Abstract:

Introduction: Of the 1.7 million immigrants (19%) in Austria, 214,626 were 65 years and older, with 12,913 of these being Turkish immigrants in 2018. However, very little data exists on the functional health of this population, which would be needed to derive future outpatient and inpatient nursing and care needs.

Objectives: To collect data on the functional health status of older home-dwelling Turkish immigrants aged 60 and over for the first time.

Methodology: An explorative, quantitative cross-sectional study was carried out in 2018 among 344 elderly people in a home setting by using a validated self-assessment questionnaire in Turkish.

Results: The average age of the 86 Turkish immigrants was 68.13 (SD±6.52, min. 60, max. 89). The main health-related problems were a high to very high prevalence of diagnosed illnesses (70%) and pain (95%). In addition, movement-related restrictions and a high fall rate were evident the year before (32%). Family members were identified as an essential health-relevant resource. A very large proportion of respondents replied that they could count on the support of family members in an emergency (85%), with a smaller proportion responding that they could rely on relatives to help with personal care (n=27, 31.4%) and household tasks (n=47, 56%). As very high percentage indicated that they were taking medication (n=73, 85%) and currently suffering from one or more diseases that has been diagnosed by a physician (n=59, 70%). As very high percentage indicated that they were taking medication (n=73, 85%) and currently suffering from one or more diseases that has been diagnosed by a physician (n=59, 70%).

Conclusion: Since Turkish immigrants go to the family doctor for health-related problems, they should be made aware of the currently free service provided by the mobile nursing and care organizations, the preventive home visit, when they visit the doctor’s office. This would yield health-related data for this population. The identified problems and resources could be used as a basis for health-related advice and information including implementation measures.

Key Words: Turkish immigrants aged 60 or over, functional health, health-related resources, health-related problems, preventive home visit

Introduction

In 2002, around 1.1 million people (13.8% of the total population) with an immigrant background lived in an Austrian households. In 2018 the number of immigrants rose to 1.7 million people (18.9% of the total population), which accounts for the steady number increase of immigrants living in Austria. Of these, 160,225 people had a Turkish immigrant background in 2018 (1.8% of the total population of Austria (n=8,822,000). Of the 1.7 million immigrants, 214,626 were 65 years and older, with 12,913 of these being Turkish immigrants. Of the 1.7 million
immigrants, 214,626 were 65 years and older, with 12,913 of these being Turkish immigrants.

The steady increase in the number of immigrants of older age suggests that the Austrian health and social system can expect an increased demand for intercultural nursing and care\textsuperscript{2,3}. The present study refers exclusively to immigrants of Turkish origin aged 60 or over (hereinafter referred to as older Turkish immigrants). In order to derive current and future outpatient and inpatient nursing and care needs of older Turkish immigrants in a sensitive immigrant, and cultural manner, appropriate data sources are needed on their functional health status\textsuperscript{4}. It is evident that, compared to older people of Austrian origin, this group shows a higher prevalence of chronic illnesses, are more strongly affected by depressive episodes, and are more often affected by pain\textsuperscript{5,6}. The utilization of mobile and long-term services from the Austrian health care sector is rather low among older Turkish immigrants\textsuperscript{5}.

Altintop\textsuperscript{7} provides reasons for this situation. The study showed that older Turkish immigrants would use outpatient and inpatient nursing and care services if their culture-specific needs, such as conversations in their native language with health personnel or culturally adapted care measures, were taken into account. Another reason for the low utilization of nursing care services\textsuperscript{8}, is the functioning, social, intra-family network among Turkish immigrants.

According to Von Bose A\textsuperscript{9}, culture influences an individual’s health. This implies that social and cultural factors influence the recovery or healing process. Based on this knowledge, the Austrian health care system must work towards intercultural opening\textsuperscript{10}. Targeted measures should aim to integrate immigrants of all ethnic groups living in Austria into the Austrian health and social system and inform them of potential services\textsuperscript{11}. Once there is an intercultural line in the Austrian health care system, it will be subsequently necessary to strengthen the health literacy of older immigrants in order to generate an understanding of the utilization of possible nursing and care services\textsuperscript{11,12}.

