

# Sociological Explanation of fear of crime in public spaces Case Study Mashhad

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## Abstract

Fear of crime in public places is a social issue that reduces access to the public places and limits the interactions with these places. Fear has significantly affected the city appearance, civil design and spatial distribution of the residences. The conception of security in urban spaces is on one hand related to the crime and on the other hand to the concept of facing the crime (victimization) and fear of crime encountering. The research method is surveying and the information collection technique is through questionnaire. Probable span sampling (PPS) method is used. Sample population was 200 household which were selected randomly in five categorical clusters from Mashhad city. In addition to investigating structural factors, the purpose of the research is studying reactive components affecting fear of crime among people in public places inside and outside the neighborhood.

Independent variable of the research includes two general classes of reactive and structural factors and the interaction between them which reactive factors consist of:

Vulnerability, victimization, gender ratio of the place, age ratio of the place, mental image of the place, activity in the place, cumulative effectiveness, and residency duration in the place and perceiving the risk of the crime. Structural factors include: visual penetration of the place, variation of place usage, non-defended areas and place rank. The interaction between subjective and structural factors is considered as independent variable which includes: disorder and effectiveness, gender ratio and vulnerability, age ratio and vulnerability, place rank and vulnerability.

Place rank among all other structural factors has the greatest effect on the fear of crime in public places outside the neighborhood. It means that by increasing place's rank of people residential area their fear of crime is decreased. The presence of non-defended areas (as one of the structural characteristics of the place), the sense of the place (one of the mental images of the people from the place) and activity and participation of the individuals in the place are three basic factors forming the concept of a place which have significant effect on the fear of crime within the neighborhoods. The effect of social capital (trust and support) as another effective structural factor on fear of crime in public area within the neighborhoods is approved. Victimization experience is also recognized as a predictor of fear of crime in multi variable analysis of public places inside and outside the neighborhood. Spatial factor's effects on fear of crime in public places inside and outside the neighborhoods show that structural and spatial characteristics of the residence area also affect fear of crime significantly. There is a relation between fear of crime and spatial view and fear of crime is also affected by spatial configuration. Variable of spatial legibility has reductive effect on fear of crime in public places within the neighborhood. Visual accessibility and public place lighting for the people also reduce fear of crime among the people within the neighborhoods. The relation between the movement and the presence of people in the place with the fear of crime outside the neighborhoods is approved. Among social factors, economic-social position of the people has reverse relation with fear of crime. Among reactive factors, the more is the understanding of the people from the crime occurrence in their neighborhoods, the more is the fear of crime in public places outside the neighborhood.

Variables of victimization, local legibility, social capital of the neighborhood, informal social control and gender ratio of the place among other reactive factors and variables of usage variation of the place, visual penetration of the place among other structural factors in the model of fear of crime in public places within the neighborhood have significant relation with fear of cri, in public places within the neighborhoods. Also the interaction between variables of vulnerability and gender ration of the place, of disorder and informal social control and of disorder and social capital of the neighborhood has no effect on fear of crime in public places within the neighborhoods.

Finally, those variables of structural and reactive classes which are effective and significant are supported to reduce fear of crime.

## Keywords

Cultural security, fear of crime, public spaces, urban

## Introduction and problem description

Fear of crime is a social reality (Reid and Roberts, 1998:313) and it is specially a problem that has troubled the urban communities, affected significantly the urban dissatisfaction (Blorim and Hanke, 2005; Mishley et al.,

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2004; Liska et al., 1982, cited by Hemmati, 2007:132; Skogan and Mazfield, 1981; Diazli; Benister and Fife, 2001, Shwartz et al., 1999; Pin, 2001:899) and many factors in the city have created and intensified it (Mishley et al., 2004). Urban space is structural in which human life is moving through it. So, human movement in this structure needs a space which is compatible with spiritual, psychological and physical conditions of the residences. Urban space without its psychological security is just a sole communication artery (Ghaemmaghami and Karami, 2010:52). The presence of fear of crime in urban environment shows troubles of communities in modern age.

Fear is created in a person by understanding the potential danger of a place (whether explicitly or mentally) (Ferraro, 1995; Ferraro and Lagrang, 1987; cited by War, 2000) and it is a consequence of experiences, memories and relations with others (Koskela, 1997, cited by Yazooof, 2010). So, fear of crime includes a wide range of tentative and sensitive reactions to crime and disorders which individuals and communities are the creators of it (Hollway and Jefferson, 1997; Loader et al, 1998, cited by Pin, 2000).

Fear of crime in urban public places is a social issue. As public places form the most important part of the urban environment and include streets, squares, alleys and all places where people have physical and visual access to (Tibald, 1992; John Pirmore et al, 1994; Izzac Joseph cited by Fialkoof, 2004; Walz cited by Madani, 2000; Hanna Arnet cited by Mahmmodezhad, 2009; Kasintiz, 1995 cited by Sharepoor, 2008). Among urban public places streets and pathways are the most important, most sensitive and form most public places of a city (Bahrayni, 1996). Fear of crime is of important issues which reduces access to public places and restricts interaction with these places. Fear affects city form, urban and residential design and spatial distribution of the resident significantly (Lemanski, 2004:102; Benister and Fife, 2001; Foster et al, 2010). The conception of security in urban spaces is on one hand related to the crime and on the other hand to the concept of facing the crime (victimization) and fear of crime encountering (Karmona, 2003 cited by Modiri, 2006). In fact the relation between fear of crime and city and reinforcing this relation by some urban characteristics (population accumulation, racial and cultural inhomogeneity etc.) causes the resident of large cities to fear from facing crimes and this fear and anxiety restricts the individual's interaction with the space (Blobaum and Hunecke, 2005; Alikhah and Najibi, 2005). In addition to investigation social factors, it has been tried in this research that spatial components affecting fear of crime in public places inside and outside the neighborhoods is considered. According to David Harwy, any general theory about a city should be able to relate social processes of the city to its spatial form. The method of space formation can affect social processes deeply. In fact the spatial form of a place is a reflection of social relations. Based on his opinion, the role of space and location can be recognized in personal life by sociologic imagination or it can be found that how these relations between people and organizations are affected by the place which is separating them (Harwy, 1997). So, in order to build a bridge between sociological and geographical vision the relation between urban spatial form and the communicative behavior within it should be studied (Afroogh, 1998).

## **The importance of the research**

Strong public arena is introduced as a fundamental element for community health and is considered a social property or capital which can be used for coordination and linkage of the community members to each other (Madanipoor, 2008). According to Roogerz (2003), today public places of large cities are of the strength criterion of these cities (Rafieeyan and Sifae, 2005).

Among urban public places, streets and their pathways are the most fundamental vital parts of the city. The entire city will be secure from fear and vandalism if the streets of the city are secured from fear and vandalism. Protecting city security is the main task of streets and pathways of a city (Jacobz, 2007) and the importance of the street as key element of forming a urban structure should be rebuilt (Tibaldz, 2006). Lack of fear and the sense of security in public places are necessary conditions of urban life. Tangible security of an environment is a necessary condition for attracting people to the sectors within the city (Ray Gindroz, cited by Erendet et al, 2008). According to Ellin (1997), public place is destroyed of people do not use a place out of fear or inconvenience (Modiri, 2006).

