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DETERMINATION OF RELATIONSHIP AMONG DEMOGRAPHIC VARIABLES AND THE PERCEPTIONS OF SAFETY OF URBAN PARK USERS: A CASE STUDY IN THREE DIFFERENT PARK IN ISTANBUL, TURKEY

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In this study, it was examined that whether there were differences between the evaluations of the users about the park safety and users socio-demographic profiles. It was found out that educational status, age, occupation differences affected the perceptions of safety.

This research were analyzed through the surveys applied on the users of three different park, Maçka Park, Ulus Park and Zeytinburnu Park, in Istanbul between 2004-2005. The survey was conducted through random sampling on weekdays and at weekends allocated on an equal basis and through face to face interaction. 600 surveys were carried out. The collected data were analysed through SPSS (PC), a statistical analysis program and the chi-square test was carried out to find significant differences.

The interview results show that the vast majority of park users interviewed, perceived their parks to be safe places. Most of park users were said that they felt unsafe in park especially in evening times. Most of the park users felt unsafe because of crowdy behaviors followed by public drinkings. Most of the users stated they finding help was diffucult in the park and wanted especially security staff in the park.

Keywords: Relation, demographic variable, perception, safety.

INTRODUCTION

Where people use parks in a positive way and in substantial numbers, all people feel more secure. When the park is empty, park will not be safety. Activity and recreational programming can encourage positive use, increase surveillance, limit domination by any one user group and reduce the possibility of inappropriate behaviour. Creating welcoming, well-used and attractive spaces, where people want to be is a key element to prevent anti-social behaviour.

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Figure 1. Bryant Park, New York (Madden, Wiley, 2002)

An ability to feel a sense of control over a space, to be able to see in, to escape easily, or to gain assistance in times of crisis are examples of how can be made to feel more secure (Figure 2) (Altman, Zube, 1989,165). Perceptions are significant - how people perceive a park will affect their behavior towards it, and this can determine a park's fate. From a report by William Kornblum, City University of New York Graduate School, Dept. of Sociology, February 1996, the most common reason New Yorkers don't use Central Park is a perception that it is unclean and unsafe (http://www.pps.org/upo/info/parkuse/quantifyusership).

Before

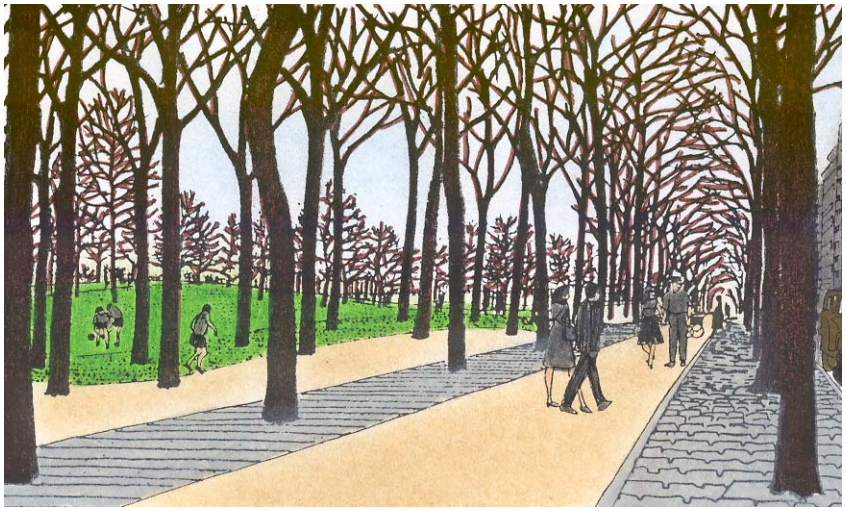
After

Figure 2. Central Park edge had a bad physical access before removing park surrounding wall and edge plants (Arnold, 1993).

