DETERMINANTS OF THE APPLICATIONS TO THE INSTITUTIONAL CARE IN TURKEY: DARULACEZE EXAMPLE

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Although institutional care has started to be outmoded in the developed countries with development of different models of care, it still has a considerable place in the developing countries such as Turkey. This is because, changes in the demographic structure, extended family, and urban development of Turkey has brought about several aging problems leading older adults to end up in institutions. Loneliness was one of the significant reasons given in the Social Inquiry Survey of Applicants of Darulaceze Old-Age Institution and the basis for a micro level analysis in this study. Therefore, the main objective of the study was to determine the predictors of loneliness, including age, the state of living alone, functional independence, education, and gender.

Analysis of the results indicated that these predictors have significant effects on the loneliness predominantly defined by social factors rather than medical factors. In addition, the meso and macro level analyses were employed to control the micro level analysis and see a general picture of institutional care. Thus, an academic example of diagnosing the main reasons behind the institutional care was presented to understand the context of aging in Turkey.
ACKNOWLEDGMENTS

I am heartedly grateful to some honorable people for their support in the preparation and production of this work. In particular, I owe the deepest thanks to my major professor, Dr. Stanley R. Ingman, for his rigorous attention, inspiration, encouragement, and leadership throughout my graduate life and dissertation process. I also would like to express my profound thanks to my committee members, Dr. James Swan and Dr. Keith Whisnant Turner, for guiding me in maturing this work. The vital help of all these masters of gerontology made this work possible.

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF ILLUSTRATIONS</td>
<td>viii</td>
</tr>
<tr>
<td><strong>CHAPTER 1  BACKGROUND OF THE STUDY</strong></td>
<td>1</td>
</tr>
<tr>
<td>1. Problem Statement</td>
<td>2</td>
</tr>
<tr>
<td>2. Statement of Purpose</td>
<td>4</td>
</tr>
<tr>
<td>3. Significance of the Study</td>
<td>5</td>
</tr>
<tr>
<td>4. Hypotheses</td>
<td>5</td>
</tr>
<tr>
<td>5. Theoretical Framework</td>
<td>6</td>
</tr>
<tr>
<td>6. Summary</td>
<td>9</td>
</tr>
<tr>
<td>7. Definition of Terms</td>
<td>9</td>
</tr>
<tr>
<td><strong>CHAPTER 2  LITERATURE REVIEW</strong></td>
<td>11</td>
</tr>
<tr>
<td>1. Socio-Demographic Characteristics of the Population of Turkey</td>
<td>11</td>
</tr>
<tr>
<td>2. Population Pyramid of Turkey in 2010</td>
<td>11</td>
</tr>
<tr>
<td>3. Changes in Total Population and Population Growth Rate</td>
<td>12</td>
</tr>
<tr>
<td>4. Changes in Crude Birth Rate, Crude Death Rate, Net Reproduction Rate and Total Fertility Rate</td>
<td>13</td>
</tr>
<tr>
<td>5. Population Distribution According to Different Age Groups</td>
<td>14</td>
</tr>
<tr>
<td>6. Dependency Ratios and Median Age</td>
<td>16</td>
</tr>
<tr>
<td>7. Life Expectancy at Birth</td>
<td>16</td>
</tr>
<tr>
<td>8. Changes in Urban and Rural Population</td>
<td>16</td>
</tr>
<tr>
<td>9. Urban Context of Old-Age Institutions: The Case of Istanbul</td>
<td>19</td>
</tr>
<tr>
<td>10. The Evolution of the Old-Age Institution</td>
<td>23</td>
</tr>
<tr>
<td>11. Traditional Late Ottoman Period (1832-1895)</td>
<td>23</td>
</tr>
<tr>
<td>12. Stagnation Period (1895-1957)</td>
<td>24</td>
</tr>
<tr>
<td>15. Loneliness as a Key Determinant of the Applications to Old-Age Institutions</td>
<td>27</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>CHAPTER 5 CONCLUSION</td>
<td>62</td>
</tr>
<tr>
<td>Overall Findings</td>
<td>62</td>
</tr>
<tr>
<td>Loneliness and Old-Age</td>
<td>63</td>
</tr>
<tr>
<td>Loneliness and Living Alone</td>
<td>63</td>
</tr>
<tr>
<td>Loneliness and Functional Independence</td>
<td>63</td>
</tr>
<tr>
<td>Loneliness and Education</td>
<td>64</td>
</tr>
<tr>
<td>Loneliness and Gender</td>
<td>65</td>
</tr>
<tr>
<td>Discussion</td>
<td>65</td>
</tr>
<tr>
<td>Implications of the Study</td>
<td>66</td>
</tr>
<tr>
<td>Overall Implications</td>
<td>66</td>
</tr>
<tr>
<td>Policy Implications</td>
<td>67</td>
</tr>
<tr>
<td>Recommendations for Further Studies</td>
<td>68</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>69</td>
</tr>
<tr>
<td>APPENDIX A QUESTIONNAIRE FOR ALL PARTICIPANTS</td>
<td>70</td>
</tr>
<tr>
<td>APPENDIX B QUESTIONNAIRE FOR KEY INFORMANTS</td>
<td>80</td>
</tr>
<tr>
<td>APPENDIX D PERMISSION LETTER FOR USING DATA</td>
<td>87</td>
</tr>
<tr>
<td>APPENDIX E PETITION LETTER FOR USING DATA</td>
<td>90</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>93</td>
</tr>
</tbody>
</table>
LIST OF TABLES

1. Total Turkish Population (in Thousands) and Growth Rate (%) 1950-2030 ........ 13
2. Crude Birth Rate (Births per 1,000 Population), Crude Death Rate (Deaths per 1,000 Population), Net Reproduction Rate and Total Fertility (Children per Woman) ........................................................................................................................................ 14
3. Cohorts by Age in Turkey .............................................................................................. 15
4. Dependency Ratios and Median Age (Years) in Turkey ........................................... 17
5. Life Expectancy at Birth by Sex in Turkey (Years) 1950-2030 ............................. 18
6. Urban and Rural Population in Turkey ............................................................................. 19
7. Population of Istanbul (in Thousands) from 1950 to 2020 in Turkey .......................... 21
8. Distribution of Old-Age Institutions and Capacity in Istanbul and in Turkey (2000) ................................................................................................................................................. 22
9. General Conceptual Model: Control Variables, Independent Variables, and Dependent Variable ........................................................................................................................................................................ 31
10. Distribution of Geographic Background, Marital Status, and Income ....................... 42
11. Distribution of Independent Variables of Age Groups, Living Alone or Not, Functional Independence, Education, and Gender ...................................................................................... 43
12. Supporters of the Applicants in their Later Years ................................................. 44
13. Crosstabs of Loneliness and Independent Variables .................................................. 45
14. Logistic Regression Analysis: Loneliness as Reason for Admission ....................... 47
15. Major Reasons for Admission to Old-Age Institutions .............................................. 55
LIST OF ILLUSTRATIONS

Page

1. Population by age groups and gender (U.S. Census Bureau, 2011) .................. 12
CHAPTER 1
BACKGROUND OF THE STUDY

Aging has moved to the forefront in Turkey as in many other developing countries due to its rapid urbanization and socio-demographic transition (Dogan, 2007; Kurt, 2008). Rapid urbanization has resulted in important changes in the traditional family structure. The aged are the group most affected by the dramatic transition from the extended family to the nuclear family. For instance, the older adults who held a prominent position in the family for many years have started to be seen as a burden in urban areas where living conditions are often stressful. That is to say, elders accustomed to great respect often do not adapt well to urban living and thus face many problems, including loneliness. The urban environment has led to the search for new service models for the older adults. One solution, as the elders become frail, is the development of institutions to care for elders.

Changes in the structure of a population often require new community services and social policy. According to Hosgor and Tansel (2010) the most important change has been taking place in age structure. Whereas the rate of the young population is decreasing, the rate of the aged is steadily increasing in Turkey. For example, statistics of the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2010) show that the older population (65+ older) was 4.1% in 1975. In 2010, this percentage was 6.0%. It is expected to nearly double (11.4%) in 2030. Such a change in the demographic structure of the population creates a new situation in which there may be a significant increase in the needs of the older adults.
Among the many needs of the older adults, institutional care needs to be examined closely. Building old-age institutions with professional health care units may become a necessity to meet the needs of the growing population of the aged (Russell, Cutrona, de la Mora, & Wallace, 1997). In particular, as the flow of older migrants from rural areas to the urban areas in Turkey increases, city governments will have to consider the special needs of the older adults. Although many migrant families leave their elderly people behind when moving to cities, the number of elderly people preferring to follow their families is not insignificant. A major focus of this analysis is on Darulaceze Old-Age Institution in Istanbul and why older adults apply to this facility.

As Dogan (2007) states recent studies show that loneliness has become one of the significant reasons for application to the institutional care in Turkey. For example, Forbes (1996) reports that 82% of the retirees over 55 associated loneliness with old age. This means as a person ages his or her risk of loneliness may increase. A key question is whether loneliness is a major problem that leads to institutionalization.

According to a study on residents of five old-age institutions in Istanbul, some 17.5% of the residents have a medical reason for being in old-age institutions, whereas 82.5% cited various social reasons for being admitted (Atilla, 2006). The Sivas Old-Age Institution in Turkey has 39 residents, few indicated a medical reason for utilizing institutional care (Konak & Cigdem, 2005).

Problem Statement

Due to rapid urbanization and change in the structure of socio-demography, the problems of older adults are rapidly increasing in Turkey. One important policy issue
among the many problems of old age is the relationship between loneliness and the need for formal care, and thus applied gerontologists and policy makers need to investigate this issue.

Contrary to the situation in the U.S., the main reason in Turkey for being institutionalized appears to be social rather than medical. According to Russell et al. (1997) health status is a major determinant of nursing home entry in the U.S. The aforementioned work of Atila (2006) and the study of Konak and Cigdem (2005) show how the health status of an individual is not a significant reason for an application to institutional care in Turkey.

However, there is some confusion about the issue. For example, the Turkish Statistical Institute (TurkStat) did not include health status as an item in the questionnaire to determine why elders may be interested in possible admission to an old age institution in the Family Structure Research done in 2006 (TurkStat, 2006). Thus more research is needed to clarify what the relative importance of social and medical factors is in determining why an older adult attempts to be admitted to a long term care facility.

In order to understand the context of social reasons for applications to the institutional care, the social structure of Turkey needs to be considered. In short, Turkey is predominately a traditional society in terms of social values. Filial responsibility is still strong. The elder son’s duty is to take care of his parents although most of the burden typically is on his wife (Aytaç, 2002). However, with rapid urbanization leading to women entering the job market, many women do not have enough time to take care of the older adults as was the case previously (Tufan, 2001).
Furthermore, the divorce rate is increasing and thereby family breakdowns have become more prevalent (TUIK, 2012). All of these factors mean that family support has started to erode. Therefore, although family support or lack of it may or may not be the most salient reason for the loneliness problem, it may play a triggering factor in institutional admission.

Statement of Purpose

The purpose of the study was to understand how socio-demographic transition and loneliness created a demand for institutionalization of care in Turkey. Although informal family care is still the dominant form of care, institutional care has gained importance in Turkey. The results of this study will provide fruitful information about how loneliness may lead a person to apply for institutional care. Thus, the risk factors which put the elderly into old-age homes are defined and analyzed.

It is also important to raise some questions about all the various factors that may encourage an older adult to apply to institutional care. What needs to be answered is: How significant is loneliness as a determinant in the applications by older adults to old-age institutions. Thus, the research question for this study is “What makes loneliness a determining factor when applying for institutional care in Istanbul, Turkey?” Therefore, the micro methodological level of the study was focused upon this main research question. This study also has meso and macro methodological levels which allowed me to understand in more depth the reasons for institutionalization in Turkey. Thus, each level of the study complements the other levels.
The research question was investigated using three methods. Initially, 72 residents of Darulaceze Old-Age Institution were reviewed from its Social Inquiry Survey at the facility. Next, 30 key informants were recruited using the “snowball sampling” method from administrators and specialists of different old-age institutions in Istanbul and finally, five national experts were recruited from leading health and welfare policy making agencies in Turkey.

Significance of the Study

This study aimed to raise the awareness of the need for institutional care for the frail elderly as well as other ways to meet the needs of older adults in Turkey. Since many people believe Turkey to be a country populated by young people where family bonds are strong, policy makers have failed to develop new aging social policies.

For this reason an investigation will help people to understand how the traditional reality for older adults has started to shift. In older societies where alternatives of nursing homes have been extensive, over institutionalization of the elderly still remains a concern. Turkey’s population needs to learn from the mistakes and successes found in Europe and the U.S. with regard to institutional and non-institutional formal care as well as the role of informal care in long term care systems. A careful analysis of the status of elder care in Turkey is an important step toward the development of a sound social and medical policy for older adults.

Hypotheses

The following hypotheses were tested in this analysis:
Hypothesis 1: The aged 56 to 64 years old are less likely to report loneliness rather than medical needs as the main reason for institutional care.

Hypothesis 2: The aged living alone are more prone to list loneliness as the main reason for institutional care.

Hypothesis 3: The aged having greater functional independence are more likely to indicate loneliness as a main reason for institutional care.

Hypothesis 4: Uneducated older adults are more inclined to indicate loneliness as a main reason for institutional care.

Hypothesis 5: Males are more likely to report loneliness as the main reason for institutional care.

Theoretical Framework

According to Koc, Eryurt, Adali, and Seckiner (2008), demographic transition theory was built on modernization theory of sociology. It is well known that social progress and social evolution are at the core of modernization theory. That is why a transition from the traditional societies (high birth and death rate) to modern societies (low birth and death rate) is expected. The demographic transition model can be evaluated in three stages if one considers Thompson (1929) and Notestein (1945), forerunners of demographic transition theory.

In Stage 1 (pre-transitional stage) there is both a high fertility rate and mortality rate due to various social and economic factors that lead to various risks to the well-being of family members. The population is mostly dependent on agriculture. Therefore, large or extended families need more children to contribute to the agricultural
output. Also, contagious diseases and poor health led to an increase in mortality rates (Notestein, 1945; Thompson, 1929).

In Stage 2 (transitional stage), the mortality rate declines initially owing to progresses in health; it is followed by an increase in the birth rate due to improvements in the food supply and transportation (Notestein, 1945; Thompson, 1929).

In the last stage, Stage 3, (post-transitional stage), both birth rate and mortality rate start to decline simultaneously. As a result, there is a decrease in youth or child dependency, while there is an increase in adult or old-age dependency. In a similar vein, an increase in the cost of raising children in the urban context and a change in the social status of women due to their education level and their entry into the workforce bring about a lowering of the number of children (Notestein, 1945; Thompson, 1929).

Turkey experienced dramatic changes in its demographic structure during the last decades (Hosgor & Tansel, 2010). Considering the demographic transition theory one can argue that Turkey lately reached stage three.