The aim of the present study is to collect, data on the functional health of home-dwelling Turkish immigrants aged 60 and above by means of a validated, self-assessment questionnaires in Turkish. The results would serve as a basis to develop the first adequate care, the care that is sensitive to immigrant and cultural realities in the primary health care setting in Tyrol.

Theoretical Framework

Immigration in Austria

The history of immigration in Austria goes back to the Raab-Olah Agreement of 1961. The agreement formed the cornerstone of immigration in response to the economic upturn. The migrant workers were expected to return to their home country after a certain period of time. This principle of rotation was not observed as the guest workers, especially Turkish guest workers, brought their families to Austria and settled in the country. As a result, intergovernmental agreements were concluded in the 1960s to introduce an institutionalization and control over guest workers. In 1995, Austria became a member of the European Union and adopted the so-called Four Freedoms, which include the free movement of persons and to establish and provide services. These freedoms were also reflected in the Austrian integration policy\textsuperscript{12}.

Due to the increasing proportion of the older population with an immigrant background, it is not only important to know about the spread of illnesses but also about the functional health status of this group\textsuperscript{12}. An individual’s functional health status is shown in how he or she fulfills everyday requirements and engages in social life\textsuperscript{13}.

The concept of functional health

The concept of functional health goes back to the biopsychosocial model adopted by the World Health Organization for its International Classification of Functioning,
The central elements of the conceptual model comprise several interactive components that are central to the representation of the patient perspective. The first part of the model covers the components Body Structures (anatomical parts of the body) and Body Functions (physiological functions of body systems), as well as the components Activities (execution of a task or action) and Participation (involvement in a life situation). The second part comprises the Contextual Factors, which represent the complete background of an individual’s life. The contextual factors include the two components Environmental Factors (which make up the physical, social and attitudinal environment in which people live) and Personal Factors such as age, gender, coping styles or experience. In the biopsychosocial model, an individual’s functioning is seen as an interaction between the health condition and the contextual factors.

According to this theoretical view, an individual is functionally healthy if (a) the physiological functions of body systems (including psychological functions) correspond to the functioning of a healthy individual (Body Functions and Structures), (b) the individual can execute all tasks and actions that can be expected from an individual with no health conditions (Activities), (c) the individual can participate in all important life situations in a way that individuals without impairments, i.e. problems of body functions or structures associated with health conditions, or without activity limitations can be expected to do (Participation).

Methodology

The following research questions formed the basis of the study:

Which functional resources or problems relevant to functional health can be identified among home-dwelling Turkish immigrants aged 60 or over?

Which gender-specific differences can be seen among home-dwelling Turkish immigrants aged 60 or over with regard to functional resources or problems relevant to functional health?

An explorative, quantitative cross-sectional design was chosen. Cross-sectional studies exhibit different characteristics, such as the data collection of a sample at a specific time. This makes it possible to make a statement about a specific actual state. How long these phenomena have already existed is unknown. Descriptive analysis can be used to describe and quantify certain phenomena.

In the framework of this study a self-assessment questionnaire (Q-FH2) built on the theoretical construct of the ICF biopsychosocial framework was used to assess the individual’s life situation. The validation of the Q-FH2 based on data of 344 elderly people in a home care setting. The internal consistency showed θ coefficients ranging from 0.758 to 0.854.
step the Q-FH₂ was translated into the Turkish language (Q-FH₄₉₀₄) in cooperation with the University of Antalya and in accordance with the ISPOR guidelines²⁰.

The structure of the Q-FH₄₉₀₄ was divided into seven interpretable factors consisting of 53 items.

- Sociodemographic data (4 items)
- Functional performance (11 items)
- Physical symptoms (7 items)
- Current health condition (5 items)
- Psychosocial situation (10 items)
- Preventive care (12 items)
- Are they informed about (4 items)

The potential study participants were recruited on the basis of the following inclusion and exclusion criteria (Table 1).