On the other hand, one of the characteristics of poor and inefficient urban space is the capability of creating fear and anxiety. Following the presence of stress and pressure in the environment, perception range of the individual is reduced and vast part of logical thinking ability is lost and the learning ability is also decreased (Salingarous, 1999).

Fear of crime is one of the effective components of public health so that many studies are focused on its effect on welfare and personal well-being (Homlshim et al, 2010; Jackson and Stafford, 2009; Seddigh Sarvestani, 2006; Green et al, 2002). On the other hand, fear of crime in personal level reduces personal freedom (following

the restriction of movement and activity), public communication, mutual trust and individual's social capital (Benister and Fife, 2001), causes anxiety and fear in the person, alienation and dissatisfaction in life and unnecessary protection and care of the people and in social level it reduces informal social control, transforms public streets of the city to dangerous places and decreases usage of urban areas, uniformity and coordination of the district and also reduces participation in neighborhood associations and social groups (Kaya and Kubat, 2007; Aram, 2009; Green et al, 2002; Kohm, 2009; Franklin et al, 2008; Black lee and Snider, 1997; Taylor, 1988 cited by Donges, 2000; Jackson and Gray, 2009; Grabosk, 1995; Degense, 2000 cited by Hemmati, 2007; Wyant, 2008; Skogan and Maxfield, 1981; White, 1987 cited by Mac Cra et al, 2005; Mishley et al, 2004; Bannister and fyfe, 2001). Thus, fear of crime has the importance as the crime itself (Miller, 1973, cited by Louis and Salem, 1988) so that many people are affected by fear of crime rather than crime itself (Yaviz and Welch, 2010; Seddigh Sarvestani, 2006; Zabetian and Bemani, 2008; Schweitzer et al, 1999; Evanz and Fletcher, 2000).

Conducted researches about the feeling on insecurity in Mashhad city (Behravan, 2009; Mazloom Khorasani and Esmaeli, 2006; Zanjani Zade, 2001) shows low level of insecurity feeling of the citizens and the necessity for studying this topic. According to the importance of social phenomenon of fear of crime and its harmful consequences and lack of special emphasis on spatial components on fear of crime, choosing this topic for the research seems necessary.

### **Research goals:**

1. Identifying the amount of fear of crime in public places of Mashhad city
2. Identifying effective factors on fear of crime in public places of Mashhad city

### *Research questions*

How much is the amount of fear of crime in public places of Mashhad city?

What are the effective factors on fear of crime in public places of Mashhad city?

### **Empirical background**

Nicholson (2010), Doglar (2009), Kohm (2009), franklin et al (2008), Telsomi and Zarafonito (2008), Kristjansson (2007), fergosen and Mindle (2007), Schafer et al (2006), Mishley (2007) have conducted researches about fear of crime, its criteria, insecurity feeling and fear of victimization. Nicholson (2010) in a research on fear of crime concluded that environmental and local variables have significant effect on fear of crime and family structure has no significant effect. Daglar (2009) conducted a research on fear of crime among students of Ludwis Will University of America. His findings indicate that non-native students have more victimization fear due to loneliness and lack of cultural congruence. Kohm (2009) in his research on victimization patterns and understanding district disorder for expressing fear of crimes concludes that knowledge of disorder is more effective than the crime itself on fear in the neighborhood. Franklin et al (2008) research on vulnerability, disorder and social relations models showed that disorder model is the best model for describing distribution of two dimensions of fear of crime. Tesloni and Zarfonito (2008) conducted a research on common criteria of fear of crime (insecure feeling due to being alone at home, insecure feeling during individual walking at night, fear of victimization) and their findings show significant correlation of the variables. Kristjansson (2007) conducted a comparative research on fear of crime in Scotland and Island. Results showed that people of Scotland had more insecure feelings. The reason is high social relations and low income difference and class distinction. Fergosen and Mindle (2007) investigate personal levels of fear of crime and factors affecting it in their research. Finding of their study showed that cumulative effectiveness had the largest effect on understanding fear of crime. Schafer et al (2006) during their research in America showed that women are more afraid of victimization

than men but men are afraid of victimization of their properties. Micsheli (2004) in research on fear of crime in Italy showed that fear of crime is related to crime extension and is more extended than the crime itself.

Gilani and Serajzade (2010), Ghaemmaghami and Karami (2010), Ahmadi et al (2009), Bemanian et al (2009), Mihosseini (2008), Modiri (2006), Alikhah and Najibi (2005) are some of the researchers who studied fear of crime and security condition in urban areas inside the country and measured and assessed personal and structural factors carefully.

### **Theoretical framework of fear of crime**

In this section we first investigate convergence and divergence of theoretical and empirical records of fear of crime and then present our proposed definition of fear of crime and finally express effective factors on fear of crime and according to that we reveal our theoretical analysis model. Based on this approach the key to understanding the fear of crime is how people experience and interpret urban areas and factors affecting fear of crime should be studied within three components of urban location (Canter, 1976)-as meaningful part of the city-, i.e. mental image of people from the place, people activity in the place and physical and compositional structure of the place. According to this approach people see the environment effectively as a measurement means for assessing danger and supportive factors. Environment provides people a possibility of visual confirmation of criminal danger probability. So fear is related to the city and the method of using urban areas and to its denotation (Banister and Fyfe, 2007). Newman believes that poor designing of urban areas and in fact the compositional structure of the urban area increases the opportunity for crime realization and also decreases the people territory and willing for using and defending district areas (cited by Pin, 2000). According to Newman (1972, 1973), residences of the district can have major role in decreasing the ground for crime committing in their district by using special methods. Undefended areas like obsolete lands and buildings, dark streets are very effective in reducing defensibility of the area and consequently providing the ground for crime committing and following that insecurity in the environment (Rahmat, 2009). Many researches have approved that there is a relation between fear of crime and spatial view so that fear is more affected by spatial configuration rather than the crime itself (Kia and Koubat, 2007).

The Queen Linch's theory (1960) of urban form meaning and Samoel Shamay's theory (1990) of location sense emphasize on the role of people's mental visions of the place for reducing fear of crime and insecure feeling. Linch (1960) emphasize on urban area legibility for providing security so that legible urban area let people communicate with it easily and recognize different parts of the space and they do not experience frustration and insecurity. According to the theory of "location sense" of Samoel Shamay (1991), dependency and attraction to a place reinforce the sense of emotional security in the human. So understanding and feelings of a person is tied to the meaning of the environment and is unified with it.

Jackob's theory of street eyes (1961) emphasize on the role of people presence and movement in the area and also on variation of area functionality and visional penetration (windows and balconies view of the streets and public area) for providing security in urban areas.

According to the theory of broken window (1982), living among signs of disorder and indecency may lead to inducing anxiety, fear, anger and depression. As the residences of these district s feel the threat and lack of interconnection among themselves. In this approach disorder means observable factors which represent violation of social order and control in the district . Tibaldz's theory of human-based city also outlines the role of compositional factors

(visional penetration and creating various usages in public areas) and mental image of people from the place (legibility of the public place) to secure public areas.