In addition to the demographic transition theory, modernization theory predicts that attitudes toward the aged will become more negative with the process of modernization in Turkey. Modernization theory tries to explain how individuals and society adapt to different forms of social change (Cowgill & Holmes, 1972; Maldox, 2001). Socio-demographic change is one of the main focuses of the modernization theory. As noted earlier, there is a change in the demographic structure of Turkey as well as a change in the family composition.

As Maldox (2001) states, gerontologists try to understand how time and place affect the statuses and roles of the aged in a changing society or an emerging society.
In his historical analysis, Fischer (1978) writes about attitude change in America toward the aged. Have attitudes changed in Turkey also? According to Fischer (1978), there are four important periods or phases in which American attitudes toward older adults have shifted.

The first period is the colonization period (1607-1770). This period was characterized by gerontocracia, a world view which older adults were venerated, whereas the young were treated in a condescending manner. In Puritan America, the norm was that old age related to wisdom (Fischer, 1978).

The second period is the revolutionary period (1770-1820). There was a big transition in this period. With spread of revolutionary values American culture began to demean the elderly. For instance, epithets such as old gaffer and foggy were used (Fischer, 1978).

During the third period from 1800-1970 there was an emphasis on youth as opposed to the elders. The Young America in the 1830s, the Mazzini’s Young Italy, or the Ottoman Young Turks were some leading movements of this period. It is important to stress that gerontocracy was associated with tradition, whereas youthfulness was associated with modernity in this period (Fischer, 1978).

If one delves deeper into the social change and attitude change toward the aged, one can perhaps understand the evolving views toward the aged in Turkey. There are some evidences that youth is the dominant political and social emphasis in Turkey (Esendemir & Ingman, 2011; Aytac, 2008).
Summary

The purpose of this study was to examine the determinants of institutional admission by older adults in Turkey. This chapter presented the context of aging in Turkey where rapid urbanization and socio-demographic changes created new problems for the aged. Loneliness was one potential problem encouraging older adults to apply to institutional care. The goal is to explore the various reasons why the elderly are applying for institutional care.

Definition of Terms

The following are operational definitions for the study terms of this research:

*Crude birth rate:* The number of births per thousand people in a population during a particular period, usually one year.

*Crude death rate:* An annual number of deaths per thousand people in a particular society.

*Dependency ratio:* The measurement obtained by the number of dependents, including aged below 15 and above 65, divided by the population aged 15-64 mostly representing labor force (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2011).

*Life expectancy by sex:* The average of expected number of years of life remaining at a given age for male and female.

*Loneliness:* Undesirable lack or loss of companionship (Forbes 1996). In his *Great Turkish Dictionary* Dogan (2008) defines loneliness as a state of being alone,
having no living relatives or friends, solitude, friendlessness and not having any patron and protector.

*Median age:* The age dividing a population in two equal groups, such as young and older adults.

*Net reproduction rate:* An average number of female offspring born by a woman in her entire life.

*Old-Age Payment:* 300 Turkish liras payment given to healthy aged 65+ each three months, but if the elderly person has 40-69% disability, it is 650 Turkish liras. If he or she has 70% disability, it is 975 Turkish liras for each three months.

*Population growth rate:* Average increase in a country’s population in a particular period, usually one year.

*Retirement pension:* A pension given to a retired person who had a regular job before.

*Rural:* The area populated less than 10,000 people and far from towns or cities.

*Social isolation:* A condition in which there is almost complete lack of contact with society. According to Warburten and Liu (2007) what makes loneliness and social isolation different is that whereas loneliness can sometimes be based on subjective evaluations of individuals, social isolation is completely based on objective results.

*Social support:* The assistance provided by a social network, including friends, philanthropists, charity organizations, volunteers, and so on.

*Total fertility:* The average number of children a woman would have throughout her lifetime.

*Urban:* The city or town populated at least by 10,000 people.
CHAPTER 2
LITERATURE REVIEW

It is important to review literature on socio-demographic characteristics of the
population as well as the literature on the development of institutional care in order to
understand how the loneliness may contribute to elder institutionalization in Turkey. It is
evident that the socio-demographic structure of Turkey is in the transition process like
many other emerging societies. In particular, change in the age structure and increase
in the old-age dependency ratio, for example, show how the aging process is occurring
at an unexpected pace.

Furthermore, as Machielse (2006) states social isolation or loneliness is
associated with city life rather than the countryside due to a weakened sense of
community and weaker family ties. For this reason, this review focuses on the
development of old-age institutions in the cities and how loneliness among the aged
may increase in urban communities.

Socio-Demographic Characteristics of the Population of Turkey

Population Pyramid of Turkey in 2010

The population pyramid created by the U.S. Census Bureau (2011) provides
important information about the age and gender composition of Turkey in 2010 in
addition to providing some clues for past demographic transitions and future population
prospects (see Figure 1). The distribution of different age categories shows the
characteristics of a country in the post-transitional stage in which there was an increase
in birth rate in the past, but a decline in the present. The narrowing down of the pyramid at the bottom supports this observation.

Changes in Total Population and Population Growth Rate

Although the population growth rate decreases, the total population still increases (see Table 1). According to Urfalioglu, Altas, and Yildirim (2008), a decline in population growth rate is due to international migration, industrialization, urbanization, active role of women in workforce, and family planning initiated in 1965. The effects of these factors on changes in the basic structure of total population define the position of Turkey in the third stage of demographic transition.

Figure 1. Population by age groups and gender (U.S. Census Bureau, 2011).
<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population in T</th>
<th>Population Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>21,484</td>
<td>---</td>
</tr>
<tr>
<td>1955</td>
<td>24,610</td>
<td>2.93</td>
</tr>
<tr>
<td>1960</td>
<td>28,233</td>
<td>2.72</td>
</tr>
<tr>
<td>1965</td>
<td>31,997</td>
<td>2.46</td>
</tr>
<tr>
<td>1970</td>
<td>36,207</td>
<td>2.16</td>
</tr>
<tr>
<td>1975</td>
<td>41,211</td>
<td>2.20</td>
</tr>
<tr>
<td>1980</td>
<td>46,161</td>
<td>2.16</td>
</tr>
<tr>
<td>1985</td>
<td>51,289</td>
<td>2.27</td>
</tr>
<tr>
<td>1990</td>
<td>56,086</td>
<td>1.83</td>
</tr>
<tr>
<td>1995</td>
<td>61,206</td>
<td>1.68</td>
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<tr>
<td>2000</td>
<td>66,460</td>
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<td>2005</td>
<td>71,169</td>
<td>1.37</td>
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<tr>
<td>2010</td>
<td>75,705</td>
<td>1.31</td>
</tr>
<tr>
<td>2015</td>
<td>79,966</td>
<td>1.14</td>
</tr>
<tr>
<td>2020</td>
<td>83,873</td>
<td>0.95</td>
</tr>
<tr>
<td>2025</td>
<td>87,363</td>
<td>0.749</td>
</tr>
<tr>
<td>2030</td>
<td>90,375</td>
<td>0.63</td>
</tr>
</tbody>
</table>

*Note. Source - (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2008; Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2010)*

Changes in Crude Birth Rate, Crude Death Rate, Net Reproduction Rate and Total Fertility Rate

Turkey transformed from a country with a high crude birth rate and a high crude death rate to a country in which there is a decline in both categories (see Table 2).
Also, there is a decline in both net reproduction rate and total fertility. All these variables place Turkey in the third stage of the demographic transition.

Table 2

_**Crude Birth Rate (Births per 1,000 Population), Crude Death Rate (Deaths per 1,000 Population), Net Reproduction Rate, and Total Fertility (Children per Woman)**_

<table>
<thead>
<tr>
<th>Period</th>
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<th>Crude death rate</th>
<th>Net reproduction rate</th>
<th>Total fertility</th>
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<tr>
<td>1950-1955</td>
<td>48.4</td>
<td>18.8</td>
<td>2.22</td>
<td>6.30</td>
</tr>
<tr>
<td>1955-1960</td>
<td>46.9</td>
<td>18.4</td>
<td>2.18</td>
<td>6.15</td>
</tr>
<tr>
<td>1960-1965</td>
<td>44.3</td>
<td>17.6</td>
<td>2.17</td>
<td>6.05</td>
</tr>
<tr>
<td>1965-1970</td>
<td>40.3</td>
<td>16.7</td>
<td>2.07</td>
<td>5.70</td>
</tr>
<tr>
<td>1970-1975</td>
<td>38.7</td>
<td>15.0</td>
<td>1.99</td>
<td>5.30</td>
</tr>
<tr>
<td>1975-1980</td>
<td>36.4</td>
<td>13.0</td>
<td>1.86</td>
<td>4.72</td>
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<tr>
<td>1980-1985</td>
<td>33.8</td>
<td>10.8</td>
<td>1.72</td>
<td>4.15</td>
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<tr>
<td>1985-1990</td>
<td>27.7</td>
<td>8.8</td>
<td>1.41</td>
<td>3.28</td>
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<tr>
<td>1990-1995</td>
<td>25.1</td>
<td>7.7</td>
<td>1.29</td>
<td>2.90</td>
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<td>1995-2000</td>
<td>22.6</td>
<td>6.5</td>
<td>1.18</td>
<td>2.57</td>
</tr>
<tr>
<td>2000-2005</td>
<td>19.7</td>
<td>5.7</td>
<td>1.04</td>
<td>2.23</td>
</tr>
<tr>
<td>2005-2010</td>
<td>18.7</td>
<td>5.5</td>
<td>1.01</td>
<td>2.15</td>
</tr>
<tr>
<td>2010-2015</td>
<td>16.9</td>
<td>5.5</td>
<td>0.96</td>
<td>2.02</td>
</tr>
<tr>
<td>2015-2020</td>
<td>15.4</td>
<td>5.8</td>
<td>0.91</td>
<td>1.91</td>
</tr>
<tr>
<td>2020-2025</td>
<td>14.0</td>
<td>6.1</td>
<td>0.87</td>
<td>1.82</td>
</tr>
<tr>
<td>2025-2030</td>
<td>12.9</td>
<td>6.6</td>
<td>0.84</td>
<td>1.76</td>
</tr>
</tbody>
</table>

*Note. Source: (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2010)*

Population Distribution According to Different Age Groups

Table 3 gives important details about child population (0-14), working-age population (15-64), and the aged population (65+). Although the percentage of child
population increases in 10 years period from 1950 to 1965, it then started to decline after 1965. For example, there is a 17.2% decline from 1965 to 2010.

Table 3

*Cohorts by Age in Turkey*

<table>
<thead>
<tr>
<th>Year</th>
<th>0-14</th>
<th>%</th>
<th>15-64</th>
<th>%</th>
<th>65+</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>8 377*</td>
<td>39.4</td>
<td>12 227*</td>
<td>57.6</td>
<td>634*</td>
<td>3.0</td>
</tr>
<tr>
<td>1955</td>
<td>10 252</td>
<td>41.7</td>
<td>13 545</td>
<td>55.1</td>
<td>789</td>
<td>3.2</td>
</tr>
<tr>
<td>1960</td>
<td>11 886</td>
<td>42.2</td>
<td>15 424</td>
<td>54.8</td>
<td>851</td>
<td>3.0</td>
</tr>
<tr>
<td>1965</td>
<td>13 868</td>
<td>43.6</td>
<td>16 839</td>
<td>52.9</td>
<td>1 131</td>
<td>3.6</td>
</tr>
<tr>
<td>1970</td>
<td>15 005</td>
<td>42.3</td>
<td>19 165</td>
<td>54.0</td>
<td>1 294</td>
<td>3.6</td>
</tr>
<tr>
<td>1975</td>
<td>16 375</td>
<td>41.4</td>
<td>21 581</td>
<td>54.5</td>
<td>1 630</td>
<td>4.1</td>
</tr>
<tr>
<td>1980</td>
<td>17 613</td>
<td>39.9</td>
<td>24 684</td>
<td>56.0</td>
<td>1 809</td>
<td>4.1</td>
</tr>
<tr>
<td>1985</td>
<td>19 040</td>
<td>38.5</td>
<td>28 541</td>
<td>57.8</td>
<td>1 819</td>
<td>3.7</td>
</tr>
<tr>
<td>1990</td>
<td>19 679</td>
<td>36.4</td>
<td>32 402</td>
<td>59.9</td>
<td>2 049</td>
<td>3.8</td>
</tr>
<tr>
<td>1995</td>
<td>19 821</td>
<td>33.7</td>
<td>36 470</td>
<td>62.0</td>
<td>2 574</td>
<td>4.4</td>
</tr>
<tr>
<td>2000</td>
<td>19 556</td>
<td>30.7</td>
<td>40 798</td>
<td>64.1</td>
<td>3 274</td>
<td>5.1</td>
</tr>
<tr>
<td>2005</td>
<td>19 335</td>
<td>28.4</td>
<td>44 948</td>
<td>66.0</td>
<td>3 860</td>
<td>5.7</td>
</tr>
<tr>
<td>2010</td>
<td>19 181</td>
<td>26.4</td>
<td>49 224</td>
<td>67.7</td>
<td>4 348</td>
<td>6.0</td>
</tr>
<tr>
<td>2015</td>
<td>18 844</td>
<td>24.5</td>
<td>52 958</td>
<td>68.8</td>
<td>5 200</td>
<td>6.8</td>
</tr>
<tr>
<td>2020</td>
<td>18 536</td>
<td>23.0</td>
<td>55 719</td>
<td>69.0</td>
<td>6 498</td>
<td>8.0</td>
</tr>
<tr>
<td>2025</td>
<td>17 792</td>
<td>21.2</td>
<td>58 239</td>
<td>69.3</td>
<td>7 953</td>
<td>9.5</td>
</tr>
<tr>
<td>2030</td>
<td>17 000</td>
<td>19.6</td>
<td>59 784</td>
<td>69.0</td>
<td>9 881</td>
<td>11.4</td>
</tr>
</tbody>
</table>

*Note. *In thousands. Source - (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2010)

While the working-age population started to increase after 1965, the old-age population continued to increase as well. Urfalioglu, Altas, and Yildirim (2008) relate
these changes mainly to the increase in life expectancy rate, improvements in health care system, and the implementation of social security system.

Dependency Ratios and Median Age

The child dependency ratio starts to decline in 1970, whereas old-age dependency ratio shows a steady increase in 2000 (see Table 4). Considering population projections until 2030 it seems that whereas the child dependency ratio will continue to decline, the old-age dependency ratio will increase. It is important to note that total dependency ratio increases between 1950 and 1965, but then it starts to decline due to a decrease in the child dependency ratio. An increase in median age shows how a population starts to age. Although there is a fluctuation in median age between 1950 and 1960, one can see a steady increase after 1965.