Table 1: Inclusion and exclusion criteria for the study

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals with Turkish roots</td>
<td>Individuals without Turkish roots</td>
</tr>
<tr>
<td>Country of birth: Turkey</td>
<td>Country of birth: not Turkey</td>
</tr>
<tr>
<td>Place of residence: Austria, four districts in Tyrol</td>
<td>Place of residence: not Austria, other five districts in Tyrol</td>
</tr>
<tr>
<td>Turkish immigrants in the community</td>
<td>Turkish immigrants in a long-term care facility or in a clinical setting</td>
</tr>
<tr>
<td>aged 60 or over</td>
<td>aged &lt; 60</td>
</tr>
<tr>
<td>Voluntary participation</td>
<td>Involuntary participation</td>
</tr>
<tr>
<td>Individuals not under guardianship</td>
<td>Individuals under guardianship</td>
</tr>
</tbody>
</table>

Recruitment was carried out at eight cultural associations in four districts of Tyrol. The association chairmen as well as defined key individuals served as mediators and contact persons for the research team. At the beginning of the study, various key individuals from politics and from the Turkish community were contacted to gain access to the population. After several conversations with the key individuals, the associations were contacted directly. Extensive talks were held with the chairmen at the various associations to establish a basis of trust. The purpose, objectives and structure of the study were explained to them based on the written study information. The chairmen were then asked to pass on the information to members who met the defined inclusion and exclusion criteria. The chairmen thus carried out the recruitment of the potential study participants. As mainly men were to be found at the various study associations, they were asked to fill out the self-completed questionnaire (Q-FH₄₉₀₄) with their relatives (wives and/or their parents and/or grandparents) at home. This ensured the participation of Turkish women in the study. The data was collected from November 2017 to the end of April 2018. Ethical approval for the study was granted by UMIT’s Research Committee for Scientific and Ethical Questions (RCSEQ).”

Data analysis was performed using the software program SPSS (Statistical Package for Social Sciences) version 25, with descriptive analysis made on the basis of the appropriate measurement scale using measures of central tendency and dispersion. Nominal, ordinal and metric data were collected. This data served as the basis for a representation of the frequency distribution. A nonparametric test method based on the Mann-Whitney U-test was used to compare differences between women and men. For the calculation of differences, the significance level was set to a probability of error of α=5%.

Results

At the time of the study, 1,655 Turkish immigrants aged 60 and over lived in the four identified Tyrolean regions²¹. In total, 86 (5%) older Turkish immigrants from four Tyrolean districts could be recruited for the study. It should be noted that the recruitment of study participants was very difficult, as there was often little interest in the subject of the study.

The average age of the 86 Turkish immigrants was 68.13 (SD±6.52, min. 60, max. 89). The largest share of the respondents among the age groups was, with 58.1%, born between 1950 and 1959 (n=50), followed by the years 1940 to 1949 with 33.7% (n=29). The smaller portion with 8.1% (n=7) among the age groups were individuals born in 1939 or earlier. The gender distribution was 57.0% (n=49) male and 43.0% (n=37) female. Majority of the participants (89.5%, n = 77) were
married or living together. Only 8.1% (n=7) were widowed and 2.3% (n=2) divorced. On average, the 60 or over cohort (n=68) had four children (SD±1.71). The highest number of children was nine. More than half (58.1%, n=50) of the respondents were members of Alevi cultural associations, 16.3% (n=14) belonged to the Turkish-Islamic Union in Austria (ATİB) and 14% (n=12) were members of devout Islamic cultural centers. Just over 10% (n=10) did not belong to any association.

