

Healing garden: Study of the therapeutic effects of the natural environment in Pediatric Hospital

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ABSTRACT : Many studies have shown that the presence or spending long hours in hospitals is a stressful experience for patients, visitors and staff. Among the different groups, Children as the most vulnerable groups of people (especially during illness) have been considered by planners and designers in particular. In this regard ,the presentation of solutions on pediatric hospital design with environmental psychology approach, Considered to be a positive step. One of the solutions to help treatment accelerationin these patients, is concerned using of attractions and the therapeutic effects of the natural environment in hospitals and their therapeutic spaces. The article method is analytical-descriptive and based on documentary and library.The most important variables of current article consist of physical and psychological characteristics of children's, related concepts to "healing garden" and the role of nature in promoting health and improve disease, and analyzing its impact on the treatment of children. The results show that existence of natural elements in pediatric hospital had a positive effect on the course of their treatment, family morale, staff productivity.

Introduction

Man as a natural being and a part of nature, has long been linked with the surrounding environment; and needs to this relationship. This relationship leads to mental and physical health of human. So we can use this feature to reduce stress, improve morale and ultimately improve patient. Some landscape architects, garden designers, healthcare professionals have designed gardens with special features to enhance human health which is made in some hospitals. Due to the soft and vulnerable Spirit of children and their increasing need to natural environments, there are seems useful such gardens in Children's health centers.

Hospital design, as a care and treatment place of sick man, has special importance; And in its architecture, is a priority centrality of man and responsiveness to its needs (Lang,2004). Connecting people with nature in health centers was one of the important solutions that in the past decade has been used in order to improve the health centers(Mardomi et al.,2013).

Literature review shows that green nature, Sunlight and fresh air in past centuries were considered as essentials of healing in health environments so that evidence This subject there have been in healing temples of Greece and Rome, Clinic located in the medieval monastery, urban large hospitals in the 17th and 18th centuries and Hospice of the 19th and 20th centuries(Horsburgh,1995;Malkin,1992).

About between 1950 and 1990 in most western countries, it was made Multi-storey hospitals in the international style and were like office buildings. natural ventilation were replaced by ventilation systems and And construction of terraces and balconies were ignored. It was designed to treat buildings that caused of increased stress for patients, visitors and staff. But in the early 1990s health system authorities were found to negative reaction of patients on existing office design (Ulrikh,2000). In order to solve this problem, was performed important research. It can be noted that the most important issues was survey of relationship between nature and human health and Using again the nature of the medical centers. Researchers scientific findings illustrate that nature has a positive effect on health(Herting,1993;Ulrikh,1992,1993,1986,1984).

According to a survey of patients in several hospitals(Patients were different in terms of age, location, type of disease), it was found that almost all of them had a positive view into importance of therapeutic environment physical conditions and the desirability of access to green space (gardens, landscape, balconies, indoor plants and nature landscape)(Mokri,1997). In two studies, the patients were asked at the time of discomfort and stress, where they choose; It was found that the majority of patients to seek refuge outside nature (Francis and Marcus, 1991). First systematic assessment of health sites garden has been done in America, which four garden in hospitals were examined by observation,

analysis and interviews. The results showed that 90 percent of patients felt a positive change in their conditions after spending time in the green area (Marcus and Barnes, 1995). In summary, the benefits of nature Presence in the health centers Included (Ulrich, 2000): Reduce stress Patients, staff and visitors; Increased pain tolerance threshold and reduce the use of analgesics; Reduce users depression; Higher quality of life for patients; Reduce costs; reduce recovery time and increase patient satisfaction and staff satisfaction. Today has improved steadily use of nature in developed countries health centers. And we are witness different ideas of garden design as an important component of treatment spaces; Unfortunately in our country has follow therapeutic buildings architecture With old attitude. So that nature healing feature had not a role in it and perhaps considered as an unnecessary factor.