Life Expectancy at Birth

Life expectancy displays important changes in the structure of population of Turkey (see Table 5). There is a difference in male and female life expectancies. It is obvious that females live longer than males in Turkey. However, both male and female life expectancy has been increasing. Whereas male longevity increased 24.8 years, female longevity increased 26 years from 1950 to 2010. Such an increase will continue because it is expected that both sexes will live 3.8 years more in 2030.

Changes in Urban and Rural Population

There have been major changes in the urban and rural population between 1950 and 2010 (see Table 6). More changes are predicted in the future. Whereas there was
a 44.8% decline in rural population from 1950 to 2010, there was a 44.8% increase in urban population in the same period. These changes are expected to continue in the future as well. Koc, Eryurt, Adali, and Seckiner (2008) relate this dramatic change in internal migration to economic development in city centers and workforce demands of the industrial sectors in the cities.

Table 4

Dependency Ratios and Median Age (Years) in Turkey

<table>
<thead>
<tr>
<th>Year</th>
<th>Child*</th>
<th>Old-age**</th>
<th>Total</th>
<th>Median age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>69</td>
<td>5</td>
<td>74</td>
<td>19.7</td>
</tr>
<tr>
<td>1955</td>
<td>76</td>
<td>6</td>
<td>82</td>
<td>19.4</td>
</tr>
<tr>
<td>1960</td>
<td>77</td>
<td>6</td>
<td>83</td>
<td>19.6</td>
</tr>
<tr>
<td>1965</td>
<td>82</td>
<td>7</td>
<td>89</td>
<td>18.4</td>
</tr>
<tr>
<td>1970</td>
<td>78</td>
<td>7</td>
<td>85</td>
<td>18.5</td>
</tr>
<tr>
<td>1975</td>
<td>76</td>
<td>8</td>
<td>83</td>
<td>19.1</td>
</tr>
<tr>
<td>1980</td>
<td>71</td>
<td>7</td>
<td>79</td>
<td>19.5</td>
</tr>
<tr>
<td>1985</td>
<td>67</td>
<td>6</td>
<td>73</td>
<td>20.5</td>
</tr>
<tr>
<td>1990</td>
<td>61</td>
<td>6</td>
<td>67</td>
<td>21.7</td>
</tr>
<tr>
<td>1995</td>
<td>54</td>
<td>7</td>
<td>61</td>
<td>23.0</td>
</tr>
<tr>
<td>2000</td>
<td>48</td>
<td>8</td>
<td>56</td>
<td>24.5</td>
</tr>
<tr>
<td>2005</td>
<td>43</td>
<td>9</td>
<td>52</td>
<td>26.4</td>
</tr>
<tr>
<td>2010</td>
<td>39</td>
<td>9</td>
<td>48</td>
<td>28.3</td>
</tr>
<tr>
<td>2015</td>
<td>36</td>
<td>10</td>
<td>45</td>
<td>30.2</td>
</tr>
<tr>
<td>2020</td>
<td>33</td>
<td>12</td>
<td>45</td>
<td>32.1</td>
</tr>
<tr>
<td>2025</td>
<td>31</td>
<td>14</td>
<td>44</td>
<td>34.0</td>
</tr>
<tr>
<td>2030</td>
<td>28</td>
<td>17</td>
<td>45</td>
<td>35.9</td>
</tr>
</tbody>
</table>

Note. *Defined as 65 years or over; **15 Years or younger. Source - (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2010)
Table 5

*Life Expectancy at Birth by Sex in Turkey (Years) 1950-2030*

<table>
<thead>
<tr>
<th>Period</th>
<th>Male</th>
<th>Female</th>
<th>Both sexes combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-1955</td>
<td>45.9</td>
<td>49.3</td>
<td>47.6</td>
</tr>
<tr>
<td>1955-1960</td>
<td>46.5</td>
<td>49.7</td>
<td>48.1</td>
</tr>
<tr>
<td>1960-1965</td>
<td>46.8</td>
<td>50.4</td>
<td>48.5</td>
</tr>
<tr>
<td>1965-1970</td>
<td>47.2</td>
<td>51.0</td>
<td>49.0</td>
</tr>
<tr>
<td>1970-1975</td>
<td>49.4</td>
<td>53.4</td>
<td>51.3</td>
</tr>
<tr>
<td>1975-1980</td>
<td>52.7</td>
<td>56.8</td>
<td>54.7</td>
</tr>
<tr>
<td>1980-1985</td>
<td>56.4</td>
<td>60.5</td>
<td>58.4</td>
</tr>
<tr>
<td>1985-1990</td>
<td>59.6</td>
<td>63.9</td>
<td>61.7</td>
</tr>
<tr>
<td>1990-1995</td>
<td>62.3</td>
<td>66.7</td>
<td>64.4</td>
</tr>
<tr>
<td>1995-2000</td>
<td>65.6</td>
<td>70.0</td>
<td>67.8</td>
</tr>
<tr>
<td>2000-2005</td>
<td>68.7</td>
<td>73.3</td>
<td>70.9</td>
</tr>
<tr>
<td>2005-2010</td>
<td>70.7</td>
<td>75.3</td>
<td>73.0</td>
</tr>
<tr>
<td>2010-2015</td>
<td>72.0</td>
<td>76.6</td>
<td>74.3</td>
</tr>
<tr>
<td>2015-2020</td>
<td>72.9</td>
<td>77.4</td>
<td>75.1</td>
</tr>
<tr>
<td>2020-2025</td>
<td>73.7</td>
<td>78.3</td>
<td>76.0</td>
</tr>
<tr>
<td>2025-2030</td>
<td>74.5</td>
<td>79.1</td>
<td>76.8</td>
</tr>
</tbody>
</table>

*Note. Source - (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2010)*
Table 6

Urban and Rural Population in Turkey

<table>
<thead>
<tr>
<th>Year</th>
<th>Urban Population*</th>
<th>Percentage</th>
<th>Rural Population*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>5 322</td>
<td>24.8</td>
<td>16 162</td>
<td>75.2</td>
</tr>
<tr>
<td>1955</td>
<td>7 027</td>
<td>28.6</td>
<td>17 583</td>
<td>71.4</td>
</tr>
<tr>
<td>1960</td>
<td>8 898</td>
<td>31.5</td>
<td>19 335</td>
<td>68.5</td>
</tr>
<tr>
<td>1965</td>
<td>10 951</td>
<td>34.2</td>
<td>21 045</td>
<td>65.8</td>
</tr>
<tr>
<td>1970</td>
<td>13 844</td>
<td>38.2</td>
<td>22 364</td>
<td>61.8</td>
</tr>
<tr>
<td>1975</td>
<td>17 138</td>
<td>41.6</td>
<td>24 073</td>
<td>58.4</td>
</tr>
<tr>
<td>1980</td>
<td>20 210</td>
<td>43.8</td>
<td>25 952</td>
<td>56.2</td>
</tr>
<tr>
<td>1985</td>
<td>26 900</td>
<td>52.4</td>
<td>24 389</td>
<td>47.6</td>
</tr>
<tr>
<td>1990</td>
<td>33 204</td>
<td>59.2</td>
<td>22 882</td>
<td>40.8</td>
</tr>
<tr>
<td>1995</td>
<td>38 023</td>
<td>62.1</td>
<td>23 183</td>
<td>37.9</td>
</tr>
<tr>
<td>2000</td>
<td>43 027</td>
<td>64.7</td>
<td>23 433</td>
<td>35.3</td>
</tr>
<tr>
<td>2005</td>
<td>47 886</td>
<td>67.3</td>
<td>23 283</td>
<td>32.7</td>
</tr>
<tr>
<td>2010</td>
<td>52 728</td>
<td>69.6</td>
<td>22 977</td>
<td>30.4</td>
</tr>
<tr>
<td>2015</td>
<td>57 475</td>
<td>71.9</td>
<td>22 491</td>
<td>28.1</td>
</tr>
<tr>
<td>2020</td>
<td>62 033</td>
<td>74.0</td>
<td>21 840</td>
<td>26.0</td>
</tr>
<tr>
<td>2025</td>
<td>66 316</td>
<td>75.9</td>
<td>21 048</td>
<td>24.1</td>
</tr>
<tr>
<td>2030</td>
<td>70 247</td>
<td>77.7</td>
<td>20 128</td>
<td>22.3</td>
</tr>
</tbody>
</table>

Note. *In thousands
Source - (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2008)

Urban Context of Old-Age Institutions: The Case of Istanbul

Aging and related services are being shaped differently in its urban and rural context although aging is a universal phenomenon *per se*. There is a huge body of literature on the dichotomy of urban and rural areas in social science. For example,
Machielse (2006) produced a study on this dichotomy in relation to social isolation or loneliness. Tönnies (2002) work on Gemeinschaft (community) and Gesellschaft (society) is another classic work on how different these environments can be. In short, he makes the assumption that village dwellers are less likely to be lonely than urbanites (Tönnies, 2002). One view is that this difference is because rural elders have a strong sense of community and strong family ties.

Machielse (2006) provides an important difference between the behaviors of urbanites and villagers in terms of social support. For example, contrary to villagers, urbanites have to live more often without many forms of social support. It is interesting to note that whereas the urbanites receive social support from outside of the household even in emergency situations, villagers rely mostly on an extended family network.

It is noteworthy that, in the study of Machielse (2006), there are relatively more people who experience their network as negative in the urban areas as opposed to the rural areas. That is why it is not a big surprise to find a strong relationship between urbanization and loneliness. For example, in the study of Machielse (2006), whereas 34% of urbanites feel lonely, only 22% of the villagers share this same feeling. Of course, with migration to cities the elders are often left behind in the villages and so the village no longer has the same sense of community.

Besides the above influences, the forms of care are different in the urban and rural contexts (Machielse, 2006). Informal care is the most common form of care among villagers, whereas urbanites more frequently use formal care such as institutional care. This preference is not different in Turkey. Historically, this trend or shift to formal care has occurred in most societies who have urbanized (Baran-Gorgun,
The concentration of population, urbanization, and old-age institution in Istanbul needs to be considered as a predictor of institutionalization of care in Turkey.

Looking at Table 1 and Table 7 one can easily understand how the population of Istanbul represents a major slice of total population of Turkey. It was 13% of the total population of Turkey in 2000. However, what makes Istanbul conspicuous is the concentration of old-age institutions due to formalization of care and the decline in informal care.

Table 7

*Population of Istanbul (in Thousands) from 1950 to 2020 in Turkey*

<table>
<thead>
<tr>
<th>Period</th>
<th>Istanbul</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>967</td>
</tr>
<tr>
<td>1960</td>
<td>1453</td>
</tr>
<tr>
<td>1970</td>
<td>2772</td>
</tr>
<tr>
<td>1980</td>
<td>4397</td>
</tr>
<tr>
<td>1990</td>
<td>6552</td>
</tr>
<tr>
<td>2000</td>
<td>8744</td>
</tr>
<tr>
<td>2010</td>
<td>10953</td>
</tr>
<tr>
<td>2020</td>
<td>13791</td>
</tr>
</tbody>
</table>

*Note. Source: (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2010)*

The distribution of old-age institutions in Turkey needs to be considered to grasp the scope of institutional care in Turkey. While this study focused on an analysis of Darulaceze case in Istanbul, it is important to understand the distribution of old-age institutions in Turkey.
Some 35% of Turkey’s old-age institutions are located in Istanbul (see Table 8). As noted above, less than 14% of the total population of Turkey was living in Istanbul in 2000. This percentage is quite important to understand how institutional care and urbanization are related. Therefore, it is reasonable to argue that Istanbul has more institutional care than its shares based on population.

Table 8

*Distribution of Old-Age Institutions and Capacity in Istanbul and in Turkey (2000)*

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Istanbul</th>
<th>Capacity</th>
<th>Other Cities in Turkey</th>
<th>Capacity</th>
<th>Total Number</th>
<th>Total Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>9</td>
<td>2,134</td>
<td>58</td>
<td>5,679</td>
<td>67</td>
<td>7,813</td>
</tr>
<tr>
<td>Associations and Charity Organizations</td>
<td>6</td>
<td>383</td>
<td>15</td>
<td>973</td>
<td>21</td>
<td>1,356</td>
</tr>
<tr>
<td>Religious Affiliated Communities</td>
<td>6</td>
<td>900</td>
<td></td>
<td></td>
<td>6</td>
<td>900</td>
</tr>
<tr>
<td>Private</td>
<td>21</td>
<td>736</td>
<td>5</td>
<td>151</td>
<td>26</td>
<td>887</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>4,154</td>
<td>78</td>
<td>6,803</td>
<td>120</td>
<td>10,956</td>
</tr>
</tbody>
</table>

Note. Source: (Table was adopted from Vehid, 2000)

If there were 66 million individuals in 2000, and only almost 11,000 residence in old-age institutions, old age in LTC represents only 1% (see Table 1 and Table 8). An increase in older adult population will create more demand for institutional care in Turkey in the future. It is also important to stress that 37.9% of old-age institutions’
residents in Turkey are in Istanbul (see Table 8). In particular, a big concentration of private old-age institutions (21 out of 26) and entire religious affiliated institutions in Turkey are in Istanbul (see Table 8). Primarily, the development of the old-age institution idea has taken place in Istanbul.

The Evolution of the Old-Age Institution

The evolution of old-age institutions can be divided into four periods in Ottoman-Turkish society from the 19th century to the present.

Traditional Late Ottoman Period (1832-1895)

There are no historical evidences for the development of old-age institutions before 1832 even though, as Durgun (1999) states, there existed vakiflar (charity organizations), imarethaneler (lodging houses for migrants), and tabhaneler (guest houses) temporarily serving the poor, including the aged before 1832.

It is important to note that religious affiliated communities (Christians and Jews) were the forerunners for opening small old-age institutions in Istanbul from 1832 to 1892. Although Haseki Nisa Hastanesi (Haseki Women Hospital) provided care to the female widowed older adults in addition to orphans during this period (Yildirim, 1996), the Darulaceze Old-Age Institution is the first large institution in Istanbul. It was built by the Ottoman Sultan Abdulhamid II in 1895.

Almshouses were precursors of public old age homes or old-age institutions in the United States (Katz, 1984; Moss & Halamandaris, 1977). There is a parallelism with the birth of old-age institutions in Ottoman Turkish society and the Darulaceze Old-Age Institution is a good example (Esendemir & Ingman, 2011). That is to say, Darulaceze
Old-Age Institution shares many similarities with almshouses at the beginning of the 19th century in the United States. For instance, the American government created indoor relief for the poor based on the English Poor Law (Carman, 2009; Holstein & Cole, 1996; Kane, Kane & Ladd, 1998). Similarly, the Ottoman Sultan ruled on a different Nizamname or code of law to establish Darulaceze Old-Age Institution. The code of law is still in use and based on the French law. It differed from Ottoman legislation that was based on an amalgam of Shari`a (Islamic law) and customary law (Inalcik & Quataert, 1994).

