

Impact of Urban Regeneration on Housing Satisfaction: A comparative study in Iran and Turkey

Abstract

This paper investigates housing satisfaction in regeneration projects and emphasizes on the fundamental attributes which mainly influence inhabitants' well-being. In this respect, two urban regeneration projects in Tehran, Iran and Ankara, Turkey were selected and a qualitative approach was used to explore dimensions of human-environment connections in these projects. Accordingly, a model consisting of seven variables (housing-related features, accessibility, housing environment characteristics, facilities, safety and security, social ties, appearance of housing environment) was applied. In order to collect the necessary data, in-situ observation and questionnaire, addressing 80 family units in both projects, were conducted. The results of the study indicate that the factors which affect the quality of the life are different in two neighborhoods regarding the distinct socio-cultural and economic background of the residents and the diversified urban qualities. It is found out that residents living in Dikmen Valley to some extent are more satisfied with the quality of their living environment. Among seven attributes of environmental quality, residents are more dissatisfied with facilities, and safety risks in this neighborhood. In Navvab project, the extent of dissatisfaction is higher. They are highly dissatisfied with housing environment characteristics, facilities and the appearance of the housing environment variables. Analysing these two urban regeneration projects reveals that paying few attentions to the social needs of inhabitants, lack of opportunity for creating place attachment, designing spaces that does not convey any sense of congruence with residents' social and cultural status, designing spaces with poor environmental quality and poor urban physical features decrease neighborhood satisfaction and reduce inhabitants' involvement in their urban space. It ultimately can result in higher insecurity, higher migration rates and social and physical segregation.

Introduction

Neighborhoods are counted as the most basic environmental settings in which the social life of inhabitants occurs and it has an inevitable impact on the quality of life of inhabitants. People experience their living space through its various physical and mental features and perceive it according their cultural and social backgrounds. Thus, the physical environment through the meanings that are attached to it can have an impact on people's perception of environmental quality and their good life. The term is associated with users' satisfaction depending on how they perceive it. Thus, socio-cultural values and characteristics of the users, their experiences and expectations built up this perceived spatial setting. However, no building or space can entirely meet the needs of all occupants (Chapman, 1996) and in order to meet these needs people make changes in their physical environment to a greater extent. But in some cases these changes are not successful and may result in spaces with poorer qualities.

Evaluation of the quality of residential environments can be considered as one of the main criteria for measuring the success of projects in the urban spaces. Identifying factors influencing residential satisfaction can be used to analyze existing condition of dwellings and assist to improve the quality of residential areas and prevent repetition of failures in other places. Moreover, evidences from the

assessment process can be used in development phases of projects and urban regeneration plans. The importance of quality of urban residential environments in deteriorated urban districts is increasing because it generates areas in which people are confronted with various unfavorable environmental conditions, such as noise, malodor, air pollution, insecurity and lack of facilities.

Considering literatures on the issue reveals that there have been attempts to describe “measurement of quality of environment” as an approach to achieve “good quality of life”. Housing and neighborhood are inseparable and earlier studies indicated that it serves as a link between home and city scales in citizens’ everyday life (Bonaiuto and Bonnes, 2009). Therefore, in this study the neighborhood, as an intermediate level, was selected for scale of analysis.

In this respect, the aim of the paper is to survey the extent of integration that inhabitants have with their housing and neighborhood and explore factors that affect residents’ satisfaction in the urban regenerating neighborhoods of Navvab, Tehran and Dikmen, Ankara.

This paper addresses the question that what is the role of various aspects of residential environment on users’ well-being and specifically how and to what extent social, visual and physical features influence housing satisfaction.

For this reason, subjective (social and psychological attributes) and objective (visual and physical attributes) variables which affect resident’s satisfaction and perception of quality of their neighborhood were examined.

