

## Evaluating the Impact of Environmental Factors on Women's Sense of Safety (Case study: Sahlabad Neighborhood- Shiraz)

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### Introduction

The presence of women as one of the most important and vulnerable user groups of urban spaces requires requirements and prerequisites. One of the most important of which is 'safety'.

The perception of women safety in urban spaces depends on many factors. Physical-spatial characteristics, economic status, political and social conditions, cultural issues, each with their own indicators, affect the level of women's safety. But, studies show that women in urban spaces with better qualities, have stronger sense of safety. This article aims to investigate the relationship between environmental indicators and women's sense of safety in urban spaces at the neighborhood scale.

### Material & Methods

This research has been considered as an applied research regarding the purpose and has used a descriptive-interpretative approach in the method. In line with this approach, a library method was used to collect documentary data and a quantitative survey using a questionnaire to collect field data. Environmental indicators affecting women's sense of safety were extracted from previous studies and after the refining, by selecting the frequency of indicators, 25 indicators were selected and classified into four dimensions: physical, spatial, functional, visual-perceptual, and social. Subsequently, the effect of the selected indicators in the Sahl-abad neighborhood of Shiraz- as the case study- was evaluated using a 14-item questionnaire with a Likert scale among 370 women living in this neighborhood. Sampling was done in a randomized manner over a period of three weeks among women aged 15-60 years old in the neighborhood. The results of the scan were analyzed by sequential logistic regression.

### Discussion of Results & Conclusions

The results of data analysis show how improvement of each indicator would affect sense of safety in women. The indicators which have greatest impacts are the 'lighting situation' in the physical-spatial dimension (107.3%), the improvement of 'neighborhood fame (95%)', 'legibility and clarity of the paths (88.6%)' and 'sense of belonging to the neighborhood (77.8%)' in the perceptual dimension.

In the social aspect, findings showed that the effect of the 'socialization of space' index on the woman's sense of safety was not significant. The lack of significant effect of this index, despite its emphasis on previous research, may be due to the lack of sociable spaces in Sahel-abad neighborhood and, consequently, the lack of experience and understanding of these spaces by the responding women and their inability to assess its impact on the sense of safety.

In the category of 'functional' indicators, the 'presence of street vendors' had a negative impact on women's sense of safety. The presence of vendors or informal retailers, while in many cases contributing to the vitality of the space and the realization of the nightlife of urban spaces, in some cases, such as this neighborhood, does not provide a safe and favorable social environment for women. It also seems to have a negative impact on women's sense of safety. In this category, attention to 'walking' has a significant impact on women's sense of safety. This issue is especially important at the neighborhood level, and its realization should be addressed in planning, functional, visual, and physical aspects.

The high share of the impact of indicators in the 'visual-perceptual' category states the importance of the visual and especially the perceptual dimension in the design and planning of urban spaces. The 'perceptual' aspect of women's safety is in many cases more important than its objective, and consequently, as the results of this statistical analysis show, mental and perceptual indicators and their empowerment in urban

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spaces can have a significant impact on improving women's sense of safety.

The significance of the 'mental' aspect of safety on the one hand and the effect of the 'perceptual' dimension of space on the sense of safety, is expressed for designer and urban planners to focus on 'identity-perceptual dimensions' in the design and planning of urban spaces, especially in the 'neighborhood' scale.

The article's suggesting strategies to promote the women's sense of safety are enhancing the lightning situation of public spaces, paying more attention to creating defensible urban spaces in urban design and urban planning, enhancing the legibility and clarity of the paths by environmental strategies, enhancing the vitality of public spaces along with vehicles and pedestrian accessibility, and reducing environmental pollution.

**Key words:** Sense of Safety, Women, Neighborhood Spaces, Sequential Logistic Regression.

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