Furthermore, as Holstein and Cole (1996) state, private homes for the aged were developed as alternatives to public almshouses during the early 19th century by religious affiliated communities in the U.S. As mentioned previously, the Darulaceze Old-Age Institution was built by the state as an alternative to the old-age institutions opened by religious affiliated communities.

Also, almshouses focused more upon the aged as children were moved to orphanages; the insane were shifted to mental institutions; the disabled were sent to special schools; and the able-bodied were placed into workhouses in the United States by the mid-19th century (Holstein & Cole, 1996). In a similar vein, although Darulaceze Old-Age Institution still has some orphan residents in its center building, its modern branch facility is completely for the aged.

Stagnation Period (1895-1957)

This period was a critical period in Ottoman-Turkish history. This is because the state was involved in World War I in 1914 and the War of Independence in 1919. For
this reason, it lost many older adults. There was a great emphasis on youth policies in this period. For example, Himaye-i Etfal Cemiyeti (Child Protection Society) was founded in 1921 by Ataturk (Durgun, 1999). It was then named Child Protection Society of Turkey in 1935.

Although it is assumed that the newly emerged Republic of Turkey had turned its face from the Eastern world to the Western world, especially Europe by implementation of several reforms, not even a single old-age institution was built during this period. However, it is interesting to note that state built several Turkish Hearths (places for developing Turkish nationalism), People Houses (houses for imposing the Turkish State ideology), and People’s Rooms (small places for imposing the Turkish State ideology) from 1932 to 1951 to create a Turkish nation (Simsek, 2002). This is the reason why there were no old-age institutions built. I would venture to argue that the problem is not a decrease in adult population due to wars. It was the state policy for a young nation to focus on youth.

Transition Period (1957-1980)

In this period, some important developments took place that encouraged the creation of old-age institutions. For example, the foundation of the Institute of Social Services in 1959, the State Planning Organization in 1960, and the General Directorate of Social Services in 1963 by the state ushered in a new era of population planning and services for the elderly that led to the opening of old-age institutions. In particular, as Koc et al. (2008) state, the 1965 enactment of Law 557 about population planning was a
turning point in the population policies of Turkey. Population planning began by stopping the privileges given in the baby boom policy.

Modern Period (1980 - Present)

There was a dramatic increase in the opening of old-age institutions during this period, which continues today. This dramatic increase can be traced to the following changes:

First, the protection of older adults was regulated and given status by the Constitution of 1982, Article 61. Although there was a significant tendency of the state in this constitution to control all areas of the lives of its citizens at the beginning, this article helped to develop some policies for the aged later.

Second, the Child Protection Society and the General Directorate of Social Services were united under Social Services and Child Protection Agency in 1983. The administration of old-age institutions was handed over to this agency, but older adults were still mentioned along with the children and disabled. However, this agency was turned into the General Directorate of Services for Disabled Persons and Elderly under the Ministry of Family and Social Policy with Law 633 in 2011. Therefore, although aging is still being mentioned with disabled persons, it was separated from children’s policies by this change. This means that Turkey is moving forward to design independent administrative institutions for the aged.

Finally, improvements in many areas such as health, social security rights, economy, education, and urbanization triggered an increase in private old-age institutions in this period. However, it is interesting to note that while looking at the list
of all old-age institutions in addition to private old-age institutions, it is still impossible to
find a separate old-age institution for veterans although veterans are an important
political force in Turkey. The main reason could be that since they have already
separate orduevleri (military houses) for their services, the need to build old-age
institutions was not seen as important. Instead, they prefer to stay in the neighborhoods
of the military houses and benefit from any services provided by these houses. Also, it
is probable that since the perception of old-age institutions is negative in Turkey as well
as in many other traditional and young countries all around the world (Moody, 1992), the
militaristic elite group is not inclined to be associated with the residents of old-age
institutions primarily from lower and middle classes.

In general, the literature on old-age institutions is not limited in Turkey although it
is not as rich as the literature on old-age institutions in developed countries such as the
U.S. and U.K. It seems that the problem is not only its relatively low rate of aging
population, but, as Sen (1994) mentions, it is also due to the fact that other more
pressing problems make it a low priority in Turkish political and policy life.

Loneliness as a Key Determinant of the Applications to
Old-Age Institutions

In the recent years, in Turkey, as in many other countries, loneliness has become
a focus among the problems of the aging population (Emiroglu, 1995; Liu & Guo, 2007;
Mullins, Woodland, & Putnam, 1989; Uysal, 2002). Therefore, it has captured the
attention of the academic community. This is largely due to the fact that older adults
suffer from loneliness and health issues as they age.
Without a doubt, several factors contribute to the loneliness of the aged. For instance, according to Kaasa (1998) these factors can be put in two categories: external factors and internal factors. Whereas the former ones stand for social factors such as lack of social network, the latter ones include personality and psychological factors. It should be clear that I am not planning to deal with all these factors broadly. Instead, I touch on the predictors of loneliness leading the aged to apply for institutional care. That is because loneliness has a social meaning rather than a psychological meaning in Turkish cultural context.

For example, Russell et al. (1997) studied the relationship between loneliness and nursing home admissions in two rural counties of Iowa. Russell et al. (1997) looked whether or not there is a way to explain nursing home admissions in terms of demographic characteristics, low social support, and physical health status of the participant with age, income, education, and cognitive status like covariates. For this reason, there needs to be more studies on the determinants and results of loneliness to see the scope of old-age institutions' admissions or applications not only in rural areas but also in urban areas. This study will contribute to the literature by examining loneliness as a key determinant of applications to the Darulaceze Old-Age Institution in Istanbul.

Summary

This chapter focused on the socio-demographic characteristics of the population of Turkey, loneliness as a key determinant of the application to the institutional care, the process of urbanization and the evolution of old-age institutions. Socio-demographic
characteristics of the population of Turkey showed that the age structure of Turkey has started to change with social changes in the modern era. As a result, the decrease in family-day-to-day care and shortage in alternative forms of care made institutional care an important form of care in urban Turkey. It was found that the urban context, especially Istanbul, has been an area of old-age institutional growth. For this reason, the historical evolution and development of old-age institutions was reviewed and loneliness was discussed as a potential key determinant of the applications to these institutions.
CHAPTER 3 METHODOLOGY

This study has three levels of analysis (Blackburn & Dulmus, 2007): micro, meso, and macro levels. Micro level focuses upon one facility and the applicants this has, whereas the meso level of analysis is based upon interviews with the specialists of 30 old-age institutions in Istanbul. Finally, the macro level relates to in-depth interviews with national experts on social policy of aging in Turkey.

Micro Level

Design

This part of study was on secondary data which are related to social inquiry survey of applicants to the Darulaceze Old-Age Institution. The socio-demographic characteristics, social and economic status (SES), functional independence, living arrangement, living alone or not, and main reason to apply the institutional care are already in the raw data of this report. Seventy-two applicants completed an admission survey (see Appendix A). Their responses provide a profile of residents at the Darulaceze Old-Age Institution.

Recruitment of Sample

Micro analysis of this study was based on secondary data analysis of 72 applicants to Darulaceze Old-Age Institution in Istanbul from April 6, 2010 to November 3, 2011. These applicants of Darulaceze Old-Age Institution were recruited through all formal applicants to this institution. Their information was secured on the application forms. The general conceptual model is presented in Table 9.
Table 9

*General Conceptual Model: Control Variables, Independent Variables, and Dependent Variable*

<table>
<thead>
<tr>
<th>Control Variables</th>
<th>Independent Variables</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socio-demographic</td>
<td></td>
<td>Loneliness</td>
</tr>
<tr>
<td>a. Geographic background</td>
<td>1. Age groups</td>
<td></td>
</tr>
<tr>
<td>b. Marital status</td>
<td>2. Living alone or not</td>
<td></td>
</tr>
<tr>
<td>c. Income Support</td>
<td>3. Functional independence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Gender</td>
<td></td>
</tr>
</tbody>
</table>

Dependent Variable

The socio-economic variables are mostly categorical rather than being in the interval level data. In order to understand loneliness of the applicants at the Darulaceze Old-Age Institution I conducted frequency tables, crosstabulation, and descriptive and regression analysis using SPSS 16.0 Version for Windows. Regression analysis employed binary logistic regression.

The dependent variable or focus of this study was loneliness. The applicants to this institution were asked whether or not loneliness is the main reason for their requests to be institutionalized. Those who responded “Yes” were coded “1,” whereas those who responded “No” were coded “0.”

The dependent variable is important for the study to see its Turkish cultural context and how the demand of institutional care rose with the increase of dependents reporting loneliness as a major reason for their application to institutional care (see Table 9). As a matter of fact, it is hard to measure loneliness. That is why some
indicators were needed, including age groups, living alone or not, functional independence, educational level of the applicants, and gender to measure the level of dependency that may lead to loneliness.

Independent Variables

In China, according to Liu and Guo (2007), loneliness increases with age and is not due to age per se, but due to an increase in disability and a decrease in social integration. Initially it appears that old age goes hand in hand with reduction in social bonding of the aged within society in Turkey as well. Secondly, a reduction in mobility of the applicants of institutional care does not increase their loneliness. Finally, with regard to low level of education it appears that a low level of education is one of the significant predictors of loneliness because it relates to the status of an individual in society.

- Age groups. This refers to all the same age. It is predicted that age is an important predictor of loneliness in Turkey. This is because the problems of aging in Turkey start earlier than in developed countries due to the different cultural context of aging. Since people under the age of 65 may be considered as elderly, the respondents were categorized into two separate groups. Thus, the former group age 46-64 was coded “1,” the latter group age 65 and over was coded “2.”

- Living alone or not. This refers to the elderly living in separate household arrangements or living with somebody (Warburten & Liu, 2007). Although some older adults may have a sense of sovereignty by living alone, only their living in single household situations were considered. The respondents were put into two separate
categories: Living alone and not living alone. While the former one was coded “1,” the latter one was coded “2.”

- Functional independence. This refers to the independency of older adults in performing their activities of daily living (ADLs), including self-care, self-maintenance, and physical activities. The functional independence measurement of the applicants of Darulaceze Old-Age Institution was done by asking them whether or not they were independent. Those who said “Yes” for functional independence were coded “1” and those who responded “No” were coded “0.”

- Education. This refers to the means through which older adults can change their social status. Education is one of the means providing a chance to be mobile between different social classes. That is why the applicants of Darulaceze Old-Age Institution were asked for their educational levels. The respondents who answered that they were uneducated were coded “1” and those who answered that they were educated were coded “2.”

- Gender. This refers to the respondents being men or women. Because of major life changes based on gender it was important to control for gender. Male was coded “1” and female was coded “2.”

Control Variables

The personal and socio-demographic characteristics of the survey population including geographic background, marital status, and income support were put as control variables in the study.
• Geographic background. This refers to the type of region the applicants were from - was either born in an urban area, migrated to Istanbul from a rural area, or migrated from abroad. It was placed in three categories: rural, urban, and abroad. Rural was coded “1,” urban was coded “2,” and abroad was coded “3.”

• Marital status. This refers to whether or not the applicants were married, never married, divorced, or widowed. Therefore, four categories were defined for marital status: married, never married, divorced and widowed. Married was coded “1,” never married was coded “2,” divorced was coded “3,” and widowed was coded “4.”

• Income support. This refers to the economic contribution to the applicants. Three categories of income sources were listed: social help, retirement pension, and old age payments. Also, a category named “None” was created to single out applicants who did not have any sources of income. None was coded “1,” social help was coded “2,” retirement pension was coded “3,” and old age payment was coded “4.”

Data Analysis

In micro level data analysis, first, frequency tables were provided to obtain detailed information of socio-demographic characteristics of the secondary data of the sample population, i.e., 72 applicants of Darulaceze Old-Age Institution. These include the frequency tables having the percentage of different age groups, the applicants living alone or not, functional independence, gender, and educational level of the applicant controlled by their geographic backgrounds, marital status, and income supports.
Second, crosstabulation allowed an analysis of whether or not there was a significant relationship between the independent variable and the dependent variable. Therefore, chi-square tests were used with .05 significance level.

Finally, multivariate analysis allowed tests of the hypotheses while controlling other factors. Since the dependent variable was dichotomous, binary logistic regression was applied to analyze the likelihood of loneliness being given as the chief reason for institutionalization. In particular, odds ratios and 95% confidence interval were calculated to see this likelihood. There were no missing values, so all 72 cases were included in the analysis.

Meso Level
Design

The views of the key informants on applicants to institutional care allowed me to assess the results of the micro analysis. The reflections of key informants on institutional care gave the opportunity to better understand the meaning of the micro analysis. The interviews of 30 experts in long term care in Istanbul were processed. The questions in Appendix B were asked these key informants via phone calls. While I focused on interviewing the administrators of institutions in Istanbul, he was open to referrals to others who were determined to be well informed about long term care issues. Thus, this part of the study helped me to derive a broader picture of the applicants to institutional care in Turkey.
Recruitment of Sample

Thirty key informants were recruited among administrators and specialists of different old-age institutions in Istanbul. Key informants represented state, religious affiliated communities, and privately owned old-age institutions in Istanbul.

Data Analysis

In meso analysis, the qualitative method was used to analyze the data. Therefore, I collected socio-demographic information about key informants by using the open-ended questions related to the hypotheses in the study.

Macro Level

Design

To obtain a macro picture of the applicants to institutional care in Turkey, five leading policy makers associated with aging issues were interviewed in-depth regarding institutional care, non-institutional care, social policy on aging, adequacy of present specialists in geriatrics, and the future of the aging in Turkey.

Recruitment of Sample

Five experts were recruited from leading policy-makers in Turkey to be interviewed on the issue of institutional and non-institutional care in Turkey. Experts were selected from a state agency, a metropolitan municipality, a university, a civilian association, and an international agency.
Data Analysis

In the macro analysis, the triangulation method was employed to analyze the data. Open-ended responses were grouped to support the hypotheses developed in the study. Finally, each level of the study was integrated into the final summary of results to deepen understanding of the major question of this investigation: What is the role of loneliness in admission to old-age institutions in Istanbul, Turkey?

Instrumentation

The instruments of this study were either a secondary data questionnaire or a primary data questionnaire. The former one had already been designed by Darulaceze Old-Age Institution (see Appendix A). This was a Social Inquiry Survey of Applicants to the Darulaceze Old-Age Institution that included their socio-demographic characteristics, social and economic status (SES), functional independence, living conditions, and the main reason to apply for institutional care. The later one was specifically created to control some selected questions from the former one and broaden the picture with perspectives of the representatives from 30 old-age institutions and five policy-making institutions in Istanbul, Turkey. Briefly, as seen in Appendix A, the socio-demographic status of the participants, the main reasons for applying for institutional care, loneliness, non-institutional care, social policy of aging, adequate number of specialists in geriatrics, and the future of aging were addressed to elicit a broader picture of the determinants of institutional care in Turkey.
Protection of Human Subjects

Data records and forms were stored in a secure office cabinet at Chilton Hall on the University of North Texas campus. Also, electronic data files of the study were placed in a separate computer requiring password access at Chilton Hall.

