Neighbourhood satisfaction among diverse groups of inhabitants: Findings from Famagusta Area Study

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Abstract
This study examines relationships between neighbourhood satisfaction and selected measures of perceived neighbourhood quality among two different groups of inhabitants, local residents and international students, residing in Famagusta, North Cyprus. Considering the mixed demographic composition of Famagusta and the lack of well established norms of service and maintenance we postulated that satisfaction with the neighbourhood to vary along with perceived quality of the attributes of the city. The neighbourhood attributes considered were attractiveness, appropriateness as a place to live, availability of things to do, accessibility, environmental maintenance, traffic, noise, and sense of neighbourhood as home. A probability sample of 302 local residents and 96 international students from different households were interviewed using a standardized questionnaire. The results of the analysis indicate significant differences among local people and the international students in environmental factors contributing to neighbourhood satisfaction. Although both groups were satisfied with their neighbourhoods, regression analyses demonstrated that appropriateness of the neighbourhood as a place to live and sense of neighbourhood as home were most important for local residents while attractiveness and environmental maintenance were most important for the students.

Introduction
During the last few decades, measuring the perceived quality of residential environments has been a topic of interest in housing studies. The Detroit Area Study (DAS), which was organized by scholars at the University of Michigan in the early 1950s and carried out annually, has examined residential environments most recently in 2001 within the context of “quality of community life”. A series of similar studies examining residential environments have been carried out or are currently underway in several other locations including Istanbul (Turkey), Brisbane (Australia), Brabant (Netherlands), Linz-Salzburg (Austria) and Famagusta (Northern Cyprus). As part of the latter, the Famagusta Area Study (FAS)1 investigated neighbourhood satisfaction and the environmental attributes that contribute to it among local residents and temporary residents of the city, the students.
The site of the present research is a small but rapidly growing city in the island of Cyprus. A brief account of this site is essential to have a better grasp of the research and its results. The city of Famagusta (Gazimağusa in Turkish), the second largest city of the Turkish Republic of Northern Cyprus with a historic core and an harbour, has a population of 35,381 (TRNC 2006 Population & Dwelling Census). The city was an important trade and tourism centre and served as a regional centre before the division of the island in 1974. Today, despite some restrictions on its capacity owing to the new circumstances of the island, the harbour still plays an important part in the trade activities of the northern region. In addition to the port, the Eastern Mediterranean University (EMU), with a student population of nearly 14,000 from 67 different countries (in addition to the de-facto population), has been a major factor in the overall economic and social structure of the city in the last three decades. Today, Famagusta accommodates a wide diversity of residents, including the local Turkish-Cypriots, the immigrants of 1974 coming from the southern part of the island and different parts of Turkey, and university staff and students from many countries (Oktay 2005) (Fig. 1).

The university plays a significant role in the socio-economic life of the city. The Higher Institute of Technology, founded in 1979, transformed into a pioneering university (EMU) has also led to an uncontrollably hasty urban development in the form of multi-storey housing developments, inappropriate additions to existing houses, and incompatible land-use developments scattered throughout all districts and invariably lacking appropriate environmental qualities. The city has also faced a problem of ‘urban sprawl’ in the last 6-7 years, owing to the now ill-fated UN Peace Plan of 2002 commonly known as the ‘Annan Plan’. The said plan had generated an atmosphere of genuine confidence in the estate market that resulted in the surge in construction activities called the ‘construction boom’ in the whole of the island (Oktay & Conteh, 2007). What followed from these events in the absence of a working master plan was a scattered urban pattern to provide ‘homes’ or ‘second homes’ for the local people, speculators and the expatriate Europeans who prefer the mild winter to the cold and wet winter of their countries, and the loss of invaluable agricultural environment and urban character which revealed itself through compartmentalization by mahalles (quarters). The mahalle was a geographical entity as well as a homogeneous community that was closely knit, forming the basic unit of society (Oktay 2002; Oktay & Pontikis 2005).

The decaying character of the Walled City is the other important problem for the city. On the other hand, the uncertainty associated with the Varosha district (which used to be a prosperous tourism resort, but was evacuated by its Greek inhabitants in line with the UN demarcation decision) has
affected the urban development trends of the city of Famagusta as well, preventing the city from growing towards the abandoned area to the south (Okty 2005) (Fig. 2).

