hypertension) or diabetic retinopathy (diabetes) causing different visual abnormalities. Lastly, a study by Scase and Johnson found a much higher incidence of age-related cataracts among the Asian community in the UK when compared with Europeans. Worldwide cataract is considered the greatest cause of visual problems such as blindness and in developing countries its onset is associated with early poverty and malnourishment and excess exposure to ultraviolet radiation. This might also be applicable to the migrant groups included in our study, most originating from low and middle-income countries. They may have experienced poverty or poorer access to health care services during their childhood. Unfortunately, we have no data about the prevalence of these health problems in early life.

With regard to differences in ORs for the varied limitations between the ethnic minority groups, our findings show that Turkish migrants had the highest ORs, followed by Moroccans and Surinamese; while no significant differences were found between Antilleans/Arubans and the Dutch. The most probable explanation for these findings is a difference in use of health care services and knowledge about health and Dutch culture, due to language and cultural barriers. On average, Surinamese and Antilleans/Arubans are more well educated than Turkish and Moroccan migrants and are more familiar with the Dutch language and culture because of the colonial ties. In addition, the non-significant difference between Antilleans/Arubans and the Dutch could be attributed to the very limited number of respondents of Antillean/Aruban origin.

More research is needed to further identify the underlying factors that may explain the ethnic disparities, particularly in visual and mobility limitations between the migrants groups and the Dutch. Our study has some limitations that should be considered. Because of the cross-sectional design, we could not exclude a possible reverse causality. Ethnic differences in response may also influence our results. However we are convinced that the efforts made to reach older migrants (e.g. home visits and phone calls) have improved the response rate among the migrants. The information on functional limitations is based on self-reports and could not be confirmed by objective data such as health examinations or diagnoses by physicians. However, there is no indication of results biased by differences in self-reports between older migrants and non-migrants, since the OECD questions have been proved valid and reliable in other studies, user-friendly and have been used for different ethnic groups. Furthermore, research comparing self-reported health problems with diagnoses by physicians has shown high rates of agreement with chronic clinical notes for most of the major disabling conditions. Lastly, since a large majority of older Turkish and Moroccan migrants is illiterate, they are probably more likely to report they could not read small print in the newspaper.

There are also strengths to our study including the relatively rare opportunity to include different older migrants as well as their Dutch counterparts in the same study, especially compared with other health surveys in the Netherlands and Europe in general. Furthermore, since older migrants constitute a very heterogeneous group, our study includes data on four different ethnic groups analyzed separately and compared with the Dutch population.

Our findings have public health implications. Migrants, especially older Turkish and Moroccan adults encounter several barriers, e.g. linguistic, financial and cultural in access to and use of health care services, including screening and preventive health services; more so than the Dutch. To reduce inequalities in functional limitations, preventive intervention should be tailored to the specific needs of older migrants, considering their limited health literacy and language and cultural barriers to using Dutch health care system (e.g. the use of aids). Moreover, interventions studies are needed to enhance healthy aging in general and therein to detect limitations at an early stage to prevent avoidable functional limitations in high-risk populations.

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**Conflicts of interest:** None declared.

**Ethical approval**

This manuscript uses only secondary data, for this reason we do not enclose ethical approval.

**Key points**

- Although older migrants are a group of increasing demographic importance in Europe, there is little information about their health status and in particular functional limitations (mobility, hearing and vision).
- In our study, older migrants had higher prevalences of visual, hearing and mobility limitations than older Dutch adults.
- Adjustment for demographic, socioeconomic, health and lifestyle indicators did not explain the ethnic differences in visual limitations, nor the inequalities in mobility limitations between Turkish older migrants and their Dutch counterparts.
- It is important to emphasise the urgency of targeting preventive interventions to the specific needs of older migrants to tackle inequalities in functional limitations.

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