

Study and knowledge of forward-look obstacle of disabled person in a town

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Received: June 10 2013

Accepted: July 1 2013

ABSTRACT

Because of lack of a necessary of common social life, all people living in different way are disabled .Disability has a social aspect more than a medicine aspect and 10% of individuals of society are disabled .today, there is an opinion that improvement and development of environment without obstacle for all people in society is an unavoidable necessity and it don not belong to the special group or social. Generally, in different countries, a lot of effort has been done for improvement and reach facilitating of disabled person to facilities and equal chances in society, but our country could not perform requisite facilities for this group of society in comparison with the importance of disabled standards and the attention of world to this issue, according to fiscal facilities. Bearing in mind that improvement and standards of urban furnishing is one of the important factors of the formation of disabled person's comfort and it can make an important point for every city. The purpose of the study is finding the confronting obstacle of disabled persons which they confront them in the city. This study has been performed by analytic-descriptive method. first, this writing proceed the knowledge of disabled person and kind of disability, then it studies problems of these people in the society ,finally, it represent some suggestion for removing problems of disabled person in a city.

KEYWORDS: disabled, architecture, city, standard, obstacles.

1. INTRODUCTION

City consists of combining different natural, social, and environmental factors which are made by human and inhabitant population have been concentrated in it. Also, urban environment include all city's system in which urban means of moving persons performed an important role for transport of people in this environment. Our country has not long term experience in the field of improvement of urban environment for traffic of disabled persons, whether in form of theory or in form of executive. Performed studies and activities have been done either about study of special aspect of movement obstacles or about compilation of rules which is based on leafing through training of other countries, in the meantime, the important factor of certain presence of disabled persons is the architecture obstacles in the urban area and removing present problems for facilitating public transportation that it can obtain by use of suitable urban design, according to needs. Urban design performs an effective role. Effective obstacles and factors of disabled person's movement in built environment divide into two definite factors, mental and activity-skeletal factors. Mental factor is known as main and fundamental factors which limit the movement of disabled persons , resulting from counter-contact of disabled person with society that on the one hand, disabled person ready to confrontation with society , on the other hand, the society has not ready to accept them. Design and representation are kinds of desired architecture of society which is available for disabled persons and these designs do not make an obstacle in their daily movement. Disabled citizen has equal social right with other citizens. These equal rights include: possibility of easy reach to different places of city. Improvement of urban furnishing which is available for disabled persons for purpose of gaining the independent life in case that they responsible for their life and they can join to the city is considered as principle of human honor and dignity. In Iran, urban furnishing in its design become afflicted with problems, whether in the past that information about disabled person's right was low, or in the part which have been made recently. Shortages, defects, and obstacles of present architecture in environment and society establish more limits in life, individual and social affairs of these people. Removing urban obstacles from their forward – looking is the present solution for facilitating these people's life and returns them to activity arena as useful manpower in country. This paper attempt to mention some present obstacles in urban design of Iran and some resolution for these problems.

2. RESEARCH METHOD

Method of this research is analytic- descriptive method. Library and internet study and field work are means of gathering data and total pattern of research process is based on extraction the topics from experiences and texts. Research data- which is in form of knowledge of forward looking obstacles of disabled person – is analyzed and we attempt to obtain results in form of suggestions for reduction of disabled person's problems in city.

3. Disability and kinds of it

Before proceed the present obstacle in the city, this point should be considered that who is disabled and what physical problem and limitation he/she has. Then, urban plan without obstacles is preceded by complete knowledge from his/ her physical and kinetic identity. Disabled person is a person who becomes afflicted with problems in performing his/ her daily activity, because of physical handicap. Kinetic and physical disabled are persons who become afflicted with permanent or temporary reduction of physical ability and that are not able to live independently, because of congenital factors or injury, neuron disease, orthopedic, rheumatology. In view of common people, disabled is person who move with wheelchair , while disability include kinetic and physical, mental, visual, audio, speech and mental disabilities. In this paper, problems of people with visual and audio limitation did not proceed, and more people with kinetic and physical disability a reconsidered, because of limitation in number of page and wide range or text. To study of relation between kinds of disability and usable kinetic means and the kinetic ability of disabled persons, we conclude that all people who have physical and kinetic problems are divided into two main parts:

- 1) Group which have to use tools such as stick and crutches during the movement. (Standing)
- 2) Group which have to use wheelchair for their movement. (Sitting)



Figure1) kinds of disability of this group have subpart:

- A) Persons who sit on the wheelchair and do not need the aid for doing their affairs and they have well ability for controlling the wheelchair.
- B) Persons who sit on the wheelchair and need the aid for doing their affairs and they need more space for controlling their wheelchair.
- C) Persons who use wheelchair and amount of their disabilities are high and they dependent on special aid of others and means, this group of people need electronic wheelchair and more space for moving. This issue that people who have kinetic limitation settle in which one of defined groups is necessary during the planning of different activity spaces, specially urban furnishing and public buildings .because amount of the necessary free area for moving of disabled person on the wheelchair will be more , when the amount of disability is higher . However, it can say that measures which are suitable for movement depend on amount of disability and kinetic limitation of disabled person and his/ her skill in controlling it.

4. Urban environment

Before proceeding the urban environment, first we define first and smallest unit of it, neighborhood. Neighborhood is one of the parts of urban environment which is around the home without need to use vehicles. After the home, it is the first place that disabled person confronts many problems for coming and going. In Iran, neighborhoods texture is different from each other, because of effect of different factors such as climate, geography, the manner of construction and development of residential space, materials and buildings technique. In Iran, passage way is narrow and cover with uneven and unsuitable flagstones for moving of disabled persons, in most of old neighborhood. Sometimes, these passage ways are the certain extent that vehicle cannot move toward the house's door. Narrowness of passage way cause to be impossible that a pedestrian cannot pass through a disabled person who sits on the wheelchair. in the following part, some of passage way standards have been pointed:

- passageway width should be designed in proportion to traffic of pedestrian, although the minimum of following dimensions should be considered:
 - The minimum of passageway width should be 1-9 m by the low traffic.
 - special area for turning and passing the wheelchair in suitable distance and even area for moving should build according to the slope the passage way length.
 - the minimum of width of passage way should be 150-160 that wheelchair can turn or two wheelchairs can pass from inside of each other.
 - passage way provides the enough space for turning of wheelchair.

Present of brook among alleys ,present of area differences in passageways , surface differences and uneven of asphalt or flagstones ,present of brook between passageway and street , lack of connecting bridge , unsuitable bridge building and its width , lack of electronic overhead pedestrian , even though the sloping surface is used for facilitating passage of them ,subway which did not define for disabled person in its design , unsuitable highest of payphone and the

valve of water cooler according to the level of their reach , cause to intensification of their disability in the furnishing of urban environment and these factors deprive them from coming and going without need other's aid.



Figure2) obstacles of disabled person in city:

Urban environment is an environment which includes total city's systems .the urban vehicle perform a main role for moving of people in this environment. Urban environment of Iran's cities can divide into three parts: old, central, outer.

Old part include narrow alleys and these have compressed commercial and official performance , for this reason traffic compression is high , coming and going is difficult for people. Central part has an open texture than old part and alleys are more width. Outer part is the production of building activities of recent decades and it lack of the space value of old and central parts and combining this part is monotonous, without identity and unharmonious. Unfortunately, coming and going problems for disabled persons remain in three mentioned parts and none of our urban facilities have been designed in the way that independence of disabled persons is considered. Disabled person depend on his family member or pedestrians in intra- urban travel. We have seen very much that pedestrians help the disabled person who sits on the wheelchair. Problems appears more serious in developing countries , because in developed countries, urbanization systems and urban facilities like subway, park, cinema, ... have been removed problems of disabled persons by the aid of technology , but in societies like our country that normal people cannot live comfortable , disabled persons , specially kinetic and physical disabled persons have to stay away from the society. In continue, we precede one of important part of urban environment which perform the vital role in removing citizen and disabled persons have many problems by using it. Public transportation for removing people in intra- city and inter- city is very important. This issue has doubled important for people with kinetic problems and limitation who need the aid of means. At present, urban buses and subway perform more roles in people's movement. Here, the main problem is lack of present or vehicles or shortage of vehicles and not considering problem of disabled persons in their design. For example, narrowness of the entrance door, corridor between seats and lack of present of suitable space for placing the wheelchair in the bus can be mentioned, also, not only bus stations are not usable for disabled person, but these are not usable for old and blind people, because of lack of suitable contact between passageway and street in stations. In streets that have special line for bus passage, Most of stations place on brooks by 25 cm height in the midst of the street .unfortunately, none of part of these stations has been joined to street by the sloping surface. Method of getting on the bus is another topic. Differences of bus stations' surface with floor make the getting on the bus impossible for disabled person. Also, subway as the newest and more usable vehicle in big cities is not far away from these problems. Present of many stairs, lake of arranging the elevator or escalator, lack of suitable sloping surface for entrance and exit to subway underground and train wagon, lack of suitable space for wheelchair in wagons are general problem of this transportation terminal. Other vehicle such as taxi has similar problems like bus that not considered disabled persons in its design. Lack of accommodation of joining the passage way to road way by the available waiting place for passenger in urban bus stations, and not predicting the shelter, suitable ground, seats by 45 cm height and handle by 7cm height from the floor, are main problems of disabled persons in confronting with public transportation.



