

Mass housing, relocation, and mothers' and children's residential satisfaction: Evidence from Ankara

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Abstract: This study investigates the effects of relocation on 9-12 year-old children's and their mothers' satisfaction with mass housing built in the context of squatter housing regeneration. The results are based on a survey of 235 nine-to-twelve-year-old children and their mothers living in three recently built inner- and outer-city mass housing developments in Ankara, Turkey. Results show the importance of prior place of residence, location of the mass housing estate, and dwelling and neighborhood characteristics in children's and their mothers' residential satisfaction. In general, compared to their mothers, children reported higher satisfaction scores for all the features of the current home and neighborhood. However, there were some differences in what children and their mothers liked and disliked about these places. The implications of these findings are important for designing communities for all ages.

Keywords: urban regeneration, residential satisfaction, children, mothers

Introduction

The restructuring of the global economy in the last quarter century has given rise to new kinds of places (Shatkin, 2007). Cities, which aspire to be 'global' or regional centers of activity, are forced compete with others by replacing what threaten the flows of trade, tourists and highly qualified labor with large-scale housing projects, state-of-the-art office and museum buildings and luxury hotels (Sassen, 2001). In Turkey, the replacement of squatter housing developments by mass housing projects has been an outcome of such an aspiration. A government report highlighted that between 2003 and 2016, the housing and development administration of Turkey built approximately 740,000 mass housing units across the nation, 110,000 of which were constructed in the context of squatter housing regeneration (TOKI, 2016). This report announced that the number of mass housing units in Turkey is projected to increase to 1.2 million by the year 2023. These trends led the author to question whether such large-scale housing developments are designed in a way to promote the residential satisfaction of low-income women and children – two groups that are highly dependent on

near home environments because of their restricted mobility (Johnson, 1997; Fyhri et al., 2011).

There are a growing number of studies discussing the impact of mass housing developments on the lives of adult mass housing tenants (e.g. Berkoz et al., 2009; Herfert et al., 2013; Dinç et al., 2014). More recently, the urban regeneration literature has been extended to cover the impact of such developments on disadvantaged groups like women (e.g. Erman and Hatiboğlu, 2017) and children (Severcan, 2019a, 2019b). However, no study has ever investigated the effects of relocation on children's and their mother's satisfaction with mass housing from a comparative perspective. This paper aims to contribute to the existing literature by addressing this gap.

The paper starts with a review of the concept of residential satisfaction and the literature on the factors that influence this construct among children and women. Then, the paper describes an empirical study conducted in Ankara, Turkey, which aimed to understand the effects of relocation on 9-12 year old children's and their mothers' satisfaction with mass housing built in the context of squatter housing regeneration. In a previous paper (Severcan 2019b), the author presented the results obtained from children. In this paper, the author aims to contribute to literature by reporting the findings obtained from these children's mothers and compare these findings with the ones reported by Severcan (2019b). It asks whether, how and why children and their mothers' residential satisfaction changed (or did not change) after moving to mass housing developments. It questions the role of various dwelling and neighborhood characteristics in this change and which characteristics are mentioned both by children and their mothers as factors affecting their residential satisfaction. Data were obtained using a residential satisfaction survey. The paper ends with the implications of the study results.

Residential Satisfaction and its Explanatory Characteristics: Findings from Children, Women and the Urban Environment and Behavior Literature

Residential satisfaction refers to individuals' appraisal of the actual conditions of their residential environment in relation to their desired (or aspired) needs (Morris and Winter, 1978; Galster and Hesser, 1981; Mohit et al., 2010). A greater degree of congruence between actual and desired conditions reflects a higher residential satisfaction; incongruence leads to residential dissatisfaction (Li and Wu, 2013).

The concept of residential satisfaction is often employed to evaluate one's satisfaction with home and neighborhood (Kaitilla, 1993; Ogu, 2002). When individuals evaluate their residential satisfaction, the characteristics of both home and neighborhood are assessed.

Since human needs vary from one person to another and that the needs of one person change over time, many studies have shown that being young or adult, or male or female affects individuals' residential satisfaction (Lu, 1999; Iben and Amole, 2013). In a comparative study conducted in Beijing (China), Zhang and Lu (2016) found that younger and female

people are more likely to report higher levels of residential satisfaction. Nevertheless, little is known about how children's residential satisfaction differs from women's residential satisfaction in different housing environments.