1. Satisfaction and Environmental Quality

In recent decades, housing satisfaction studies related to Measuring of environmental quality in housing areas has been accentuated and several studies have approached the issue from various perspectives. In a research done by Lansing and Marans (1969), the quality of the environment was defined as: “An environment of high quality conveys a sense of well-being and satisfaction to its population through characteristics that may be physical (housing style and condition, landscaping, available facilities), social (friendliness of neighbors, ethnic, racial, or economic composition), or symbolic (sense of identity, prestige values)”. In this respect, Poll (1997) suggests an empirical model of urban residential quality (figure 1) and claims that environmental quality can be comprehended as a hierarchical multi-attribute concept, so the residential satisfaction can also be proposed as a multi-attribute concept.

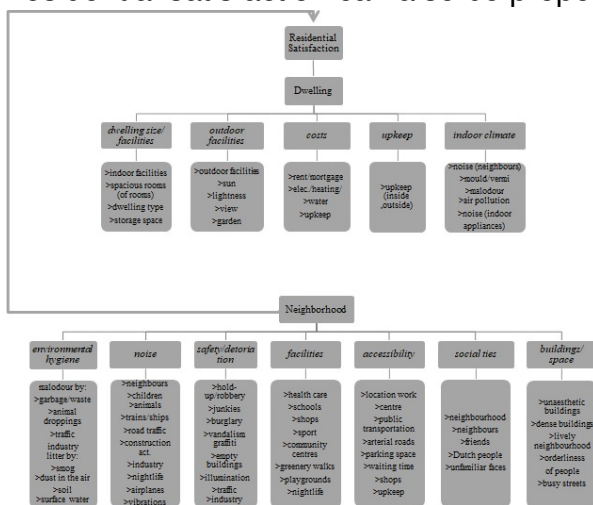


Figure 1: Model of urban housing quality (Poll, 1997)

1.1 Neighborhood Satisfaction

Satisfaction with one's neighborhood could be described as the evaluation of both the physical and social environment (Mesch and Manor, 1998). Neighborhood attachment, as a macro scale of place attachment comprises all the feelings and thoughts that residents develop toward their living place over time (Altman & Low, 1992; Brown *et al.*, 2003). There are some factors that influence the level of satisfaction including lengths of residence, extent of social interactions, and appearance of the neighborhood and if the level of satisfaction is high, inhabitants will appropriate their neighborhood more and will contribute to its improvement. The physical aspects of a neighborhood can certainly influence the perception that one has regarding to the quality of community life. Neighborhood satisfaction refers to residents' overall evaluation of their neighborhood. Satisfaction with public facilities, schools, the appearance of living environment, safety and security, neighbors, and noise problems have all been found to be essential factors in defining the level of satisfaction with the neighborhood (Permentier, *et al.*, 2011). Thus, considering the literature on the issue, main features of neighborhood satisfaction for users are underlined in two categories of social and physical characteristics. The social features mostly include interaction with neighbors, sense of place attachment, perceptions of privacy and safety at home, and so forth (Bruin and Cook 1997; Weidemann and Anderson 1982). Physical features also are related to infrastructures and architectural components. These are associated with the quality of environmental setting including the extent of crowding and noise (Bonnes *et al.*, 1991), lighting (Dahmann 1983), and greenness and open spaces (Turner 2005; Bender 1997). Several studies have indicated that satisfaction with the dwelling units also has a strong positive impact on satisfaction with the neighborhood and inhabitants' sense of attachment to their residential area. It also has been revealed that younger people are less attached to their neighborhood than elderly people (Permentier *et al.*, 2011). Although relative location of neighborhoods is not often included in neighborhood satisfaction studies, it has an important effect on level of satisfaction of residents.