Theoretical Foundations of Research

Definitions and Concepts

Recognition of children

According to the Persian dictionary of Moin, children has been defined small, minor and and children who has not arrived mature (Boy or girl) or baby (Moin,1992:3117). Child in American Heritage Dictionary are defined as " A person between birth to Maturity "(American Heritage Dictionary, 2001). In two senses, the definition of a child is the same. On the other hand, according to the legal definition of the Islamic Republic of Iran, the child is a person who has not reached to age of majority; While Universal Declaration of the Rights of the Child has stated "the child who is under 18 years of age, unless national laws recognize the age of maturity is less than it.

Health(Factor beyond physical states)

All old and new perspectives on treatment emphasized that health is not just physical state. Especially the past few decades, with particular emphasis on this subject, health is defined as something beyond the absence of disease. In fact, according to new perspectives, health is attitude and orientation that include of values and our beliefs about ourselves and the around world and considered to be intrinsic quality which can not limited solely to physics. A sense of optimal health have need to feel improve the physical, mental, spiritual, environmental and coordination between them and it should be discover and felt in continuous process by itself, positive effects have on surroundings environment. Therefore, health is defined as capacity and ability beyond a physical mode so that has given ability pursue the objectives, gain experience knowledge and growth to person. The recent definition on health have their root of basic definitions. The health word root is from the Greek word, that mentioned to set of body, mind, spirit and nature as compound and stated that this set like a concert are connected with complete harmony to each other.

Sanitary

"Sanitary" is science and methods of disease prevention, the lengthening of the life average of man, and improve its physical, mental and social health condition. Sanitary has been proposed for individuals and groups. However, Sanitary objective including provision of conditions for personal and social welfare and all activities related to the prevention of diseases(Mohseni,1997). The World Health Organization defines Sanitary as: Sanitary is the science and prevention technique of diseases, increased life span, person health education to individuals, provide medical and nursing services for the immediate diagnosis of treatment, development and complete social services to meet the needs of the people and supplying living means in a way that each person could be greater health and lifespan. Sanitary is improvement condition and physical and mental and social complete health and not limited merely to absence of disease or lack of defects(Mohseni,1997).

Treatment

"Treatment" refers to all measures that will take place in conditions after incidence of physical or mental disease in order to restore former health and eliminate the factors influencing on of average reduction human life by providing the possibility of increasing the human lifespan. In a comparative study of Sanitary and treatment concepts can be differentiated as follows:

Sanitary is measures and arrangements that be accomplished before infection to disease primarily to avoid it; and treatment after infection and to restore lost health.

Sanitary programs has require to long lasting action but treatment usually take place in a shorter time.

Sanitary measures include of health maintenance and increasing life expectancy .

Although in the short-term, health care and health-related programs is more expensive than treatment, but in the long term and taking into account the entire population it seems Sanitary measures is more cost-effective, more humane and more economical than treatment.

In the third world and underdeveloped c Societies will have priority basic needs because of low income and low level of culture and awareness. Therapy is more important because of misunderstanding of Health and treatment concepts and takes less attention to Sanitary issues, while, in the developed countries have more importance and priority health programs (Taghavi, 1980).

Environment

Architects, psychologists, sociologists and geographers according to their field have definitions and classifications a variety of environments, so that it is difficult to define the exact meaning. "Environment is compound and complex concept that There are various dimensions. Spatial data, social, cultural, physical, architectural, symbol, geographical, historical, biological and environmental aspects are considered important aspects of the environment". Environment literature have distinguished between the various terms including physical environment, social environment, the psychological and behavioral environment. The main point of these categories is distinction between real world, real or objective around Human and phenomenological world, which influencing on behavioral patterns or people emotional reactions consciously or unconsciously. "Surrounding space" is main criteria of environment Definitions in the field of architecture. Therefore, each definition, description, or environment functional nature explanation must be due to something in Surrounding space.