Table 2: Problems and resources with regard to the functional capacity of the respondents

<table>
<thead>
<tr>
<th>FUNCTIONAL CAPACITY</th>
<th>Yes [f (%)]</th>
<th>Mostly Yes [f (%)]</th>
<th>Mostly No [f (%)]</th>
<th>No [f (%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you prepare your own warm meals?</td>
<td>68 (79.1)</td>
<td>-</td>
<td>-</td>
<td>18 (20.9)</td>
</tr>
<tr>
<td>Do you receive assistance with personal care?</td>
<td>27 (31.4)</td>
<td>-</td>
<td>-</td>
<td>59 (68.6)</td>
</tr>
<tr>
<td>Do you receive assistance with household tasks? (n=84)</td>
<td>47 (56.0)</td>
<td>-</td>
<td>-</td>
<td>37 (44.0)</td>
</tr>
<tr>
<td>Do you suffer from an unsteady gait?</td>
<td>37 (43.0)</td>
<td>-</td>
<td>-</td>
<td>49 (57.0)</td>
</tr>
<tr>
<td>Do you prepare warm meals for friends and/or family members? (n=85)</td>
<td>28 (32.6)</td>
<td>-</td>
<td>-</td>
<td>57 (67.1)</td>
</tr>
<tr>
<td>Do you have difficulties concentrating?</td>
<td>17 (19.8)</td>
<td>12 (14.0)</td>
<td>16 (18.6)</td>
<td>41 (47.7)</td>
</tr>
<tr>
<td>Do you drive a car yourself? (n=85)</td>
<td>40 (47.1)</td>
<td>-</td>
<td>-</td>
<td>45 (52.9)</td>
</tr>
<tr>
<td>Do you engage in a physical activity for more than thirty minutes at a time? (n=84)</td>
<td>69 (82.1)</td>
<td>-</td>
<td>-</td>
<td>15 (17.9)</td>
</tr>
<tr>
<td>Do you go shopping yourself? (n=83)</td>
<td>61 (73.5)</td>
<td>-</td>
<td>-</td>
<td>22 (26.5)</td>
</tr>
<tr>
<td>Did you fall during the last year? (n=85)</td>
<td>27 (31.8)</td>
<td>-</td>
<td>-</td>
<td>58 (68.2)</td>
</tr>
</tbody>
</table>

In six of eleven items, significant differences between women and men were found in the category of functional capacity of the Turkish immigrants surveyed (n=86).

As expected, significantly (p=0.012) more women (n=34, 91.9%) than men (n=34, 69.4%) reported that they prepared their own warm meals. In addition, significantly (p=0.011) more

Women (n=18, 48.6%) than men (n=11, 22.4%) stated that they had difficulties concentrating. There was a highly significant difference (p=0.000) between women and men with regard to driving. More men (n=32, 66.7%) than women (n=8, 21.6%) stated that they drove a car themselves. Also, significantly (p=0.010) more men (n=39, 84.8%) than women (n=22, 59.5%) stated that they went shopping themselves.

When asked which family members assisted with household tasks or personal care, significantly (p=0.020) more men (n=33, 84.6%) compared to women (n=12, 57.1%) mentioned their spouse.

Physical symptoms

The physical symptoms with regard to the functional health of the surveyed Turkish immigrants (n = 86) were recorded using seven items (Table 3).

Table 3: Problems and resources with regard to the physical symptoms of the respondents

<table>
<thead>
<tr>
<th>FUNCTIONAL CAPACITY</th>
<th>Yes [f (%)]</th>
<th>No [f (%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you suffer from shortness of breath at night?</td>
<td>23 (26.7)</td>
<td>63 (73.3)</td>
</tr>
<tr>
<td>Do you suffer from shortness of breath at rest? (n=81)</td>
<td>14 (17.3)</td>
<td>67 (82.7)</td>
</tr>
<tr>
<td>Do you suffer from shortness of breath when going for a walk?</td>
<td>35 (40.7)</td>
<td>51 (59.3)</td>
</tr>
<tr>
<td>Do you have difficulties climbing stairs? (n=85)</td>
<td>53 (62.4)</td>
<td>32 (37.6)</td>
</tr>
<tr>
<td>Do you suffer from pain?</td>
<td>51 (59.3)</td>
<td>35 (40.7)</td>
</tr>
<tr>
<td>Do you have difficulties falling asleep?</td>
<td>33 (38.8)</td>
<td>52 (61.2)</td>
</tr>
<tr>
<td>Do you have difficulties sleeping through the night? (n=84)</td>
<td>36. (42.9)</td>
<td>48 (57.1)</td>
</tr>
</tbody>
</table>

There were no significant differences between the women and men surveyed in the items of the category of physical symptoms.