1.2 Housing Satisfaction

Housing satisfaction is a complex cognitive issue and researches conducted have approached the issue from various viewpoints. According to the definition of Galster (1987), satisfaction can be defined as "a measure of the gap between consumers' actual and aspired needs". Building on another definition, housing satisfaction is a sense of satisfaction that a person or a member of a family understand or experience from their current housing (McCray, 1977). According to Rapoport (1977) residential satisfaction is one of the features that plays an important role in the integration of individuals and their habitat environment and encompasses three dimensions; affective, cognitive and behavioral. It represents the sense of place attachment in perceived residential quality or the intention to leaving the current living place. Thus, living spaces have impact on individuals' well-being and quality of life and it is not just the environment that is important but also the way that it is perceived and experienced by users is also a matter of concern. The well-being is the outcome of the conformity and integration between person and the context. This integration can be obtained through having attachment to the place. A place is not just a physical area and people when appropriate a place, ascribe meanings to their place and psychologically get attached to the meaning and to their environment (Rollero, De Piccoli, 2010). In general, it can be mentioned that residential satisfaction is a subjective dependent variable which is relevant to many physical and social parameters.

2. Case Study

2.1 Navvab Regeneration Project, Tehran, Iran

Navvab project is considered the most ambitious urban transformation project in Iran. The project area was one of the oldest districts of Tehran, alongside the Tehran historical core and is located in the Region 10 of Tehran Municipality. The neighborhood was composed of 50-60 years-old, one or two storied buildings. The area was physically old and deteriorated but culturally cohesive with a strong social identity. It was a high density district and the majority of inhabitants had an identical religious and cultural ties with high level of attachment to their neighborhood.

Navvab Residential Project was introduced as a part of the urban transformation project for establishing a north-south highway and rehabilitating the old and almost deteriorating area. The proposal plan of widening Navvab street can be traced back to the first master plan of Tehran in 1966 when the modernization projects were a hot debate in urban planning of Iran. Its initial objective was connecting the northern highway network of Tehran to southern ones which changed to the main North-South axe of the city. The project came into re-execution phase in 1971 and got a “reconstruction” status – a large-scale urban renewal project. The main challenge of the municipality in the implementation phase was the financial requirements. As it was a 60-hectares project and required reconstruction of the large deteriorated residential area and widening the Navvab street from 12 meter to 45 meter. The highway was 30 hectares of the project and the rest was proposed as 475,000 square meters of residential area (42.5%), 125,000 square meters (11%) of services, 102,000 square meters for businesses (9%), 102,000 square meters for administrative (9%), and 4,000 square meters for cultural activities. The financial budget of the project was predicted through offering the bonds with the support of the National Bank (Shaker Ardekani *et. al.*, 2014). It started with purchasing the houses of inhabitants with the enforced manner even with cutting off the infrastructure such as electricity, water and gas to oblige the residents for selling their property. In this way, the ownership of 2500 residential units by municipality were accomplished aiming at pre-selling the newly construction apartment units. However, political changes proceeded and legal problems with the Mayer, who was the principal initiator of the project, had created a sever situation and a great delay in the project completion. Therefore, the area with an old urban texture which primarily consisted of middle-low and low income group of residents now faced a huge increase in land prices. This fact leads to a situation that many of the former inhabitants of the area who were relocated with the hope of coming back to a renovated neighborhood lost the ability to purchase a new house in the district. Moreover, the newly constructed buildings were completely different, in terms of physical qualities, with the previous homes of inhabitants which could not attract the original residents to return there. So, many of them moved to other districts or to the suburban areas and instead the project was mainly inhabited by low-income immigrant groups with a different socio-cultural status.

Indeed, the renewal plan in the area had altered the well-defined structure of the neighborhood. For constructing the new highway, 479,600-meter square of residential units were demolished and instead a 5,529-meter corridor was established which was surrounded by high-rise, high-density and identical apartment blocks. It introduced approximately 8500 new housing with 75 square meter or less and up to 19 stories, provide 750,000 meter squares of residential and 160,000 meter squares of commercial and office spaces (Based on the findings of a research project carried out at the Graduate Faculty of Environment with the financial support of the Vice Chancellor for Research of the University of Tehran, Bahreiny & Aminzadeh; 2006). Moreover, in the planning of the project public open spaces for social gatherings and sufficient green space were not predicted. The air pollution and noise are very high due to proximity to the highway. Being located along a long highway, no appropriate pedestrian paths have