The Institutional Review Board (IRB) of the University of North Texas granted permission to conduct the study (see Appendix C). Similarly, the Darulaceze Old-Age Institution specifically provided a letter authorizing the use of existing data (see Appendix D). Furthermore, since there were no interviews with any residents of the other 30 old-age institutions in Istanbul, any letters granting permission to conduct research on their premises were not required (see Appendix E). Instead, the key informants from institutions and policy-maker agencies were interviewed.

Resident data and interviews used for the study were de-identified. Key informants were assured verbally that their information would be kept confidential (see Appendix B).

Summary

In this chapter, the basic methodological approach was described. Study design, protection of human subjects, recruitment of sample, instrumentation, variables, and data analysis were outlined. Micro, meso, and macro levels of the study design provided the scope of the study. Also, IRB approval was received to assure protection of the human subjects in this study. Procedures to collect the data were explained to show the validity of the study in terms of the instrumentation used. To see the extent of
the predictors of the dependent variable - loneliness, independent variables, and control variables were defined to explore how they may relate.
CHAPTER 4

ANALYSIS AND DISCUSSION OF THE RESULTS

This chapter aimed at predicting factors determining the applications to the institutional care in Istanbul, Turkey. Micro, meso, and macro levels of analyses were employed to understand the research question: What makes loneliness a determining factor when applying for institutional care in Istanbul, Turkey? Whereas the quantitative analysis was accomplished by using SPSS 16.0 Version for Windows in micro level analyses, qualitative analysis was preferred in meso and macro analyses to control hypotheses of the study. Thus, a triangulation model was used to understand the main reasons behind the applications to institutional care in different ways.

Analysis of One Long Term Care Facility: Deralaceze

Deralaceze was built by Sultan Abdulhamid Han II in 1895 to give shelter to needy people, including older adults. Presently it serves 650 needy regardless of sex, age, race, or religion. It aims at providing services to the residents of Istanbul who are disabled, homeless, poor enough, and without adequate opportunities to earn a living.

Deralaceze was built on a 27,000 square meters field with a synagogue, church, mosque, outpatient clinic, kindergarten, library, rehabilitation center, bakery, tailor shop, printing house, carpenter’s shop, ironworks, and includes seven-units of service for the aged. Its income sources are mostly derived from the rents of its donated real estate contributions from charitable organizations and 10% of the entertainment tax collected by the Istanbul Metropolitan Municipality.
Deralaceze has a particular nizamname (regulation) defining some conditions for admission (Darulaceze Nizamnamesi, 1916). According to this regulation, the applicants should be residents of Istanbul, very poor, too old to work, without any relatives, and homeless. They should be free of any contagious diseases or addictions.

Socio-Demographic Characteristics of the Survey Population

Only 6.9% of the applicants have a rural background (see Table 10). The same percentage holds for those from abroad, but the rest of the applicants (86.2%) have an urban background. Therefore, applications to and residency in long term care has increased significantly for urban elders in recent years.

The majority of applicants have never married (37.5%), 8.3% are married, 22.2% are divorced, and 31.9% are widowed (see Table 10). Married applicants are the smallest percentage. However, although married applicants represent a small percentage, it seems that some other factors such as low income and lack of social support are influential on the married applicants' preferences for institutional care as much as family breakdown.

The majority of the applicants have a source of income: 6.9% social support, 26.4% old-age payment, and 41.7% retirement pension. However, 25% do not have any income source (see Table 10).

A significant number of applicants (see Table 11) were 65 years old or older (77.8%). While it has been reported that most residents in old-age institutions are 65 years old or older in Turkey (Atila, 2006; Durgun, 1999), it is also likely that a relatively young society like Turkey will find a significant proportion of the admissions coming from
those under age 65, i.e., younger than would be found in older societies (22% of 46-64 age group in Table 11).

Table 10

*Distribution of Geographic Background, Marital Status, and Income*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geographic Background</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>5</td>
<td>6.9</td>
</tr>
<tr>
<td>Urban</td>
<td>62</td>
<td>86.2</td>
</tr>
<tr>
<td>Abroad</td>
<td>5</td>
<td>6.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>72</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>6</td>
<td>8.3</td>
</tr>
<tr>
<td>Never Married</td>
<td>27</td>
<td>37.5</td>
</tr>
<tr>
<td>Divorced</td>
<td>16</td>
<td>22.2</td>
</tr>
<tr>
<td>Widowed</td>
<td>23</td>
<td>31.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>72</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Income Support</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>18</td>
<td>25.0</td>
</tr>
<tr>
<td>Social Support</td>
<td>5</td>
<td>6.9</td>
</tr>
<tr>
<td>Retirement Pension</td>
<td>30</td>
<td>41.7</td>
</tr>
<tr>
<td>Old-Age Payment</td>
<td>19</td>
<td>26.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>72</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Prior to applying for admission to Deralaceze, the majority of applicants (see Table 11) were living alone (61.1%). This makes loneliness a big issue for the aged ending in institutional care. It is interesting to note that decrease in family or relative support due to change in the traditional family structure as a result of rapid urbanization
seems to have an impact on this high increase. For example, in this case, only half of
the applicants were supported by their relatives. Although neighbors (18.1%) and
philanthropists (15.3%) were other supporters, 16.7% of them had no supporter (see
Table 12).

Table 11

*Distribution of Independent Variables of Age Groups, Living Alone or Not, Functional
Independence, Education, and Gender*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age Groups</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46-64</td>
<td>16</td>
<td>22.2</td>
</tr>
<tr>
<td>65+</td>
<td>56</td>
<td>77.8</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Living Alone or Not</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living Alone</td>
<td>44</td>
<td>61.1</td>
</tr>
<tr>
<td>Not Living Alone</td>
<td>28</td>
<td>38.9</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Functional Independence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>30</td>
<td>41.7</td>
</tr>
<tr>
<td>Yes</td>
<td>42</td>
<td>58.3</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uneducated</td>
<td>24</td>
<td>33.3</td>
</tr>
<tr>
<td>Educated</td>
<td>48</td>
<td>66.7</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>44</td>
<td>61.1</td>
</tr>
<tr>
<td>Female</td>
<td>28</td>
<td>38.9</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 12

**Supporters of the Applicants in their Later Years**

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relatives</td>
<td>36</td>
<td>50.0</td>
</tr>
<tr>
<td>Neighbors</td>
<td>13</td>
<td>18.1</td>
</tr>
<tr>
<td>Philanthropists</td>
<td>11</td>
<td>15.3</td>
</tr>
<tr>
<td>Nobody</td>
<td>12</td>
<td>16.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>72</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Whereas 41.7% of the applicants are not functionally independent and thereby are dependent on somebody else, 58.3% of the applicants are functionally independent and thereby are not dependent on anybody (see Table 11). It is interesting to note that although it is generally assumed that dependent people seem to put down loneliness as a major reason for their application to institutional care, the results just showed the opposite. It is most probable that traditional social support to the needy and dependent people gives a sense of social belonging to them. Therefore, they did not put loneliness as a major reason for applying to institutional care.

Some 66.7% of the applicants are educated, whereas 33.3% of them are uneducated (see Table 10). As seen, although educated applicants represent double number of the uneducated, the percentage of uneducated applicants still needs to be considered.

It is important to note that the majority of applicants to the Deralaceze Old-Age institution are male (61%) (see Table 11). In a study by Cahoz (2010), of 84 state-owned old-age institutions under the Social Services and Child Protection Agency (SHÇEK) some 61% of the residents were males.
Test and Analysis of Hypothesis 1

Hypothesis 1: The aged 46 to 64 years old are less likely to report loneliness rather than medical needs as the main reason for institutional care.

Considering two ways of testing the null hypothesis in methodology it was found that the null hypothesis showed no relationship between age groups and loneliness and was rejected. This means Research Hypothesis 1 (H1) mentioned there was a significant relationship between age groups and loneliness was accepted. That showed the obtained \( p \) value was .004. This was lower than \( p < .05 \). Also, the \( \chi^2 \) value which is 8.313 is greater than the critical value in the line of \( df = 1 \) which is 3.84 if one considers Table 13.

Whereas 56.2\% of the 46-64 age group did not accept loneliness as a major reason for their application to institutional care, 43.8\% of residents see loneliness as the main reason (see Table 13). Coming to the 65+ age group whereas 19.6\% of the 65+ age group did not mention loneliness as a major reason for their application to institutional care, 80.4\% of the 65+ age group obviously put loneliness as the main reason on their application for institutional care. These results showed how there was a relationship between age groups and loneliness. To understand the extent of this relationship binary logistic regression was processed because the dependent variable was not continuous but had only two outcomes such as 1 or 0. In this case, the dependent variable was loneliness. Therefore, the 65+ age group showed loneliness as the main reason for their application for institutional care.
Table 13

Crosstabs of Loneliness and Independent Variables

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Loneliness</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>Total</td>
</tr>
<tr>
<td>Age Group*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46-64</td>
<td>n</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>56.2</td>
<td>43.8</td>
</tr>
<tr>
<td>65+</td>
<td>n</td>
<td>11</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>19.6</td>
<td>80.4</td>
</tr>
<tr>
<td>Living Alone or Not**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living Alone</td>
<td>n</td>
<td>8</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>18.2</td>
<td>81.8</td>
</tr>
<tr>
<td>Not Living Alone</td>
<td>n</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>42.9</td>
<td>57.1</td>
</tr>
<tr>
<td>Functional Independence***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>n</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>43.3</td>
<td>56.7</td>
</tr>
<tr>
<td>Yes</td>
<td>n</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>16.7</td>
<td>83.3</td>
</tr>
<tr>
<td>Education****</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uneducated</td>
<td>n</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>12.5</td>
<td>87.5</td>
</tr>
<tr>
<td>Educated</td>
<td>n</td>
<td>17</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>35.4</td>
<td>64.6</td>
</tr>
<tr>
<td>Gender*****</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>n</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>34.1</td>
<td>65.9</td>
</tr>
<tr>
<td>Female</td>
<td>n</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>17.9</td>
<td>82.1</td>
</tr>
</tbody>
</table>

Note. 1This crosstabs was evaluated from top to down. Chi-square value (X²), degree of freedom (df), and obtained p value were provided.

* X² = 8.313, df = 1 and obtained p = .004
**X² = 5.193, df = 1 and obtained p = .023
***X² = 6.203, df = 1 and obtained p = .013
****X² = 4.188, df = 1 and obtained p = .041
*****X² = 2.248, df = 1 and obtained p = .134
Since the dependent variable was dichotomous with “No” coded as a 0 and “Yes” coded as a 1, binary logistic regression was applied to make the analysis. There were no missing values because the entire 72 cases were included in the analysis.

A binary logistic regression was conducted to predict the selection of loneliness as the main reason for application to institutional care by using age groups as a predictor (see Table 14). The odd ratio of age groups was 0.20. This means that with each score increase in the age groups, the predicted likelihood of loneliness indicated as a major reason for applying to institutional care decreased by 80%.

Table 14

*Logistic Regression Analysis: Loneliness as Reason for Admission*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Loneliness vs. Other Reason</th>
<th>Odds Ratio</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td></td>
<td>3.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aged 46 to 64 years (contrast: 65+)</td>
<td>*0.20</td>
<td>0.04</td>
<td>0.92</td>
<td></td>
</tr>
<tr>
<td>Lived alone (contrast: with others)</td>
<td>**6.41</td>
<td>1.59</td>
<td>25.76</td>
<td></td>
</tr>
<tr>
<td>Educated (contrast: uneducated)</td>
<td>**6.01</td>
<td>1.11</td>
<td>32.44</td>
<td></td>
</tr>
<tr>
<td>Functional Independent (contrast: functional dependent)</td>
<td>*0.26</td>
<td>0.07</td>
<td>0.96</td>
<td></td>
</tr>
<tr>
<td>Female (contrast: male)</td>
<td></td>
<td>0.64</td>
<td>0.14</td>
<td>2.98</td>
</tr>
</tbody>
</table>

\( n = 72 \)

Degrees of Freedom = 5

Model Chi-Square = **24.86

*Note. Source: Deralaceze Old-Age Institution admissions information

*Odds ratios are significant at the .05 level, 2-tailed test.*

**Odds ratios are significant at the .01 level, 2-tailed test.*
Thus, the aged 46 to 64 years old were 80% less likely to indicate loneliness as a major reason for applying to institutional care. Therefore, there was a statistically significant effect of old-age (65+) on the indication of loneliness as the main reason for application to institutional care with 95.0% C.I from 0.04 to 0.92 and 24.86 model chi-square.

Test and Analysis of Hypothesis 2

Hypothesis 2: The aged living alone are more prone to list loneliness as the main reason for institutional care.

Considering the two ways of testing the null hypothesis in methodology it showed that the null hypothesis had no relationship between living alone or not and loneliness was rejected. This means the Research Hypothesis 2 (H2), had a significant relationship between living alone or not and loneliness, was accepted. That is because the obtained $p$ value was .023. This was lower than $p < .05$. Also, the $\chi^2$ value, which was 5.193, was greater than the critical value in the line of $df = 1$ which was 3.84 if one considers Table 13.

Eighteen point two percent of the applicants living alone did not give loneliness as the main reason for applying for institutional care, whereas 81.8% of them saw loneliness as the main reason (see Table 13). Coming to the applicant not living alone whereas 42.9% of applicants not living alone did not indicate loneliness as the main reason for their application to institutional care, 57.1% put loneliness as the main reason for their application to institutional care. These results showed how there was a relationship between living alone or not and loneliness. To see the extent of this relationship I processed binary logistic regression because the dependent variable was
not continuous, but had only two outcomes such as 1 or 0. Binary logistic regression helped to predict the probability of dependent response.

In this case, the dependent variable was loneliness. Therefore, I predicted how the applicants living alone showed loneliness as the main reason for their application to institutional care.

Since the dependent variable was dichotomous with “No” coded as a 0 and “Yes” coded as a 1, binary logistic regression was applied to make an analysis. There were no missing values because the entire 72 cases were included in the analysis.

A binary logistic regression was conducted to predict the selection of loneliness as the main reason for application to institutional care by using the state of living alone as a predictor. The odd ratio of the state of living alone was 6.41. This means that with each score increase in the state of living alone, the predicted likelihood of loneliness being indicated as a major reason for applying to institutional care increased by 84.4%. Thus, the aged living alone were 84.4% more likely to indicate loneliness as a major reason for applying to institutional care. Therefore, there was a statistically significant effect of the state of living alone on the indication of loneliness as the main reason for application to institutional care with 95.0% C.I from 1.59 to 25.76 and 24.86 model chi-square.

Test and Analysis of Hypothesis 3

Hypothesis 3: The aged having greater functional independence are more likely to indicate loneliness as a main reason for institutional care.

