Citizens’ Security Feeling and Physical Factors in Communal Spaces (Case Study: Bandar Abbas City, Iran)

Ali Shahdadi 1, *

1 University of Hormozgan, Bandar Abbas, Iran

* Corresponding author: Ali Shahdadi, University of Hormozgan, Bandar Abbas, Iran. E-mail: alishahdadi@gmail.com.

Abstract

Introduction: This paper aims to provide a physical pattern of security feeling in Bandar Abbas communal spaces is doing.

Methods: Theoretical foundations of the pattern based on reviewing the physical approaches and theories in the security feeling field, especially irregular pattern, pattern vision shelter, defensible space model and a model of crime prevention through environmental design, has been formed. This experimental pattern relying on data obtained from field data collected from 290 randomly selected residents of Bandar Abbas in the Bandar Abbas communal spaces. Data were collected by questionnaire.

Results: Results of multiple regression test showed, Physical factors; entrance the motorcycles into the communal spaces, the lighting, the suitability of flooring, positioned between the walls and dilapidated or abandoned buildings around the communal spaces, with a correlation coefficient (R = 0.46) explain R2 = 0.24 of total variance of citizen’s security feeling in communal spaces.

Conclusions: Therefore, in order to gain suitable spatial pattern for the sense of security in public spaces some changes should be made in the existing patterns of spatial indicators influencing sense of security in urban public spaces in order to improve and modify them.

INTRODUCTION

Different views are presented in the study of the causes for the development of the city and the reason why human societies came together in the city. One of these theories regards the issue of security and safety aspects in the development of the city as effective. While centuries passed from the first emerging of urban communities, cities are engaged in new issues about different aspect of the lives of citizens due to increasing growth of physical width and population. Meanwhile urban security is one of the major issues in the debate to reform and restructure the city. Security in every country is generated when there is psychological security and Psychological security is the result of feeling safe and feeling safe is demonstration of public efforts to run a healthy community. In order to achieve sustainable development, each country needs to feel safe. Feeling safe derives either from the individual or the environment where he lives.

Security is a perception issue and mostly it refers to people’s psychological feeling about risk factors such as crime. It is probable that the level of one’s feeling safe does not match external reality the threatening factors, or vice versa, depending on the degree of threat, the sense of security fluctuates. In other words, security is an external and objective notion while feeling safe is an inner and mental notion. In general, there are two aspects to security: one is the objective aspect which is evaluated by objective environmental and behavioral factors and the other is subjective aspect which is based on the feeling security of the group. Both aspects can affect each other positively or negatively. Therefore, these two aspects should be considered to improve the security of the city [1]. Subjective aspect of security refers to community sense of security’s and in fact, the reduction of undesirable events will not necessarily lead to an increased sense of security (ibid).

In other words, security which means freedom from fear and intimidation is one of the basic needs of man. Each of the various dimensions of security has been the topic of various fields of study. In urban literature, the concept of safety means urban security and environmental security. In recent years, the mission of urban planning in the field of improving security focuses mostly on how to design areas appropriate planning of urban applications. In this context, crime prevention through environmental design can approach (CPTED) in environmental and landscape planning is trying to comply with certain standards in construction and appearance of the physical environment to improve safety in the city and the way it can help residents feel safe.

Ferraro [2] says fear of crime ‘emotional response to fear of crime and signs that a person is associated with crime. In order to reduce these fears, people may change their behavior in two ways: 1) Limiting behavior, where they are
faced with potentially dangerous situations they minimize the risk by avoiding that particular location and changing that behavior. 2) Protective behavior in the case that security measures have been developed [3]. Both of these reactions have inferred concepts. Thus it is possible that people who are afraid of crime reduce their presence in the public sphere, thus limit their physical activity, especially if the activity is just walking. In this context, the importance of the public space is because of their role in sustainable urban development. In other words, if the whole of society is provided equal access to the public sphere, public space will become a place where individuals and groups can participate in it. One of the most important factors threatening the public space is a general feeling of insecurity. Because of the uncertain boundaries and unlimited ownership, public space has the highest risk and vulnerability to insecurity. Hence, it is necessary that the city and its spaces safety and security for all residents and observers. Characteristics of these areas include:

Outdoor spaces are places for social interaction and being available equally for all to experience a healthy life. Outdoor spaces are mostly considered as fields, parks, markets and streets that connect them together [4]. In this regard, some refer to safe space as “defensible” space. Some features of a safe city include:

- In a safe and comfortable environment, people tend to see each other; it is a space of socialization capabilities.
- Physical access and links to the surroundings make interaction in space easier.
- Safe and convenient location will cause the formation of sustainable urban activities.
- Secure physical space is attractive and remains in minds.
- Willingness to participate in activities of physical safe space is created.