Humans and the environment interaction

Human according to its needs, values and goals have changed environment and mutually will be affected by transformed environment; especially advanced technology will cause the human faster impact on the environment. Some experts have suggested the rapid changes in the environment is destructive and thereby have caused ecological system disruption of "human environment". They noted that any basic and deep alteration in the natural environment should pay attention to the long-term effects on humans and anticipation of the its positive and negative results. In order to show the influence of environment on human, have pointed out behavior disorders of individuals and groups that live in crowded cities. Environment rapid change is one of the fundamental characteristics of our time. Every day in cities and neighborhoods built-up new buildings. As a result, new social roles are imposed on its residents; strengthen certain patterns and behavioral measures or weaken the others. In short, give a new dimension and direction to the behavior of its residents.

Identification of therapeutic garden types

Reviver Garden

Meaning of reviver word is restore, rehabilitate, restore what is lost and healed. Reviver garden designers are applying rhythms that is the energizing for the human body. Human in such gardens will come mental peace with placement in the cycle and flow of nature(Vappa,2002).

Therapeutic garden

Meaning of treatment is therapy, medication and drugs, remedy and what pain remove. Such gardens are used mainly for landscaping of health spaces. therapeutic garden function is acceleration of patients revival period. Activities such as hiking, sports and even the patients presence in such areas will accelerate their treatment process. Existence of opening into gardens from patients room will result in good air conditioning, increase morale of patients and visitors. Type, color, plant genus and materials used in therapeutic gardens are different. Colors such as blue purple, white and green are used as index or background color. Also, colors with more transparent tons such as orange, red and pink are used for planting (Vappa,2002).

Sacred Garden

The sacred word usually associated with concepts such as peace, tranquility and purity. Such gardens has capabilities and meanings beyond healing gardens. The design of such gardens have provides sacred space for humans in interact with plants and animals and also peace give to its users. From the past to the present, such gardens have been designed for the purpose of landscaping of places of worship of different religions. Flower beds in this gardens have surrounded main route of entry and exit to area; at the end or the center of route placed place of worship or civility. Such gardens should be designed mysterious through the use of curves and winding paths in order to arouse sense of curiosity of users. Input design of these gardens has special significance. Color variation of plants types in this gardens is very high in order to convey a sense of excitement and vitality. Small fountains in these gardens are placed in order to delivery a sense of purity and freshness(Vappa,2002).

Healing Gardens

There are places of Healing in the nature intrinsically. Humans have long believed that there are significant natural places with healing properties. For example, they believe there are the holy woodlands, caves and streams that treat specific diseases(Porter,2012). Psychological research shows that watching a nature can reduce stress, Negative emotions are replaced by positive emotions and negative thoughts are away(Ulrich,1983). Garden is safe and enclosed space that man takes refuge in order to comfort and relief from pain and sorrow(Prest,J.1988). Of course, all gardens are not, so that examples of modern gardens have a negative impact on health and visitors morale. The healing garden is said to garden that have positive effects on people in many ways(Kaplan,1973). A garden through thought-out design can reduce stress, foster creativity and expression of its soul. Healing by garden is stress relief and space ability in relaxation, rejuvenation and adding mental health.

Background research

"Kaplan" have call fatigue of everyday communication and dull as "mental fatigue" which leads to irritability, sensitivity, irritability, reduced tolerance, increase errors, increase risk, etc(Hartig, Mang,Evans 1996), also defined as process which person capabilities not responsive with needs of perceptual environment. If the position or horror and unpleasant event have challenge person relaxation, As a result, stress occurs Which is usually associated with negative emotions. Landscape away person from the tension and emotional stress and reinvigorate person(Hansmann, 2007). This view seems reasonable in contrast to the "Ulrich" background on nervous tension reduction theory and Kaplan's theory(Kaplan & Kaplan,1989) about refectation theory. According to this view, natural environment leads to create a sense of refectation and get rid of nervous tension. In short, Ulrich believes improvement and stress relief includes many positive changes that occur in a person's physiological and behavioral systems(Ulrich,1986). The results of the studies show that the landscape viewing (visual stimulus) and exposure to natural elements (sense stimulus of touch, smell, hearing) can reduce psychological stressors and increase biological welfare, as well as improve the internal anxiety. Many authors stressed that landscapes, especially the gentle and favorable scenery motivated person feels quickly and are effective in relieving the stress. Also has brought refrain from anger, frustration and relief of physical symptoms(Parsons,1991).