Considering two ways of testing of the null hypothesis, it was found that the null hypothesis was rejected. This means the Research Hypothesis 3 (H₃), had a significant
relationship between functional independence and loneliness, was accepted. That is because the obtained $p$ value was .013. This is lower than $p < .05$. Also, the $\chi^2$ value which was 6.203 was greater than the critical value in the line of $df = 1$ which was 3.84 if one considers Table 13.

Whereas 16.7% of the functionally independent applicants did not give loneliness as a major reason for their application to institutional care, 83.3% of them put down loneliness as a major reason (See Table 13). Coming to non-independent applicants whereas 43.3% of them did not cite loneliness as a major reason for their application to institutional care, 56.7% of them did put loneliness as a major reason for their application to institutional care. These results showed how there was a relationship between functional independence and loneliness. To see to the extent of this relationship I processed binary logistic regression because the dependent variable was not continuous but had only two outcomes such as 1 or 0. Binary logistic regression helped to predict the probability of a dependent response.

In this case, the dependent variable was loneliness. Therefore, I predicted how the functionally independent applicants mentioned loneliness as a major reason for their application to institutional care.

Since the dependent variable was dichotomous with “No” coded as a 0 and “Yes” coded as a 1, binary logistic regression was applied to make the analysis. There were no missing values because all 72 cases were included in the analysis.

A binary logistic regression was conducted to predict the selection of loneliness as the main reason for application to institutional care by using functional independence as a predictor. The odd ratio of functional independence was 0.26. This means that
with each score increase in the functional independence, the predicted likelihood of loneliness being indicated as a major reason for applying to institutional care decreased by 74%. Thus, functionally dependent applicants were 74% less likely to indicate loneliness as a major reason for applying to institutional care. Therefore, there was a statistically significant effect of functional independence on the indication of loneliness as the main reason for application to institutional care with 95.0% C.I from 0.07 to 0.96 and 24.86 model chi-square.

Test and Analysis of Hypothesis 4

Hypothesis 4: Uneducated older adults are more inclined to indicate loneliness as a main reason for institutional care.

Considering two ways of testing of the null hypothesis it was found that the null hypothesis was rejected. This means that there was a significant relationship between education and loneliness. That is because the obtained $p$ value was .041. The $p$ value was less than $p < .05$. Also, the $\chi^2$ value which was 4.188 was greater than the critical value in the line of $df = 1$ which was 3.84 if one considers Table 13.

Some 12.5% of the uneducated applicants did not give loneliness as a major reason for their application to institutional care, whereas 87.5% of them saw loneliness as a major reason (see Table 13). Whereas 35.4% of the educated applicants did not think loneliness as a major reason for their application to institutional care, 64.6% of them put loneliness as a major reason for their application to institutional care. These results showed how there was a relationship between education and loneliness. To see the extent of this relationship I processed binary logistic regression because the
dependent variable was not continuous but had only two outcomes, such as, 1 or 0. Binary logistic regression helped to predict the probability of dependent response.

In this case, the dependent variable was loneliness. Therefore, I predicted how the uneducated applicants indicated loneliness as a major reason for their application of institutional care.

Since the dependent variable was dichotomous with “No” coded as a 0 and “Yes” coded as a 1, binary logistic regression was applied to make the analysis. There were no missing values because all 72 cases were included in the analysis.

A binary logistic regression was conducted to predict the selection of loneliness as the main reason for application to institutional care by using education as a predictor. The odd ratio of education was 6.01. This means that with each score increase in education, the predicted likelihood of loneliness being indicated as a major reason for applying to institutional care increased by 83.4%. Thus, uneducated applicants were 83.4% more likely to indicate loneliness as a major reason for applying to institutional care. Therefore, there was a statistically significant effect of education on the indication of loneliness as the main reason for application to institutional care with 95.0% C.I from 1.11 to 32.44 and 24.86 model chi-square.

Test and Analysis of Hypothesis 5

Hypothesis 5: Males are more likely to report loneliness as the main reason for institutional care.

Considering two ways of testing of the null hypothesis, it was found that the null hypothesis was supported. This means the Research Hypothesis 5 (H5), had a significant relationship between gender and loneliness, was not supported. That is
because the obtained \( p \) value was .134. This was higher than \( p < .05 \). Also, the \( \chi^2 \) value which was 2.248 was lower than the critical value in the line of \( df = 1 \) which was 3.84 if one considers Table 13.

Whereas 34.1% of the male applicants did not give loneliness as a major reason for their application to institutional care, 65.9% had loneliness as a major reason (see Table 13). Coming to the female applicants whereas 17.9% of them did not cite loneliness as a major reason for their application to institutional care, 82.1% of them obviously put loneliness as a major reason for their application to institutional care. Despite this there was not a significant relationship between gender and loneliness. To understand the logic behind this insignificance I processed binary logistic regression because the dependent variable was not continuous but had only two outcomes such as 1 or 0. Binary logistic regression helped to predict the probability of a dependent response.

In this case, the dependent variable was loneliness. Therefore, I predicted how the male applicants mentioned loneliness as a major reason for their application to institutional care.

Since the dependent variable was dichotomous with “No” coded as a 0 and “Yes” coded as a 1, binary logistic regression was applied to make the analysis. There were no missing values because all 72 cases were included in the analysis.

A binary logistic regression was conducted to predict the selection of loneliness as the main reason for application to institutional care by using gender as a predictor. The odd ratio of gender was 0.64. This means that with each score increase in the gender, the predicted likelihood of loneliness being indicated as a major reason for
applying to institutional care decreased by 36%. Thus, males were 36% less likely to indicate loneliness as a major reason for applying to institutional care. Therefore, there was not a statistically significant effect of gender on the indication of loneliness as the main reason for application to institutional care with 95.0% C.I from 0.14 to 2.98 and 24.86 model chi-square.

Meso Level Interpretation of Findings and Discussion

Thirty persons active in old-age institutions caring for the aged in Istanbul were contacted using emails, phone calls, and in person. Their ages varied from 24 to 70 years of age. Eight were males and 22 were females. The majority were married. They represented various occupations: nine nurses, six psychologists, four physicians, three business administrators, two social workers, one child development specialist, one customs officer, one teacher, one press officer, one environmentalist, and finally one nursing instructor. The interview questions are provided in Appendix B. Table 15 shows a summary of the responses from the interviews that are discussed in detail following the table.

Initially I discussed the question of loneliness and the role it plays in the admission to institutional care in Turkey. The respondents were asked, “What were the major reasons for admission to an old-age institution?” Some 80% of those interviewed claimed that loneliness was one of the top three reasons for an older adult to make an application to be admitted to a long term care institution in Turkey. Over 46% mentioned that “health problem” was one of the three main reasons to make an application. Some 40% of those interviewed put “family issues” as one of the top three
reasons for making an application to long term care. In a similar vein, 80% of
interviewees showed social factors as a major reason behind the loneliness leading
people to apply to institutional care. That is why the role of social factors was apparent
on the admissions to the institutional care in Istanbul. This supported the hypotheses
analyzed in the micro level analysis.

Table 15

*Major Reasons for Admission to Old-Age Institutions*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loneliness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Yes</td>
<td>24</td>
<td>80.0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100.0</td>
</tr>
<tr>
<td>Health Problem</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>16</td>
<td>53.3</td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td>46.7</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100.0</td>
</tr>
<tr>
<td>Family Issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>60.0</td>
</tr>
<tr>
<td>Yes</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Furthermore, when asked directly whether or not loneliness was a major cause
for seeking admission to long term care, some 83% of the applicants declared
loneliness to be the major reason for admission to long term care. They gave examples
of what the factors were to explain their view or opinion: “having no living relatives or
friends,” “weakness in family ties,” “deprivation,” “immobility,” “having no living
arrangement with others,” “ego integrity,” “isolation,” “introversion,” “loss of joy of life,” “fear of death,” and “nostalgia.”

In particular, Hypotheses 2, 3, and 4 in the micro analyses had been proved by the association of social factors and loneliness. First, six interviewees mentioned that loneliness is “having no living relatives or friends.” This automatically conjures up “lonely living” which is a determining factor in Hypothesis 2. Second, only three interviewees put dependency as a factor determining loneliness. This means “independency” is not a determining factor of the loneliness of older adults to be disregarded in meso level analysis as well as in Hypothesis 3 of micro level analysis. Finally, although “deprivation” is not an exact synonym of “uneducated” (the concept in Hypothesis 4), one can still argue that deprivation could be included.

Interviewees also provided an overall picture of aging in Istanbul. First, their ideas of the percentage of male and female residents in their old-age institution were different from the Deralaceze Old-Age Institution as well as from the study of Cahoz (2010). For example, although the percentage of male residents is 61.1 in the Deralaceze Old-Age Institution and 60 in the work of Cahoz (2010), the average percentage given by the experts was 40. This gap can be explained by the fact that the Deralaceze Old-Age Institution and the 84 old-age institutions studied by Cahoz (2010) are state-based. Therefore, the percentage of male residents was relatively high in these facilities. The percentages given by the experts from the state-based old-age institutions were mostly more than 50. Therefore, one can argue that it is mostly the private old-age institutions that are predominantly female-populated rather than the
state-based old-age institutions in Istanbul. The main reason is to support the traditional privacy of women even in modern old-age institutions.

Second, the distinctive criteria of the eligibility of the institutional care were mostly related to health according to the experts. For example, 76.6% of the experts put the medical diagnosis of any contagious disease as a major condition for being admitted to old-age institutions. Also, 16.6% of the experts mentioned “self-sufficiency” as a criteria of eligibility, whereas 13.3% of the experts focused on “dependency” or “need for health care” as a criteria. As seen, the health status of older adults is the identifiable factor for being admitted to the old-age institutions in Istanbul. However, their psycho-social conditions cannot be disregarded in terms of eligibility. For example, 43.3% of experts stated “psychological wellness” of the older adults is a criteria to be accepted into their old-age institutions. “Economic sufficiency” with 16.6% and “loneliness” with 13.3% were two other major criterions cited by the experts. “Non-alcoholism,” “free choice,” “social service,” and “hygiene” were some other criterions mentioned only once by an expert.

Third, 70% of the experts mentioned that the present old-age institutions will not meet the need of the older adults at risk of being institutionalized. For this reason, the idea about developing some alternatives to the institutional care to help older adults to “age in place” is gaining importance. However, 53.3% of the experts did not provide any ideas about alternatives. Suggested alternatives were “retirement communities” by 13.3%, “home care” by 10%, “aging in place” by 10%, “day care” by 10% and “rental houses for like-minded” by 3.3%.
Finally, 73.3% of the experts focused on the inadequacy of existing social policies for the aged in Turkey, whereas 23.3% saw policies as adequate. That is why Turkey needs to develop viable and sustainable social policies for the elderly to fill this wide gap.

Macro Level Interpretation of Findings and Discussion

The sample for macro level analysis consisted of five key informants from aging-policy-making institutions in Turkey. One was female and four were males. Their ages ranged from 36-60 years-old. Their fields were economy, educational sciences, public administration, sociology, and medical science. Agencies represented the state, municipalities, universities, civilian associations, and international foundations in Turkey.

Loneliness was mentioned among the top three reasons for older adults’ applications by four key informants. Two informants stated health problems as a reason for application. Therefore, social factors were seen as more significant than medical factors behind an application to institutional care. Furthermore, all five put social factors as determinants of loneliness. That is to say, none of the five experts included health in their definitions of loneliness. They all defined loneliness as a state of “having no living relatives or friends.” In addition, the major themes focused on were institutional care, non-institutional care, social policy of aging, adequacy of present specialists in geriatrics, and the future of aging in Turkey.

First of all, institutional care was one of the major themes asked to the key informants. All key informants stated inadequacy as a problem of present old-age
institutions in Istanbul. They had different views on institutional care in these institutions. One of the key informants said:

The architectural designs of the present old-age institutions are not convenient. Therefore, one of the major problems is inappropriate architectural settings of the old-age institutions. Architectural design should be regulated with regard to the age groups to be served. Also, old-age institutions for independent elderly should differ from those who are disabled. Furthermore, for the older adults sharing many similarities it would be more appropriate if they were placed in the same room or nearby rooms. Finally, the hometown is a very important factor in Turkey. Therefore, the older adults originating from the same provinces should live together.

That is why architectural designs of old-age institutions need to be redesigned considering the age, similarities, and geographic backgrounds of the residents. In particular, the consideration of age is crucial. Another key informant stated similar arguments and added:

Since designs of old-age institutions are problematic, they should be redesigned by taking not only older adults but also all age categories into consideration. Therefore, the concept of “age friendly” should be developed for old-age institutions instead of the “aging friendly.”

In addition to the designs of old-age institutions, capacities were mentioned by several key informants as well. For example, one key informant said: “Due to the increase of the aging population and the decrease of extended families old-age institutions need to increase their capacities.”

Non-institutional care or alternatives of institutional care was another theme in the interviews done with key informants. The Life Homes Project of Istanbul Metropolitan Municipality was suggested by one of the key informants as an alternative. He said:

Istanbul Metropolitan Municipality has 25 life homes in Istanbul providing care to small groups of older adults in their neighborhood settings. In addition to
professional assistance by the municipality the residents of the neighborhoods provide support to the older adults in these homes.

Home care was another alternative suggested by other experts. For this reason, they mainly focused on the necessity of the regular visits of health care professionals to the independent homes of the aged.

Social policies of aging were also a major theme focused on by the informants, but none of the key informants specifically stated a social policy of aging. One of the experts argued:

We can say that by focusing on being a young society we came to ignore the process of aging and thereby the social policies of aging. Therefore, we are behind the Western world if we look at the legal regulations and social services for the aged in Turkey.

Adequacy of existing specialists in geriatrics was another theme elaborated upon. All informants focused on the inadequacy of existing specialists in geriatrics because of dominance of other medical specialists. Therefore, one of the informants mentioned that even in geriatric conferences most of the participants are internal disease specialists, family physicians, and neurologists. Also, gerontology was mentioned as a new field by 40% of key informants.

It seems that the lack of specialists in geriatrics is due to perceptions of the state toward the aging. For example, one of the key informants said:

I believe that there are not enough aging specialists even in the Ministry of Family and Social Policies because aging is still not seen as a major issue by this ministry. Therefore, we should not expect too much from the ministry as far as the education of aging specialists is concerned.

The last theme focused on was the future of aging in Turkey. Three informants were optimistic, one was pessimistic, and one was neutral about the future of aging in Turkey. For example, one of the key informants stated:
We are citizens of an aging country. The future of aging is bright here. It is obvious that the investment in aging services has increased in the recent years. However, we need better planning for an aging society. Therefore, model countries should be examined to learn from their experiences.

However, another informant did not see the future of aging as bright. She shared her concerns as follows: “Turkey will take its place in the list of aging countries by 2050. If it doesn’t have a better welfare system, it will face great difficulties in its progress.”