Safety is critical issue for the elderly and women in public spaces. According to the Patrick, women are not using green spaces in most cases because of a lack of the feeling of safety (especially younger and elder women) or they don't want to meet people they don't want to talk to. Men don't use green spaces because of noise and too many &endash; or too few people, safety is not first rated (Patrick, 2002).

Accessible public telephones are a high priority for urban park safety. Telephones are not only a matter of convenience, but they also act as a symbol of safety and security as do visible police patrols and a high level of maintenance. The presence of parks staff play a similar role by providing a sense that help is available, if required (http://www.pps.org/topics/design/toronto_safety_3).

A well-designed park reduces the fear of crime and antisocial behaviour, minimises the opportunities for people to behave antisocially, and creates places that people want to use. The design of a park can have a direct impact on people's perceptions of safety and their willingness to use a space. The physical characteristics which park users associate with high-risk environments include: Poor lighting, confusing layout, physical and aural isolation, poor visibility, no access to help, areas of concealment, poor maintenance, vandalism, presence of "undesirables".

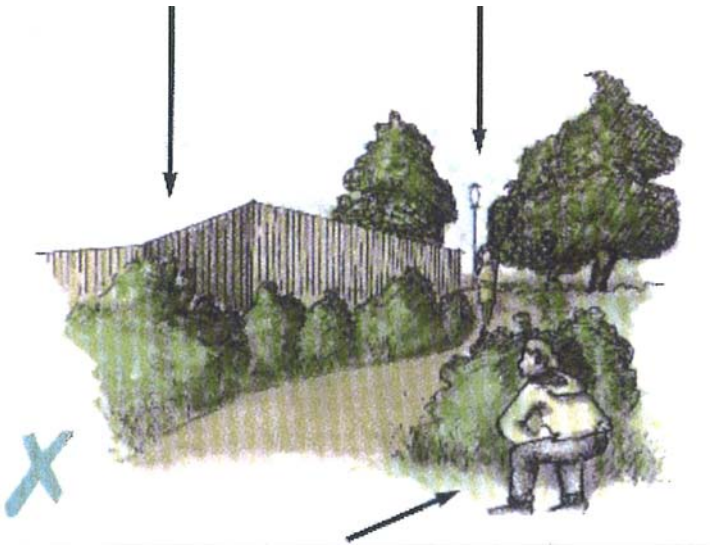

Figure 3. Background fence may obstruct surveillance and insuffient ligthing may cause opportinities for crime in the park.

Signage in the form of maps and descriptive text promotes in park trails a greater sense of safety because people feel greater control over their environment when they know where they are and how to get to where they want to go. (http://www.pps.org/topics/design/toronto_safety_2).

People are attracted to well-maintained places with staff providing a reassuring presence. Park managers should consider changing maintenance times so that they coincide with the times when vulnerable people are using the site. "Planning, Designing, and Maintaining Safer Parks" by Toronto Parks and Recreation explicitly states that "The presence of graffiti, litter, vandalism, poorly maintained paths or plantings can contribute to a perception of lack of safety.". Moreover, one of the points of advice for "Making Parks Safer" by New York City's Partnerships for Parks, is entitled "Beware of broken windows" and goes on to say that little problems lead to bigger ones.

As well as providing park staff, managers should consider using neighbourhood wardens and community support officers. Collectively, the staff provide a reassuring presence to users. According to Dunnett, Swanwick, Wooley research results, staff and more things for young people to do would undoubtedly increase the sense of safety (Dunnett, Swanwick, Wooley, 2002).

Ensuring clear sight lines, open vistas, and good lighting will make the park feel safe for all users. But a balance is needed, and a draconian approach to pruning and shrub maintenance may undermine the site's attractiveness and biodiversity. People's perceptions of

safety are linked closely with feelings of enclosure and lines of sight for park users. Forsyth concluded, "Many people fear natural areas for safety reasons. Parks are perceived as risky when they are more densely vegetated, particularly when that vegetation is not obviously maintained." (Forsty, 2003).

MATERIALS

Preparation of Questionnaire Forms

Data gathering was largely dependent on the questionnaire method. Various studies to data were made use of in the production of questionnaire forms.