Review of researchers on healing landscapes shows they have created a sense of quietness in humans and invites him to focus and thinking. The aim of this study is find parameters as healing landscape design principles and adaptation this elements with characteristics of Persian garden for increase the incentive to regeneration of Persian Garden landscape pattern and possibility of a Persian Garden revival in contemporary urban environments. In fact, place provides that people in the vicinity of plants, water and other elements separated from Congestion and man-made elements. Also they find opportunity for spirit retrieval and his lost mental peace via controlling the senses.

Role of senses in human perception

Garden should stimulate users feelings; in this gardens should be stimulated all the senses as much as possible. Sometimes the designer must close your eyes and wait until the other senses are awakened and Created an unexpected feeling of the garden(Rawlings,1998). A healing garden should stimulate one or all of a user's senses.

Eyesight

Sight is the first sense which stimulate. Because just human open your eyes, sees color and motion changes. Research shows that color affects on thoughts, performance, health and even the human relationship with each other(Rawlings,1998). Colors have a healing effect. Orange is the color of happiness. This color creates a sense of relief in humans and releases the concerns of everyday life. While blue is healing places color because it will create a sense of ease and leisure(Rawlings,1998).

Smell

Some smells creates a special feeling in humans. The idea of aromatherapy stems from the same subject. The researchers found that tastes of "sweet" cause patterns creation of brain waves including alpha, theta and delta that suggests state of relaxation and even sleep in humans. The smell of rosemary cause beta brain wave that created faster pattern than the previous model and maked awareness and alert. Some other types like the taste of lavender and geranium create a balance in humans. They can make refreshment and relax in humans that depend on the individual and his needs. Interestingly, if a person not like fragrance ,these systems are not active in itself because apparently are blocked stimulation routes of nervous system. However, these aromatic plants can play life role(Rawlings,1998).

Taste

This issue can be achieved by planting plants with edible fruit. It is noteworthy that more is dedicated to gardens. But most edible medicinal plants can be grown(Rawlings,1998).

Touch

This issue has been studied very little in the garden. Items that can be helpful for this purpose: Skin of some trees such as maples, texture leaf other species, dry florets, willow catkin, clematis silky hair and attractive fruit Some Species(Rawlings,1998).

Hearing

Water is a vital element for creating voice in the garden. Water voice can be heavy or gutty voice that creates quiet rhythm. These sounds can give a new dimension to the garden and create a positive mood. Of course, this is also possible using herbal elements such as bamboo and some grasses, Song of the Birds have the its own position(Rawlings,1998).

Nature impact on human

Humans have emotional and hereditary pull genetically towards nature. Much research shows that the outside natural environment have significant role in reducing stress and mental health(Cooper Marcus and Barenas,1999). Close

relationship with nature have immediate consequences such as enjoyment, good feeling, relaxation, ... and finally physical health. And those who are in contact with the natural area, more healthy than others (Zamani, 2009). Spending time in nature have positive effects on human emotions and strengthens his health. For example, access to nature will cause balance the body's circadian rhythm, lowering and in such cases. Human biological characteristics such that need to living alongside blood pressure, reduce stress and increase the absorption of Nature D vitamin. All humans relate to nature and maintaining this connection is important for keeping overall health. Psychological research on the impact of plants on human behavior show that connect with nature and enjoy its beautiful scenery is simple and important way for relaxation and human spiritual quietness. As well as its development can help to reduce violence, depression, suicide (Sharghi & Mohtashamipour, 2006). Janet Haviland-Jones, professor of psychology at Rutgers University in New Jersey has stated: The interesting point about the plants role in people's mental health is that person will change his unbalanced mental state by watching, touching and kissing and ... and will return to normal mood. In fact, flowers and Plants are factor for behavior modification during day and night. And each time looking at them will create positive neural connections in the brain. Look up and touch flowers and Plants changed spirit person quickly and people will be happy and excited. The first sign is create a smile and change the contours of the face for happiness. People who there are flowers and plants in their Surroundings , calmer, kinder, happier than others and convey this feeling to others (Mchoy and Lorenz, 1997).

