

## **Investigating Psychological Factors in the design of Research Centers in the Capital of Culture and Art of Iran**

**Authors: Milad Karimian<sup>1</sup>  
Dr. Parviz Bayat<sup>2</sup>**

**Abstract:** Over time, different designs are used in the architecture of psychology centers that research centers of the psychology is such a same one. Understanding the psychology research centers over time highlights the range of important factors affecting the visible design. Performance space, relaxing space, being monitored continuously, and treating the space in the formation of the space of Psychology research centers in the area. This paper for the first time studied and analyzed the impact of psychological factors in the design of research centers in the capital of culture and art of Iran. This article's aim is to analyze the impact of psychological factors in the design of research centers.

In this paper, firstly the interior design of the centers, its design principles and the impact of space on the formation and effect of environmental factors such as (light, green space and color) are effective in remission of the patients. Studies revealed that the performance space, relaxing space, the continuous monitoring of the treatment of the research centers are designed to improve the psychological impact.

**Key words:** Research center, psychological research, factors affecting the design, art and culture capital of Iran

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<sup>1</sup> *M.S. Student of Architecture, Islamic Azad University, Branch of Science and Research of Shahrekord, Iran E-mail:mksh43@yahoo.com*

<sup>2</sup> *Assist Professor of Islamic Azad University of Shahrekord, Iran E-mail:Parviz.bayat@yahoo.com*

**Introduction:** In today's world, due to machining the life and being higher mechanical and psychological stress to everyday human so many problems have emerged among men. Accordingly, it should be seeking a solution to this issue and resolving it which requires medical research studies in this field. On this basis, according to the fact that the city of Isfahan (the capital of culture and art of Iran) is one of the principal places of the research in the past ten countries, the researcher decided to study the design factors in this city of the culture and civilization for research studies of mental illness to develop the science in this field and a step can be taken to improve these people and the promotion of their social life. In all parts of the research, the conception of mentally ill patients is the ones who have neurotic disorders and are not immedicable.<sup>3</sup>

1. In general, these types of the centers are prepared according to their functional identity. The designer tried to extract the maximum performance from his plan.

Psychological factors in the design centers are as follows:

**1.2 Performance space:** Considering the fact that in such centers there are medical sectors that should be like other ones in terms of performance spaces they are considered to be of a special importance.<sup>4</sup>

**1.3. Relaxation of spaces:** Due to the presence of the patients with mental disorder in the place to reduce their stress as much as possible in the existing spaces they are in a relaxing space and free of emotional stress and a psychological well-tolerated place in addition to improve the patients.<sup>5</sup>

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<sup>3</sup> Azad, Hussein, General Psychology, the type of psychological disorders, Payam Noor University, 2008, Third Edition

<sup>4</sup> Alirezaei, Mahdi, standard medical facilities (hospital), Mahkameh, 2010, first edition

<sup>5</sup> Atkinson, Rytaal et al., the field of psychology, Hassan Rafiei et al., Tehran, Arjmand, 2004, fourth edition, Volume II

#### **1.4 being continuously monitored**

According to the researches the subject and its influencing factors to be examined under research will result in more accurate results with the patients under the centers by supervising the researchers both continuously and directly, so they can see their real-time position solutions and provide accurate and effective treatments.<sup>6</sup>

**1-5 therapist space:** Due to the fact that in some areas of psychological disorders, the place also has a major impact, as well as the cases as follows:

##### **1. Anxiety disorders:**

**1.1 Anxiety released:** places that remind them of the unpleasant things that lead to increase their disease.

**1.2 phobia:** fear of heights, fear of tight and dark places, fear of wide open spaces and so on

##### **2. Mood disorders:**

**2.1 Depression:** space, light, color is of great importance to them that should be considered.

**2-2 Mania disorder:** in an open environment the patient is too happy and it can cause to harm themselves and others. It must be paid attention to these diseases and disorders depending on the type of design of place that has a medical character.<sup>7</sup>

**Interior design of the centers of mental illness:** The internal design of such centers sets up two sectors:

1. The interior design of the spaces should be designed according to the patients.

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<sup>6</sup> Ganji, Hamza, psychological tests, Mashhad, University of Imam Reza (AS), 1996, sixth edition

<sup>7</sup> Azad, Hussein, General Psychology, the type of psychological disorders, Payam Noor University, 2008, Third Edition

2. Interior design of research spaces for scholars, practitioners and professors designed must be upon the high level principles of aesthetics.

**3- Design of therapeutic areas:** Spaces designed are different according to the indicators and the health needs of different regions. However, there are several standards that are the source of health and economic performance, but the relationships of spaces are designed under standard treatment. On this matter, physicians, surgeons, engineers, medical equipment, environmental engineering and urban planners are very important for the architect of therapeutic areas. That is why a good project should have the best classification, organization and planning. At zero phase the better the evaluation is and therefore before beginning the project the design must be planned carefully to determine the number and type of beds. The size, type and size of the center are specified for the designer. Basically, the appropriate design and construction with practical and economical beneficence in medical center in addition to the health indicators are important according to the following parameters:

• Compatibility • comfort • efficiency • Utility • Health • Safety<sup>8</sup>

**Optimal parameters of selecting location in urban applications:** The characteristics of each type of land use or any urban activity evaluated two guiding factors, including the social welfare and the economic welfare as the criteria based on two general factors, six criteria following are used for site selection criteria of the urban functions of land and urban land planning.<sup>9</sup>

**Compatibility:** The concept of the compatibility is a consistent position of land uses side by side and adversely separated from incompatible applications. Incompatible applications such as those where are with smoke, smell, etc. should be far away residential, educational and health care applications.