## **2. Non-environmental approaches**

According to this approach, factors other than environmental and spatial elements are affecting the formation of fear of crime. Among theories related to this approach, vulnerability theory, victimization theory and social control theory can be names. "Vulnerability theory" explains what provides the ground for fear in the people is inability and powerlessness against crime and defending from themselves. Sometimes this feeling is due to physical inability and sometimes due to standing in a certain social position. Economic and social positions of the people are important factors affecting social vulnerability. Those who live in delinquency areas or do not have suitable economic position to gain necessary supportive resources will have more insecure feelings and consequently experience more fear (Kilias and Klersi, 2000).

According to the theory of "victimization", direct and indirect victimization (being informed about other's victimization by acquaintances and following crime news through media like visual, audio or written media) have significant effect on creating fear of crime (Bawmer, 1978; Taylor and Hall, 1986; Gerbener et al, 1977, 1976).

According to the theory of "social control", fear is determined in relation to the ability of the people to apply control on their living area and other's behavior and activities. Based on this approach people are afraid of something which is not able to prevent it or overcome victimization or when they feel inability. This approach creates a clear relation between urban life situations and incidence of fear of crime (Banister and Fyfe, 2007).

### **Proposed definition of fear of crime**

Proposed definition of fear of crime is an extensive set of empirical, emotional and negative sensational reactions caused by the risk of harm or victimization. The risk a person sees it as a consequence of crime and disorder which is created by the people, communities and the environment (Ferraro, 1995; Garfalo, 1981; War, 2000). Fear of crime is considered as an emotional, psychological and sensational reaction to crime of incidences related to the crime. According to the theoretical framework presented in this research, fear of crime can be distinguished in two levels of inside and outside the neighborhood. In other words, the experience of fear of crime can be distinctive in two different conditions of inside and outside the neighborhood.

### **Factors affecting fear of crime**

There are many factors affecting fear of crime. These variables can be investigated in two levels of agent and structure (minor and major) by structural theory of Gindez (Gindez, 1995). Personal and demographic variables are generally considered in the level of agent (minor) and social variables in the level of structure (major).

#### **Reactive factor**

One of the reactive variables affecting fear of crime is vulnerability. Some of the other affecting personal factors on the amount of fear of crime are gender and age. The effect of gender on the fear of crime is approved in many researches. In fact the fear of crime in

women is more than men. However, victimization experience is more in men (Kristjansson, 2007; Mireku, 2002; Fergosen and Mindle, 2007; Tesloni and Zarafonito, 2008; Lee, 2001; Callanan et al, 2009; Myet al, 2010; Mishelly et al, 2004; Scaffer et al, 2006; Mac Craw et al, 2005; Ferraro, 1995; Daglar, 2009; Ahmadi et al, 2009; Bayat, 2008).

Age is another effective variable among demographic variables. Although young people especially young men aged 16-24 years old are often at risk of crimes, older people report the highest level of fear of crime (Scogan, 1995; Mac Carel et al, 1997; Taylor and Hall 1986 cited by Schefer, 2006; Kristjansson).

Mental assumptions of people related to their surroundings are of reactive factors affecting the amount of fear of crime. Location sense (Shamay, 1990) and location legibility (Linch, 1960; Tibaldz, 1992) have significant effect on reducing fear of crime as two types of implication understanding of the people about their surroundings.

The amount of people presence and movement in public places (Jackobs, 1961; Tibaldz, 1992) which is an indication of people activity in the place is another reactive factor affecting the amount of fear of crime.

Duration of residency in a place is also another reactive factor which affect the amount of fear of crime reductively (Tesloni and Zarfanton, 2007; Mishley et al, 2004).

Victimization also creates fear of crime which is in two forms of direct and indirect victimization (Bowmer, 1978; Taylor and Hall; Kristjansson, 2007; Kohm, 2009; Rabbani and Hemmati, 2009; Alikhah and Najibi, 2006).

Cumulative effectiveness of the neighborhood, including people participation in district social works and monitoring district al works, social informal control and trust and resident support of each other also affect reducing fear of crime (Loius, Salem, 1985; Hunter, 1986; Fergosen and Mindle, 2007; Tesloni and Zarafanitom 2007; Kristjansson, 2007).

According to Kent Ferraro theory, understanding the risk of crime, not the crime itself, is the main reason of fear of crime and these two concepts should be distinguished. Fear is created in a person by understanding the potential risk of a place or a situation (whether real or mental). So it can be said that understanding the risk has significant role in creation of fear of crime (Ferraro, 1995; Kristjansson, 2007; Fergosen and Mindle, 2007; Ahmadi et al, 2008).

### **Structural factors**

Compositional and physical structure of a place including effective structural factors on fear of crime can be outlined as visual accessibility (Tibaldz, 1992; Noshahrgarayan, 1990) and disorder (Wilson and Kling, 1982) and non-defensive areas (Newman. 1972). The presence of various functions in the place is of characteristics of urban area compositional properties which increase people presence in the area and the security of the area is supplied by unconscious monitoring of the people (Jackobs, 1960; Tibaldz, 1992; Noshahrgarayan, 1990). Existence of undefended areas in the residential district (such as obsolete and abandoned lands and buildings, dark streets and recessed areas) which reduce visual view of a place and provide the ground for committing a crime also increase fear of crime (Newman, 1972, 1973; Rahmat, 2009). Disorder in public areas of the city is another spatial characteristic which affect fear of crime. Disorder in a society or a neighborhood increases vulnerability sense and anxiety stem from the crime. On the other hand, disorder increase will lead to the reduction of social coherence and also affect district satisfaction and cumulative effectiveness negatively (Fergosen and Mindle, 2007).

Location rank is another structural factor affecting the amount of fear of crime which means those who live in districts with higher economic-social position residents will have lower fear of crime (Kristjansson, 2007; Mishley et al, 2007; Rabbani and Hemmati, 2009; Ahmadi et al, 2008).