In addition to all was mentioned about the positive impact of nature on human health, Clinical psychiatry according to research by the World Health Organization stated hat nowadays stress, nervous tension and crises are factor most fundamental and most important for seventy percent of the human body diseases (Shahcheraghi, 2010). So it seems necessary pay attention to the relationship between man and nature as a basic human need.

Children's perceptions of space

The child should have comfortable feel, lack of fear and peace in dealing with the volumes and structures, as well as in communication and life within them. Darkness and disproportionate forms fear him more than anything. Spaces with bright, happy colors and sometimes uncertain form will Create visionary and imaginative issues in children's mind. And induced emotions such as affection, friendship, kindness and fantasized in children. If space is designed for older children, can be used from light colors with clear boundaries, more details on building and smooth curves in design space. Perception of space is difficult. The child must also distinguish themselves from the world around and analyze the world. This is done by identifying the objects around him.

The relationship between children and nature

Several studies show that children direct contact with nature will cause emotional and physical, Mental or spiritual health of children and can enhance self-esteem and resilience in the face of difficulties and stress, improve focus, learning, creativity, collaboration, flexibility and self-awareness (Kahn, P.H. Kellert, 2002).

Topics of healing landscapes

Human relationship Using all five senses with the landscape and environment provides the opportunity to experience, also his senses are used in nature but senses will order in the healing landscapes purposefully. Healing landscapes axes has awakened feeling or sense of audience and finally brings together all five senses into balance.

The variety of spaces

A variety spaces gives different experience opportunity to audience. Collective and individual spaces or landscapes healing will intensity choice right (Volker, 2011). Multiplicity of spaces will create various landscapes for seeing, hearing and smelling and touching all the natural elements that kind of positive emotions increase and lead to stress reduction.

Plant green species

Green spaces can reduce stress and social tension. This feature is balanced variable that relationship between these variables with a negative opinion will advance the quality of mental health (Van den Berg, et al, 2010).

Colorful plants and flowers

Plant selection is based on the feeling stimulation; including foliage and shrubs that can be seen in the color background, colored and aromatic plants that stimulate the sense of smell, Smooth and soft grasses and large levels for the positive impact of stimulus, and mature trees with broad shade (Sad, 2003). In fact, the plants somehow arouses the senses and provides quietness, self-awareness and escape from anxiety.

Medicinal Plants

Most definitions associated with the scenery and landscape was based on characteristics of the area soil and physiographic features and human Will be ignored as the experience of the landscape. Despite landscape with medicinal Plants grows in the areas of special climate, But the medicinal benefits of edible medicinal plants will increases need to cultivate it in the healing landscapes (Soukand & Kalle, 2010).

Environmental unfavorable noise reduction through sound system

Recognition of garden plants attract animals, especially birds directly. Their sing blow in garden by creating ear-catching songs. Flora and fauna observation such as birds can make quiet rhythm for the audience so that released tension and pressure(Soukand & Kalle,2010). The opportunity of human presence along with birds and plants have Provided,by flowers and plants nourishment. Calming environment will create with the sounds of this accumulation such as the rustling of leaves and the sound of ear-catching birds and will releases human from everyday stress(Sad, 2003).