In this context, some principles are mentioned in the issues of modern urban planning which try to resolve the grounds of crime at a specific location as much as possible through proper planning with sustainable approach. Thus human behavior in different places, with the specific geometry and performance varies and in many cases space is stimulating a particular behavior (which is sometimes criminal behavior). These points show the idea that the unstable physical design and planning of the town, citizens have always been hurt that have led to their insecurity. In fact, based on analyzed documents, some forms of insecurity come from the kind of space and design in the city which generates insecurity. Therefore the necessity to study sense of security and present a physical pattern to promote it as a scientific issue is felt more than before. This necessity requires the following points, in addition to the foregoing issues:

1) There is a mutual relationship between the sustainable physical development of the city and sense of security. Achieving overall development needs the access of the majority of citizens to an acceptable level of social sense of security in a consistent and accountable body.

2) From the view of the interests and individual rights of citizens, it should be said that in a situation that the majority of citizens are under tension with insecurity and live in unresponsive physical space they do not have a possibility of growth.

3) Insecurity in a non-responsive physical space affects the quality of social interactions. In the shade of sense of security, mutual trust and positive emotions, social interactions and consequently social benefits are strengthened. When attitudes, beliefs and personal scenarios represent higher levels of fear, negative changes in individual behavior lead to a kind of social disruption and disorientation and dependence grows larger.

4) Feeling insecure in a non-responsive physical space increases the capacity of the community to show incidence of illegal behavior. In this context, this study was done to meet the need of mentioned necessity in order to determine the physical factors affecting citizens’ security in public spaces of Bandar Abbas. In this regard, needed data are collected from the series of indices derived from previous research and theories and field research.

**Theoretical Framework for Determining the Physical Factors Affecting Urban Security in Public Spaces:**

Evaluation of experts’ opinions on the subject of physical factors affecting security implies that major theories and views expressed in the context are generally based on ecological attitudes and behavior and environmental quality and ecological design of settlements. Here are some examples based on the goal of the paper:

**Classical School of Urban Ecology**

The analysis of documents has shown that one of the old schools which focus on security and environment influence on the formation of offense is the school of urban ecology (1916). On the basis of ecological theory about urban crime, the theory of “conducive environment” is presented in which the effects of the environment on committing various crimes are dealt with. In ecological theories of urban crime: 1) the specific location of the city center where crime rate is more than other areas. Of course, this does not mean that the theory is merely a specific area of town where crime is not the focus of such section; but all urban areas are examined in relation to the types of crimes and crime rate is searched for in the spatial attributes [5]. 2) Conducive environment is focused to find the relationship between conducive environment and committing different types of crimes. Moreover, various kinds of urban spaces, users and urban functions are effective in the incidence or prevention of crime or some urban spaces prone and facilitate crime and other obstacle and prevent it (Table 1).

**Theory of Crime Prevention Through Environmental Design (CPTED)**

This theory was influenced by the thoughts of Jeffrey [6] and Jane Jacobs [7]. But Clark and Cornish supported this theory by providing the theoretical basis of criminology [8]. Theory of crime prevention through environmental design examines the form and urban fabric and its relationship to urban crime. Based on the American National Institute on Crime, its definition is: “Design and good use of the built environment which can reduce the fear of crime and improve the quality of life [9].
According to this theory, urban designers and planners who have experience and knowledge according to the capacity of the environment construction do urban design and planning in order to reduce the fear of crime and reduce the potential of violation (in the environment) [10]. Jacobs [7] in her book “The Death and life of great American cities” emphasizes the role of streets, more than any other factor in the development of urban security: If the streets are safe from violence and fear then the city is safe from violence and fear. When it is said that the city is dangerous, basically what is desired is that the streets are not safe. Jacobs [7] believes that factors such as lit-up and busy places with watchful eyes and high turnout with wide and large sidewalks are effective in shaping safe urban environment and suggests diversity of uses for streets [11]. Habermas [12] also criticized modern architecture and believes that “the blocks had doors to the street and yard and garden in their back. Today, this old architecture style is not used due to changes in shape of the streets and squares. In new architecture style there is no space for the separate private sphere and there is no broad space for public relations and public meetings.