Further, the lack of a contemporary public transportation in the city is thought to be a serious problem as the existing bus service serves a very limited area and encourages the use of automobile.

With these characteristics, the city of Famagusta suggests itself as a place for environmental research in the relationship between the person and the place, and the differences in this relationship.

**Literature review**

In the person-environment relationship, Francescato (1998, 484) stated that there is often a need to assess how well a residential environment meets the requirements, goals, and expectations of its inhabitants – that is how satisfied they are with it. In general terms, any such assessment may be viewed as an indicator of residential satisfaction. Residential satisfaction indicates people’s responses to the physical, social, and organizational aspects of the environment in which they live.

Building on the working of Campbell et al. (1976), Marans and his colleagues explored the issue of quality of housing environments from a conceptual and empirical perspective (Marans, Rodgers, 1975; Lee, Marans, 1980; Connerly, Marans, 1988). It was asserted that quality of a place or geographic setting (city, neighbourhood, dwelling) was a subjective phenomenon, and that each person occupying that setting may differ in his/her views about it. Furthermore, those views would reflect their perceptions and assessments of a number of setting attributes that could be influenced by certain characteristics of the occupant, and his or her needs and past experiences (Marans, 2005).

Perceptions and feelings about a particular environment contribute to sense of neighbourhood as well (Guiliani 2003; Riley, 1992, 13). As highlighted by Pacione (2005, 374), “even in a globalised world, people’s daily lives are embedded and experienced in particular places”. However, according to Altman & Low (1992), it “involves an interplay of affect and emotions, knowledge and beliefs, and behaviours and actions in reference to a place”.

Place attachment is also assumed to be beneficial for the neighbourhood since it facilitates involvement in local affairs, and therefore serves both the individual and larger community. Studies demonstrated that place attachment contributes to civic activity on behalf of one's place of residence, in the form of sustainable behavior (Uzzell, Pol, and Badenas, 2002). As such place attachment serves both the individual and larger community.

A recent study carried out by Hernandez and his colleagues (Hernandez, Hidalgo, Salazar-Laplace, & Hess, 2007) showed that place attachment (and place identity as the sense of belonging to a place) can be distinguished for the natives and non-natives. In this context, it was confirmed that natives establish more intense links, whether of attachment and identity, with the island, the city and finally with the neighbourhood they live. From this point, on the basis of the duration of residence and the need for long-term experiences with places, length of residence appears as a potential predictor of place attachment that has received most attention as advocated in some studies (Guiliani, 2003; Riger & Laurakas 1981; Taylor, Gottfredson & Brower 1984). However, it still is possible to find some contradictory results like Bahi-Fleury’s Paris based PhD study (Bahi-Fleury, 1996, in Hernandez et al 2001, 318) indicating no effects on attachment to the neighbourhood due to length of stay, or the study of Harris, Brown and Werner (1996) which concluded that not all forms of attachment demand a long-term interaction with place. Indeed, this variable can be mediated by others such as home ownership (or otherwise) and housing tenure.

In line with these, it is possible to distinguish satisfaction from attachment in terms of the degree to which each taps the cognitive and effective quality of life components. Because satisfaction is thought to be linked to the evaluation of specific neighbourhood attributes, relative to one’s expectations, it is therefore expected that it will primarily tap the cognitive component of well-being. On the contrary, it is expected that attachment to the neighbourhood will be more closely related to the affective
component of perceived neighbourhood quality. As such, one may feel satisfied with the neighbourhood but still feel little attachment if she or he has not developed any ties to the place or its inhabitants. Or, one can be deeply attached to the neighbourhood, yet very dissatisfied with it (Connerly and Marans, 1985).

In this study, considering the demographic composition of the city of Famagusta and the lack of well established norms of service and maintenance we would expect satisfaction with the neighbourhood to vary along with perceived quality of the attributes of the city. That is, we expect satisfaction among local residents to be higher than that of students because the former have lived in the city longer and have stronger ties to their neighbourhoods.

Method

The Sample

In this study a multistage sampling procedure was employed. First, the total number of housing units (13,455) within the the city limits was determined by counting the parcel plots. Eight neighbourhoods of the city were identified and housing units with each was determined. Using a systematic sampling procedure, a sample of housing units within each neighbourhood was selected. A total of 540 units was selected. Each household was contacted (in fall 2007) and 398 volunteered to participate, resulting in a 75 percent response rate. Three-hundred two of them were local people and the remaining 96 were international students (Fig. 3).
Figure 3. The map of Famagusta showing the distribution of households included in FAS.