Minimize ambiguity

The environment must be understood easily, environment order will accelerate understanding it so that encourages people to discover and shape the its intellectual space. Mysterious and complex environments can be challenging and therefore affect on his health(Naderi, Raman,2005). Despite Japanese and Chinese gardens complexity, Several studies show that abstraction in the design environment not be tolerated for vexatious person and should be involved legible and identifiable characteristics in its design. In fact, abstraction art not considered appropriate in garden and its existing facilities(Tyson,1998).

The rise of water in various forms

Important aspects of water physical spaceunderstanding and recognition comprise of sound of water, color and clarity, its motion and content. People admired the sound of water and prefer it to variety of special and natural sounds. Hear of water sound will cause sense of peace and security creation in people as well as refection and relief from stress in person(Volker,2011).

The healing garden features

As mentioned earlier, every garden can not be called healing. healing garden made by natural elements generally and this is one of the important features of healing Gardens. This living and organic elements was growing and changing constantly and they give sense of security, hope and life to human. Unfortunately, some outdoor areas are called garden while they are not natural elements. There may be trees and flowers, but they are not the original elements. For example, the space focus on statues or other man-made elements. Another feature is its closeness so that induce sense of security and away from the bustle, stress and negative energies around and offer a very different experience from outer space. Other important features of healing garden is stimulating the human senses in positive ways so that human experience variety of senses. For example,will touch the earth under your feet, blooming trees see and enjoy it, smell good scent of the flowers, will hear the sound of the breeze and feel breeze dealing with its skin and hair... Garden that not deliver message life, cycle of nature, sense of peace, security and beauty to audience, as well as the human senses does not stimulate positive ways, not healing garden (Stigsdotter and Grahn,2002).

Healing garden at health centers

Healing Garden at health centers refers to gardens that constant desire to revive and recover from stress and have other positive effects on patients, visitors and hospital staff(Ulrich,1999). The healing garden helps to mental and physical health of people by reducing stress. Heart beat will increases, blood pressure rises, breath faster with the release of stress hormones in the bloodstream... and in general reduces the immune system's performance. Healing is property which have guaranteed mental health and leed to reduce stress and increase refection(Nili,2012). n general, the healing body overall health promotion. The word "healing garden" refers to features of the garden which reduces stress and has positive effects on patients, visitors, staff and caregivers. Since the "garden" is called, should be a significant part of nature, and because the "healing" is called(Cooper Marcus, Clare and Barnes,1999) must have medical quality or have a positive impact on most users. It is important to note that a garden can not treat broken bone or eliminate cancer; but can be:

Reduce stress and bring the body into balance.

Help patients to use their own inner healing resources.

Help patients to accept their incurable disease.

Environment provide that hospital staff able to operate physical therapy, gardening as therapy and... for patients.

They able to provide peaceful environment in contrast to the stressful environment of the hospital(Cooper Marcus,Clare,2007).

In total there are a difference between patients who improved fully by medicine or person has better internal feel(Stigsdotter and Grahn,2002). conveying a sense of inner healing to patients is what a healing garden can do.

History of healing gardens in hospitals

The relationship between landscape and health been considered in different cultures and societies for a long time. The presence of natural and artificial elements in the landscapes makes possible environment perception on human to help the five senses. This idea that water and green space observation, hear of natural elements voices(water movement and birds song), olfaction of plants and floral scent and taste and touch stimuli affects the five senses and as well as focusing on it can be effective in reducing stress; in the initial Asia (China, Greece and Roman cultures) have also been studied(Velarde, M., Fry, G. & Tveit, M,2007). Green nature, sun and fresh air were effective factors in the treatment of

disease from the past. The first hospitals of history in Western countries (in monastic and religious communities) were enclosed garden and often encouraged patients to prayer and meditation as part of the treatment process (Porter, 2012). With the development of the International Style in architecture (Around 1950 and 1990) have removed the therapeutic value of connect with nature in most Western Hospital and the appearance of the hospitals was similar to the administrative offices. Ventilation systems was replaced normal flow of air, Terraces and balconies are removed, Nature gave its place to cars and interior environment was designed in the form of performance-oriented that was stressful for patients and staff (Ulrich, R.s, 1992). In early 1990, hospital managers were aware of the negative returns of such health spaces in America based on the movement called "patient-centered care". As a result, competition was created for better reconsideration of patients needs and international style atmosphere was moves toward design in local context gradually. Thus, interior spaces have become more comfortable and familiar and symbols and signs were more familiar (Kaplan, 1973).