Newman [13], has also presented some ideas for the physical design of neighborhoods, so that the crime can be prevented. He believes that physical and social factors are important in most cases. Physical factors include the “size of complex” and “number of families” that share a building public space, the greater participation rate is the greater crime rate is. Social factor means “the amount of income» and “the percentage of adolescents to adults. He believes that the size of building has a major impact on the fear of crimes and social stability, which are as follows: 1) The use of public spaces in residential complex. 2) Social relations with neighbors. 3) The sense of control over public inner-outer areas [14] (Table 2).

**Physical Irregularities**

This theory is rooted in the broken windows approach which has been one of the main strategies to establish order and security in the last two decades [15]. The main assumption of this approach is that it focuses on irregularities and minor offenses which are mainly based on reactive and work pattern to establish order and security not is considered. In this approach, physical irregularities, such as unhealthy appearance of the buildings and abandoned sites are emphasized using law enforcement and social development [16, 17]. As far as Newman [13] says: “Defensible space is a tool to rebuild the cities’ residential environment, so that they can be inhabited again and run not by police but by a group of people who share an area.” This design considers the built environment as an important factor in relation to the offense and says that design can cause or contribute to deter criminals choose the crime scene and criminal act.

According to Newman [13], “defensible space” is an alternative term used for a range of mechanisms that help an environment to be controlled by its residents. In defensible space, there are four factors that, individually and together act to make the urban environment more secure. Firstly, the physical environment can help the construction of the influence region, which can cause feelings of “ownership” and therefore ownership attention of the neighborhood’s residents. Secondly, the environmental design can provide surveillance opportunities for residents and their agents. Third, design can influence understanding of the uniqueness, isolation and stigma, and as a result, the general “image” of a plan or project. Finally, the environment design can be the most important factor influencing the safety which local environment measures can affect [10] (Table 3).

**Sanctuary-Prospect Theory**

Fisher and Nasar [18], considering Sanctuary-prospect theory of Appleton [19] offered their general typology for assessing an individual’s perception of the security. They stated that when people express their feeling about their security levels in an environment they consider the level of perspective and haven for possible criminality (secondary sanctuary). Also, to support his argument, he noted the lighting and availability model of Archnea [20] which emphasizes the role of visual access to the perceptions of an environment. According to their argument, the amount of opportunity space can provide to escape from a potential attack plays a vital role in the individual perception of the security. If there are few ways to escape in an environment or the escape ways are blocked such an environment is less accessible and as the result of evolution, such environments are generally less preferred while environments that provide observation and emergency care, along with survival and rescue and are generally preceded [19]. To support this, studies have shown that people generally prefer natural environments with open meadows. Environments with lower structural elements, more sight distance, topography changes and clean water enjoy higher preference and priority for the people [21-23] (Table 4).
Table 4: Review of the Strengths and Weaknesses of Sanctuary-Prospect Theory

<table>
<thead>
<tr>
<th>Weaknesses</th>
<th>Strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>In these studies, only the urban streets and spaces such as parks and college campuses have been investigated. Although the study of the typology in spaces such as parks offers an exploring of the experiences of people in natural environments, but these cases are examples of natural spaces in urban areas are and are often closely related to an area with a high crime rate (for example: Nasar et al, 1993; Nasar and Jones, 1997)</td>
<td>Both field research and simulation methods of used typology by Nasar and Fisher (1992) have confirmed their claims. An environment which provides little vision provides, has a high level of potential haven for criminals and does not provide an escape for potential victims is considered more dangerous and terrifying compared to an environment that provides lower level of refuge for potential offenders and provides a quick escape for potential victims (Fisher and Naser, 1992; Nasar, Fisher &amp; Grannis, 1993; Nasar and Jones, 1997; Patrick, 2000/2001, Wang and Taylor, 2006)</td>
</tr>
</tbody>
</table>