designed and also defenseless and insecure spaces have created in back layer of the apartment buildings. Many of the stores which built in ground floor of the apartments along the highway are empty which also intensify the state of insecurity. In new Navvab district, along the corridor of the street, apartments blocks are juxtaposed in a line and some blocks are accessed from a narrow sidewalk beside the main road which lack an appropriate pedestrian path for a high density complex. In addition, the backward apartments are also pushed to second plan which has created a dead space in the back which are defenseless and insecure and increases possibility of crime. Many of the stores which built in ground floor of the apartments along the highway are empty which also intensify the state of insecurity.

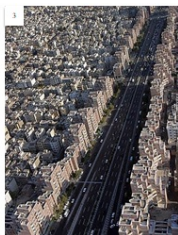


Figure 2. Photo of Navvab renewal project (Source: www.hoortashco.com) Figure 3. Aerial view of Navvab renewal project (Source: <http://memari.online>)

2.2 Dikmen Valley Transformation Project, Ankara, Turkey

Dikmen Valley is one of the seven valleys of Ankara, extending from the southern part of the city toward the middle of it. Before the 1950s, the valley was a suburban green space functioning as an air circulation corridor which increases its importance for the city of Ankara. After the 1950s, with the expansion of the city center with southern-northern orientation and lack of adequate housing, the growth of squatters began in Dikmen Valley (Gunay, 1994).

After the 1980s, the valley with about 4000 squatters become an area for urgent intervention because of issues including air pollution and lack of green areas. In 1989, the local administration proposed the Dikmen Valley environmental and housing transformation project as one of the first evidence in Turkey for slum upgrading by the local governmental incentives. The transformation project contains demolition of 2300 squatter with 9809 residents in 1989 (Dündar, 2001). One of the main aims of the project was to enhance the quality of life by providing public transport services, facilities and green spaces.

Re-development of Dikmen valley was planned to be complete in five phases. The first two phase was finished in the 1990s which included the demolition of the squatters and building of 404 new small and prefabricated apartments for 1080 squatter families at the north edge of the valley (Uzun, 2003). The third phase involved the construction of luxury residential towers for high-income groups in the south of the valley. These two distinct housing styles were connected by a bridge to integrate diversified residential population (Figures 4). At the moment, for fourth and five phases of the project, the municipality is trying to evacuate resident of squatters from this area. Generally, Dikmen valley represents a perspective with diverse housing typologies for the distinct demographic profile of residents.



Figure 4. A panoramic View of Dikmen Valley; the park space in the middle surrounded by social housing apartments and luxury high-rise Blocks. (Source: <https://upload.wikimedia.org>)

3. Method

The main objective of this study is identifying factors that affect housing satisfaction and evaluating the impact of those variables on inhabitants' overall satisfaction. Housing satisfaction was defined as the dependent variable while the objective and subjective variables in addition to the demographic characteristics were the independent variables. The study has hypothesized that:

- 1 – The level of Residents' satisfaction is different in two selected neighborhoods – Navvab Project in Tehran and Dikmen Valley Project in Ankara – according to their diversified social and physical attributes;
- 2 – The influence of different variables of environmental quality on residential satisfaction is different in each project.

In order to test hypotheses of research in-situ observation and questionnaire method were implemented.

3.1 Setting and sampling

In this study two different regeneration projects in the capitals of two neighboring countries have been selected; Navvab Regeneration Project in Tehran, Iran and Dikmen Valley Transformation Project in Ankara, Turkey. The reason for selecting these projects were their similarity for being the largest regeneration project in their country. So doing, 80 family units were sampled in total; 40 units from each regeneration project were selected. Survey participants were randomly selected from the inhabitants living in these two different settings.