The interview schedule

The Famagusta Area Study, titled “Measuring the Quality of Community Life in Famagusta” is a part of an International Research Program on Quality of Life coordinated by the University of Michigan, USA. The interview schedule included questions that tap at people’s feelings and behaviors in reference to their households and their attributes. As the city population is of international character, the survey booklets were prepared both in Turkish and English.

The survey framework for Famagusta Area Study (FAS) was closely related to that of the Detroit Area Study (DAS) 2001 model. However, as quality of life considerations are not universal and are likely to vary from one city to another (Mazumdar, 2003), local cultural relativity of certain ideas were highlighted through modifications in the survey questions. In this study only a portion of the questions were employed. In addition to demographic variables, the schedule had questions on residential...
history, public services and transportation, schools, parks, recreation and children’s play environments, shopping, community participation and involvement, neighbourhood and neighbouring, housing and residential mobility, safety, health and health care facilities, and people’s perceptions of quality of urban life.

**Measures.** In this study, the general neighbourhood satisfaction was measured by a single question. The respondents indicated their degree of endorsement for the question

"How satisfied or dissatisfied overall are you with this neighbourhood?"

using a five-point response scale that ran from “very dissatisfied” (1) to “very satisfied” (5).

The respondents also indicated their level of satisfaction with some neighbourhood attributes. These were attractiveness, appropriateness as a place to live, availability of things to do, accessibility, environmental maintenance, density of traffic, and level of noise. The questions on neighbourhood attributes were answered by either one of the three response categories; “satisfied”, “neither satisfied nor dissatisfied”, and “dissatisfied”.

**Results**

The underlying model of the present study was that overall neighbourhood satisfaction was determined by a set of neighbourhood quality measures (namely attractiveness, appropriateness as a place to live, availability of things to do, accessibility, environmental maintenance, density of traffic, and level of noise), and sense of neighbourhood as home, and that local people and temporary residents of the town, international students, would respond differently to different aspects of the environment.

The relationships between neighbourhood satisfaction and neighbourhood quality measures were determined by simple correlations. Figure 4 shows the coefficients obtained. As seen on the Figure, neighbourhood satisfaction correlated significantly with all of the quality measures. The highest correlation (.57) was obtained between satisfaction and appropriateness as a place to live in, and the lowest was with density of traffic (r = .11, p < .05). Satisfaction also related to sense of neighbourhood as home (r = .42, p < .000).

In order to determine the importance of the attribute variables and the other two on neighbourhood satisfaction multiple regression analyses were conducted. In these analyses, satisfaction was the dependent variable and the others were the independent variables/predictors. The initial stepwise regression resulted only significant effects for a) appropriateness as a place to live, b) environmental maintenance, c) level of noise, and finally d) sense of neighbourhood as home. Excluding the other independent variables the regression analysis was repeated with the four independent variables with significant contribution to confirm the initial findings. These variables accounted 37.7 percent of the variance in the dependent variable (R = .614). Table 1 shows the standardized beta coefficients and the t values associated with those variables. As shown in Table 2, three of the seven quality measures, neighbourhood appropriateness as a place to live, environmental maintenance, and traffic density, contributed significantly to neighbourhood satisfaction. The largest contribution came from appropriateness of the neighbourhood as a place to live. Sense of neighbourhood as home also contributed to satisfaction.
Figure 4. The conceptual model showing correlation coefficients between neighbourhood satisfaction and neighbourhood quality measures.

Significances are for two-tailed test.
* alpha .05, ** alpha .01, ***alpha .001

Table 1. Results of regression analysis on the overall satisfaction with environment

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standardized Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriateness as a place to live</td>
<td>.454</td>
<td>10.01</td>
<td>.000</td>
</tr>
<tr>
<td>Environmental maintenance</td>
<td>.116</td>
<td>2.62</td>
<td>.01</td>
</tr>
<tr>
<td>Traffic density*</td>
<td>.115</td>
<td>2.80</td>
<td>.005</td>
</tr>
<tr>
<td>Sense of neigh. as home</td>
<td>.195</td>
<td>4.40</td>
<td>.000</td>
</tr>
</tbody>
</table>

The two groups were quite satisfied with their neighbourhoods, the means being 3.58 for the local people, and 3.43 for the students. When they were compared on the satisfaction score predicted by employing the equation obtained from the regression analysis, the two groups were found to be similar ($t_{(376)} = 1.51$, $p > .05$), the predicted means being 4.53 for the local group and 4.40 for the students.