Figure 1: Theoretical Physical Model of Security in Urban Open Public Spaces

**Theoretical Summation**

Considering the foregoing discussion it can be said that the physical urban environment and ongoing relationships in it are mutually connected and affect each other. Man gives importance and function to space and form through social-cultural relations and organizing space in turn leads to the transformation of these relations. Thus, construction and design of urban spaces influence the process of social life and must be effective both physically and mentally to citizens.

In this context, readability of a city becomes more obvious through physical tools and to the extent that a body can create a symbolic relationship with its citizens through physical characteristics, the legibility or illegibility of a city is evaluated. When a space is legible it helps to feel safe and comfortable and on the contrary, when there is no signage and space is confusing, the feeling of security is lost [24].

In addition to the real ownership of areas which indicates the amount of monitoring and control over space should notice generalization of symbolic ownership in public spaces. Considering the demands of different age groups and physical disables in the community for access, security, comfort, privacy and spatial mobility, creates variability in the atmosphere in which each group expects its own dominion related to life and urban space. Attention to the sidewalks as public spaces of the city where life is going, and considering the combination of a variety of fields entirely lead to better communication with the environment and more responsible monitoring [25]. For example, experts of city appearance consider symbols and signs as important factors in exploring the various parts of the city and so people, especially strangers and newcomers to the environment feel secure by communicating with them to find their path. Consider revising, the theoretical physical model of security in urban open public spaces is presented in Fig 1.

**METHODS**

Due to dealing with the issue of security in the physical space of the city (analysis and offering framework), this paper approach is survey. The methodology of present paper is based on the integrated model: identification model, analysis mode. Identification model present principals and framework of the evaluation process of physical factors affecting security to determine parameters and data layers required for the analysis, analysis model determines using analytical methods (spatial and non-spatial) required for evaluation and assessment. In this study, following three steps were taken to identify physical factors affecting security:

1. In the first step, based on earlier international and national research, physical indicators of security and factors affecting it were identified;
2. In the second step, due to the fact that...
raised indicators and factors in different countries based on their economic, social and cultural conditions can have different meaning and literature, extracted indicators from the first step were reviewed and localized according to the social and cultural conditions of Bandar Abbas. In the third step, final indices were chosen for evaluation according to these criteria: analysis level of the studies, accountability of agents in the field of spatial-physical studies and availability of required information.

Creating index and making the concept of sense of security in physical space operational: theoretically, sense of insecurity and fear of crime is defined as an emotional reaction to fear and anxiety or symbols that an individual associates with crime [26]. To create a reaction of fear in humans, recognition of a situation which has the least potential risk (real or imagined) is needed [2]. In this article, physical indices (designed environment) of feeling safe were evaluated using Likert spectrum by questionnaire.

Making independent variable operational (physical factors influencing feeling of security in public spaces): Applications and activities, access and connections of space, the space being defenseless (broken windows), the texture and the readability of space, quantity and quality of furniture and mental acceptance of space.

Statistical community and sampling methods: statistical research community is the public spaces in Bandar Abbas. Regarding the target of the article to gauge sense of security in these spaces citizens of Bandar Abbas were interviewed. Therefore, using the Cochrane sampling formula, sample size was estimated 290. The samples were chosen randomly from people in all the main public spaces including city streets, parks (including coastal and non-coastal) and city markets. Analysis unit in this multi-level study is individuals in the first level and public space in the second level.