3.2 Instruments

In addition to in-situ observations, the questionnaire was designed in order to gather the necessary data regarding to factors and variables which influence the housing satisfaction. The questionnaire was divided into two parts; the first part deals with questions about demographic characteristics of the respondents (age, sex, occupation and the length of stay in neighborhood) and assesses the impact of these variables on inhabitants' satisfaction. The second part is related to questions about occupants' perceptions and evaluations of environmental attributes of their residential setting. Considering the second part, variables have been divided into seven components; housing-related features, accessibility, housing environment characteristics, facilities, safety and security, social ties, the appearance of the housing environment. These independent variables have been made operational by asking people to score their satisfaction with their residential environment in the scale of 1 to 5. For this purpose, an experimental model to assess the rate of satisfaction in the residential environment of Navvab Project in Tehran, Iran and Dikmen Valley Project in Ankara has been applied (Figure 5) by using empirical model of urban residential quality (Poll, 1997, Figure 1).



Figure 5. Variables used in the study (Source: Authors)

4. Analysis

4.1 Demographic Profiles of Respondents

Based on the results of questionnaire (Table 1), the overall population is composed of 64% female and 33% men in Navvab Project and 72% female and 28% men in Dikmen Valley Project. The respondents' profile showed that above 60% of participant in Navvab have been graduated with a university degree whereas in Dikmen Valley this ratio is less than 30%. Furthermore, in terms of length of stay in both neighborhoods, approximately half of the inhabitants have been leaving in the setting above 10 years in both of the settings. Also in Navvab project about 60% of them and in Dikmen Valley project about 30 % of them are tenants.

Neighbourhood		Navvab project	Dikmen Valley project
Characteristic	Categories	% of Respondents	% of Respondents
Age	21-30	39	8
	31-40	22	36
	41-50	11	24
	51 and above	28	28
Sex	Female	56	72
	Male	44	28
Level of study	Primary school	6	44
	High school	28	28
	University degree	66	28
Length of stay in dwelling	1-2 years	28	12
	3-5 years	22	24
	6-10 years	22	32
	Above 10 years	28	32
Length of stay in neighborhood	1-2 years	6	12
	3-5 years	28	20
	6-10 years	22	20
	Above 10 years	44	48

Table 1. Demographic characteristics of respondents (Source: Authors)

4.2 Overall Satisfaction with Housing and Neighborhood

According to the questionnaire, while the participants asked to express the level of satisfaction with their home and neighborhood with taking all the factors into account; in Navvab Project 58 percent of respondents were satisfied with their houses where as only 25% of respondents are satisfied with the conditions of their neighborhood. However, in Dikmen Valley 68% of respondents were satisfied with their current dwellings and 52% were satisfied with their neighborhood. The level of dissatisfaction with neighborhood in Dikmen is low with the rate of 4% of dissatisfaction with the quality of the neighborhood (chart 1 and 2).

The data obtained from questionnaire also revealed that the length of stay in neighborhood influence the level of satisfaction. The inhabitants with longer length of stay are more satisfied with their neighborhood. The influence of other demographics on occupants' satisfaction in this survey is not the matter of concern.

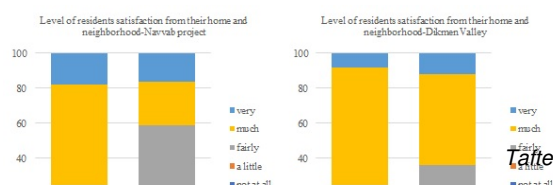


Chart 1 and 2. Level of users' satisfaction from home and neighborhood

4.3 Level of Satisfaction of Residents

To assess the level of users' satisfaction, a 5-choice Likert scale is used and a rating of one to five is dedicated to responses where score of 1 represents lowest satisfaction and 5 shows highest level of satisfaction and number 3 as median of responses has been selected. Then mean of satisfaction score was compared with the number 3 in order to obtain satisfaction of residents from each selected variables. The results (chart 3 and 4) indicate that in Navvab Regeneration Project, the level of satisfaction from the most of variables is approximately close to the mean of satisfaction or lower. The level of satisfaction is noticeably less than median in three items; housing environment characteristics, facilities and the appearance of the residential environment. As it can be seen, among variables, accessibility has the greatest impact on neighborhood satisfaction. Considering the Dikmen Valley project, residents are fairly satisfied with most of variables except two items; facilities, safety and security. It is clear that the percentage of satisfaction from the variable of environmental quality in Dikmen Valley is higher than Navvab Renewal Project.