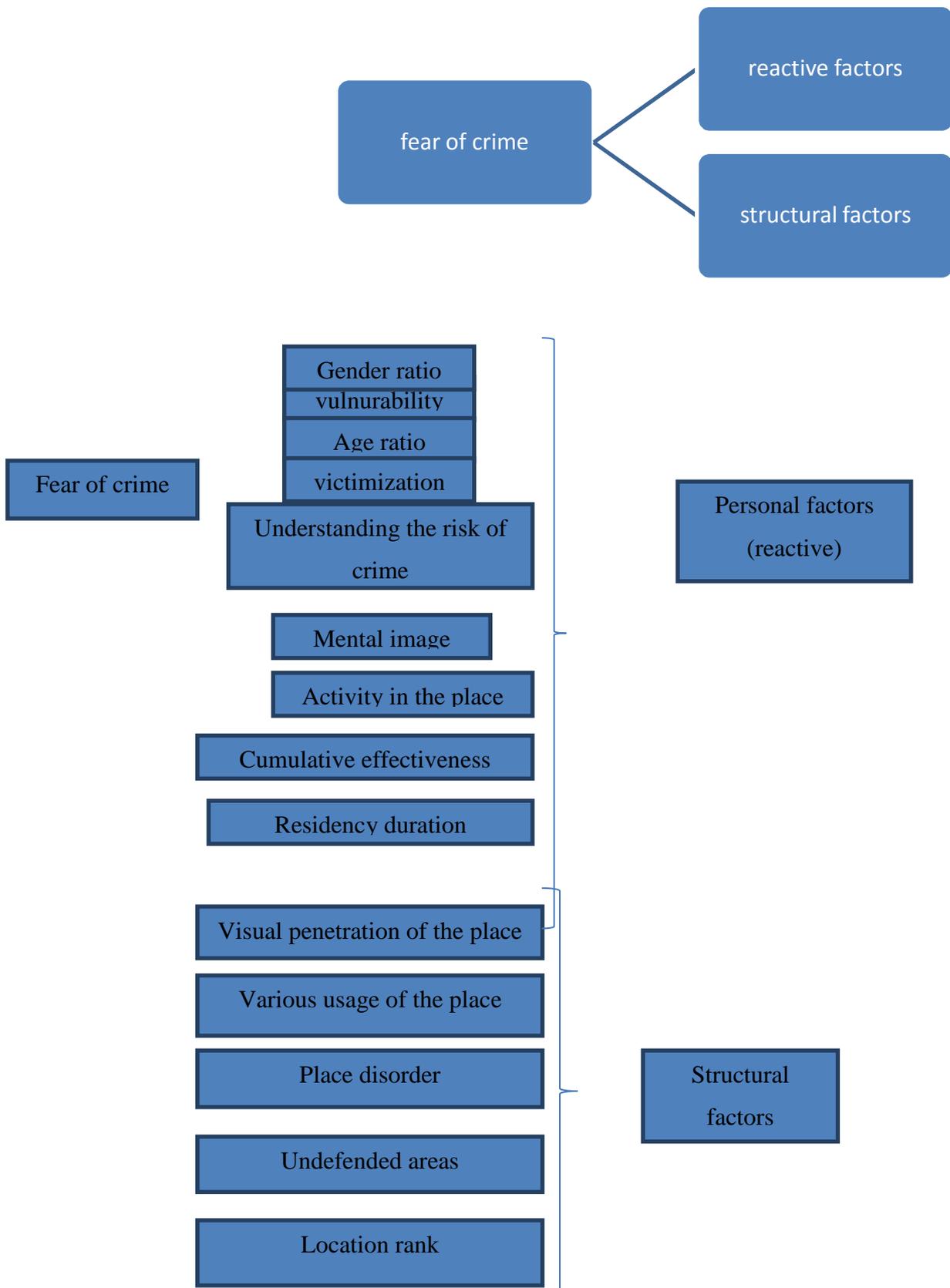
### **Major hypothesis of fear of crime**

- Fear of crime is essentially affected by two classes of reactive and structural factors and the interaction between them.

- 1.1. Vulnerability increases the fear of crime.
- 1.2. Victimization increases the fear of crime.
- 1.3. Understanding the risk of the crime increases the fear of crime.
- 1.4. People's mental images of a place decrease the fear of crime.
- 1.5. People's activities in a place decrease the fear of crime.
- 1.6. Cumulative effectiveness in a place decreases the fear of crime.
- 1.7. The more is the age ratio is in a neighborhood, the more will be the fear of crime.
- 1.8. The more is the gender ratio of women than men the more will be the fear of crime in the neighborhood.
- 1.9. The longer is the duration of residency the lower will be the fear of crime.
2. Structural factors
  - 1.2. Visual penetration of a place leads to the reduction of fear of crime.
  - 2.2. Varying the usage of a place decreases the fear of crime.
  - 2.3. Disorder in a place increases the fear of crime.
  - 2.4. undefended areas in a neighborhood increase the fear of crime.
  - 2.5. Residential rank decreases the fear of crime.
3. Interaction between structural and reactive factors
  - 3.1. Victimization increases vulnerability sense.
  - 3.2. Elders feel more vulnerability.
  - 3.3. Women are more vulnerable than men and have more fear of crime.
  - 3.4. Locational disorder decreases cumulative effectiveness and increases the fear of crime.

The main relation between related variables with fear of crime and the interaction between personal and reactive factors is presented in figure 1 as a diagram of theoretical analysis model of fear of crime.

***Figure 1: theoretical analysis model of fear of crime***



Fear of crime in public places is considered as dependent variable in this research which includes fear of crime in public places inside and outside the neighborhood.

Independent variable: includes two general categories of reactive and structural factors and the interaction between them as follows:

Reactive factors consist of vulnerability, victimization, gender ratio of the place, age ratio of the place, mental image of the place, activity in the place, cumulative effectiveness, and residency duration in the place and understanding the risk of the crime.

Structural factors include: visual penetration of the place, usage versatility of the place, undefended area and site rank.

The interaction between personal and structural factors is also considered as independent variable which includes: disorder and effectiveness, gender ratio and vulnerability, age ratio and vulnerability, site rank and vulnerability.

*Table 1: applying variables and scaling*

Variable type	Dimension	Elements	Empirical indicators
Locational component of the neighborhood (independent)	Activity in the place	Presence of people in the place	Walking in the neighborhood
			Daily shopping in the neighborhood
	Physical and compositional structure of the place	Visual penetration	Lighting of the pathways
			View of the home's windows to the streets
			The amount of seeing the beginning and end of the streets
		Usage versatility of the place	Number of recreational, educational, business, health care centers, offices and green spaces in the neighborhood
		Undefended area	Number of obsolete homes and lands, recesses areas and dead ended streets
		Disorder	Presence of straying people, pile of garbage in pathways, noisy neighbors, abandoned cars, obsolete lands
		Place legibility	Number of alley's, main and sideway street's signs, the possibility of connection between adjacent alleys, number of home plaque,
		Site sense	Interest in continuing residency in the place, no willing for moving out of the place, comfortable sense of being in the place by remembering positive memories of living in that place, attempt to solve the

			problems of the place and devoting personal comfort for the neighborhood comfort
Understanding the risk of the crime (independent variable)			Probability of facing purse snatcher, mugging, racketeering, avenue obtrusiveness, avenue assault
Fear of crime (dependent variable)	Fear of crime in public places inside the neighborhood		Fear of housebreaking, purse snatching, mugging, racketeering, avenue obtrusiveness, avenue assault
	Fear of crime in public places outside the neighborhood		Fear of purse snatching, mugging, racketeering, avenue obtrusiveness, avenue assault
Victimization experience (independent variable)	Direct experience of victimization		Facing or not facing with direct crimes such as robbery, purse snatching, mugging, racketeering
	Indirect experience of victimization		Being informed of victimization of friends, acquaintances and relatives.
Vulnerability (independent variable)			The ability to confront the criminal, fear and anxiety control during seeing crime committing
Cumulative effectiveness in the place (independent variable)	Social control	Informal social control	Watching the stranger's communication, amount of recognition of neighborhood residents
	Social capital of the neighborhood	Trust	Trust rate of neighborhood people, amount of recognition of residents from each other
		Support	Assistance of the resident during hard conditions
	District participation		Membership in cultural associations, Basij, masque of the neighborhood, sport team and cultural center of the neighborhood and participation in solving the neighborhood's problems
Residency duration in the place (independent variable)			Residency duration of people in the neighborhood
Site rank (independent variable)			Residency district of the person

### Justifiability and reliability of the scale:

Nominal and constructional credit was used to provide reliability. To do this factorial loads which are arranged based on exploration method for dependent variable are presented in table

2. Pre-test is done by using 25 questionnaires to provide justifiability so that precision and accuracy of the measurement tools are ensured. The report of justifiability of main scales is presented in table 3.