RESULTS AND DISCUSSION

Descriptive Findings, Characteristics of the Right Physical Pattern for Feeling Safe in Public Spaces

Light and lighting: findings from the field showed that citizens do not have a positive view about the status of light and lighting in public spaces in the city (the average of 2.65 on a five part continuum) and assessed it mediocre to the lower. So to achieve the desired level of lighting in the public spaces of Bandar Abbas the amount of lighting spaces should be increased. In particular, Dabaghian Park, Daneshgah Street and 22 Bahman Market should be in priority. Access to a safe escape in an emergency: the findings suggest that citizens have a modest view about how to escape danger in emergencies in public spaces (an average of 3.07 in a five part continuum) and assessed it as average. Placement in between fences, long walls, trees and high-rise buildings: citizens regard placement of public spaces in between fences and long walls as mediocre to the bottom with an average of 2.40 in a five part continuum. Motor vehicles coming to sidewalks and other places of rest: citizen assessment of this indicator with an average of 2.90 in a five part continuum indicates that this parameter in public spaces of the city is average to lower status.

Existence of various uses in public space: interviewees’ evaluation of the existence of various uses in public spaces with an average of 2.73 in a five part continuum represents that citizens do not have a positive view about the status of existence of various uses in public space and assessed it mediocre to the lower. Suitability of the flooring in walking and sport routes and playgrounds: interviewees’ evaluation of the suitability of the flooring in walking and sport routes and playgrounds with an average of 2.42 in a five part continuum represents that they do not have a positive view about the suitability of the flooring in walking and sport routes and playgrounds and assessed it mediocre to the lower.

Dilapidated and abandoned buildings around the public space: interviewees’ evaluation of this indicator with an average of 2.30 in a five-part range indicates that less public spaces are less situated in between dilapidated or abandoned places. Being clean and hygienic: interviewees’ evaluation of being clean and hygienic with an average of 2.58 in a five part continuum represents that citizens do not have a positive view about being clean and hygienic and assessed it mediocre to the lower.

Inferential Findings

The findings of field studies in explanatory manner indicated that a total of eight physical indicators influencing sense of security in public spaces in Bandar Abbas are almost all moderate and medium-to low (bad) (Table 5). As it can be seen in table, citizens’ evaluation of physical indicators related to sense of security in public spaces of Bandar Abbas is mediocre and lower. Therefore, it can be concluded the current situation of physical indicators of public spaces for the city of Bandar Abbas is average or lower according to citizens.

As it can be seen in Table 6, the resulted findings of Pearson and Spearman correlation tests showed all physical indicators of public spaces have a significant relationship with a sense of security in these spaces.

Physical Factors Influencing Sense of Security in Public Spaces of Bandar Abbas

The resulted findings of Pearson and Spearman correlation tests showed: there is a significant correlation between sense of security with physical factors (Pearson correlation coefficient (R = 0.304) and Spearman correlation coefficient (R = 0.270). As expected, relationship between physical factors with sense of security is direct, i.e. when physical indicators in public spaces are more desirable feeling security increases. According to the theoretical foundations, when physical indicators in public spaces are not favorable the grounds for social problems increase. Because we need to specify the key factors influencing the sense of security in public spaces for the strategic planning, therefore we should test the influence of the above factors on each of the dependent variables using multiple-variable regression analysis. Here resulted findings of multiple-variable regression test about the impact of physical factors on the sense of security are presented (Tables 7 and 8).
### Table 5: Abstract of Citizens’ Evaluation of the Indicators of Public Spaces

<table>
<thead>
<tr>
<th>Index</th>
<th>Mean ± SD</th>
<th>Evaluation of the Status of a Significant Difference in any Type of Public Spaces Together With Variance Analysis Test</th>
<th>Direction of Influence on Feeling Safe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting Status</td>
<td>2.65 ± 0.93</td>
<td>0.01</td>
<td>Direct</td>
</tr>
<tr>
<td>Access to a Safe Escape in an Emergency</td>
<td>3.07 ± 1.15</td>
<td>0.24</td>
<td>Direct</td>
</tr>
<tr>
<td>Placement in Between Fences, Long Walls, Trees and High-Rise Buildings</td>
<td>2.4 ± 1.14</td>
<td>0.000</td>
<td>Opposite</td>
</tr>
<tr>
<td>Motor Vehicles Coming to Sidewalks and Other Places of Rest</td>
<td>2.9 ± 1.17</td>
<td>0.006</td>
<td>Opposite</td>
</tr>
<tr>
<td>Existence of Various Uses in Public Space</td>
<td>2.73 ± 1.12</td>
<td>0.001</td>
<td>Direct</td>
</tr>
<tr>
<td>Suitability of the Flooring in Walking and Sport Routes and Playgrounds</td>
<td>2.4 ± 1.05</td>
<td>0.26</td>
<td>Direct</td>
</tr>
<tr>
<td>Dilapidated and Abandoned Buildings Around the Public Space</td>
<td>2.3 ± 0.95</td>
<td>0.18</td>
<td>Opposite</td>
</tr>
<tr>
<td>Being Clean and Hygienic</td>
<td>2.57 ± 0.9</td>
<td>0.001</td>
<td>Direct</td>
</tr>
</tbody>
</table>