Current state of health

The current state of health with regard to the functional health of

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the immigrants surveyed (n=86) was recorded using five items (Table 4).

Table 4: Problems and resources with regard to the current health state of the respondents  

<table>
<thead>
<tr>
<th></th>
<th>yes [f (%)]</th>
<th>mostly yes [f (%)]</th>
<th>mostly no [f (%)]</th>
<th>no [f (%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you currently receiving medical treatment?</td>
<td>76 (88.4)</td>
<td>-</td>
<td>-</td>
<td>10 (11.6)</td>
</tr>
<tr>
<td>Are you taking medication?</td>
<td>73 (84.9)</td>
<td>-</td>
<td>-</td>
<td>13 (15.1)</td>
</tr>
<tr>
<td>Are you currently suffering from one or more diseases that has been diagnosed by a physician?</td>
<td>59 (70.2)</td>
<td>-</td>
<td>25 (29.8)</td>
<td></td>
</tr>
<tr>
<td>Do you use objects in your home to increase safety?</td>
<td>11 (12.9)</td>
<td>-</td>
<td>74 (87.1)</td>
<td></td>
</tr>
<tr>
<td>Are you satisfied with your health state? (n=82)</td>
<td>21 (25.6)</td>
<td>32 (39.0)</td>
<td>14 (17.1)</td>
<td>15 (18.3)</td>
</tr>
</tbody>
</table>

There were no significant differences between the women and men surveyed in the items for category of current state of health.

Psychosocial situation

The psychosocial situation in the context of leading an independent life at home was assessed using ten items among the older Turkish immigrants (Table 5).

Table 5: Problems and resources with regard to the psychosocial situation  

<table>
<thead>
<tr>
<th></th>
<th>yes [f (%)]</th>
<th>mostly yes [f (%)]</th>
<th>mostly no [f (%)]</th>
<th>no [f (%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, are you satisfied with your life?</td>
<td>37 (43.0)</td>
<td>33 (38.4)</td>
<td>10 (11.6)</td>
<td>5 (7.0)</td>
</tr>
<tr>
<td>Overall, are you satisfied with your social contacts?</td>
<td>35 (40.7)</td>
<td>30 (34.9)</td>
<td>16 (18.6)</td>
<td>5 (5.8)</td>
</tr>
<tr>
<td>Are you satisfied with your current living situation?</td>
<td>49 (57.0)</td>
<td>24 (27.9)</td>
<td>11 (12.8)</td>
<td>2 (2.3)</td>
</tr>
<tr>
<td>Can you count on the support of relatives, acquaintances or friends in case of an emergency? (n=85)</td>
<td>72 (84.7)</td>
<td>10 (11.8)</td>
<td>1 (1.2)</td>
<td>2 (2.4)</td>
</tr>
<tr>
<td>Do you meet with relatives, friends and/or acquaintances?</td>
<td>83 (96.5)</td>
<td>-</td>
<td>3 (3.5)</td>
<td></td>
</tr>
</tbody>
</table>

The results showed no significant differences between the women and men surveyed with regard to the items of the category of psychosocial situation.

Preventive care

Out of twelve items covering preventive care, significant problems were found with regard to two items (no influenza vaccination in the past year and no vaginal smear in the past three years) in over 60%, two items (no colonoscopy in the past five years and no mammography or prostate examination in the past two years) in over 50% and one item (no colonoscopy in the past five years) in over 40% of the immigrants surveyed.

