The Quality of Service in Nursing Homes

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Purpose

• “A non-measurable thing can not be improved”

• In order to present a better service to elderly, we need:
  – to determine their expectations
  – to measure the already given QoS

• This study was performed to measure these two items.
What is a “service”? 

• Physiocrats: Activities other than farming 
• Adam Smith: Activities resulting in intangible products 
• Modern approaches define “service” by its properties: 
  – Intangibility: Mostly can not be handled 
  – Inseparability: Production & consumption together 
  – Heterogenity: It may differ by time, server, etc. 
  – Perishability: Can not be produced and stored in advance
Quality of Service

- Quality: Conformance to specifications; Degree to meet the expectations
- To measure the QoS is more difficult than that of goods
- The main factor in QoS is the perceptions of the consumer (service-taker)
- In order to make in-tangible services measurable, understandable and improvable, various models were developed
Servqual (Service+Quality) Model
(by Parasuraman, Berry, & Zeithaml)

- It was tested and applied in more than 60 PhD thesis and hundreds of articles.
- It has also been used in service quality measurement of many private & non-profit organizations for more than 20 years.
- Since it covers the fundamental service quality dimensions, it can be applied in almost all sectors.
- The method has 2 main usable results:
  - at what level, the expected service is being met;
  - the importance percentages of quality dimensions.
Servqual (Service + Quality) Model

Service Quality Dimensions

1. Tangibles
   appearance and usability of physical facilities, equipment, personnel, etc

2. Reliability
   ability to perform promised services accurately

3. Responsiveness
   willingness to help customers and provide prompt service

4. Assurance
   knowledge and courtesy of employees and their ability to inspire trust and confidence

5. Empathy
   caring, the individualized attention provided to customers

Mouth-to-mouth communication
Personal needs
Past experiences
Company’s external communications to customers

Expected Service
Service Quality Gap
Perceived Service
Perceived Service Quality

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Perceived Service (PS)  

Expected Service (ES)  

**IDEAL QUALITY**  
(More than expected is meted)

**SATISFYING QUALITY**  
(Expected service is meted)

**LOW QUALITY**  
(Expectations are not meted)
Servqual

• The respondents first distribute 100 points to 5 dimensions. This shows us the importance of each quality dimension.

• 22 paired statements in 5 dimensions
  – Elders first give points to questions for the ideal case (expected);
  – Then, do the same for the service already presented to them (perceived)

• Responses are entered in a 5-point Likert-type scale, (strongly agree-to-strongly disagree)

• Sample statements:
  – E: “The care-givers of a good rest home should be polite”
  – P: “The care-givers of X-Nursing Home are polite”
Servqual Quality Score

- The quality score is calculated by subtracting the Expectation score from the Perception score (for each dimension).
- A negative score indicates that the service quality is poor/inadequate. (Actual service is less than the expected level.)
- Not only the sign of the score, but also the absolute value of it is important!
- The average score of five dimensions gives us the quality score of the institution.
- If the importance percentages of each dimension is taken into account, then the “Weighted average service quality score” is found.
Servqual Application

i. The scale was adopted to elder care services.

ii. The scale was statistically valid and reliable.

iii. “Verdana” type font was used in the forms.

iv. The selected rest/nursing homes were operating under public authority (the central government).
Where was the survey done?
Survey was done in 16 of 81 provinces in Turkey, (~50% population coverage;)
38 of 289 of rest/nursing homes;
1086 resident attended to survey,
(~5% coverage of rest home residents of Turkey;)
(~27% coverage of selected rest home residents;)
# Demographic data