The results also support the hypothesis that the influence of different variables of environmental quality is significantly different in each neighborhood expect the facilities which has the similar impact in both cases. Moreover, the study revealed that six factors of housing satisfaction mentioned in previous section, could be divided into sub-variables. There were totally 40 sub-variables of housing satisfaction as listed in Table 2.

The first four factors of housing satisfaction are related to physical characteristic of housing and neighborhood environment which encompasses facilities, size and arrangement of dwellings. The fifth variable displays the visual characteristic of housing setting, constitute of aesthetic qualities of residences and surrounding environments and the two subsequent items reflect the social attributes which has been examined in questionnaires including neighbors' communications and social ties, safety and security risks from traffic, burglary and robbery, empty buildings and dark streets.

As demonstrated in Table 2, it is obvious that in Navvab Regeneration Project, the strongest level of satisfaction is proximity of house to public transport services (4.22) and proximity of house to city center (4.16). On the other hand, the strongest level of dissatisfaction was traffic density (1.55), followed with the contact with unfamiliar faces (2.05). The remaining sub-variables in decreasing order of strength of dissatisfaction are lack of proximity to public green space, shortage of attractive landscape, spatial arrangement of houses, insecurity caused by traffic, unavailability socialization with neighborhood, pedestrian pathways, monotony in residential area, burglary and robbery, lack of greenery, insecurity caused by dark street, and dense buildings.

In Dikmen Valley, the strongest level of satisfaction is from traffic density (4.2), followed with proximity of house to homes of relatives and knowing neighborhood (3.84). The highest level of dissatisfaction in Dikmen is from lack of cultural facilities (1.38) and the further items in decreasing order of strength of dissatisfaction are Burglary and robbery, sport facilities, pedestrian pathways, monotony in residential area, empty buildings, dark streets, playgrounds, and greenery and parks.

	Mean	Mean
<i>Variable 1. Housing-related features</i>	Navvab	Dikmen Valley
Dwelling facilities	2.83	3.2
Dwelling size	3.05	3.64
Size of rooms	3.27	3.32
Number of spaces	3.11	3.28
Arrangement of spaces	2.22	3.16
<i>Variable 2. Characteristics of housing environment</i>		
Sufficient illumination in the residential area	3	3.8
Maintenance of open spaces	2.44	3
Maintenance of green spaces	2.77	2.72
Traffic density	1.55	4.2
Dense building	2.77	1.64

Table 2. Sub-variables of residential satisfaction (Source: Authors)