In terms of resources, on the other hand, three items (blood pressure measurement in the past year, eye exam in the past year and cholesterol measurement in the past five years) applied to over 80%, two items (hearing exam in the past year and dental check-up in the past year) to over 70% and two items (test for blood in stool in the past five years and regular visits to the ophthalmologist) to 60% of the Turkish immigrants surveyed.

Discussion

The present cross-sectional study revealed interesting
problems and resources that are to be seen within the context of the functional health of the Turkish immigrants aged 60 or over that were surveyed (n=86). These are of considerable interest from the point of view of Austrian health and social policy.

The results revealed a very high to high prevalence of diagnosed illnesses (70%) and pain (59%) and a moderate prevalence of sleep disorders, such as difficulties sleeping through the night (43%) and difficulties falling asleep (39%). These results are partly similar to the results of a study by Schulc et al.\textsuperscript{22}, carried out in Tyrol between 2012 and 2014 for 345 older home-dwelling Austrians aged 70 or over. Here the prevalence of diagnosed illnesses was significantly higher (80%) than in the current study, while the pain prevalence was the same (59%). The percentage of individuals who had difficulties in sleeping through the night was significantly higher (56%), while the percentage of those who had difficulties falling asleep was almost identical to the current study (42%).

In addition, movement-related restrictions, such as difficulties climbing stairs (62%), unsteady gait (43%) and a high fall rate in the last year (32%) were evident. These results are congruent with the current literature.\textsuperscript{19,22, 23}

The Turkish immigrants aged 60 or over considered meeting relatives, friends and/or acquaintances (97%) and being able to count on the support of relatives, acquaintances or friends in case of an emergency (85%) to be important health-relevant resources. Assistance with personal care (31%) and assistance with household tasks (56%) were further evident health-relevant resources of the respondents. The majority of the respondents who received assistance with personal care, when asked who provided the assistance with personal care and with household tasks, mentioned their own child (daughter), followed by their spouse (wife). It has been scientifically proven that daughters and partners are the primary caregiving relatives, and that they often suffer from numerous restrictions as a result of lost income, reduced social contacts and fewer time resources for the family\textsuperscript{26, 27}.

The great importance that the Turkish immigrants aged 60 or over give to support, care and assistance through family and friends can be interpreted as meaning that these individuals have access to fewer potential caregivers in the new home country and therefore see the people in their immediate environment as an important resource\textsuperscript{28}. The internal family structure of older Turkish immigrants often represents an obstacle to the use of nursing care. An illness affects not only the individual, but the entire family, which is accompanied by a clear division of tasks. In this situation, it is very difficult as an outsider to get through this barrier.

This aspect reveals a major challenge for the Austrian health and social system. On the one hand, the majority of older Turkish immigrants no longer want to return to their home country, as originally thought in the 1960s, but would rather spend their retirement in Austria\textsuperscript{3}, with the result that an increasing demand for nursing and care services is to be expected among this population. On the other hand, the younger generation, most of whom were born in Austria, due to changing lifestyles, reflected, for example, in the increasing employment of women, will no longer be able or willing to provide nursing and care services for the older generation in the same way as before.

How can health-related data from Turkish immigrants aged 60 or over be generated to derive future nursing and care needs? How can this population be informed of existing professional regional nursing and care services and how can they be convinced to use them if necessary?

The results focus in on a possible solution. A very high percentage (almost 90%) of the Turkish immigrants aged 60 or over answered in the affirmative when asked if they were receiving medical treatment. The willingness of the respondents to go to the doctor for health problems can therefore be seen as a further health-relevant resource. During the visits by the older Turkish immigrants to the doctor's offices, the general
practitioners could call attention to the currently available free services provided by the mobile nursing and care organizations in Tyrol. These services were approved by the Tyrolean state government at the end of 2014 following presentation of the results of a Tyrol-wide study on the use of preventive home visits by 345 individuals aged 70 or over living in Tyrol. During all of the preventive home visits, registered nurses recorded the self-assessed functional health of each of the 345 individuals using a care assessment. Subsequently, consultations were held and information derived from identified problems and resources was communicated to help promote independent living. Appropriate implementation measures were then discussed and planned with patients and/or relatives.