Sampling model

Data for the users surveys were collected from Maçka Park, Ulus Park and Zeytinburnu Park in Istanbul. These three different parks were chosen firstly because of their locality in Istanbul and secondly their users' different socio-demographic characteristics.

This research was analyzed through the surveys applied on the users of three different park, Maçka Park, Ulus Park and Zeytinburnu Park, in Istanbul between 2004-2005. The sample size was determined at 600 persons. The survey was conducted through random sampling on weekdays and at weekends allocated on an equal basis and through face to face interaction. As carried out, the sample was distributed in the following ways: month of year (44% August, 22.2% September, 7.8% October, 16.3% November, 9.7% December), time of day (17.5% early morning, 25.2% midday, 43.5% afternoon, 13.8% evening), day of week (50% weekday, 50% weekend), weather (89.3% open weather, 10.7% cloudly weather). User profile was determined in the first part of the questionnaires, and then in the second part of the questionnaires it was determined safety perceptions of users.

METHODS

In the evaluation of questionnaire results, it was employed SSPS method. Following the completion of questionnaire forms, the forms were coded according to the answers of each subject. Firstly, socio-demographic factors were analysed, secondly objective variables about safety issues for users were determined.

In the last part of the study, the attempt was to find whether there were differences in the evaluations of the users about the safety and users socio-demographic profiles. Data

analyses were carried out using cross tables, which enable the comparison of the variables. Chi-square test was carried out.

RESULTS

Table 1. Socio-demographic Characteristics Of Park Users.

	Maçka Park-Ulus Park-Zeytinburnu Park	
	Frequency	**Percentage**
Sex		
Woman	**198**	**33**
Man	**402**	**67**
Total	600	**100**
Marrital status		
Married	**253**	**42.2**
Single	**347**	**57.8**
Total	600	**100**
Age		
12-16	**50**	**8.3**
17-25	**228**	**38**
26-55	**278**	**46.3**
56 > +	**44**	**7.3**
Total	600	**100**
House type		
Apartment	**524**	**87.3**
Housing mass	**16**	**2.7**
Detached house	**60**	**10**
Total	600	**100**
Educational status		
Primary school	**257**	**42.8**
High school	**186**	**31**
University	**157**	**26.2**
Total	600	**100**
Income		
No income	12	**2**
Low income	359	**59.8**
Middle income	178	**29.7**
High income	51	**8.5**
Total	600	**100**
Occupation		
Unemployed	27	**4.5**
Receiving pay	241	**40.2**
Self-employed	110	**18.3**
Housewife	71	**11.8**
Student	97	**16.2**
Retired	54	**9**

Total	600	**100**

33% of park users are female, and 67% is male. 42.2% of park users are married, and 57.8% is single. 38% of park users are in 17-25 age group, 46.3% of park users are in 26-55 age group, 8.3% of park users are in 12-16 age group, 7.3% of park users are 50 age and older. 87.3% of park users lived in aparments, 2.7% of park users lived in mass housing, 10% of park users lived detached house. 42.8% of park users finished primary school, 31% of park users finished high school, 26.2% of park users graduated university. 59.8% of park users had low income, 29.7% of park users had middle income, 2% of park users had no income, %8.5 of park users had high income. 4.5% of park users were unemployed, 40.2% of park users were receiving pay, 18.3% of park users were self-employed, 11.8% of park users were housewife, 16.2% of park users were student, 9% of park users were retired.

Park Usage

These are the results of users profiles about park usages:

Table 1. Park Usage Characteristics Of Park Users.