**Table 2: Factorial analysis of dependent and independent variables**

Variable name	Variable type		Sample number	Kayzer criterion	Bartlet statistics	Factor numbers
Fear of crime	Dependent		9	0.808	0.000	2
Fear of crime inside the neighborhood	Dependent		5	0.847	0.000	1
Fear of crime outside the neighborhood	Dependent		4	0.806	0.000	1
Compositional structure of the place	Disorder	Independent	3	0.628	0.000	1
	Undefended area	Independent	3	0.628	0.000	1
	Visual penetration	Independent	3	0.628	0.000	1
	Activity in the place	Independent	3	0.541	0.000	1
Activity in the place		Independent	2	0.500	0.05	1
Mental image of the place	Legibility	Independent	3	0.602	0.000	1
	Site sense	Independent	6	0.790	0.000	1
Understanding the risk of a crime		Independent	8	0.797	0.000	1
Vulnerability		Independent	3	0.659	0.000	1
Cumulative effectiveness	Social control	Independent	3	0.659	0.000	1
	Social capital of the neighborhood	Independent	9	0.823	0.000	2
	Neighborhood participation	Independent	6	0.865	0.000	1

**Table 3: justifiability coefficients of the scale**

Row	Scale name	Element number	Justifiability coefficient	Row	Scale name	Element number	Justifiability
1	Fear of crime inside the neighborhood	5	0.901	10	Neighborhood participation	6	0.835
2	Fear of crime outside the neighborhood	4	0.914	11	Visual penetration of the place	3	0.720
3	Informal social control	3	0.804	12	Disorder	6	0.748
4	Vulnerability	3	0.826	13	Movement in the area	2	0.753
5	Site sense	6	0.803	14	Undefended area	3	0.744

4	Understanding the risk of the crime	8	0.855	15	Site legibility	3	0.624
7	Social capital of the place	3	0.756				

### Research method

The method of the paper is surveying and the data collection tool is questionnaire. Sampling method is stratified non-proportionate. It means that by considering the sample (200 household), 50 blocks (each block is assumed as a neighborhood) in 5 different rank clusters in Mashhad city and in each block 4 house hold were selected randomly. Blocks were also selected by stratified method and probability proportionate with the size method. In each block 4 households were selected orderly and a member of each family answered the questions who were above 18 years old and more. For all variables of the research, their factorial score is calculated by factorial analysis as weight criterion. Scale range is calculated 0-100 for all criteria. Dispersion statistics is used for descriptive purposes and one way ANOVA for comparing the average of research variables in different neighborhoods. Pearson's coefficient of contingency and general linear model-multivariate is used for data analysis.

**Table 4: sample content distribution type**

Cluster name	District	Zone	Cluster rank	Range	Selected neighborhood no.	Sample content
Cluster 1	1	2	Very high	Sajjad	10	40
Cluster 2	10	2	High	Lashgar	10	40
Cluster 3	2	3	Medium	KotAmir	10	40
Cluster 4	3	3	Low	Khakhe Raabi	10	40
Cluster 5	5	3	Very low	Shahid Avini	10	40

### Findings

In all neighborhoods 86 men (43 percent) and 114 women (57 percent) were included. Average of age in neighborhood was over 30 years old.

#### *Fear of crime description in public areas of Mashhad city*

The most common fear of crime in public places inside the neighborhoods was fear of housebreak (average 49.3) and the most common fear of crime in public places outside the neighborhood was fear of purse snatching (average 56.6). The lowest fear of crime in public places inside and outside the neighborhood is assault by others. As the average fear of assault inside and outside the neighborhood is 25.3 and 38.8 respectively. Fear of purse snatching (average 33.3) and fear of mugging and racketeering (average 31.3) are the most common fears in public places inside the neighborhood after housebreaking.

**Table 5: abundance distribution and percent of fear of crime in public places inside and outside the neighborhood**

Variable type	Species	Abundance distribution percent				Descriptive statistics	
		High	Medium	Low	None	Average	Standard deviation
Fear of crime in public places inside the neighborhood	Fear of purse snatching	15	13.5	28	43.5	33.3	36.1
	Fear of mugging and racketeering	15	11.5	25.5	48	31.1	36.4
	Fear of assault	9.5	10.50	27.5	53.0	25.3	32.6
	Fear of avenue obtrusiveness	10.5	11.5	25.5	52.5	26.6	33.7
	Fear housebreaking	18.5	26.0	40.5	15.0	49.3	32
Fear of crime in public places outside the neighborhoods	Fear of purse snatching	23.5	36.0	27.5	13.0	56.6	23.3
	Fear of mugging and racketeering	19	29.5	16	35.5	39.1	36.9
	Fear of avenue obtrusiveness	16.0	28.5	20.0	35.5	41.6	36.8
	Fear of assault	15.0	23.5	23.0	38.5	38.3	36.5

The comparison of average fear of crime in public places inside and outside the neighborhoods of different residential areas show that fear of crime in public places is varied for different neighborhoods. Weighted mean of fear of crime in public places inside the neighborhoods of Lashgar and Khakhe Raabi district was more than other neighborhoods and was lower for very low neighborhoods. Weighted mean of fear of crime in public places outside the neighborhoods of Lashgar and Khakhe Raabi district was also more than other neighborhoods but the lowest fear of crime in public places outside the neighborhoods belonged to the neighborhoods located in Sajjad district . This means residents of Lashgar and Khakhe Raabi are more exposed to the fear of crime outside the neighborhood than others.

**Table 6: weighted mean of fear of crime in public places inside and outside the neighborhoods separated by residency district**

Variable name	Residency					Significance level of difference of average fear of crime in different neighborhoods
	Neighborhood of Sajjad district	Neighborhood of Lashgar district	Neighborhood of Koye Amir district	Neighborhood of Khakhe Raabi	Neighborhood of Shahid Avini	

				district	district	
Fear of crime in public places inside the neighborhoods	26	44.6	32.8	41.6	20.6	0.000
Fear of crime in public places outside the neighborhood	31.2	58.9	45	45.4	45.2	0.000

**Table 7: abundance percent of fear of crime in public places inside the neighborhoods separated by residency district**