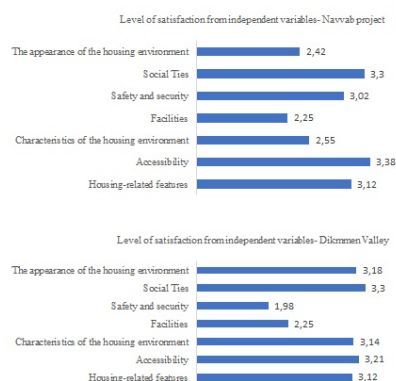


Chart 3-4. Level of satisfaction from independent variables

5. Discussion

The physical features and spatial attributes of an environmental setting has a key role in creating a successful and responsive environment that can address the users' needs. Physical qualities a setting and socio-cultural and psychological attributes of users are correlated. Thus, different users perceive and use their urban setting in a different manner. The physical characteristics shape diversified activity patterns and define the level of participation of occupants which can be an indicator of their satisfaction (Razavivand fard, 2014). Designers and policy makers may believe that a project can be successful if addresses the requirements, but in reality the users' reactions cannot be anticipated because people perceive the environment in different ways regarding their diversified psychological and socio-cultural background (Bennet, 1980; Berry, 1976; Berry, 1980; Imrie and Thomas, 1997; Lang 1987). This is the issue has happened in Navvab Renewal Project and Dikmen Valley Project. Designers defend their approach and assert that by observing all the aspects of the project they have made the best decision in meeting users' needs and the fundamental principles were executed. But on the other side, the analyses demonstrated that more than half of the inhabitants in Navvab and Dikmen Valley projects, both the old residents and newcomers, are dissatisfied with the current condition of their living setting, because it does not match their criteria of a responsive (Bentley *et al.*, 1993) and liveable environment (Lynch, 1981). In order to reveal the level of residential satisfaction, the paper attempted to assess different attributes and variables of residential environment. The main aim was to explore the similarities and differences of residential satisfaction components in in two different renewal projects, Navvab and Dikmen Valley. As residential satisfaction is a multidimensional phenomenon, the study was based on three housing satisfaction categories including social, visual and physical dimensions. The study supported that the impact of different variables of environmental quality on residential satisfaction is different in each project. In Navvab Project, inhabitants are mainly dissatisfied with housing environment characteristics and the appearance of residential area but in Dikmen Valley respondents are dissatisfied with insecurity. The only variable which has shown the similar dissatisfaction impact on both cases is facilities. Considering the physical dimensions, it can be noted that one of the significant aspects of satisfaction is housing-related feature. In Navvab Renewal Project, the old inhabitants of the neighborhood used to live in one or two-story houses with courtyard and with strong neighboring bonds where currently they live in small and crowded apartment blocks and do not have any interaction with their new neighbors. As a result, it has created a complex situation with divergent social statues of inhabitants. They hold various

preferences and expectations that influences their evaluation of their environment differently. In addition, it can be noticed that where the rehabilitation of old urban tissue can be a positive intervene. The studied projects introduced new dilemmas including traffic accidents, danger, air pollution and noise as well as invading habitants' territory, privacy and safety in Navvab and Dikmen Valley. Moreover, the renewal intervention has negatively influenced the interaction of the dwellers with their living space. In terms of physical and visual attributes, as Relph (1976) claims, physical and visual attributes of a setting are deeply associated to human need for creating a connection with the specific places. The spatial configuration, building styles and facade decorations in addition to type of the activities in an environmental setting represent the cultural continuity and shaping the physical identity. In new Navvab district, due to financial problems some of initially foreseen landscaping and servicing spaces eliminated in construction project and resulted in forming a long corridor of street where apartment blocks are juxtaposed in a line. Therefore, some blocks are accessed from a narrow sidewalk beside the main road and the backward apartments are pushed to second plan.

In Dikmen Valley project, there is a combination of high rise and low rise, and social housing and luxury apartments at two edges of the valley which creates two distinct styles of living. Although it was attempted to connect both sides of valley through a bridge, it was not successful in creation of a relationship between two group of residents with distinct socio-economic profile. The adopted design strategies in spatial terms are intensified the social segregation problem. Here, the social exclusion arises due to the socio-economical difference between two groups inhabiting in the same district. The process usually ends up with social isolation of the low-income inhabitants and their voluntary displacement (Devecigil, 2005). Thus, it can be argued that the current renewal project has been transformed to a gentrification project with a luxury housing area and caused in rent increases in the valley.

In addition, the simple and identical facades of the projects dose not introduce any identifiable spatial spirit and are not integrated with the environment. This has caused by linear structure and absence of centers, even though because of the high costs of the projects very few attention has paid to landscape and lacks landmarks and elements which create collective memory and identity.

