

Study on Home Buyers' Preference for Urban Residence Greening Environment Under Different Psychological Pressure States

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ABSTRACT

At present, the research on the relationship between urban environmental characteristics and psychological pain has many problems, such as single object, unknown mechanism and unknown causal direction. This paper makes a breakthrough to the limitations of existing research by studying the expectation of urban homebuyers for residential greening environment under different stress states. It is hoped to improve the residential experience of home buyers and help real estate developers to make a more comprehensive user portrait from the perspective of residence design.

Keywords: mental stress, green coverage ratio, dwelling environment, environmental psychology.

1. INTRODUCTION

As China's economy grows, the city constantly expands. Continuously rising housing costs and increasing work pressure have jointly become a big mountain in the hearts of home buyers, bringing great pressure to people. With the continuous flow of population from economically underdeveloped areas to developed areas and cities with good development prospects, the population showed a blowout growth, followed by the sharp increase in population density in developed areas and the continuous reduction of per capita residential building area. In this case, some construction companies have the hope of expanding the total residential floor area at the cost of greening coverage.

In the psychological impact of the outside world on people, the crowded living environment and the low green coverage area are not beneficial to the physical and mental health of the people in a residential area. However, we still cannot determine the first problem, that is, whether the buyers with psychological problems tend to choose some environment not conducive to mental health, or the environment not conducive to mental health leads to the generation of residents' psychological problems.

This study, in the way of scenario experiment, by applying social pressure this control variable, the experiment group and control group, analysis in

pressure and no pressure under two housing choice, in this way, observe different psychological pressure buyers of different requirements of housing in the urban living environment. Find the potential mechanism between green environment and urban residence and psychological distress. And the residence greening environmental characteristics and psychological pain is the first question.

2. EXPERIMENT

2.1 STUDY AREA

Alaya found a striking link between reductions in nearby vacancies and more common psychiatric disorders (Araya et al., 2007)[1]. According to existing studies, the lack of features such as green space may limit the recovery of stress and reduce the adverse effects of the urban environment (Maas et al., 2009)[2]. Young and Matthews argued that the density of industrial activity in the American residence negatively affected the psychological distress of residents (Yang and Matthews et al., 2010)[3]. Mair et al found that both social and physical environments were associated with mental health status and suggested that physiological stressors may be derived from individual perception of the environment (Mair et al., 2010)[4].

Overall findings suggest that certain aspects of the living environment measured objectively such as

architectural features, quality of neighborhoods, number of green space, land use combinations, industrial activity and traffic volume are significantly associated with psychological problems[5].

2.2 METHOD

In this study, human psychological stress was divided into external social stress and internal psychological load to facilitate more accurate positioning of experimental variables.

Material experiment: subjects were randomly sampled with pressure scale testing, and construct and test the model of three types of residence. Ensure the effectiveness of the experiment.

Stress scale test: The PSTR scale was prepared by Swiss psychologist Edwards in 1983 and is based on the theory of psychological stress factors proposed by German psychologist Murray in 1968.

Experimental design: In order to facilitate the analysis of the relationship between the social pressure of home buyers and the greening coverage of the selected housing, this study will explore this selective behavior through psychological scenario experiments.

First of all, the three residences with great differences in green environments were designed for the three subjects to choose, namely residences with convenient transportation, reliable security, and

residences with beautiful environment. In the experiment, residential houses are generally divided into two categories. Houses with convenient transportation and perfect security represent residential areas with low green coverage, while residences with beautiful environment represent residential areas with high green coverage.

Second, using random sampling, three subjects were selected, and then the psychological pressure of all subjects using the scale or subjective assessment, grouping the numerical results so that the experimental group was similar to the initial pressure values of the control group.

What's more, In the experiment, the experimental group was informed that it was needed to give an impromptu speech after the purchase, to represent the social pressure from superiors, work, customers, and to take this social pressure as a control variable of the experiment. The final selection of the target residence was then aligned between the experimental and control groups.

Finally, observing the results of the experiment, if the experimental group chose a larger proportion of high green coverage housing than the control group, it is proved that buyers facing high social pressure are more inclined to buy houses with high green coverage for their own to live.