Fear of crime in public places inside the neighborhood	Species	Residency district	High	Medium	Low	None
Fear of crime in public places inside the neighborhood	Fear of purse snatching	Neighborhoods of Sajjad district	10	12.5	27.5	50
		Neighborhoods of Lashgar district	17.5	20	27.5	37.5
		Neighborhoods of Koy Amir district	10	25	27.5	37.5
		Neighborhoods of Khakhe Raabi district	37.5	7.5	15	40
		Neighborhoods of Shahid Avini district	0	2.5	42.5	55
		Fear of mugging and racketeering	Neighborhoods of Sajjad district	10	10	17.5
	Fear of mugging and racketeering	Neighborhoods of Lashgar district	20	22.5	30	27.5
		Neighborhoods of Koy Amir district	15	17.5	22.5	45
		Neighborhoods of Khakhe Raabi district	30	7.5	17.5	45
		Neighborhoods of Shahid Avini district	0	0	40	60
	Fear of avenue	Neighborhoods of Sajjad	7.5	10	17.5	65

	obtrusiveness	district				
		Neighborhoods of Lashgar district	17.5	22.5	32.5	27.5
		Neighborhoods of Koy Amir district	12.5	12.5	27.5	47.5
		Neighborhoods of Khakhe Raabi district	15	10	10	65
		Neighborhoods of Shahid Avini district	0	2.5	40	75.5
	Fear of assault	Neighborhoods of Sajjad district	10	7.5	22.5	60
		Neighborhoods of Lashgar district	17.5	20	35	27.5
		Neighborhoods of Koy Amir district	5	7.5	32.5	55
		Neighborhoods of Khakhe Raabi district	15	15	5	65
		Neighborhoods of Shahid Avini district	0	0	42.5	57.5
		Neighborhoods of Sajjad district	7.5	20	50	22.5
	Fear of housebreaking	Neighborhoods of Lashgar district	15	32.5	47.5	5
		Neighborhoods of Koy Amir district	12.5	27.5	37.5	22.5
		Neighborhoods of Khakhe Raabi district	45	25	20	10
		Neighborhoods of Shahid Avini district	12.5	25	47.5	5

### **Descriptive statistics of fear of crime in public places inside the neighborhood**

Variable of fear of crime in public places inside the neighborhood has the mean of 33.1 with minimum and maximum scores of 0 and 100 respectively. Standard deviation of the variable of fear of crime in public places inside the neighborhood (16.3) shows that people's fear of crime in public places inside the neighborhood is very fluctuating. Half of respondents have a score lower than 34.1 and a quarter have a score more than 48.3 for the variable of fear of crime in public places inside the neighborhoods.

As the following table shows fear of crime in public places outside the neighborhood (45.1) is an indication of higher fear of crime of respondents in public places outside rather than inside the neighborhood.

**Table 8: descriptive statistics of fear of crime in public places inside and outside the neighborhood**

Variable name	Minimum	Maximum	Mean	Skewness	Standard deviation	Quartiles		
						First quartiles	Second quartiles	Third quartiles
Fear of crime in public places inside the neighborhood	0	100	33.1	0.02	16.3	18.3	34.1	48.3
Fear of crime in public places outside the neighborhood	0	100	45.1	0.3	18.7	31.2	46.8	58.3

### **Describing structural factors affecting fear of crime**

The following table shows descriptive statistics of spatial factors affecting fear of crime. The results of the table are as follows: undefended areas of the studied neighborhoods are 46.9 percent. Visual accessibility of the investigated neighborhoods for the residents is lower than 50 percent and equals 46.6 percent. Usage versatility in studied areas is lower than 50 percent and the disorder observed in public places inside the neighborhoods is 49.8 present.

**Table 9: descriptive statistics of factors affecting fear of crime**

Variable name	Minimum	Maximum	Mean	Skewness	Quartiles		
					First quartiles (25)	Second quartiles (50)	Third quartiles (75)
Undefended areas	0	100	31.5	0.003	22.2	31.9	38.8
Visual penetration	0	100	58	0.27	50	58.3	63.8
Usage versatility in the area	0	100	32.4	1.3	13.8	23	33.7
Disorder	0	100	35.7	0.13	28.3	36.6	41.6

Table 10 shows mean spatial characteristics of the studied neighborhoods. Results of mean comparison are as follows:

**Table 10: mean of spatial factors affecting fear of crime separated by resident district**

Variable name	Neighborhoods of Sajjad district	Neighborhoods of Lashgar district	Neighborhoods of Koy Amir district	Neighborhoods of Khakhe Raabi district	Neighborhoods of Shahid Avini district	Significance level of the difference of mean spatial factors in different neighborhoods
Undefined areas	21.67	32.50	26.39	44.17	33.06	0.000
Visual accessibility	57.2	55.2	53.8	69.7	52.2	0.004
Usage versatility	53.3	13.8	23	55.8	16.1	0.000
Disorder	25.1	35.8	31.5	47.6	38.3	0.052

**Table 11: descriptive statistics of personal factors affecting fear of crime**

	Variable name	Neighborhoods of Sajjad district	Neighborhoods of Lashgar district	Neighborhoods of Koy Amir district	Neighborhoods of Khakhe Raabi district	Neighborhoods of Shahid Avini district	Significance level of the difference of mean spatial factors in different neighborhoods
	Vulnerability	55.2	37.5	38.6	55.5	75.5	0.000
	Understanding the risk of the crime	23.8	40.2	25.5	36.9	26	0.000
Victimization	Direct experience of victimization	0	0	0	0	0	0.000
	Indirect experience of victimization	1	1	0		0	0.000
Cumulative effectiveness in the place	Neighborhood cooperation	14.7	12.2	16.8	18.7	7.2	0.000
	Social capital of the neighborhood	64.5	66.6	73.9	74.2	71.8	0.000
	Informal social control	56.3	59.4	58.6	75.5	49.2	0.000
Mental image of the place	Legibility	88.8	81.3	88.8	87.8	63.6	0.000
	Sire sense	51.6	55.4	66.4	61	26.4	0.000
Activity in the place	Movement in the place	51.6	55.4	66.4	61	26.4	0.000

### Multi-variable analysis of fear of crime

In this section, multi-variant standard deviation is used to test the simultaneous and reciprocal effects of structural and personal (reactive) factors on fear of crime in public places inside and outside the neighborhood.

*Table 12: results of Pily multi-variant test*

Variable name	Significance level (sig)	Eta squared statistics
Site rate	0.000	0.20
Disorder	0.01	0.05
Presence in the area	0.00	0.02
Legibility	0.11	0.02
Usage versatility	0.47	0.00
Visual penetration	0.00	0.14
Site sense	0.00	0.11
Social capital of the neighborhood	0.00	0.11
Informal social control in the place	0.03	0.04
Neighborhood cooperation in the place	0.00	0.13
Undefended areas	0.00	0.24
Vulnerability	0.01	0.09
Understanding the risk of the crime	0.00	0.35
Gender ratio of the place	0.06	0.03
Direct victimization	0.00	0.08
Indirect victimization	0.00	0.09
Vulnerability * gender ratio of the place	0.19	0.07
Vulnerability * gender ratio of the place	0.00	0.13
Disorder * informal social control	0.00	0.09
Disorder * social capital of the place	0.00	0.11
Disorder * neighborhood cooperation	0.00	0.09
Residency duration	0.00	0.09