A review of children's residential satisfaction and women's residential satisfaction literature shows that there are some dwelling and neighborhood features that affect both groups' residential satisfaction. At the dwelling level, these factors are: perceived housing opportunities like size of the house and the presence of a garden and high-quality furniture and appliances (Cook, 1988; Baillie and Peart, 1992; Hadjiyanni, 2000; Darab et al., 2018); architectural style of the dwelling and its interior design (Ladd, 1972; Baillie, 1990; Devlin 1994); views from windows (Kearney, 2006; Severcan, 2019a, 2019b); building infrastructure and construction quality (Erman 1997; Severcan, 2012); presence/absence of a safe and social home environment with family and peers (Darab et al., 2018; Severcan, 2018); and maintenance of building interiors like halls or elevators (Ladd, 1972; Cooper Marcus, 1975). Cook (1988) and Severcan (2019a) have shown the importance of location of the dwelling in children and women's satisfaction with home. Darab et al. (2018) found that stability and security of tenure is influential in affecting women's satisfaction with home, but this factor is not mentioned in children's residential satisfaction literature as an explanatory variable.

At the neighborhood level, among the factors which affect both children's and women's residential satisfaction, the role of the presence of friends and relatives and lack of undesirable people (e.g., gangs, vandals) in the home range are one of the most frequently mentioned (Bruin and Cook, 1997; Severcan, 2019a). Some other highly mentioned neighborhood characteristics are the accessibility, safety and maintenance of neighborhood public spaces and the land uses that support the public realm (e.g. presence of shopping areas, cultural facilities, child-care services) (Cooper Marcus and Sarkissian, 1986; Cook, 1988; Day, 2000; Freeman, 2010).

Research from Canada and United States shows that when poor families move from substandard dwellings to public housing, they show satisfaction with the infrastructure of their new dwellings, but dissatisfaction with the social composition of their neighborhoods since these apartments are occupied by families with a variety of social and health problems (Yancey, 1971; Michelson, 1977). Similarly, in a study conducted in the mass housing estates built in the context of squatter housing regeneration in Turkey, Severcan (2019b) found that because of the high crime rate in the neighborhood, children were afraid of using public spaces alone and that the most negatively affected children were those who moved from non-squatter neighborhoods. This study also showed that while children's satisfaction with the quantity of playgrounds and green open spaces increased, their satisfaction with the accessibility to commercial and cultural facilities decreased after relocation. Various scholars discuss the negative effects of relocation on children's and women's social capital; after relocation, these groups tend to show dissatisfaction with their new residential environment, especially in the short-term, due to the loss of friends and neighbors (van Vliet, 1986; Ryff and Essex, 1992; Gifford, 2007). To sum up, depending on how individuals comparatively assess the characteristics of their prior and current place of residence, relocation may influence individuals' residential satisfaction positively or negatively.

Individual factors, such as education, income and length of stay in residence, may also affect individuals' residential satisfaction (see Lu, 1999; Chapman and Lombard, 2006; Zhang and Lu, 2016). Such factors may either directly or indirectly influence individuals' residential satisfaction by shaping their place perception.

Context of the Study

This article focuses on a study conducted in Ankara – a city where until the 1990s, the percentage of the squatters in Ankara's total population was approximately 58% (Keles, 1993). Ankara's squatter dwellings (*gecekondus*) are usually located on illegally subdivided land. There are no building codes, and originally, had no infrastructure. They have grown spontaneously, without any plan. According to Mahmud and Duyar-Kienast (2001) such developments were originally compact, composed of physically similar housing units. They had small gardens or courtyards. Over time, many of these informal developments were associated with poverty, poor infrastructure, lack of public amenities (like parks and playgrounds), crime and drugs, but also with a number of positive features, such as a strong sense of community and public life.

Especially after 2000, with the influence of neoliberal economic policies such as the loosening of controls on capital flows and attraction of foreign investment, the Turkish government started putting greater emphasis on the regeneration of squatter neighborhoods (Karaman, 2013). Between 2004 and 2007, a series of laws were passed, granting local municipalities rights to execute squatter housing transformation projects in collaboration with the Prime Ministry's Mass Housing Administration of Turkey (TOKI).