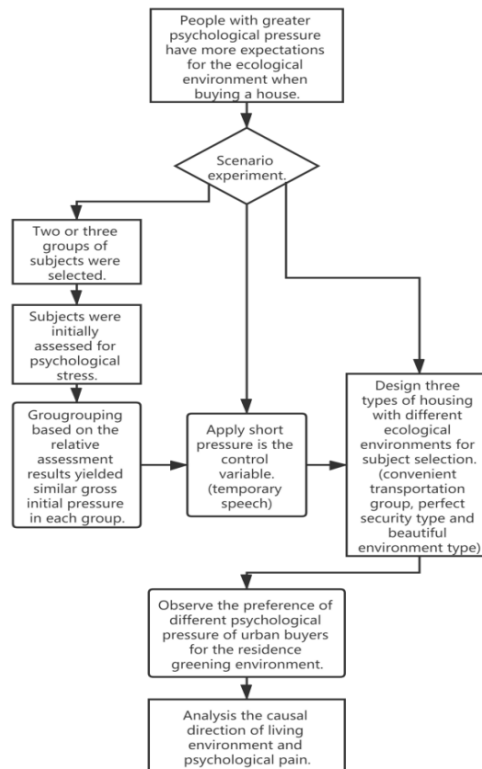


Figure 1. Flow chart of scenario experiment.

3. RESULTS AND DISCUSSION

Of the 25 subjects, 4 were excluded by psychological stress and the remaining 21 were divided into groups B and C, of which A was experimental and B and C were control. The initial pressure average for each group was within 60 to 70 points. After the test, 7 people in group A had a preference for housing type. 4 people chose beautiful environment type, 2 people chose convenient transportation type, and one person chose perfect security type. Five people in group B chose convenient transportation and two chose beautiful environment; four in group C choose convenient transportation type, 2 people choose beautiful environment type, one person choose perfect security type.

In scenario experiments, different environmental scenarios are designed where the independent variable is the pressure applied in short periods and the dependent variable is the residence preference. According to the above data, it can be found that the probability of choosing a beautiful house is greatly increased after the subjects exert pressure. In the two control groups without pressure, the selection rate of the beautiful environment housing was 28.57%, while in the group after pressure experiment, the selection rate of the beautiful environment housing reached 57.14%, which doubled when the sample size was small. In the comparison of the selection rate of the convenient housing, the selection rate of the two control groups decreased from 57.14% and 71.43% to 28.57%, respectively. Therefore, we assume that this apparent change is the result of pressure to improvise.

According to the above experimental results, we can initially think that home buyers will receive the impact of their social psychological pressure when choosing the housing they buy. When buying houses, home buyers with higher psychological pressure tend to buy houses with higher green coverage. The experimental results show some significant connection between the burden of social psychological stress and their own living environment. We generally regard social psychological pressure as a kind of psychological pain, and the green coverage rate simulated in this experiment can represent the green environment of the urban residence.

Therefore, we can conclude that when choosing a place to live, the psychologically distressed people prefer to live in a greener environment. On this basis, we improve the living experience of the residents; Improve the user portrait of home buyers; The experimental results are discussed from three aspects, such as consumer purchase suggestions.

In terms of living experience, real estate developers can enhance residents' happiness by increasing the green coverage area of residential areas during housing construction. In terms of user portraits, if developers

target office workers and other workers with high work pressure, they can attract customers by increasing the green coverage. For the home buyer, if the home buyer belongs to the psychological pain, such as psychological pressure or suffering from mental illness, it should choose to buy a greener living environment to relieve the pressure or prevent the deterioration of the condition.

Table 1. the results of the situational experiment.

Three types of housing / The three groups	Beautiful environment type	Convenient transportation type	Perfect security type
Group A (experimental group)	4	2	1
Group B (control Group)	2	5	0
Group C (control group)	2	4	1

4. CONCLUSIONS

In this study, we acknowledge the existence of a two-way choice between psychological distress and the green environment of urban residence. However, in the experiment, the recipients of psychological pain prefer residences with high green coverage when buying a house, from which we exclude the hypothesis that psychological pain leads to choose a poor urban living environment. Therefore, this study believes that the relationship between the two is highly likely that the poor urban living environment leads to the generation of psychological distress.

On the basis of this understanding, we believe that home buyers with higher greening coverage rate are generally facing greater social pressure than other home buyers. Therefore, this study suggests that if conditions permit, residential areas with higher green coverage and install some decompression facilities can effectively improve the living experience of home buyers.

The significance of this project is to break away from most studies focusing on depression and provide material from the perspective of social psychological stress. Through the discussion of the experimental results, this paper analyzes the potential mechanism of the significant relationship between urban residential green environment and psychological pain, and explores the causal direction of the relationship based on the relationship between urban residential green environment and psychological pain. Therefore, this paper advocates expanding the green coverage area of office workers' living areas. This not only reduces the stress of the workers, but also attracts the bearers of psychological distress to buy these properties. Although some achievements have been made in this study, many problems remain unsolved. First, this paper only studies

social pressure and does not discuss other types of pressure; second, the sample size is insufficient and a more professional experimental team; again, there is no detailed discussion in terms of greening coverage. In fact, people facing social pressure will also respond differently to different greening coverage areas. In the future research, we can start with different greening coverage rates, refine the pressure types, expand the sample size, and continue to deepen the research while enhancing the persuasion.

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