Figure 3) Special cars for disabled persons.

5. Public building

Public building is another part in the urban environment which should consider. Because like other people, disabled persons want to use them for removing their life problems, independently. But not considering disabled persons as user of public building make difficult their presence in these building, even by the aid of other people. Public building such as educational, cultural, curative centers and other governmental buildings, whether in old texture or in renew texture, have placed in two or three floors building without elevator. In most of old public buildings and some of new buildings, Surface difference in building entrance is so much that wheelchair does not remove by build the simple sloping surface. In other word, disabled person has many problems for passing to building, let alone he/ she want to enter the building with narrow corridors which lead to each other by many stairs. Shortages, defects and present obstacles cause to isolation and separation of many disabled person, specially kinetic and physical disabled persons in environmental and society, whether in urban environment or in house environment. because, when disabled person confront urban environment and furnishing problems ,he/ she has to choose one of two his/ her confronting way or confront these obstacles that this issue is not possible for many of them or they become reclusive. Consequently, society will lose many of its useful manpower.

6. Disabled person's elevator

Today, use of elevator is unavoidable for common people and supply of facilities for different class of people is important duty, by today's development in science and change of the technical educations. addition to possession of one definite design make possible the physical reach or better entrance to building for disabled person and other people , and they are regarded as necessary facilities in buildings or one floor house that able to set necessary facilities in authority of disabled person . Generally, these have fewer places in comparison with usual elevator, because it does not place into a passage channel which passes through building's floor.



Figure4) usable elevator of disabled persons

Deep of elevator's hole which is known as stone leg or column leg or rectangle hole that elevator place on its floor after coming down. It is changeable from 50 mm to 200 mm. elevator of disabled persons which cover the common way or use to reach to higher floor, has slow movement in comparison with usual elevator and it has three different kinds which include public elevator, elevator for fewer stairs, and wheelchair elevator for more stairs.

7. Conclusion

This writing attempt to mention unsuitable condition of urban environment and urban improvement for disabled persons by explain and draw the picture of present obstacles in Iran as developing country. Also, it proceeds complexities of their transportation whether in urban level or in public building and it attempt to remove these complexities. by deep look to this situation , we notice that reparation of these chaos were not difficult and we can remove them by a few contemplation and planning and suitable law- making of build for disabled persons of society and executing them.

8. Suggestions

- lack of issue of permit in different parts for places and buildings which not observe the law of improvement.
- improvement of public transportation for facilitating of coming and going of disabled persons by administrator systems like bus service or taxi service.
- continuous controlling of systems like engineering office of governor- general, engineering systems, house and urbanization , municipality on executive of improvement process.
- providing tools and necessary technology for removing contact obstacles.
- observing the improvement principles in supply of design and notice to standardization of urban and rural environment.
- using suitable building pattern and use of experts' view and notice to this point that the improvement should not guide the disabled person to floor, but different parts of building should consider.
- Continuous present of representative of disabled persons in municipality for follow- through improvement affairs.
- allocation of received credits and taxes by municipality for improvement of urban environment.
- Choice of a street in city as pattern by observing all improvement principle for promotion of improvement culture.
- More follow-throughs of disabled person and other people of every neighborhood to present obstacle for disabled person in the city.

- providing necessary facilities for disabled person in case that movement of these people perform without need to other by improvement of urban environment and internal environment of public places.

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