TOKI's squatter housing regeneration projects starts with the evacuation of residents. Thereafter, TOKI replaces the squatter houses with high-rise standardized apartments constructed on the same site at a higher density (Karaman, 2013). This is often done without consulting the residents, neither adults nor children. The mass housing units are then made available to displaced residents for purchase via mortgage loans and to the public at market prices.

Method

Site and Participant Selection

The author selected the project participants in five steps. First, four mass housing estates recently built (2008 and later) in Ankara were selected. Two of these estates were located in the inner-city (Altindag Gultepe TOKI and Mamak Yatikmusluk TOKI), while the other two were located in the outer-city (Altindag Karacaoren TOKI and Mamak Kusunlar TOKI). Later, to minimize threats to the accuracy of the findings, only the data obtained from Altindag Gultepe TOKI, Mamak Yatikmusluk TOKI and Mamak Kusunlar TOKI were used

for the purpose of this study (for the details of this site selection process, please see Severcan, 2019b).

The selected inner-city mass housing estates were located within walking distance (300-350 meters) of each other and were still surrounded by squatter housing areas. They were near important functions of the city (e.g. hospitals, manufactories). The number of mass housing units in Altindag Gultepe TOKI and Mamak Yatikmusluk TOKI were 1448 and 528 respectively, making these two inner-city sites larger than the other inner-city mass housing estates built in Ankara within the context of squatter housing regeneration. Being one of the two outer outer-city mass housing estates in Ankara built in the context of squatter housing regeneration, Mamak Kusunlar TOKI was surrounded by open lands. The number of mass housing units in this project area was 1374.

The selected sites had physical characteristics similar to many other TOKI's mass housing estates across the country. Buildings had the same physical characteristics, and were designed only for residential purposes. High-rise apartment buildings were clustered around small parks and playgrounds or large parking lots. Wide roads separated the clusters. Parks and playgrounds were places with few standard play equipment and sitting furniture. They rarely contained outdoor gym equipment and none had sports fields. Supermarkets existed only in the outer-city mass housing developments. Although there were no supermarkets in the chosen inner-city estates, they were available in the vicinity of these developments along with some other land uses like traditional commercial establishments (e.g. greengrocers, grocers). Child-oriented cultural establishments were lacking in all selected sites: Altindag Gultepe TOKI, Mamak Yatikmusluk TOKI and Mamak Kusunlar TOKI. Vast lawns surrounded the apartment buildings in all project areas. The buildings consisted of 2-3 bedroom apartment units in the chosen inner-city mass housing estates, and 2 bedroom apartment units in Mamak Kusunlar TOKI. All buildings included a number of interior design elements provided by TOKI: a kitchen cabinet, laminated floors, wooden doors and painted walls.

In the second step, the author chose all the public schools in the selected neighborhoods. Third, the author gave a presentation describing the project in each classroom of third, fourth, fifth and sixth graders in the chosen schools. Fourth, the author asked the children who wanted to take part in the project to sign an assent form; parents approved their child's participation by signing a consent form. With the same consent form, children's mothers indicated their willingness to participate in the project. Lastly, the author selected all the children and mothers who wanted to participate in the study.

Data Collection

This study is based on the results of a residential satisfaction survey administered to children and their mothers. The survey was anonymous and separated into five main parts. The first and second parts were about the respondents' satisfaction with their previous home and neighborhood. All respondents were asked to rate their overall satisfaction with their former residential setting on a five-point Likert scale ranging from one (not at all satisfied) to five

(very satisfied). A ‘don’t remember’ response option was included. Additionally, they were asked to describe (in close-ended question format) the type of their previous dwelling (i.e. squatter house, multi-story apartment, single family housing, other), and (in open-ended question format) why they felt satisfied/dissatisfied with their previous home and neighborhood. Mothers were asked to rate their level of satisfaction with a range of pre-defined characteristics associated with previous home and neighborhood on a five-point Likert scale (10 home level features and 26 neighborhood level features). In defining these characteristics, the author drew on the available literature related to both children’s and adults’ residential satisfaction. These Likert scale questions about the previous residential environment were not asked to children due to a possible memory bias in the recall of early childhood experiences.