### Table 6: Relationship between Physical Indices with Sense of Security in Public Spaces

<table>
<thead>
<tr>
<th>The Index</th>
<th>Pearson Correlation Coefficient</th>
<th>Significance</th>
<th>Spearman Correlation Coefficient</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting Status</td>
<td>0.265</td>
<td>0.000</td>
<td>0.279</td>
<td>0.000</td>
</tr>
<tr>
<td>Access to a Safe Escape in an Emergency</td>
<td>0.108</td>
<td>0.036</td>
<td>0.109</td>
<td>0.034</td>
</tr>
<tr>
<td>Placement in between Fences, Long Walls, Trees and High-Rise Buildings</td>
<td>-0.113</td>
<td>0.03</td>
<td>-0.119</td>
<td>0.023</td>
</tr>
<tr>
<td>Motor Vehicles Coming to Sidewalks and Other Places of Rest</td>
<td>-0.26</td>
<td>0.000</td>
<td>-0.027</td>
<td>0.000</td>
</tr>
<tr>
<td>Existence of Various Uses in Public Space</td>
<td>0.124</td>
<td>0.019</td>
<td>0.114</td>
<td>0.029</td>
</tr>
<tr>
<td>Suitability of the Flooring in Walking and Sport Routes and Playgrounds</td>
<td>0.202</td>
<td>0.000</td>
<td>0.163</td>
<td>0.003</td>
</tr>
<tr>
<td>Dilapidated and Abandoned Buildings Around the Public Space</td>
<td>-0.188</td>
<td>0.001</td>
<td>-0.201</td>
<td>0.000</td>
</tr>
<tr>
<td>Being Clean and Hygienic</td>
<td>0.191</td>
<td>0.001</td>
<td>0.178</td>
<td>0.001</td>
</tr>
</tbody>
</table>

### Table 7: Summary of the Results of Multivariate Regression Test of the Effect of the Physical Factors on the Sense of Security

<table>
<thead>
<tr>
<th>Correlation Coefficient (R)</th>
<th>Coefficient of Determination ( R^2 )</th>
<th>Adjusted Coefficient of Determination</th>
<th>Standard Error Estimation</th>
<th>Descriptive Statistics</th>
<th>Statistics of Watson Camera</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.46</td>
<td>0.24</td>
<td>0.197</td>
<td>0.82</td>
<td>0.015</td>
<td>4.446 1 230 0.036 1.94</td>
</tr>
</tbody>
</table>

### Table 8: The Results of Theoretical Model Test

<table>
<thead>
<tr>
<th>Significance</th>
<th>Beta</th>
<th>Most Important Physical Indicators Influencing Sense of Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>-0.236</td>
<td>Motor vehicles coming to sidewalks and other places of rest</td>
</tr>
<tr>
<td>0.001</td>
<td>0.208</td>
<td>Lighting status</td>
</tr>
<tr>
<td>0.000</td>
<td>0.207</td>
<td>Suitability of the flooring in walking and sport routes and playgrounds</td>
</tr>
<tr>
<td>0.026</td>
<td>-0.134</td>
<td>Placement in between fences, long walls, trees and high-rise buildings</td>
</tr>
<tr>
<td>0.036</td>
<td>-0.13</td>
<td>Dilapidated and abandoned buildings around the public space</td>
</tr>
</tbody>
</table>
The above tables show that physical factors such as: motor vehicles coming to sidewalks and other places of rest, lighting status, suitability of the flooring in walking and sport routes and playgrounds, placement in between fences, long walls, trees and high-rise buildings, dilapidated and abandoned buildings around the public space with correlation coefficient of 0.46 form a total of 0.24 of variance in sense of security in the public spaces. The results of variance analysis between regression values and residuals are indicative of p F significance in the level of 0.000. Therefore, these findings indicate that regression model is valid and entry of the variables to the model is permitted (Figs 2 and 3).