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<sup>8</sup> Alirezaei, Mahdi, standard medical facilities (hospital), Mahkameh, 2010, first edition

<sup>9</sup> Alirezaei, Mahdi, standard medical facilities (hospital), Mahkameh, 2010, first edition

**3.2 Comfort:** Two factors of the optimal distance and time are the most important criteria for locating factors and the level of comfort. The categories such as near or far for comfortable living, walking distance, availability of transport and utility lines usually have a sense of comfort.

**3.3 Efficiency:** The usefulness and cost allocation and efficiency of land use has a major role. The price of land, economy, investment and productivity of the other factors are considered to be an important to the efficiency of urban land.

**3.4 Utility:** The notion of the desirability is to preserve the natural factors, landscapes, open spaces, green spaces and so on. The desirability of location in the medical centers shall take place in a fun and pleasant scenery and landscape around the patients.

### **3.5 Health (Healthy City)**

The notion of Healthy City is to comply with all applications due to the high density , per capita income, per capita standards and criteria.

**3.6 Safety:** The notion of safety is immune and protection of the center against any type of attack and destruction, whether artificial or natural.

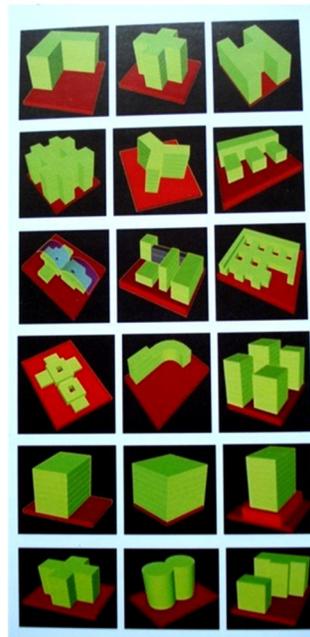
**4. The schematic plans:** The schematic plans begin according to physical planning. Usually it is considered for each of the blocks and tried to find location with respect to the combination of different functions and aspects of health care, and economic management is very important. In horizontal and vertical directions a logical operation whether the health view or the treatment must be present for the logistics and personnel.<sup>10</sup>

**4.1 Preliminary Plan:** After study and analysis of schematic plans, work continues on a specific plan. In preliminary plans or phase one, schematic plan will be developed that can be drawn with the scale. Joint team work will be the preliminary plan. By choosing the right combination they form a preliminary plan.

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<sup>10</sup> Alirezaei, Mahdi, standard medical facilities (hospital), Mahkameh, 2010, first edition

**4.2 Effect of the architectural spaces in medical centers:** Communication within sectors is the best and shortest connection of nursing center to hospital rooms, number of beds in care, how the rooms are arranged around it and how light will determine the patient wards. The combination of several sections together and then putting them together cause the geometry of hospitalization. In most health centers built by the standards of good experience and productivity which reflects the same alphabet made communications sectors. For example, forms are like ABCFDLWEIZXVNSUYHTKGMN.



**Figure1**

*Source: Neufert Information architecture, Kouros Mahmoudi, future builders, Shahrab, 2009, Ninth Edition*

**5. The effects of green space, light and color in healing patients:** Extensive research in the United States has shown that well-designed green spaces and light with standard angle for accelerating the health of patients and healthcare workers increased the vitality associated with this work better. The problem is that it neglects the biological meaning of the light and the effect of the sun in treating that is effective. In the long stay in the hospital it is required to carry out a certain light metabolic and circulatory functions properly. These environments are designed for those who need to be aware of the biological effects of light.

Figure 2



*Source: Sharifi, Hasan Pasha, theory and application of intelligence and personality tests, Tehran, 1993, Third Edition*

Viewing sudden light stimulates the adrenal glands. In such cases, the circulation of the day and night may be inspired to create the same natural lighting. Also the light attached to the ceiling and lattice beams are examined in detail. Embedding heat and cold devices and features of shock in walls and support boxes for various medical devices and connection for all the domestic details are so closely related to the architectural design and even structure. Explicitly, other measures should be taken to reduce environmental sound and ventilation systems. Thus we see that the effects of space, light and color in design are important for healthy social life. These changes may improve health and may lead to depression, the absurdity and drowsiness. Architects can use this knowledge to increase their recovery and their easier access to inner peace.

**Figure 3**

*Source: Sharifi, Hassan Pasha, theory and application of intelligence and personality tests, Tehran, Sokhan, 1993, Third Edition*

Works of art on the walls are desirable to regulate the nervous system to work. The effect of green space, warm and cool colors and brightness are many issues that are important to the hospital. For example, high contrast is resulting in the headaches and eye strain. Increasing consciousness or confusion and distraction, feel the passage of time, creating a cultural relationship, sad or joyful synergy of the results of an internal planning. Information on new theories of color and the relationship of the architecture is significant. Colors and the effects of color in interior design are an important part of the research study of interior architecture.

## **6. The interior design of medical centers**

The interior design of medical centers should be based on the latest standards and technologies. The designs of internal architecture and security design space are very fundamental and what is written in the standards may be rarely different sometimes. It may be better that the rooms are designed in a way that patients see better outside, as well as better communication with nurses or their relatives. It may be possible in the day room, where patients can gather much benefit from natural light, sun, trees, sky and water (such as an enclosed courtyard) which is preferred by nursing station.

**Figure 4**

*Source: Alirezaei, M., standard medical facilities (hospital), Mahkameh, 2010, First Edition*

**Conclusions:** Finally, given the nature of the issues raised by research studies in architecture today, including the discussion of initial ideas that are formed on the basis of three categories of mental structure, the performance of two climates are given.

Designer by considering design factors can help your ideas based on the structure of the package in his mind then express the source of inspiration in this environment. The paper aims to pay more attention to environmental factors and their impact on social behavior and application of research in today's world has become the subject of research that these factors have a direct impact on the design of the facilities and improve patients.

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