*Table 13: results of the inter-categorical tests*

Results of inter-categorical test			Significance level	Eta squared statistics
Reactive factors	Final approved model	Fear of crime in public places inside the neighborhood	0.00	0.90
		Fear of crime in public places outside	0.00	0.90

		the neighborhood		
	Vulnerability	Fear of crime in public places inside the neighborhood	0.00	0.08
		Fear of crime in public places outside the neighborhood	0.48	0.00
	Direct victimization	Fear of crime in public places inside the neighborhood	0.00	
		Fear of crime in public places outside the neighborhood	0.08	
	Indirect victimization	Fear of crime in public places inside the neighborhood	0.34	0.00
		Fear of crime in public places outside the neighborhood	0.00	0.05
	Understanding the risk of the crime	Fear of crime in public places inside the neighborhood	0.03	0.02
		Fear of crime in public places outside the neighborhood	0.00	0.32
	Site sense	Fear of crime in public places inside the neighborhood	0.00	0.02
		Fear of crime in public places outside the neighborhood	0.73	0.00
	Legibility of the place	Fear of crime in public places inside the neighborhood	0.05	0.02
		Fear of crime in public places outside the neighborhood	0.61	0.00
	Neighborhood cooperation	Fear of crime in public places inside the neighborhood	0.00	0.13
		Fear of crime in public places outside the neighborhood	0.00	0.83
Effectiveness in the place	Informal social control	Fear of crime in public places inside the neighborhood	0.12	0.01
		Fear of crime in public places outside the neighborhood	0.78	0.00
	Social capital of the neighborhood	Fear of crime in public places inside the neighborhood	0.59	0.00
		Fear of crime in public places outside the neighborhood	0.00	0.10

		the neighborhood		
	Activity in the place (presence in the place)	Fear of crime in public places inside the neighborhood	0.00	0.11
		Fear of crime in public places outside the neighborhood	0.01	0.03
	Age ration of the place	Fear of crime in public places inside the neighborhood	0.00	0.11
		Fear of crime in public places outside the neighborhood	0.94	0.00
	Gender ration of the place	Fear of crime in public places inside the neighborhood	0.21	0.00
		Fear of crime in public places outside the neighborhood	0.00	0.2
	Residency duration	Fear of crime in public places inside the neighborhood	0.00	0.09
		Fear of crime in public places outside the neighborhood	0.11	0.01
	Visual penetration	Fear of crime in public places inside the neighborhood	0.79	0.00
		Fear of crime in public places outside the neighborhood	0.00	0.13
	Undefended areas of the place	Fear of crime in public places inside the neighborhood	0.00	0.32
		Fear of crime in public places outside the neighborhood	0.00	0.28
Structural factors	Disorder	Fear of crime in public places inside the neighborhood	0.04	0.02
		Fear of crime in public places outside the neighborhood	0.00	0.22
	Site rank	Fear of crime in public places inside the neighborhood	0.00	0.32
		Fear of crime in public places outside the neighborhood	0.00	0.28
Interaction between reactive and structural factors	Vulnerability * age ratio of the place	Fear of crime in public places inside the neighborhood	0.00	0.13
		Fear of crime in public places outside	0.89	0.00

		the neighborhood		
	Vulnerability * site rank	Fear of crime in public places inside the neighborhood	0.00	0.26
		Fear of crime in public places outside the neighborhood	0.00	0.28
	Disorder * social capital of the place	Fear of crime in public places inside the neighborhood	0.14	0.01
		Fear of crime in public places outside the neighborhood	0.00	0.08
	Disorder * informal social control	Fear of crime in public places inside the neighborhood	0.27	0.00
		Fear of crime in public places outside the neighborhood	0.00	0.07
	Disorder * neighborhood cooperation	Fear of crime in public places inside the neighborhood	0.00	0.07
		Fear of crime in public places outside the neighborhood	0.30	0.00

**Table 14: parameters of reactive and structural factors affecting fear of crime**

Variables affecting fear of crime in public places inside the neighborhoods	Reactive factors		Variable name	Significance level (sig)	Efficacy coefficient
			Vulnerability	0.00	3.9
			Indirect victimization	0.03	2.1
			Understanding the risk of the crime	0.00	5.06
		Mental image of the place	Site sense	0.00	-5.02
		Cumulative effectiveness	Neighborhood cooperation	0.00	-5.02
			Activity and presence in the place	0.00	-5.6
			Age ration of the place	0.00	4.7
			Residency duration	0.00	-4.2
	Structural factors		Undefended areas	0.00	-5.6
			Disorder	0.04	2

			Site rank (residency in Khakh Raabi district)	0.00	-5.6
			Site rank (residency in Shahid Avini district)	0.01	-2.5
	Interaction between structural and reactive factors		Vulnerability * age ration of the place	0.00	0.04
			Vulnerability * site rank (residency in Sajjad neighborhood)	0.00	-2.2
			Vulnerability * site rank (residency in Shahid Avini neighborhood)	0.00	-3.5
Variable affecting fear of crime in public places inside the neighborhood	Reactive factors		Direct victimization	0.00	3.9
			Indirect victimization	0.00	3.1
			Understanding the risk of the crime	0.00	8.9
	Cumulative effectiveness	Social capital of the neighborhood	0.00	-4.4	
		Activity and presence in the place		0.01	-2.4
	Structural factors		Undefended areas	0.00	4.1
			Visual penetration of the place	0.00	-5.2
			Site rank (residency in Khakh Raabi district)	0.00	3.1
			Site rank (residency in Shahid Avini district)	0.04	2.07
	Interaction of reactive and	Vulnerability * site rank		0.00	-2.9

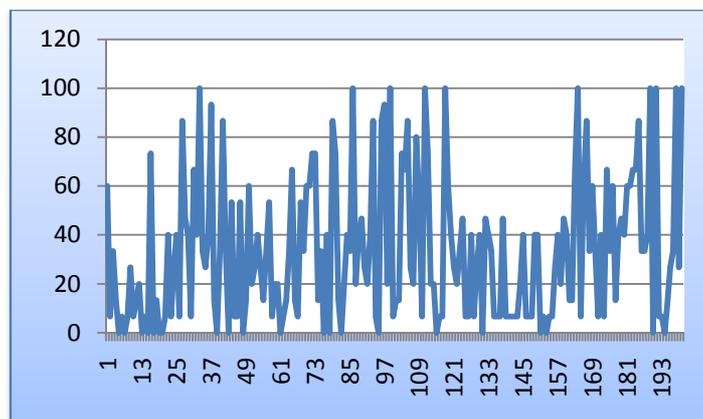
	structural factors	(residency in Khakh Raabi district)			
		Vulnerability * site rank (residency in Shahid Avini district)		0.04	-2
			Disorder * informal social control	0.00	3.7-
			Disorder * social capital of the neighborhood	0.00	-4

Variables not incorporated into the models of fear of crime in public places inside and outside the neighborhoods are as follows: there has been no significant relation between variables of direct victimization, site eligibility, social capital of the neighborhood, informal social control and gender ratio of the place from reactive factors and variables of usage versatility, visual penetration of the place fro, structural factors and fear of crime in public places inside and outside the neighborhoods in the model of fear of crime. Also the interaction between vulnerability and gender ratio, disorder and informal social control and disorder and social capital of the neighborhood has no effect on fear of crime in public places inside the neighborhoods.