Summary

Three levels of analyses were assessed in this chapter with their findings and discussions. Descriptive statistics were employed to analyze and test hypotheses for answering the research question of the study: What makes loneliness a determining factor when applying for institutional care in Istanbul, Turkey? The qualitative method was also used to control the hypotheses of the study in a triangulation way. Thus, the predictors of loneliness were defined, examined, and controlled to elicit a general picture of applications to the institutional care in Istanbul, Turkey.
THE results of this study indicated that Turkey was not well prepared for the growing aging population and its problems. Findings showed that the socio-demographic structure of Turkey is changing dramatically. For example, the old-age dependency ratio almost doubled from 1950 to 2010 (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2010). In addition, although aging is a problem in both the urban and rural areas, the total increase in the urban population of Turkey brought about an increase in the urban aging population and its needs. In other words, there is an inverse ratio between the urban and rural population of Turkey after 1950 because the urban population increased 44.8%, whereas the rural population decreased at the same pace from 1950 to 2010. This increase brought about a set of problems and its quest for solutions. Old-age institutions emerged as one of the solutions to take care of the aged faced with social and medical problems in the cities. In this context, Istanbul was a useful example because more than one-third of old-age institutions and their residents are in Istanbul (Vehid, 2000). For this reason, the Deralaceze Old-Age Institution was selected for the micro level analysis of the study. Socio-demographic predictors such as old-age, the state of living alone, functional independence, low educational attainment and gender contribute to the loneliness leading to the institutionalization of the aged.
Loneliness and Old-Age

Although age seems to be a well-known predictor of loneliness, its cultural context helps one to understand loneliness in old age. Pinquart and Sörensen (2003) found that the intensity of loneliness is pronounced in adolescence and young adulthood (16-25 years of age). However, the results of this study showed that the risk factor of loneliness was not only high in the young people, but loneliness is also prevalent in old-age (65+) in Turkey. Almost four-fifths of the applicants of the Deralaceze Old-Age Institution were 65 and over and more than four-fifths of them indicated loneliness as a major reason for institutionalization.

Loneliness and Living Alone

Even though it is believed that loneliness is not directly related to living alone, it is still common amongst those living alone (Larsen, Zuzanek & Mannell, 1985). For instance, the findings of this study showed that more than four-fifths of those living alone put down loneliness as a major reason for admission to an old-age institution, whereas less than three-fifths of those not living alone mentioned loneliness as a major reason.

Loneliness and Functional Independence

According to Townsend and Tunstall (1973), loneliness is related to loss of mobility. That is because those who have difficulty in mobility are expected to be institutionalized. However, the findings of this study showed that the older adults who function independently are more liable to experience loneliness rather than the
dependent elderly. For example, in this study, more than four-fifths of the applicants who functioned independently indicated loneliness as a major reason for applying to old-age institutions, whereas less than one-fifths of them did not cite loneliness as a major reason on their application to institutional care. On the other hand, whereas two-fifths of dependent applicants did not mention loneliness as a major reason for their application to institutional care, almost three-fifths of them put down loneliness as a major reason for applying for institutional care.

Loneliness and Education

According to Pinquart and Sörensen (2003), greater educational attainment is related to lower level of loneliness. Education promotes social mobility and this leads in general to a higher social status. In this study, whereas more than four-fifths of the uneducated applicants put down loneliness as a major reason for their application to institutional care, the uneducated applicants were only three-fifths.

Interviews from experts in Istanbul and policy-makers in Turkey provided some further insights. Most informants indicated loneliness as a major reason for older adults’ applications to old-age institutions. In addition, more than three-fifths of informants discussed how the inadequacy of social policy implications is an important issue in Turkey. Last but not least, more than half of the informants neither had any ideas about alternatives to institutional care nor did they have any concise and coherent views on how to improve present institutional care.
Loneliness and Gender

The 1997 National Nursing Home Survey showed that almost three-fourths of nursing home residents over 65 were women in the U.S. (Gabrel & Jones, 2000). In Turkey, it is just the opposite, i.e., there are more males than females in nursing homes. Although the experts in Istanbul and policy makers in Turkey reported that on average most residents were females, this study, the Deralaceze case study (Esendemir & Ingman, 2011) and the Cahoz (2010) study showed that only about two-fifths of the applicants and residents of state-based old-age institutions were females. Although “feminization of aging” is also applicable to Turkey, the high proportion of male applicants and residents of some old-age institutions indicate this issue needs to be explored in more depth. However, in this study, although female applicants were less than male applicants, more than four-fifths of them indicated loneliness a major reason for applying to institutional care, whereas male applicants were only three-fifths. Therefore, this gender aspect of loneliness also needs to be examined more by different disciplines.

Discussion

In Turkey, institutional care has been one of the prevalent forms of care for many years, although the culture has stigmatized institutional care with some negative connotations (Aslan & Şişman, 2003). This stigma of institutional care has become slowly transforming as a result of some structural changes in the society. These include rapid urbanization, demographic transformation, and the breakdown of the extended family. All these changes have brought about some challenges.
Loneliness in old-age stands out as a serious problem. The results of this study provided helpful information about how loneliness leads individuals to apply for residential care. As Gibson (2000) states, loneliness is often seen as a characteristic of later life even though all age groups encounter it. As Tunstall (1966) mentions, people aged 65 and over are more likely to live alone rather than those under 65. For example, 13.1% of the aged 65 and over were living alone in 2010 and more than four-fifths of them were females in Turkey (TurkStat, 2010). I would argue that the main reason for this high number of lonely females as opposed to males alone is linked to the cultural values limiting remarriage for the women. However, although there are more lonely women than lonely men, this culture keeps lonely females at “home,” whereas this study allows lonely males to apply for institutional care.

Implications of the Study

Overall Implications

Findings of this study have considerable implications for future research on the determinants of applications to the old-age institutions in Istanbul, Turkey. First, since gerontology is quite a new field in Turkey, gerontology needs to focus on the institutional care as well as many other issues to reduce institutional admissions. Since admissions to institutional care have risen sharply, the focus of research has shifted to how to prevent inappropriate institutional care. Therefore, further research is needed to focus on non-institutional care in Turkey.

Second, this study suggests understanding the predictors of loneliness in terms of admission to old-age institutions would be helpful. These predictors are useful to
understand loneliness as a motive behind applications to old-age institutions. For this reason, this work suggests that further studies examining some other reasons for putting older adults in institutional settings would help policy makers in Turkey.

Finally, this study has a potential to influence a new aging social policy making the process to improve or go beyond present models of care vital. Further research may assist Turkey begin to develop the full continuum of services to meet the needs of independent and dependent elders in Turkey.

Policy Implications

This study focused on the population change that brought about a need for new social policies of the aging in Turkey. For instance, while older adults (65+) represented 3% of the population of Turkey in 1950, this segment of the population doubled in 2010 (see Table 3). Although this percentage is behind that of developed countries, Turkey still needs to design aging policies that will improve its total health care system (including caregiving and pension schemes) without bankrupting the government.

As Turkey ages, the need of different forms of care such as institutional care will rise. Although only 1% of the total population of Turkey was utilizing institutional care in 2000 (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2010; Vehid, 2000), an increase in the older adult population will increase the demand for institutional care and its alternatives. Since there is a rural and urban dimension of care in Turkey as well, rural and urban planning should initially focus upon a way to assist elders to “age in place.”
The population concentration in particular cities has brought about new issues to the cities as well. Istanbul is one of the paramount cities receiving immigrants including older adults from all parts of Turkey. For this reason, better city planning and improved aging policies for Istanbul need to be implemented for the city to be ready to deal with the flow of elderly migrants. Istanbul will be the laboratory for eldercare planning and policy developments.

Recommendations for Further Studies

This study’s results bring me to several suggestions for future research. First, since specialists of old-age institutions and representatives of social policy-making institutions hesitate to answer the questions related to their institutions in-depth, an open network of information needs to be built to learn from each other’s experiences.

Second, the results of this study pointed out that social reasons rather than medical reasons encouraged the institutionalization of the aged. In particular, loneliness has a significant effect on institutionalization. Consequently, further studies should develop a strategy to consider both the medical and the social reasons so as not to fall into any reductionism.

Third, the Turkish state is developing a strategy to take care of older adults either in their homes or in old-age institutions (Bahar, Bahar & Savas, 2009). As a result, other care alternatives were ignored. Therefore, further studies should focus on all the different alternatives to institutional care.

Finally, the results of this study emphasize the limitations of geriatric and gerontological education as well as the lack of a social multidisciplinary perspective in
educational programs. Further studies focusing on geriatrics and gerontology should integrate a multidisciplinary perspective to research education and service programs.

Limitations of the Study

There were some limitations related to this study. The first limitation was associated with the secondary data of the Deralaceze Old-Age Institution in the micro level analysis. Since the questions of the Social Inquiry Survey of Applicants to the Deralaceze Old-Age Institution were determining admission or not, it is most likely that applicants may not have provided accurate information to the institution. However, it is also possible that some information was not recorded by interviewers so as not to break any privacy rules of the applicants. Furthermore, the sample population for the micro level analysis was limited to 72 applicants due to bureaucratic difficulties in accessing a more representative group of applicants.

The second limitation concerned the reluctance of old-age institutions specialists and policy maker institutions representatives in answering the questions in-depth. This can be traced to the confidence levels of the respondents in discussing a new field, gerontology.

The selection of a particular region, Istanbul, was the last limitation of the study. Although the scope of the study was countrywide in the macro level analysis, Istanbul was the only city selected for the micro and meso levels of the study.
APPENDIX A

QUESTIONNAIRE FOR ALL PARTICIPANTS

(English translation provided by author.)
1. Müracaatçıң adı ve soyadı nedir?

2. Müracaatçıң T.C. Kimlik Numarası nedir?

3. Müracaatçıң doğum yılı ve doğum tarihi nedir?
   Kuruma başvuru yapan kimdir?

4. *Kendisi *Diğer(   )

5. Müracaatçı kaç yıldır İstanbul’da yaşamaktadır?
   *5 yıldan az *5-15 yıl arası *15-25 yıl arası *25 yıl ve üstü

6. Müracaatçı İstanbul ili dışında neredelerde yaşamıştır?
   *Hiç bir yerde *( )

7. Müracaatçıın medeni halı nedir ve şimdiye kadar yaptığı evlilik sayısı kaçtır?

8. Müracaatçıın kaç tane çocuğu vardır?

9. Müracaatçıın çocuklarını cinsiyetleri nelerdir?
   *Erkek( ) *Kız( )

10. Müracaatçıın çocukları hakkında genel bilgiler nelerdir?

<table>
<thead>
<tr>
<th>Çocuğunun Adı</th>
<th>Mesleği, Gelir Kaynakları ve Bağlı Olduğu SGK</th>
<th>Medeni Hali</th>
<th>Çocuğu Varsa Kaç Tane</th>
<th>Yaşadığı Yer Neresi</th>
<th>Ebeveynine Bakılamama Nedeni</th>
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http://www.darulaceze.gov.tr
e-mail: darulaceze@darulaceze.gov.tr
11. Müracaatçının anne ve babası hakkında genel bilgiler nelerdir?

<table>
<thead>
<tr>
<th>Anne-Babasının Adı ve Soyadı</th>
<th>Anne-Baba Hayatta mı</th>
<th>Mesleği, Gelir Kaynakları ve Bağlı Olduğu SGK</th>
<th>Nerede ve Kiminle Yaşadığı</th>
<th>Çocuğuna Bakama Nedeni</th>
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</table>

12. Müracaatçının kardeșleri var mı varsa kaç tane?

13. Müracaatçının kardeşleri hakkında genel bilgiler nelerdir?

<table>
<thead>
<tr>
<th>Kardeşinin Adı ve Soyadı</th>
<th>Mesleği, Gelir Kaynakları ve Bağlı Olduğu SGK</th>
<th>Medeni Hali</th>
<th>Çocuğ Varsa Kaç Tane</th>
<th>Yaşadığı Yer Neresi</th>
<th>Kardeşine Bakama Nedeni</th>
</tr>
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14. Müracaatçı şuanda nerede ve kiminle yaşamaktadır?

15. Müracaatçının eğitim durumu nedir?
   * Okur-Yazar Değil  * Sadece Okur-Yazar  * İlk veya Ortaokul Mezunu  * Lise Mezunu  
   * Üniversite Mezunu(*)
17. Müracaatçının şuan aktif olarak alışamamasının nedeni nedir?
*Fiziksel Gerileme *Fiziksel Özür *Diğer()

18. Müracaatçının sosyal güvencesi nedir?
*Yok *SSK *Bağkur *Emekli Sandığı *2022 Sayılı Yasa Güvenceli *Yeşilkart

19. Müracaatçının gelir kaynakları nelerdir?
*Yok *Çevrenin sağladığı maddi yardımlar *Emekli Maaşı *Yaşlılık/Özürlülük Maas

20. Müracaatçının üzerine kayıtlı mal varlığı var mı?
*Yok *Ev() *Arsa() *Araba()


22. Müracaatçının yaşadığı-kaldığı konut durumu nedir?
*Sokak *Depo/Bodrum *Kulübe *Gecekondu *Apartman Dairesi

23. Müracaatçının kaldığı yer kime ait?
*Kendisine *Kira(TL) *Yakınına() *Boş Alan

24. Müracaatçının kaldığı yerde yaşamını sürdürübilecek asgari düzeyde eşya var mı?

25. Müracaatçının yaşadığı yerin yaşamını sürdürübilecek düzeyde hijyenik mı?

26. Müracaatçi yaşıamları konusunda kendsine yardımcı olan yakını var mı?
*Akraba() *Komşu() *Yardımsever Kimse()

27. Müracaatçının sağlığı durumu ile ilgili genel bilgiler nelerdir?

<table>
<thead>
<tr>
<th>Buluşçi Hastalığı</th>
<th>Zihinsel Engeli</th>
<th>Fiziksel Engeli</th>
<th>Yatalak</th>
<th>Yarı Yeterli</th>
<th>Kendine Bakabilir Durumda</th>
</tr>
</thead>
</table>

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73
SOCIAL INQUIRY FORM

1. ID
2. What is the gender of the applicant?
   1. Male
   2. Female
3. What is the age group of the applicant?
   1. 46-64
   2. 65+
4. Who applied to institution?
   1. Applicant
   2. Somebody else
5. How long is the applicant living in Istanbul?
   1. Less than 5 years
   2. Between 5 and 15 years
   3. Between 15 and 25 years
   4. Over 25 years
6. What is the type of area in which the applicant grew up?
   1. Rural
   2. Urban
   3. Abroad
7. What is the marital status of the applicant
   1. Married
   2. Single
   3. Divorced
   4. Widowed
8. Does the applicant have any children?
   1. Yes
   2. No
   *If the answer is “Yes” please continue, if the answer is “No” please skip question 9 and question 10.
9. What is the gender of applicant’s children?
   1. Male
   2. Female
   3. Both
10. What is overall information about the applicant’s children?
  10.1. Job
      1. Unemployed
      2. Nonprofessional
      3. Professional
  10.2. Income sources
      1. None
      2. Social support

1 Each questionnaire was identified with a number from 1a to 72a.
2 Original Turkish questionnaire has a table for 7 children including the following categories.
3. Retirement pension
4. Old age payments

10.1.3. Social Security
1. None
2. Social Insurance (SSK)
3. Independent Institution Insurance (BAG-KUR)
4. Pension Fund
5. 2022 Numbered Law Insured
6. Green Card (Yesilkart)

10.1.4. Marital status
1. Married
2. Unmarried

10.1.5. Children
1. Yes
2. No

10.1.6. Living city

10.1.7. Reason for not taking care of his or her parents
1. Aging
2. Spouse rejection
3. Dependency
4. Living in different city
5. Illness
6. Working condition
7. Poverty
8. Indifference
9. Dead
10. Applicant’s rejection

11. Critical health condition of the applicant

11. What is overall information about the applicant’s parents?

11.1) What is overall information about the applicant’s father?