Therefore, it can be argued that urban renewal projects have a significant impact on dwellers' well-being and it is noticeable that in these renewal projects striking findings emerged in the social dimensions. Theoretical and empirical studies have connected physical and social well-being to the attachment take place within an environmental setting and demonstrate that desirable places that people tied to, diminish environmental stress and improve positive mood. This attachment is strengthened by the daily interaction between neighbors and neighborhood. This residential attachment promotes the sense of security, stability and familiarity with the context. Thus, the compulsory environmental changes such as relocations and urban renewal projects are extremely overwhelming to those with strong place attachment and have a deep influence on residents' well-being.

Even if the neighborhood experiences urban decay, the strong sense of attachment may not be weakened. When a renewal project is implemented in a deteriorated district, it can alter the condition of the area profoundly and it has both positive and negative sides. In Navvab and Dikmen Valley as old districts, the social integration between neighbors and sense of belonging to space were so strong because they had appropriated their neighborhoods. However, the renewal plans in the areas have altered the well-defined structure of the neighborhood.

During the construction process, inhabitants had to relocate and leave their houses and they lost their ties with their environment. However, some of them who returned to the newly constructed buildings are not satisfied with the dwellings. Despite the fact that new houses offer better facilities, they do not address their social and psychological demands and the users do not have any attachment to the new setting. This study demonstrated that more than 60 percentages of residents in Navvab project prefer to move to another neighborhood while in Dikmen valley approximately 30 percentages wants to go to another neighborhood. Intention to residential mobility is a sign of dissatisfaction and lack of place attachment and

can be used as a predictor of residential satisfaction.

The findings also support a connection between the lengths of residence and overall neighborhood satisfaction. Only residents who live more than 5 years in neighborhood are more satisfied with it.

Conclusions

Evaluation of residential environments and particularly estimating the level of users' satisfaction can be a fundamental factor in design and decision making process. It is very influential in order to identify the present situation, the strengths and deficiencies and aiming at improving the quality of residential environments. The results of this study provide insights into environment characteristics that contribute to residential satisfaction.

The findings supported the hypotheses of study that the level of satisfaction and variables which influence environmental quality vary in different neighborhoods. Where it can be stated that "people living in different kinds of neighborhoods consider different aspects in determining their levels of satisfaction, with an emphasis on physical aspects for residents in both kinds of neighborhoods and mostly focusing on social-problem-related aspects for residents in unsatisfactory neighborhoods" (Hur, *et al.*, 2008).

The results demonstrated that there is not any normative instruction which could be applied to every neighborhood equally. While satisfaction is a complicated and subjective notion and more complex conceptual models are required. Planners need to pay more attention to the contextual differences between neighborhoods and socio-cultural background of residents in order to achieve a successful project.

In Navvab project, there might be thought of some solutions in order to increase satisfaction. Solutions can address the increase of social interactions in the neighborhood through creating spaces for peoples' gathering. It is the issue that well praised in traditional neighborhood centers. Connecting these centers to newly constructed apartment blocks, and constructing common space between new apartments and the houses which are located at their behind can be very effective in enhancing the residents' social interactions and increasing vitality of the back spaces. Moreover, the physical environment might be re-arranged in order to have an identity and specific characteristics and a green buffer zone is needed to be created between highway and the buildings to increase the security and privacy as well as increasing the vitality of the place. Enhancing these physical features, which are absent in in the recent renewal project will contribute to increase the satisfaction of the residents.

In the case of Dikmen Valley Project, the items for improving residential satisfaction can be proposed as providing secure and safe neighborhood, removing or renovating vacant buildings, increasing green and open spaces, making efficient connection between the valley and other important urban nodes, providing cultural facilities and promoting cultural and social conditions of neighborhood in order to strengthen neighborhood ties.

This paper hopes to contribute to the existing theoretical framework. It potentially can be helpful through presenting the influential dimensions of the residential satisfaction and applying them to the domain of praxis in order to increase the quality of housing settings, and consequently the quality of life. Therefore, the findings of this study may assist designers, architects, city planners, decision makers and housing authorities in designing and constructing more responsive, desirable and liveable housing settings through addressing the demands and expectations of users.

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