The third and fourth parts of the survey focused on children’s and their mothers’ assessment of their level of satisfaction with a range of current home and neighborhood characteristics (for children: 9 home level features and 25 neighborhood level features; and for mothers: 10 home level features and 26 neighborhood level features) and also their overall satisfaction with these places. Again, these questions were asked using a five-point Likert scale ranging from one (not at all satisfied) to five (very satisfied). Questions related to home and neighborhood characteristics were same as those found in the previous parts of the survey (for a list of these characteristics please see Severcan, 2019a or Severcan, 2019b). These parts also included questions about respondents’ years of residency (YOR) in the current home, neighborhood and city, and open-ended questions about any other things that made them feel satisfied/dissatisfied with their environment.

The final part of the survey asked respondents to describe their socio-demographic characteristics. Children and their mothers were asked the same questions in the same order and with the same wording. Exceptions to this include questions that were asked to mothers but not to children like the questions asking mothers to rate their satisfaction with the maintenance cost of their dwelling, location of their workplace (if applicable) or asking them to provide their home-ownership status in the previous and current home. All Likert scale questions were presented in a visual analogue scale to facilitate the comprehension of the response options and open a window for the use of parametric tests.

Analysis

The analysis presented here is based on the survey responses of 137 children aged 9-12 and 98 mothers aged 25-55 living in three mass housing estates in Ankara. The imbalance in the number of participants between the two groups was a result of some mothers’ unwillingness to participate in the survey. The number of children from inner- and outer-city mass housing estates was 63 and 74 respectively. For women, these numbers were 59 and 39 respectively.

Table 1 shows the socio-demographic composition of the survey participants by location. Of the 137 child respondents, 60 were male and 77 were female; 58 (42.3%) said that they had previously lived in squatter housing, while 79 (57.7%) were in a non-squatter housing area

(hereafter formal neighborhood). Of the 98 mother participants, 41 (41.8%) had previously lived in squatter housing, while 57 (58.2%) were in a formal neighborhood. Most mother participants were not working (77.6%). There were more working women in the selected inner-city estates perhaps because of the availability of job opportunities in the vicinity. Accordingly, in the inner-city and outer-city, the monthly average household income of the residents were between US\$300-\$450 and US\$150-\$300 respectively. These amounts are way below the country's poverty level for a family with two children, which was approximately US\$750 in 2016 (TURK-IS Haber Bulteni, 2016).

Table 1. Socio-demographic characteristics of research participants.

	Children ¹ (N=137)						Mothers (N=98)					
	Inner-city			Outer-city			Inner-city			Outer-city		
	n	%	M	n	%	M	n	%	M	n	%	M
<i>Age</i>												
9-12	63		10.52	74		9.62						
<i>Gender</i>												
Male	26	41.2%		34	45.9%							
Female	37	58.8%		40	54.1%							
18 and above							59		36.6	39		34.7
<i>Education</i>												
No degree							-	0		1	2.5%	
Elementary school							19	32.2%		14	35.9%	
High school							28	47.5%		21	53.8%	
College							12	20.3%		3	7.8%	
<i>Working</i>												
Yes							15	25.4%		7	17.9%	
No							44	74.6%		32	82.1%	
<i>Household income</i>									\$300-\$450			\$150-\$300
<i>Home-ownership in</i>												
Prev. home												
Renter							42	71.1%		22	56.4%	
Owner – with title							10	16.9%		3	7.7%	
Owner – without title							3	5.1%		9	23.1%	
Other							4	6.9%		5	12.8%	
Current home												
Renter							23	39.0%		6	15.4%	
Owner							32	54.2%		32	82.1%	
Other							4	6.8%		1	2.5%	
<i>Mean YOR in</i>												
Current home			3.2			2.64			2.82			2.70
Current neigh.			5.11			2.74			11.03			2.99

	Children ¹ (N=137)						Mothers (N=98)					
	Inner-city			Outer-city			Inner-city			Outer-city		
	n	%	M	n	%	M	n	%	M	n	%	M
Current city			9.06			8.59			22.48			18.80
<i>Type of the previous place of residence</i>												
Squatter housing	21	33.3%		37	50%		16	%		25	%	
Multi-story apartment	37	58.7%		33	44.6%		40	%		13	%	
Single family dwelling	5	8%		4	5.4%		3	%		1	%	

¹ Retrieved from Severcan (2019b)

Children's and their mothers' mean YOR in current home was 2.9 ($SD=1.32$) and 2.77 ($SD=1.45$) years respectively. This indicates that response inaccuracy and bias associated with remembering the previous place of residence were not significant given the findings of Quas et al. (1999), who reported that children interviewed within 3 years of an event provide more correct information about it compared to those who were interviewed 3 or more years after the event.