11.1.1. Dead or alive
1. Alive
2. Dead

11.1.2. Job
1. Unemployed
2. Nonprofessional
3. Professional

11.1.3. Income sources
1. None
2. Social support
3. Retirement pension
4. Old age payments

11.1.4. Social Security
1. None
2. Social Insurance (SSK)
3. Independent Institution Insurance (BAG-KUR)
4. Pension Fund
5. 2022 Numbered Law Insured
6. Green Card (Yesilkart)

11.1.5. Living city

11.1.6. Reason for not taking care of his or her children
1. Aging
2. Spouse rejection
3. Dependency
4. Living in different city
5. Illness
6. Working condition
7. Poverty
8. Indifference
9. Dead
10. Applicant’s rejection
11. Critical health condition of the applicant

11.2) What is overall information about the applicant’s mother?
11.2.1. Dead or alive
1. Alive
2. Dead

11.2.2. Job
1. Unemployed
2. Nonprofessional
3. Professional

11.2.3. Income sources
1. None
2. Social support
3. Retirement pension
4. Old age payments

11.2.4. Social Security
1. None
2. Social Insurance (SSK)
3. Independent Institution Insurance (BAG-KUR)
4. Pension Fund
5. 2022 Numbered Law Insured
6. Green Card (Yesilkart)

11.2.5. Living city

11.2.6. Reason for not taking care of his or her children
1. Aging
2. Spouse rejection
3. Dependency
4. Living in different city
5. Illness
6. Working condition
7. Poverty
8. Indifference
9. Dead
10. Applicant’s rejection
11. Critical health condition of the applicant

12. Does the applicant have any siblings?³
3. Yes
4. No

*If the answer is “Yes” please continue, if the answer is “No” please skip question 13.

13. What is overall information about the applicant’s siblings?

³ Original Turkish questionnaire has a table for 4 siblings including the following categories.
13.1. Job
1. Unemployed
2. Nonprofessional
3. Professional

13.2. Income sources
1. None
2. Social support
3. Retirement pension
4. Old age payments

13.3. Social Security
1. None
2. Social Insurance (SSK)
3. Independent Institution Insurance (BAG-KUR)
4. Pension Fund
5. 2022 Numbered Law Insured
6. Green Card (Yesilkart)

13.4. Marital status
1. Married
2. Unmarried

13.5. Children
1. Yes
2. No

13.6. Living city

13.7. Reason for not taking care of his or her parents
1. Aging
2. Spouse rejection
3. Dependency
4. Living in different city
5. Illness
6. Working condition
7. Poverty
8. Indifference
9. Dead
10. Applicant’s rejection
11. Critical health condition of the applicant
12. Applicant’s rejection
13. Critical health condition of the applicant

14. With whom to live?
1. Living alone
2. Not living alone

15. What is the educational level of the applicant?
1. Uneducated
2. Educated

16. What was the job of the applicant?
1. Unemployed
2. Professional
3. Nonprofessional

17. What is the reason for not involving in this job anymore?
1. Physical decline
2. Disability
3. Physical injury
4. Illness
5. Temporariness of job

18. What is the name of Social Security of the applicant?
   1. None
   2. Social Insurance (SSK)
   3. Independent Institution Insurance (Bag-Kur)
   4. Pension Fund
   5. 2022 Numbered Law Insured
   6. Green Card Insured (Yesilkart)

19. What are the sources of income of the applicant?
   1. None
   2. Social support
   3. Retirement pension
   4. Old-age payments

20. Does the applicant have an authorized property?
   1. None
   2. House
   3. Land
   4. Vehicle

21. Who is inheritor of the applicant?
   1. None
   2. Close relative
   3. Somebody else

22. What is the type of place in which the applicant is living?
   1. Homeless
   2. Housed

23. Who is the owner of the place in which the applicant is staying?
   1. Applicant
   2. Rental
   3. Close relative
   4. Free place
   5. Others

24. Is there basic furniture for living in this place?
   1. Yes
   2. No

25. Is the place where the applicant is living hygienic at a level of staying for a long time?
   1. Yes
   2. No

26. Who is the supporter of the applicant during his or her later years?
   1. Relatives
   2. Neighbors
   3. Philanthropists
   4. Nobody

27. What is the overall information about the health status of the applicant?
   27.1. Contagious disease
       1. Yes
       2. No

   27.2. Mentally disabled
       1. Yes
       2. No

   27.3. Physically disabled
1. Yes
2. No
27.4. Bedridden
   1. Yes
   2. No
27.5. Semi-dependent
   1. Yes
   2. No
27.6. Independent
   1. Yes
   2. No

28. Does the applicant have any bad habit?
   1. Yes
   2. No

29. What is the view of the applicant about his or her personal characteristics?

30. Did the applicant stay in any other institution before his or her application?

31. What is the main reason for requesting to be institutionalized?
   31.1. Loneliness
   1. Yes
   2. No
   31.2. Medical reasons
   1. Yes
   2. No
APPENDIX B

QUESTIONNAIRE FOR KEY INFORMANTS

(English translation provided by author.)

Şerif Esenemir
Doktora Öğrencisi
Kuzey Texas Üniversitesi
Uygulamalı Gerontoloji Doktora Programı

Kurum: __________________________  Görüşme Günü: .../.../2012

Lütfen aşağıdaki soruları cevaplayınız.

S 1) Kaç yaşındanz?

S 2) Cinsiyetiniz nedir?
   1) Erkek
   2) Kadın

S 3) Şu anki medeni durumunuz nedir?
   1) Evli
   2) Ayrılmış
   3) Boşanmış
   4) Dul
   5) Hiç Evlenmemiş

S 4) Temel uzmanlık alanınız nedir?

S 5) Çalışma alanınızdaki konumunuz nedir?

S 6) Yaşlıların kurumsal bakıma başvurularını dikkate aldığımızda ilk üç sıraya ne zaman konulması gerektiği konusunda ne düşünürünüzü?
S 7) Yaşlı kurumlarında kalan erkeklerin yüzdesi nedir?

S 8) Kurumsal bakıma elverişli olmanın belirgin kriterleri nelerdir?

S 9) Halihazırda yapıların kurumsal bakım riski alta indikleri yaşlıların ihtiyaçlarını karşılayacağını düşünüyor musunuz?
   1) Evet
   2) Hayır

S 10) Yaşlıların bulundukları ortamlarda yaşlanmalarına yardımcı olmak için kurumsal bakım alternatiflerin geliştirilmesi konusunda ne düşünüyorsunuz?

S 11) Yaşlanan Türkiye’de sosyal politika uygulamaları yerelliğinin geleceği konusunda ne düşünüyorsunuz?

S 12) Yalnızlık yaşlı kurumlarına başvuruların ana sebeplerinden biri midir?
   1) Evet
   2) Hayır

S 13) Yaşlılarda yalnızlığı nasıl tanımlayabiliriz?

S 14) Aşağıdaki faktörlerden hangisi daha çok yalnızlığı belirler?
   1) Sosyal Faktörler
   2) Tibbi Faktörler

S 15) Yaşlıları yalnızlığa iten en büyük sebep nedir?

Cevaplarınızı için teşekkür ederiz.
This questionnaire form is a part of my study entitled “Determinants of the Applications to the Institutional Care in Turkey: Darulaceze Example” run for doctor of philosophy in Applied Gerontology Program at University of North Texas. Since your answers to the following questions are going to be used for an academic purpose, they are going to be kept confidentially. I strongly believe that your answer to each question is going to enrich this study and thereby answering of all questions has a great importance. Thanks you for your contribution beforehand.

Serif Esendemir
PhD Candidate
University of North Texas
Applied Gerontology Program

Institution: 

Interview Date: /.//2012

Please answer the questions below.

Q 1) How old are you?

Q 2) What is your gender?
   1) Male
   2) Female

Q 3) What is your current marital status?
   1) Married
   2) Separated
   3) Divorced
   4) Widowed
   5) Never Married

Q 4) What is your main profession?

Q 5) What is your position in your field of work?

Q 6) What do you think one should put as top three main reasons for older adults’ applications to the institutional care?
Q 7) What is the percentage of male population in old-age institutions?

Q 8) What are distinctive criteria of the eligibility for the institutional care?

Q 9) Do you think the present institutions will meet the need of the older adults having a risk of being institutionalized?
   1) Yes
   2) No

Q 10) What is your idea about developing some alternatives to the institutional care to help older adults to “age in place”?

Q 11) What do you think about the future of the social policy implications adequacy in aging Turkey?

Q 12) Is loneliness a major cause of applications to the old-age institutions?
   1) Yes
   2) No

Q 13) How can we define loneliness in old age?

Q 14) Which of the following factors mostly define loneliness?
   1) Social factors
   2) Medical factors

Q 15) What is the major reason for loneliness in old age?

Thank you for completing this questionnaire form.
APPENDIX C

IRB APPROVAL
June 13, 2012

Dr. Stan Ingman
Student Investigator: Serif Esendemir
Department of Sociology/Applied Gerontology
University of North Texas
RE: Human Subjects Application No. 12-162

Dear Dr. Ingman:

In accordance with 45 CFR Part 46 Section 46.101, your study titled “Determinants of the Applications to the Institutional Car in Turkey: Dordulacae Example” has been determined to qualify for an exemption from further review by the UNT Institutional Review Board (IRB).

No changes may be made to your study’s procedures or forms without prior written approval from the UNT IRB. Please contact Jordan Harmon, Research Compliance Analyst, ext. 3940, if you wish to make any such changes. Any changes to your procedures or forms after 3 years will require completion of a new IRB application.

We wish you success with your study.

Sincerely,

[Signature]

Patricia L. Kaninski, Ph.D.
Associate Professor
Chair, Institutional Review Board
APPENDIX D

PERMISSION LETTER FOR USING DATA

(English translation provided by author.)
MÜDÜRIYET MAKAMINA

İlgili : 24/05/2012 tarih ve sayılı yazı

İlgili yazda Kuzey Teksas Üniversitesi Uygulama Gerontoloji (University of North Texas Applied Gerontology) Doktora öğrencisi Şerif ESENDEMİR Kurumumuza başvuran yaşılardan sosyo-demografik özelliklerini belirlemek amacıyla; son bir yıl içinde başvuran yaşılardan bilgileri hakkında arşiv taraması yaparak veri toplamak istemekte ayrıca, toplanan hazır verilerin değerlendirilmesi ve analiz edilmesi sonucunda bilimsel bir çalışma yapmak istemektedir.

İlgilinin talebi incelemiştir, çalısmının bir örnekünün Müdürlüğüme gönderilmesi şartıyla uygun olacağını kanıtladı. varlımıştır.

Makamızda uygun görülmesi halinde onayınıza arz ederim.

Ufuk YURTSEVER
Başhekimb

OLUR
2012

Yağmur BULUT
İstanbul Vali Yardımcısı
Darulaceze Müessesesi Müdürü

Halil Rifa Taşı Mahallesi Darulaceze Caddeyi No: 51 Okmeydanı ŞİŞLİ/İSTANBUL
İntihat: GÜLAY BULDUK Telefon: 0212 220 10 20 Fax: 212 222 9876-221 0303-210 4430
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1/1
REPUBLIC OF TURKEY
THE DIRECTORATE OF DARULACEZE OLD-AGE INSTITUTION

Number: B.17.1.DCZ.0.02-622.01-79  05/29/2012
Subject: Serif Esendemir

TO DIRECTORATE OFFICE

Related to: 05/24/2012 dated and numbered letter

In the related letter, Serif Esendemir, a PhD student of Applied Gerontology Program at University of North Texas, wants to make an inquiry associated to social and demographic statuses of the applicants of our institution in a year for an academic purpose. Also, he wants to accomplish his study as a result of evaluating and analyzing of the given secondary data.

The request of the related person was evaluated and a consensus was reached on the condition of having a copy of his academic work.

I submit for your approval if you deem it necessary.

Ufuk YURTSEVER, MD
Chief Physician

OKAY
05/29/2012

Yağıp BULUT
Vice Governor of Istanbul
Manager of Darulaceze Old-Age Institution
APPENDIX E

PETITION LETTER FOR USING DATA

(English translation provided by author.)
T.C.
DARULACEZE MÜESSESE MÜDÜRLÜĞÜNE

Kuzey Texas Üniversitesi Uygulamalı Gerontoloji Doktora Programı (University of North Texas Applied Gerontology Ph.D Program) öğrencisiyim.

Darulaceze başıran insanların sosyo-demografik özellikleri belirlemek amacıyla kurumunuz'a son 1 yıl içinde başıran insanların hakkında arşiv taraması yaparak bilimsel bir çalışma yapmak isteriyorum.

Üniversitenin Araştırma ve Ekonomik Kalkınma biriminin Kurumsal İnceleme Kurulu'nun onayı için "toplanan hızlı verilerin değerlendirilmesi ve analiz edilmesi" ihasinin kurumuz tarafindan belirlenmesi gerekledir.

Gerekliizinin verilmesini arz ederim.

24.05.2012
Şerif Eserdemir
Sosyolog

29.05.2012
GENEL EVRAK
SAYT-UDU, TARİH: 29/05/2012
EK1:

Gereksiz sa ederim
29/05/2012
Müdür Yardımcısı
TO REPUBLIC OF TURKEY
THE DIRECTORATE OF DARULACEZE OLD-AGE INSTITUTION

I am PhD student of Applied Gerontology Program at University of North Texas. I would like to make an inquiry related to social and demographic statuses of the applicants of your institution in a year for an academic purpose.

It is required to add “evaluation and analysis of the given secondary data” to your permission letter for the approval of the Research Economic Development Institutional Review Board of the university.

I submit for your required approval or permission.

05/24/2012
Serif Esenemir
Sociologist
REFERENCES