CONCLUSIONS

As it was said, the present spatial pattern of feeling safe is far from the desired level of physical indicators in most cases. This means that the resulted findings of multiple-variable regression with step by step procedure showed that among physical indicators in a multivariate model, physical indicators of: “motor vehicles coming to sidewalks and other places of rest, lighting status, suitability of the flooring in walking and sport routes and playgrounds, placement in between fences, long walls, trees and high-rise buildings, dilapidated and abandoned buildings around the public space” have significant impacts on the sense of security in public spaces. Therefore, in designing appropriate pattern of sense of security, this should be given more importance. In other words, the analytical findings showed that all physical indicators presented in the theoretical model are related with the existing pattern of sense of security. Therefore, in order to gain suitable spatial pattern for the sense of security in public spaces some changes should be made in the existing patterns of spatial indicators influencing sense of security in urban public spaces in order to improve and modify them. According to the above findings it can be said that the experimental pattern of this article support the previous research. With regard to the above experimental model and previous experiences, following actions in the framework of the reform of physical indicators influencing sense of security are recommended (Table 9):

<table>
<thead>
<tr>
<th>Index</th>
<th>Preventive Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lighting Status</strong></td>
<td>Proper lighting of streets, intersections, parks, shopping malls and pedestrian crossing places with the aim of increasing sight will promote sense of security in public spaces of the city. This is more important if we know that Bandar Abbas is a hot place and citizens use public spaces in the evening and night hours.</td>
</tr>
<tr>
<td><strong>Access to a Safe Escape in an Emergency</strong></td>
<td>Reducing corner cuts and hidden dark places in public spaces, designing physical spaces appropriate for missing places (with lots of bends) and without sight.</td>
</tr>
<tr>
<td><strong>Placement in Between Fences, Long Walls, Trees and High-Rise Buildings</strong></td>
<td>Using short shrubs in spaces where people pass on the streets they pass because tall trees that shade over sidewalks create a nondefense space for pedestrian and reduce feeling of security. Setting intervals between trees in order to prevent the creation of open spaces without sight, open designs and absence of on-going fence around the public spaces should be considered, so as to prevent establishment of blind points with green covering such as bushes, shrubs and trees that are difficult to be directly observed.</td>
</tr>
<tr>
<td><strong>Motor Vehicles Coming to Sidewalks and Other Places of Rest</strong></td>
<td>Public spaces should be designed properly to provide citizens with safe spaces. Sidewalks or rest areas which allow motor vehicles traffic reduce feeling safe and decrease the grounds to participate in the space.</td>
</tr>
<tr>
<td><strong>Existence of Various Uses in Public Space</strong></td>
<td>The right combination of different activities in public spaces, regarding their performance, can be effective in increasing the security of outer space. Adding recreational-sport activity to public spaces leads to surveillance and crime-free environment which increases social care the non-sensible monitoring. Multi-activity spaces attract citizens throughout day and night to and thus increase non-official monitoring. In particular, these activities make public spaces to boom in holidays and hours of solitude.</td>
</tr>
</tbody>
</table>
Suitability of the Flooring in Walking and Sport Routes and Playgrounds

Public spaces equipped with flooring. Paths, etc. cause confidence and sense of security of the users of the space. Providing safe access to the facilities and implementing special sidewalks with the proper width and flooring cause ever greater and effective presence of users of urban spaces.

Dilapidated and Abandoned Buildings Around the Public Space

In this regard by modernization and improvement in the urban tissue, the spaces without defense should be removed. This is possible by applying centralization policies for the residents in worn tissues of the city, eliminating physical irregularities such as dirty places, dilapidated buildings and long cracked walls which decrease sense of security.

Being Clean and Hygienic

Public space design shall be such that, while the space is clean and sanitary, it provides grounds for the participation of citizens, in maintaining the health and cleanliness of the space.

REFERENCES