<table>
<thead>
<tr>
<th>Category</th>
<th>frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60-69</td>
<td>465</td>
<td>42,8</td>
</tr>
<tr>
<td>70-79</td>
<td>404</td>
<td>37,2</td>
</tr>
<tr>
<td>80-89</td>
<td>213</td>
<td>19,6</td>
</tr>
<tr>
<td>90+</td>
<td>4</td>
<td>0,4</td>
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<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>467</td>
<td>43,0</td>
</tr>
<tr>
<td>Male</td>
<td>619</td>
<td>57,0</td>
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<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>194</td>
<td>17,9</td>
</tr>
<tr>
<td>Single</td>
<td>166</td>
<td>15,2</td>
</tr>
<tr>
<td>Widowed</td>
<td>726</td>
<td>66,9</td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Il-literate</td>
<td>64</td>
<td>5,9</td>
</tr>
<tr>
<td>Literate</td>
<td>321</td>
<td>29,6</td>
</tr>
<tr>
<td>Primary school</td>
<td>423</td>
<td>39,0</td>
</tr>
<tr>
<td>Secondary school / college</td>
<td>56</td>
<td>5,2</td>
</tr>
<tr>
<td>University</td>
<td>222</td>
<td>20,4</td>
</tr>
<tr>
<td><strong># of Children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>299</td>
<td>27,5</td>
</tr>
<tr>
<td>1-2</td>
<td>580</td>
<td>53,4</td>
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<tr>
<td>3-4</td>
<td>155</td>
<td>14,3</td>
</tr>
<tr>
<td>4+</td>
<td>52</td>
<td>4,8</td>
</tr>
</tbody>
</table>
Striking Results...

- The expectations of the 90+ age group is lower than others;
- The expectations of widowed residents are higher than the singles;
- As the education level increases, the residents request for a better service quality (as planned, on-time and regularly);
- The results did not show a meaningful difference according to the income level variable and regional difference;
Striking Results...

- The expectations of the residents who have 4+ children is lower; esp. their expectation about “the staff should be polite and respectful” item is lower than others;
- The male residents’ expectation about: “the staff should be polite and respectful” item is higher than females.
Results...

The importance level of quality dimensions:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Average</th>
<th>St.dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>1086</td>
<td>0.30</td>
<td>0.40</td>
<td>0.32</td>
<td>0.043</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>1086</td>
<td>0.20</td>
<td>0.30</td>
<td>0.25</td>
<td>0.032</td>
</tr>
<tr>
<td>Assurance</td>
<td>1086</td>
<td>0.15</td>
<td>0.20</td>
<td>0.17</td>
<td>0.025</td>
</tr>
<tr>
<td>Tangibles</td>
<td>1086</td>
<td>0.10</td>
<td>0.15</td>
<td>0.13</td>
<td>0.025</td>
</tr>
<tr>
<td>Empathy</td>
<td>1086</td>
<td>0.10</td>
<td>0.15</td>
<td>0.13</td>
<td>0.027</td>
</tr>
</tbody>
</table>
### SERVQUAL scores:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>-0.88</td>
</tr>
<tr>
<td>Assurance</td>
<td>-1.03</td>
</tr>
<tr>
<td>Tangibles</td>
<td>-1.08</td>
</tr>
<tr>
<td>Empathy</td>
<td>-1.12</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>-1.17</td>
</tr>
<tr>
<td>Average</td>
<td>-1.06</td>
</tr>
<tr>
<td>Average (Weighted)</td>
<td>-1.03</td>
</tr>
</tbody>
</table>

The highest score in reliability dimension (ability to perform promised services accurately) expectations were met more-

Responsiveness dimension (willingness to help residents and provide service) has got the worst score,

The -ve quality score indicates that the rest-homes did not meet the expectations of residents

Since the most important dimension (reliability) has got the best score, the weighted average score is better than the arithmetic average.
Concluding thoughts...

Since the service quality is a team-activity which depends on collaboration, which contains common-values and which can be realized with the contribution of all group members; the results of this study can be used in the planning of in-service trainings to remove the stated inadequacies.
Future Plans...

• We hope to be able to continue replicating this study in -at least- another country, to see if there are any cultural differences between the expectations & perceptions between elders of different cultures.

• We would like to develop another study in nursing homes, to look for the relation between the “burnout syndrome of the care workers” and the “service quality score”. 
• Your questions & comments?

References available upon request:

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