Although the two groups of respondents did not differ on neighbourhood satisfaction, the regression analyses described above were repeated for these groups seperately in order to check whether the model suggested in Figure 1 was applicable for both. The results indicated significant differences between the two groups in respect to variables determining the overall neighbourhood satisfaction. Table 2 and Table 3 summarize the contributing variables together with their coefficients and the t values. For local people, as Table 2 shows, satisfaction was determined by appropriateness of the
place to live in, level of noise, and sense of neighbourhood as home, the three accounting 39.7 (% = .63) percent of the variance. Appropriateness of the neighbourhood as a place to live in had the strongest effect on the satisfaction.

Table 2. Results of regression analysis for the local people

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standardized Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriateness as a place to live</td>
<td>.460</td>
<td>10.00</td>
<td>.000</td>
</tr>
<tr>
<td>Level of noise</td>
<td>.135</td>
<td>2.85</td>
<td>.005</td>
</tr>
<tr>
<td>Sense of neighbourhood as home</td>
<td>.235</td>
<td>4.68</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 3 gives the results of the final regression analysis for international students. As seen on the table, a different set of neighbourhood quality measures were important for this group. Attractiveness, accessibility, and environmental maintenance were the determiners of neighbourhood satisfaction. This set of three variables accounted for 33.3 percent of the variance (multiple R = .577) in satisfaction. Attractiveness had the strongest effect on satisfaction, followed by accessibility.

Table 3. Results of regression analysis for students

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standardized Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractiveness</td>
<td>.415</td>
<td>4.84</td>
<td>.000</td>
</tr>
<tr>
<td>Accessibility</td>
<td>.266</td>
<td>3.10</td>
<td>.003</td>
</tr>
<tr>
<td>Environmental maintenance</td>
<td>.207</td>
<td>2.44</td>
<td>.017</td>
</tr>
</tbody>
</table>

To this point, the present data suggest that the same explanatory variables of neighbourhood satisfaction can not be applicable for local people and university students who reside in the same town but on temporary bases. In other words, perceptions and evaluations of neighbourhood environments differ for the two groups.

In order to determine whether ownership status of the resident (housing tenure) relates to satisfaction or not, the data were subjected to a chi-square test excluding those residents who were neither owner nor tenant. Those who neither owned nor rented were people living with parents or children or living in university housing. The results of this analysis indicated that these two terms were not independent ($\chi^2 = 25.55$, df = 4, $p < .001$). Table 4 shows that 72.9 percent of the owners were satisfied/very satisfied with their neighbourhoods whereas the percentage of satisfied/very satisfied tenants was 49.4%. It is interesting to note that about one third of the tenants (37.0%) refrained from indicating satisfaction or dissatisfaction for their neighbourhoods; they expressed neutrality.
Table 4. Neighbourhood satisfaction by housing tenure

<table>
<thead>
<tr>
<th>Satisfaction level</th>
<th>Owner</th>
<th>Tenant</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dissatisfied</td>
<td>4.4</td>
<td>3.4</td>
<td>4.0</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>5.8</td>
<td>10.3</td>
<td>7.5</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>16.9</td>
<td>37.0</td>
<td>24.8</td>
</tr>
<tr>
<td>Satisfied</td>
<td>66.7</td>
<td>43.2</td>
<td>57.4</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>6.2</td>
<td>6.2</td>
<td>6.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

When the findings were reviewed by urban development character and availability of public transportation in eight different neighbourhoods, the lowest satisfaction records were achieved in Karakol, the neighbourhood with haphazard, low quality urban development, with traffic, transportation and maintenance problems. In this neighbourhood, where the majority of the students live (for 4-7 years during their education), less than a half of the respondents (48.2%) were satisfied with their neighbourhood, while the average satisfaction was 63.5% for the overall city. In line with these findings and owing to the large percentage of neutral responses regarding neighbourhood satisfaction among tenants, it would not be meaningful to suggest that there is a strong relationship between tenure status and neighbourhood satisfaction.

The measure of the “perception of neighbourhood as home” was the respondents’ response to the statement “Do you think of this neighbourhood as your ‘home’ or just a place to live?”. 59 percent of the local residents and 49 percent of the students rated their neighbourhoods as “home”.