The effects of relocation on children's and mother's overall satisfaction with home and neighborhood were examined using a t-test (paired t-test for comparing respondents' residential satisfaction for the prior and current place of residence and unpaired t-test for investigating the difference between children's and their mothers' and inner- and outer-city children's/mothers' residential satisfaction). To understand why children and their mother's satisfaction changed (or did not change) after relocation, the responses to the open-ended questions were content analyzed. To this end, the author began by reviewing the data closely. Segments of text were coded and then grouped into similar themes, which were later grouped into larger categories. Finally, the author compared the themes associated with the previous and current place of residence.

Results

Effects of Relocation on Children's and Mothers' Satisfaction with Home

Compared to their mothers, children reported higher satisfaction scores for their home (Table 2). For the current home, this difference was statistically significant between the two groups ($M_1=3.90$, $M_2=3.16$, $t=4.26$, $p < .05$). While children's satisfaction with home increased (Severcan, 2019b), mothers' satisfaction with home decreased after relocation. However, the overall mean pre- and post- satisfaction scores were not significantly different for both children and their mothers ($p > .05$). Severcan (2019b) showed that no change was observed

in the residential satisfaction of children who moved from squatter housing. However, this paper shows that moving from squatter housing had a significant affect on mothers' satisfaction with home ($t=2.09, p<.05$). After relocation, satisfaction with the home increased among mothers who were once living in squatter settlements. Similar to their children's responses, moving from non-squatter housing had no significant affect on mothers' satisfaction with home. While no statistically significant change was observed in the residential satisfaction scores of mothers who moved to the inner- or outer-city, Severcan (2019b) found that moving to the inner-city positively and significantly affects children's satisfaction with home ($t=3.12, p<.05$).

Table 2. Mean residential satisfaction scores of children before (pre) and after (post) relocation.

	Home				Neighborhood			
	Pre	Post	t	p	Pre	Post	t	p
Children ¹								
Overall satisfaction	3.68	3.90	1.53	.12	3.74	3.45	1.52	.13
Moved from squatter housing	3.48	3.88	1.70	.09	3.51	3.38	.41	.67
Moved from non-squatter housing	3.80	3.89	.68	.49	3.89	3.48	2.09	.03*
Moved to inner-city mass housing	3.18	4.10	3.12	.00*	3.41	3.27	.60	.54
Moved to suburban mass housing	3.92	3.73	.76	.44	4.01	3.59	1.65	.10
Mothers								
Overall satisfaction	3.13	3.16	.05	.95	3.54	2.74	4.38	.00*
Moved from squatter housing	2.83	3.45	2.09	.04*	3.32	3.00	1.15	.25
Moved from non-squatter housing	3.35	2.96	1.54	.13	3.71	2.56	5.30	.00*
Moved to inner-city mass housing	3.11	3.31	.95	.34	3.40	2.72	2.70	.01*
Moved to suburban mass housing	3.15	2.94	.66	.51	3.77	2.77	3.73	.00*

Note. * Statistically significant difference between the mean pre- and post-mean residential satisfaction scores ($p<.05$).

¹ Retrieved from Severcan (2019b)

Residential Relocation and Factors Affecting Children's and Mothers' Satisfaction with Home

Results obtained from children show that, before relocation, children liked hanging out in their yards and the location of their dwelling in terms of convenience to city center and desired amenities (like cultural areas, bakeries and groceries) (Severcan, 2019b). Relocation affected children's satisfaction with mass housing negatively with respect to these dwelling features because of the lack of private yards and cultural and commercial areas in the mass housing estates. It was also found that after relocation, children did not complain about the infrastructure problems of their dwellings – e.g. children did not mention any leaking pipe issues in their current home, a problem that was frequently mentioned by children who moved from squatter settlements (Severcan, 2019b). Nevertheless, the construction quality of the apartments was still a problem for children after relocation (Severcan, 2019a, 2019b). Additionally, many children expressed their dissatisfaction with the efficiency of the housing

management and administration because of the malfunctioning elevators and poorly maintained apartment buildings in mass housing (Severcan, 2019b).