The impact of healing gardens for children

Nature account necessary complement factor for man-made environment. All children have a special interest in nature. Trees, water and organisms are natural factors that constitute the most fundamental space for children. The child tends discovered natural laws by touching elements. Children spaces can be created in a way that provides an opportunity for their close contact with nature. Recent studies have shown that there are close relationship between the patient's ability and surroundings environment for its pain relief. Anxiety and inquietude reduction of patients especially children seems necessary. Thus, in the medical centers design has particular importance landscaping and green space design. Design of healer area or influential artwork have not included terrace, a playground and a color corridor only. In these places should not be rules such as "Do not enter the grass" or "Please do not touch". Paintings, flowers, fountains and statues are not cosmetic elements merely; but patients should benefit by all five of sense of their existence. Influencing factors in accelerating the recovery of patients include of windows existence toward garden and therapeutic spaces area in the patient's room, physiotherapy exercises in outdoors and lunch in outdoors. Architecture, green space design, interior design and art are integral factors in the treatment of patients. Design help to patients that have mobility and social relationships and are close to life outside hospital. Therapeutic centers have many differences with any other public buildings. In therapeutic centers will be established deep emotional relationships between patients with each other and their families. Therefore, space creation for social interaction is important and necessary.

General principles of healing gardens design

The following will be discussed general principles that should be considered in the design of healing gardens. It is not necessary that all the principles to be used; but whatever used to be more number of them, closer to the goals of healing gardens.

The user should be involved in the design process; Because person or certain people should use garden finally, They asked using questionnaire or interview on items would they be quiet. However, it is less possible for health centers, Because the people there are mostly in commuting. It can only be considered general principles of healing gardens design for them.

Garden should stimulate users feels; in this garden hould be stimulated all the senses as much as possible (Rawlings, 1998). A healing garden should stimulate one or all of a user's sense.

Ease of movement; The user should move easily in designed spaces. Also necessary measures considered for users with mobility problems.

Vitalize to life cycles through plants that show seasonal variations.

Sense creation of thought and consciousness in the garden; One ways of relaxation feeling creation, relief from mental stress and everyday stress providing places where the user can thought provoking. Often quiet places are appropriate for this purpose. But the element of water (at a moderate voice) can be effective.

Provide a sense of comfort and ease for users; Garden should be a pleasant place to escape from the outside world and peace creation. When person enters the garden should give him this feeling that all the concerns have left out. And a new space there are for its understanding and discovering. Communication with users is useful to know what space it gives them peace.

Conclusion

The findings of this study show a close relationship between the patient's ability to relieve pain and it's surrounding environment. Human relation to nature reduced the anxiety patients, especially children. Children love are nature, sun, water, fire, Organisms and have like architecture associated with the natural elements. They are strongly influenced by the natural experience. Building spaces close to nature with green space, natural light and natural colors combination are very effective in children mental relaxation and reduce his stress. Providing conditions for improving their morale, their families and health centers workers has seems a positive thing. And leads to more efficient people. As noted, Children have a greater need to escape from negative feelings and taking refuge to safe and quiet environment because of delicate spirit, more fear and etc. Existence of healing gardens has accelerate the healing process through improve morale of people and thereby help to reduce economic costs which can be done in several ways. Space design and arrangement of

furniture, artwork collection of hospital patients are effective in bringing about social and intimate atmosphere. In addition, their implementation requires not high costs(Rahimi et al.,2010).

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