Conclusions

The present study, based on the results of a household survey, reveals the degree of neighbourhood satisfaction in Famagusta both for the local residents and international students. In addition, the role of certain neighbourhood attributes (attractiveness, appropriateness as a place to live, availability of things to do, accessibility, environmental maintenance, traffic, noise) and sense of neighbourhood as home in determining overall neighbourhood satisfaction was examined.

Simple correlations between neighbourhood satisfaction and neighbourhood quality measures indicated that the the strongest association is between satisfaction and appropriateness as a place to live in, and the weakest with density of traffic. Satisfaction was also associated with sense of neighbourhood as home.

The multiple regression analyses demonstrated that, in general, three of the seven quality measures, neighbourhood appropriateness as a place to live, environmental maintenance, and level of noise contributed significantly to neighbourhood satisfaction.

The data suggest that the explanatory variables for neighbourhood satisfaction are different for local people and the international students. Attractiveness and environmental maintenance of the neighbourhood are the two important measures of satisfaction for the international student community. However, the findings in Karakol, the neighbourhood where the university students are based, reflect the lowest satisfaction scores in terms of those aspects of physical environment (Satisfaction was expressed by 48.2% of the Karakol respondents compared to 63.5% of the overall sample).
When the data were subjected to a chi-square test excluding those residents who were neither owner nor tenant, the results indicated that tenure status and satisfaction were not independent as only half of the tenants were satisfied with their neighbourhood. However, as more than one third of the tenants indicated they were neither satisfied nor dissatisfied with their neighbourhoods and considering the fact that the lowest satisfaction scores were achieved in Karakol, it would not be meaningful to conclude that there is a strong relationship between tenure status and neighbourhood satisfaction.

Another important factor for the student community was accessibility of the neighbourhood; the city is spread out and lacks a well-organised and contemporary public transportation. However, local residents do not seem to care about the accessibility as they are largely dependent on the automobile, the average number of cars being 2.14 per household. Informing local residents about environmental problems associated with driving should be the responsibility of urban management, while efforts should be made to introduce a sustainable public transportation system serving the city and its surroundings.

The results indicate that having an appropriate neighbourhood and sense of community are important to local residents. These could be explained by the fact that the people in Famagusta still need and reflect some traditional motives in their lives as the concept of neighbourhood, mahalle, was very important in the Cypriot towns as explained in the introductory section. These findings and discussions bring into focus one fact: it is crucial that, in future legislative framework for development and growth, the ‘urban design’ scale concerned with the creation, regeneration, enhancement and management of built environments that are sensitive to local socio-spatial contexts should not be neglected. At the architectural scale, in the areas or complexes where the local residents are concentrated, designers should give prominence to the perceptual richness and use of the spatial environment paying specific attention on local socio-spatial characteristics. Further, as a general implication for future research, it can be stated that neighbourhood policies of a comprehensive framework are required, that pay careful attention to residents' own assessments of local conditions.

The expectations of the university students, the temporary citizens of the city, who make up one-third of the population, should also be taken into consideration as the local economy largely depends on their satisfaction with living in the city. One way of advancing local and temporary residents’ preferences would be to introduce public participation (or greater public participation) in urban design and planning.

The particular measurement structure reported here should not be viewed as a property of the scale, independent of the context in which the approach was implemented. It is reasonable to expect that the structure of the scale may not be consistent across a range of different conditions, and correlations with other constructs may vary with neighbourhood satisfaction and sense of neighbourhood as home.

Acknowledgement

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References


'Mixité': an urban and housing issue?


Notes

i The Famagusta Area Study, titled “Measuring the Quality of Community Life in Famagusta” and directed by the first author of this article, is one of the partner cities included in the *International Program of Research on Quality of Life* coordinated at the University of Michigan, USA.

ii The student population in Famagusta consists of students from the big cities of Turkey (44%), North Cyprus (34%), and the big cities of Iran, Nigeria, Palestine, Albania, etc. (22%). The urban to total population in North Cyprus is about 60 per cent (TRNC-SPO, 2003).

iii These characteristics include the cohesive and identifiable district, the three-dimensionally defined street space, other types of physically contained private and semi-private outdoor spaces, a hierarchy of open and semi-open spaces and the native landscape (Oktay 2002; Oktay & Pontikis 2008).