This paper shows that the way mothers assess their prior and current dwellings is not significantly different than those of their children. After relocation, mothers expressed greater, but not statistically significantly different, level of dissatisfaction with the type of their dwellings (e.g. living in a house with a yard versus living in a high-rise apartments), construction quality and efficiency of the housing management and administration. Additionally, in their responses to open-ended questions, many mothers expressed how their satisfaction with the location of their home decreased after relocation:

Our previous house was in the middle of the city. It was close to everywhere. We never had a transportation problem. Shopping areas are too far away now. We can hardly meet our needs. (A mother from an inner-city estate)

We do not have shopping and leisure areas nearby. Transportation to the city is a huge problem. (A mother from an outer-city estate)

Like children, mothers who moved from squatter settlements, mentioned the infrastructure problems of their previous home (e.g., “*the roof was leaking,*” “*there was no toilet infrastructure in the house*”), but they did not mention such problems for their current home.

Both children and their mothers rated the brightness of their dwelling as the most satisfying, and the efficiency of the housing management and administration as the most dissatisfying features of their current home. Compared to their previous dwelling, mothers were more happy with the climatic comfort of their dwelling ($t=4.05, p< .05$). Especially mothers coming from squatter settlements seemed satisfied with not using coal stoves in their current dwellings. Severcan (2019b) found that climatic comfort inside the home ($M=3.97, SD=1.29$) was one of the top three most liked features of the current home by children.

In general, like their children, mothers were satisfied with the views from windows, especially the views of nature, but some mothers indicated that because all the buildings in the neighborhood are too high, they block the view.

Children who moved to the outer-city were less satisfied than the children who moved to the inner-city estates with respect to the size of their dwelling (Severcan, 2019b). This was perhaps because, as mentioned earlier, some inner-city children were living in apartment buildings with more rooms. Although mothers’ overall satisfaction with the size of their home decreased after relocation, similar to the findings obtained from children, this change was statistically significant only for the mothers who moved to the outer-city estate ($t=2.51, p< .05$). Additionally, housing type ($t=2.66, p< .05$) and efficiency of the housing management and administration ($t=2.52, p< .05$) were the two other dwelling characteristics that were rated statistically significantly different by the mothers living in inner- and outer-city estates.

In general, mothers who moved from the squatter settlements expressed their satisfaction with the physical qualities of their current dwellings. Typical problems mentioned by these mothers were related with the lack of yards, where (like their children) they stated that they miss hanging out in these areas with their families and friends, poor workmanship of their new buildings and the lack or small size of the balconies in their new residential environment. Compared to mothers coming from squatter settlements, more mothers coming from formal neighborhoods complained about the size, appearance, construction quality and management issues of their current dwellings:

We live in gated, high-rise apartment buildings. They don't look very beautiful from outside. The buildings are too high. Our kitchen is very small. The doors are like papers! You can clearly see the bulges in the wooden door frames. The window frames are also very poor in quality. The windows are streaked with dirt. I assume that they used second hand windows. I don't think that they are conducting inspection and maintenance of the elevators. We are sick and tired of paying for the mistakes done by our housing managers. (A mother from an inner-city estate who moved from a non-squatter settlement)

Effects of Relocation on Children's and Mothers' Satisfaction with Neighborhood

As Table 2 illustrates, compared to their mothers, children reported higher satisfaction scores for their neighborhood. For the current neighborhood, this difference was statistically significant between the two groups ($M_1=3.45$, $M_2=2.74$, $t=4.09$, $p< .05$). While children's satisfaction with neighborhood increased ($p> .05$), mothers' satisfaction with neighborhood significantly decreased after relocation ($t=4.38$, $p< .05$).