	Maçka Park-Ulus Park-Zeytinburnu Park	
	Frequency	**Percentage**
Coming park		
By foot	**435**	**72.5**
By car	**92**	**15.3**
By bycle	**10**	**1.7**
By bus	**47**	**7.8**
By taxi	**16**	**2.7**
Total	600	**100**
Reason for coming park		
For relaxing	302	**50.3**
Doing sports	90	**18.3**
Sight seeing	70	**11.7**
Picnicing	50	**8.3**
Using playground	24	**4**
For their dogs	16	**2.7**
Passing through the park	7	**1.2**
Fishing	15	**2.5**
Total	600	**100**
Insuffient facilities		
Playground	149	**24.8**
Toilet	106	**17.7**
Social activity areas	63	**10.5**
Park furniture	106	**17.7**

Sport areas	69	**11.5**
Nothing	107	**17.8**
Total	600	**100**
Coming park		
With friends	216	**36**
With their family	144	**24**
Lonely	142	**23.7**
With their dates	58	**9.7**
With their dog	20	**3.3**
With their children	20	**3.3**
Total	600	**100**
Frequency for coming park		
Once in a week	277	**46.2**
Once in a month	158	**26.3**
Came to the park every day	100	**16.7**
One or two time in a year	55	**9.2**
Came to the park first time	10	**1.7**
Total	600	**100**
Park usage time		
In the afternoon	398	**66.3**
In the morning	140	**23.4**
In the midday	39	**6.5**
In the evening	23	**3.8**
Spending time in a park		
1-2 hour	252	**42**
2-4 hour	65	**25.8**
Less than 1 hour	126	**21**
More than 4 hour	67	**11.2**

Users came to park by foot (72.5%), thier car (15.3%), bycle (1.7%), bus (7.8%), taxi (2.7%). Users came to park for relaxing (50.3%), doing sports (18.3%), sight seeing (11.7%), picnicing (8.3%), using playground (4%), for their dogs (2.7%), passing through the park (1.2%) and fishing (2.5%). The facilities that the users found insufficient were playgounds (24.8%), toilets (17.7%), social acivity areas (10.5%), park furnitures (17.7%), sport areas (11.5%), nothing (17.8%).

36% of users came to the park with their friends, 24% came with their family, 23.7% came with lonely, 9.7% came with their dates, 3.3% came with their dog and 3.3% came with their children. 46.2% of users came to the park once in a week, 26.3% came to the park once in a month, 16.7% came to the park everyday, 9.2% came to the park one or two time in a year, 1.7% came to the park first time.

66.3% of users used the park in the afternoon, 23.4% of users used in the morning, 6.5% of users used the park in the midday, 3.8% of users used in the park evenings. 42% of users stayed about 1-2 hour, 25.8% stayed 2-4 hour, 21% stayed less than 1 hour, 11.2% stayed more than 4 hour in the park.

Safety Perceptions Of Park Users

36.7% of users stated that they felt unsafe in the park. 48% of users stated that they felt safe. 15.3% of users stated that they felt neither unsafe nor safe in the park (Table 1).

Table 1. Perceptions of safety

	Park Areas	
	Frequency	**Percentage**
Unsafe	220	**36.7**
Neither unsafe nor safe	92	**15.3**
Safe	288	**48**
Total	600	**100**

56.8% of users stated that there were certain times, the other 43.2% of users stated that there were not specific times when they felt unsafe in the park. 43.2% of users stated that they felt always safe in the park. 26.3% of users stated that they felt unsafe in the park especially in the evening time. 17.8% of the users stated that there were no specific time when they felt unsafe. 8.8%of users stated that they felt unsafe in the park even daytime. 1.7%of users felt unsafe when the park was calm, 2.2% of users felt unsafe early in the morning.

Most of the users said that the reason for not feeling safe was fear of rowdy behaviors (24.7% of all park users) followed by public drinking (21.2%). 36.5% of users said that there were nothing disturbed them in the park. 3.5% of users felt unsafe because of burglary, 7.3% of users felt unsafe because of discordant behaviors, 4.3% of users felt unsafe because of dogs, 1.2% of users didn' t like street sellers, 1.3% of users felt unsafe because of car using in the park.

73.2% of users stated they finding help was diffucult in the park, 19.5% of users stated that finding help was easy, 7.5 of users stated that finding help neither difficult nor easyin the park.