The possibility of receiving preventive home visits as described in the study by Schulc et al.\textsuperscript{22} could lead to the functional health of Turkish immigrants aged 60 or over being recorded using care assessments – which would yield health-related data for this population– and identified problems and resources could be used as a basis for health-related advice and information including implementation measures. Preventive home visits among older Turkish immigrants can only be successful, however, if, as required by Altintop\textsuperscript{7}, their culture-specific needs are taken into account. If requested by the patients, preventive home visits would therefore need to be conducted in Turkish, i.e., by qualified nursing staff who speak the Turkish language. As the children and grandchildren of Turkish immigrants aged 60 or older were already born in Austria, and the majority of individuals from both these generations are in employment, caregivers with an immigrant background are no longer uncommon in the nursing and care sector.

**Conclusion**

The strengths of the present study can be seen in the fact that it provides the first data on the functional health of Turkish immigrants aged 60 or over for the state of Tyrol, Austria. It is also important that 43% of the respondents were women. This high percentage of female participants can be explained by the intense recruiting efforts of a male researcher who convinced many of the responsible persons at the local Turkish culture associations (mostly chairmen) of the necessity to carry out the study and, to ensure the meaningfulness of the data, postulated a balanced male–female ratio. Over the course of the study, it became clear that it aroused interest among both the association chairmen and some of the respondents in the future health care of older Turkish migrants in Tyrol. Specifically, several respondents were motivated to think about their own future lifestyle. Some individuals became interested in the different health-related services, such as meals on wheels or outpatient care. With regard to meals on wheels, it became clear that older Turkish immigrants had not taken advantage of this to date, as the meal preparations did not take cultural customs and rituals into account. This was reported to us after the end of the survey by individuals at the regional nursing and care organizations.

Once the results of this study were available, the study authors recommended to the persons responsible at the social affairs department of the Tyrolean state government to include preventive home visits for Turkish immigrants aged 60 or over in the service catalog for mobile nursing and care organizations. As with the existing preventive home visits, these should be carried out by qualified nursing staff who speak Turkish and be free of charge. The general practitioners are to act as the hub for initial information on preventive home visits. The study shows that general practitioners have a high level of acceptance among this population for health-related problems and could counteract the currently low level of interest in the use of nursing and care services and could accordingly support the family network in the nursing and care of family members.

The study authors’ recommendation to introduce preventive home visits as described in the study by Schulc et al.\textsuperscript{22} by
qualified Turkish-speaking nursing staff for Turkish immigrants aged 60 or over on a free basis guarantees the following two advantages for the Tyrolean health and social system: (1) The services offered by the regional professional nursing and care organizations would become known among this population and the services of relatives (mostly daughters and wives) would no longer be needed as before. It is important that culturally appropriate services be taken into account in the service catalogs, as this is the only way to achieve the appropriate acceptance among patients and their relatives. (2) With the implementation of care assessments in the course of preventive home visits, Tyrol would obtain an enormous level of data on the functional health of this population. This data is important in order to be able to derive a future demand for nursing and care services and to generate nursing and care support that is adequate to the target group.

**Recommendation**

Further research need exists regarding the functional health among individuals aged 60 or over from all ethnic groups. The experience from the present study made it clear that access to the study population is extremely difficult without appropriate "gatekeepers". If a researcher were to speak the language of the population to be studied, this would be a great advantage in terms of acceptance among gatekeepers and, subsequently, among the respondents.

**Acknowledgement**

Our thanks go to the Department of Social Services of the State Government of Tyrol which commissioned the study, and to all study participants. We would also like to thank Prof. Tufan from Turkey and his team for their cooperation, which has enabled us to provide insights into Turkish culture.

**Ethical Consideration**

The study was approved in advance by the UMIT Research Committee for Scientific and Ethical Questions (RCSEQ).

**References**