Severcan (2019b) showed that no change was observed in the residential satisfaction of children who moved from non-squatter housing, or who moved to an inner- or outer-city estate. He also found that, at the neighborhood level, the only statistical change was observed among the residential satisfaction of children who moved from a squatter housing to a mass housing development. From the data obtained from children's mothers, the author found totally opposite results. Moving from a squatter housing had no impact on mothers' satisfaction with neighborhood. However, after relocation, satisfaction with neighborhood significantly decreased among mothers who moved from a formal neighborhood, or who moved to an inner- or outer-city mass housing estate.

Residential Relocation and Factors Affecting Children's and Mothers' Satisfaction with Neighborhood

Severcan (2019b) found that, after relocation, significantly fewer children mentioned that they had many friends in their neighborhood. Compared to other pre-defined neighborhood characteristics, children gave higher satisfaction scores for the level of social ties and number of trusted people (other than parents) in their current neighborhood (Severcan, 2019b).

Additionally, sense of safety was one of the most influential factors negatively affecting children's satisfaction with current neighborhood. Accordingly, the most disliked characteristic of the current neighborhood by children was the inadequacy of measures taken to mitigate safety concerns (Severcan, 2019b). Inaccessibility of cultural places (like theatres and culture centers), informal play areas (like yards and streets) and commercial establishments (such as grocers, restaurants and coffee shops) were mentioned as some other important factors negatively affecting children's neighborhood satisfaction (Severcan, 2019b). For some neighborhood characteristics, there was a statistically significant difference between the inner- and outer-city children's mean neighborhood satisfaction scores. These characteristics were: proximity to school from home, safety of street crossings, speed and number of cars using the local streets, proximity of public transportation stops to the home, frequency of public transportation vehicles passing through the neighborhood, number of public transportation routes servicing the neighborhood, strength of social ties in the neighborhood (e.g. whether neighbors greet and visit each other), and level of sense of community (i.e. whether people act together or help each other when they face common problems) ($p < .05$ for all) (Severcan, 2019b).

We see both similarities and differences across the responses obtained from children and their mothers. Like their children, after relocation, significantly fewer mothers mentioned that they had many friends in their neighborhood ($t=5.27$, $p < .05$). This problem was seen especially among mothers who moved from non-squatter housing areas since mothers coming from squatter settlements were mostly seeing their old friends as their neighbors.

As the author has observed from the data obtained from children (Severcan, 2019b), the level of sense of safety in the neighborhood significantly declined among mothers after relocation ($t=7.37$, $p < .05$). In their responses to open-ended questions, many mothers mentioned the drug selling and vandalism activities in their neighborhood and wrote about their concern for their children's safety.

I was living in a safe neighborhood. It was a good place to raise my kids. People were affluent. In my current neighborhood, I am not satisfied from the quality of the neighbors. They are selling drugs in front of us. We hear the gunshots around. I don't want to live here! (A mother who moved from a formal neighborhood to an inner-city estate)

I worry when my children go to school or grocery alone. There are gangs everywhere. (A mother from an outer-city estate)

Additionally, mothers thought that in terms of several neighborhood characteristics, the previous neighborhood environment was a much better place to live than the mass housing estates: adequacy of the measures taken for mitigating safety issues in the neighborhood; the traffic volume and speed of the cars in the local streets; safety of street crossings; and care taken by neighbors to protect the environment and keep it clean ($p < .05$ for all). For mothers, the most disliked characteristic of the current neighborhood was same with what their children indicated: the inadequacy of measures taken to mitigate safety concerns ($M=1.70$,

$SD=1.07$). Hence, in their responses to open-ended questions, like their children, many parents stated that they aspire to live in safer neighborhoods.

Similar to the responses obtained from children, inaccessibility of cultural places, informal play areas (like yards and streets), parks with a variety of furniture and play equipment, and commercial establishments (such as grocers and restaurants) were mentioned as some other important factors negatively affecting mothers' neighborhood satisfaction. After relocation, satisfaction with proximity, quality and quantity of shopping places, cultural places and public open spaces declined significantly among mothers ($p < .05$ for all).