69.5% of users wanted security staff, 18% of users wanted telephone, 12.5% of users wanted first aid station for feeling more secure in the park.

Safety Concerns Differences According To Socio-demographic Profiles

In the last part of the study the attempt was to find whether there were relationships between the evaluations of the users about the safety and their socio-demographic profiles according to the Chi Square test results. It was found out that variability in the educational status, age, occupation affected the perceptions of safety.

Safety concerns according to educational status

It was found that there is a relationship in the evaluation of the users about the safety and their educational status differences (p=0.010) according to the Chi Square test results (Table 2). University graduated users felt more secure than primary school and high school graduated users.

Table 2. Relationships between safety and educational status in parks

	Park Areas		
Educational status (%)	**Primary school**	**High school**	**University**
Unsafe	41.6	39.8	24.8
Neither unsafe nor safe	13.2	15.6	18.5
Safe	45.1	44.6	56.7
Total	100	100	100
Pearson Chi-Square: 13.319, Asymp. Sig. (2-sided): 0.010			

Safety concerns according to age group

I t was found that there were relationship in the evaluation of the users about the safety and their ages differences (p=0.000) according to the Chi Square test results (Table 3). Most of the 12-16 age group felt in the park unsafe themselves; most of 17-25, 26-55 and 56 age and older group felt safe in the park.

Table 3. Relationships between safety and age in parks

	Park Areas			
Age (%)	**12-16 age**	**17-25 age**	**26-55 age**	**56 age and older**
Unsafe	68	36	33.5	25
Neither unsafe nor safe	22	15.8	15.1	6.8
Safe	10	48.2	51.4	68.2
Total	100	100	100	100
Pearson Chi-Square: 38.868, Asymp. Sig. (2-sided): 0.000				

Safety concerns according to occupation group

It was found that there were relationship in the evaluation of the users about the safety and their occupations differences (p=0.007) according to the Chi Square test results (Table 4). Most of the unemployed, housewife, retired, receiving pay, has own work of the users felt safe; most of the student felt in the park unsafe in the park.

Table 4. Relationships between safety and occupation in parks

	Park Areas					
Occupation (%)	**Unemployed**	**Housewife**	**Student**	**Retired**	**Receiving pay**	**Has own work**
Unsafe	25.9	36.6	53.6	35.2	34.4	30
Neither unsafe nor safe	22.2	9.9	16.5	7.4	17	16.4
Safe	51.9	53.5	29.9	57.4	48.5	53.6
Total	109	100	100	100	100	100

Pearson Chi-Square: 24.070, Asymp. Sig. (2-sided): 0.007

CONCLUSIONS

Park safety is a crucial element of perceving park comfort and image. If the park safety is good, comfort and image of the park will affect positively. Safety start with the park environment. An ability to feel a sense of control over a space, to be able to see in, to escape easily, or to gain assistance in times of crisis are examples of how can be made to feel more secure. Security staff, telephone and first aid unit should be provided for safety park environments. Open sightlines in the park are important for perceiving safety. Right planting and sufficient lighting help to create open sightlines.

The findings of the research reveal most of the users stated that they felt safe in the park. Most of the users felt unsafe especially in the evening times. Most of the users said that the reason for not feeling safe was fear of rowdy behaviors followed by public drinkings. Most of the users stated finding help was diffucult in the park. Most of the users wanted security staff in the park for feeling more secure.

In the last part of the study the attempt was to find whether there were relationships in the evaluations of the users about the safety and their socio-demographic profiles according to the Chi Square test results. It was found out that variability in the educational status, age, occupation affected the perceptions of safety. University graduated users felt more secure than primary school and high school graduated users. Most of the unemployed, housewife, retired, receiving pay, has own work of the users felt safe; most of the student felt unsafe in the park. Most of 12-16 age group felt unsafe; most of 17-25, 26-55 and 56 age and older group felt safe in the park.

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