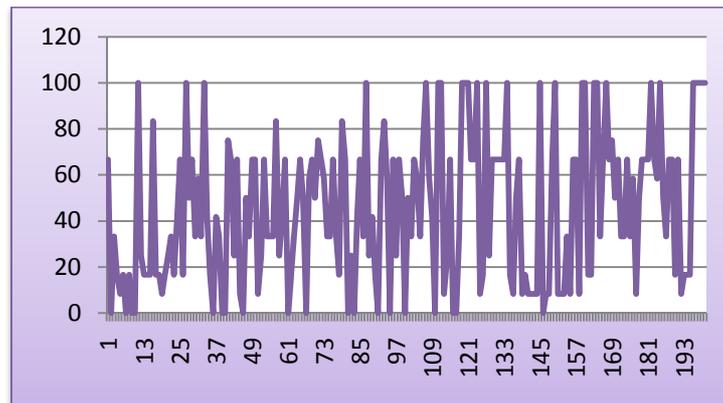
In fear of crime model, variables of vulnerability, site legibility, site sense, informal social control, neighborhood cooperation, age ratio of the place and residency duration from reactive factors and variables of usage versatility from structural factors had no significant relation with the fear of crime in public places inside the neighborhoods. Also the interaction between variables of vulnerability and gender and age ratio of the place, disorder and neighborhood cooperation has no effect on fear of crime in public places inside the neighborhoods.

Figures 2 and 3 also show the difference between fear of crime in public places inside and outside the neighborhood. However, the amount and fluctuations of fear of crime in public places outside the neighborhoods were greater than the inside.

Figures 2 - Fear of crime in public places inside the neighborhood



Figures 3-Fear of crime in public places outside the neighborhood



### *Discussion and conclusion*

Among studied structural and reactive factors, site rank has the greatest effect on the fear of crime in public places inside the neighborhoods. It means that fear of crime is decreased by increasing site rank of people's residency. And the effect of residency on fear of crime is approved in previous researches (Rabbani et al, 2009; Ahmadi et al, 2008; Kristjansson, 2007; Mishely et al, 2004).

Undefended areas in the place (as one of the compositional characteristics of the place), site sense (one of the people's mental images from the place) and activity and the presence of the people in the place are three basic components forming the concept of a place and have significant effect on fear of crime inside the neighborhoods. Findings showed that the more people understand the risk of crime incidence in their neighborhood, the more their fear of crime in public places outside the neighborhood will be. Also this is supported by previous researches (Rabbani and Hemmati, 2009; Ahmadi et al, 2010; Kristjansson, 2007; Fergosen and Mindle, 2007) and according to Ferraro (1995) understanding the risk of the crime is one of the main determining factors of crime rather than the crime itself.

In multi-variant analysis, victimization experience is also predictor of fear of crime in public places inside and outside the neighborhood which previous researchers (Rabbani and Hemmati, 2009; Alikhah and Najibi, 2006; Duglar, 2009; Kohm, 2009; Kristjansson, 2007; Fergosen and Mindl, 2007) also supported it. Although there is a difference that direct victimization experience predicts more fear of crime in public places inside the neighborhoods and indirect victimization experience predicts more fear of crime in public places outside the neighborhoods. According to Bawmer (1978) and Scogan (1978), fear of crime is created in a person by personal experience of victimization or being informed of other's victimization.

Social-economic position of a person is a factor affecting fear of crime which is proved in previous researches (Alikhah and Najibi, 2009; Schefer et al, 2006; Mishely et al, 2004). This variable is a reverse predictor of their fear of crime in public places inside or outside the neighborhood. As Scogan and Max Field stated (1981), those who feel more vulnerability than others, feel more fear of crime and insecurity. It should be noted that reciprocal effects of people's social-economic position and direct and indirect victimization on fear of crime in public places inside the neighborhood in multi-variant analysis were significant. It means that in studied areas where people had lower social-economic position and direct experience of victimization fear of crime were higher.

Residency area had the most prediction ability concerning fear of crime in public places inside and outside the neighborhood. So, in public place having higher level of informal social control fear of crime were lower inside and outside the neighborhood. As this has been proved in previous researches (Rabbani and Hemmati, 2009; Tesloni and Zarafanito, 2007; Kristjansson, 2007; Fergosem and Mindle, 2007) and according to Louis and Salem (1986) and Taylor (1997), understanding and interfering of the neighbors from informal social control capacity is a preventive measure related to fear of crime and insecurity feeling. Those who live in neighborhoods with higher fear of crime do not consider themselves competent for controlling criminal behavior of others.

Social capital of the neighborhood is proved as another structural factor affecting fear of crime in public places inside the neighborhood. This means in public places where residents have more social capital (trust and support) towards each other fear of crime is lower inside the neighborhood. This is proved in theoretical and empirical backgrounds (Fergosen and Mindle, 2007; Agno, 1985).

The effect of spatial factors on fear of crime in public places inside and outside the neighborhood shows that compositional and spatial factors of the living area affect fear of crime significantly. So, there is a relation between fear of crime and spatial view and fear of crime is affected by spatial configuration.

Variable of site legibility affected fear of crime in public places inside the neighborhood reductively. According to Queen Linch (2002, 2005), acceptable image of the place and legible view of the place for the person create secure feeling and avoid confusion.

Visual accessibility and lighting of public places also cause fear of crime to decrease for the people inside the neighborhoods. As according to Tibaldz (2002, 2006) and Car (1992), lighting and visual accessibility of public places increase spatial clarification for the residents and following that they decrease fear of crime.

The relation between movement and the presence of people in the place and fear of crime in public places inside the neighborhoods is proved. It means fear of crime becomes lower by increasing usage versatility and consequent people presence in public places inside the neighborhoods. As Francis Tibalds (2002, 2006) and Jean Jacobs also emphasized the key role of usage versatility of the place and increasing the presence of people in the place to reduce fear of crime and insecure feeling. According to them, the presence of people in the place is like assigning invisible eyes to control and manage the place.

Among the studied spatial factors, only the relation of resident permanency and area identity with fear of crime outside the neighborhoods is proves. In other words, resident permanency and identity stability of public places lead to reduction of fear of crime in public places outside the neighborhoods. This means fear of crime of resident in places with the records of

changing name and identity of the streets and alleys and multiplicity of home moving is more in places outside their neighborhood. The effect of residency duration is also proved in previous researches (Tesloni and Zarafanito, 2007; Mishely et al, 2004).

### **Suggestions:**

Considering high coefficient of predicting fear of crime inside and outside the neighborhoods by the amount of crime risk understanding and the probability of crime incidence in neighborhoods and also the significant relation of residency with fear of crime, it is suggested that authorities of urban management including municipalities try to secure the studied public places.

As the feeling of vulnerability affect fear of crime, it is necessary to provide conditions for reducing vulnerability. Some of these measures can be holding training classes for vulnerable groups such as women, elders and teaching feeling management and correct decision making in the context of facing the crime and the criminal.

It is suggested that urban managers try to reinforce the neighborhood identity and site sense of the resident due to the significant effect of social capital of the neighborhood and informal social control on fear of crime in public places inside the neighborhoods.

The effect of spatial factor on fear of crime in public places inside the neighborhood also show significant importance of compositional and spatial factors in creating fear in public places. So, much effort should be put at improving and enhancing spatial indications in public areas in order to reduce and minimize fear of crime in people. Some measures are as follows:

- Increasing usage versatility of the place such as residential, business and recreational usage to enhance the presence of people in public places
- Improving and enhancing visual accessibility of the pathways in public places such as lighting of the pathways

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