Compared to their previous neighborhoods, mothers assessed their current neighborhood significantly more negatively in terms of the following neighborhood features: the quality of their children's school ($t=7.52, p < .05$), the quantity of greenery ($t=2.66, p < .05$), frequency of public transportation vehicles passing through the neighborhood ($t=3.74, p < .05$), number of public transportation routes servicing the neighborhood ($t=3.65, p < .05$), number of people using the open spaces ($t=3.56, p < .05$), and noise level in the neighborhood ($t=3.44, p < .05$).

Like their children, compared to those living in the outer-city estate, significantly more mothers living in the inner-city were satisfied with the location of the school ($t=2.80, p < .05$), frequency of public transportation vehicles passing through the neighborhood ($t=2.82, p < .05$), and number of public transportation routes servicing the neighborhood ($t=2.47, p < .05$). As mentioned in Severcan (2019), in interviews, children living in outer-city estates explained that since their school is located on a steep slope, access to it requires great effort. The author assumes that in the outer-city, children's mothers were dissatisfied with the location of the school for a similar reason.

Differences between children's and their mothers' responses were observed a number of neighborhood characteristics. While children were highly satisfied with the presence and number of trusted people (except parents) in the neighborhood who can help or protect them ($M=3.94, SD=1.16$), mothers were highly dissatisfied with this aspect of their neighborhood ($M=2.99, SD=1.14$). Finally, Severcan (2019) found that inner-city children were significantly more satisfied with the safety of street crossings, speed and number of cars using the local streets, proximity of bus stops to the home, strength of social ties and level of sense of community in the neighborhood than to outer-city children. However, this study does not show any statistically significant difference between inner-and outer-city mothers' satisfaction with respect to these neighborhood characteristics.

Conclusion

Creating neighborhoods that are loved by different generations requires urban designers to understand the common characteristics of child- and adult-friendly neighborhoods. With this goal in mind, by focusing on the mass housing estates that were built in the context of squatter housing regeneration, this study questioned whether, how and why mothers' residential satisfaction changed after relocation, and compared these results to those of

children reported in Severcan (2019b). To the best of the author's knowledge, no study has ever compared children's and mothers' satisfaction with mass housing.

Results showed that moving from a squatter or non-squatter housing or moving to an inner- or outer-city estate does not affect children's and their mothers' residential satisfaction levels equally. At the neighborhood level, mothers are more negatively affected from relocation than children. However, moving to mass housing affects children's and mothers' residential satisfaction in the same direction; for example, at the dwelling level, moving from a squatter housing to an inner-city mass housing estate affects both children's and mother's residential satisfaction positively.

In line with the findings reported by Zhang and Lu (2016), compared to their mothers, children reported higher satisfaction scores for all the features of the current home and neighborhood. However, there were differences and similarities in what children and their mothers liked and disliked about these places. In general, children and their mothers liked the following characteristics of their environment: brightness and climatic comfort of their dwelling, building infrastructure, views from windows and presence of parks and playgrounds. Both groups were unsatisfied with the following features of their environment: construction quality of the buildings, efficiency of the housing management and administration, proximity of commercial and cultural places, quality of parks and playgrounds, presence of sports areas, speed and number of cars using the local streets, safety of street crossings, neighborhood safety, care taken by the neighbors to protect the environment and keep it clean, and adequacy of the measures taken for mitigating safety issues in the neighborhood.

Because the numbers of mass housing developments is rising in Turkey, the results of this study could guide urban planners and designers in their efforts to build communities that are loved by different age groups. First, results suggest that to increase children's and their mothers' residential satisfaction in mass housing, planners and designers need to integrate the existing land use system with retail, cultural and recreational services. These areas should attract the attention of not only adults but also children. Some strategies to achieve this include: converting the lawns into sports areas, using the ground floor of the apartment buildings for commercial and cultural purposes (e.g., bookstores, cafes, grocers) and providing cultural centers for women and young people in the neighborhood.

Second, planners and designers should put greater focus on increasing residents' sense of safety. There is voluminous literature discussing ways to design safer neighborhoods (see, e.g., Loukaitou-Sideris, 2006). Strategies may include increasing the land-use mix, providing more sitting spaces in outdoors, improving crosswalks and putting territorial symbols such as neighborhood watch signs. Such environmental design strategies should be complemented by other strategies, which may include policing and/or surveillance by neighborhood watch groups.

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