Health and safety of children in urban parks
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Dear Chief in Editor
Development of cities is a manifestation of life in the present communities, and beyond this façade of development, many problems may threaten health and welfare of citizens. In fact, modern cities are now facing difficulties in public health and safety [1]. The issue of "environmental health and safety" and the protection of people against environmental hazards, pollutants, and anomalies can greatly influence the quality of human life [2]. Given Maslow's theorem and pyramid of human needs, safety and security are among the primary and fundamental needs of human [1], and until such a need is not provided for, he cannot appropriately take advantage of his environment. Urbanization and intensified population density in cities, shrinkage of houses, and citizens' desperate need for outdoor leisure and recreation have made safety of outdoor spaces highly important for citizens. The physical and psychological safety and security provided in reactional spaces are essential to their quality of application and display of appropriate reactional behaviors by citizens, such that providing these conditions at different psychological levels encourages particular behaviors in people, and provides for synergy between behavior and the environment. Safety of recreational and leisure spaces is particularly important to vulnerable groups. As the most vulnerable group, children are exposed to greater risks in deteriorating environmental and social conditions. Urban hazards have forced people to retreat in their homes and parents restrict the presence of children in urban environment [3].

In their study on children's safety in urban playgrounds (particular case of neighborhood and district parks in Tehran), Sadeqi-Naeeni et al. reported that more than 68% of play equipment are associated with hazards and can cause harm to children. Failure to maintain park equipment has made playground flooring hazardous due to children running around on them [3]. According to a report by IRNA, the major playground accidents in recent years are the death of 6 female students in the city park of Tehran in 2006, bursting of inflatable slide in Tehranpars playground in 2007, two people falling off of merry-go-round in Eram park in 2004, a young girl and a boy falling off of a play unidentified flying object (a disk-shaped flying craft supposedly piloted by aliens) due to failure of protective rod in Shahed-Bostan park in 2008, crash of a flying chair in a playground in a Tehran suburb in the same year, death of a 16 year-old girl in Basij playground, and fatal crash of a young girl from a flying train in Varamin playground in 2012 [4].

Shieh quotes La Forest et al. studied 102 playgrounds in Canadian parks from 1991 to 1995 and interviewed 1286 parents, and showed
that playground falls made up for 35% of high risks, flooring material was more related to the amount of risk than playground contours or height of equipment, and concluded that elastic flooring material can reduce injuries in parks [3]. In their study on playground safety in American parks, Fiissel et al. cited a report by the American Product Safety Commission showing 147 registered playground-related deaths of children under 15 years from 1990 to 2000 [5].

Shieh quotes Mitchel et al. used hospital database statistics in Australia related to hospitalized injured children under 14 years of age and showed that the prevalence rate of fall off of the height was 106.6 cases per every 100000 registered cases in which, upper body injuries had higher frequency [3].

Parks are places for children to play. Thus, it is essential for environmental planners to make these places (which are also considered a place for socialization) safe. Failure to maintain park equipment has made flooring of play areas unsafe for moving, running around, and walking on them. Safety problems have made mothers concerned about their children's playing in parks [2].

Today, growth in urbanization and changes in citizens' residential patterns have affected the quality of children's presence in public areas and recreational grounds as well as their social interactions with their peers due to the lack of safety and increased vulnerability in these spaces, which has made children reclusive at home, leaving them little opportunity to explore themselves, and experience the natural environment.

Design of playgrounds has a huge role in children's safety in which, variables such as hidden and unsafe angles, distinction of the playground, equipment of playground, lighting, and flooring have greater impacts. Moreover, type of playground equipment and safety of play things, and to an extent, the environmental features of playing spaces have a major role in children's safety. In this respect, trust in playgrounds, improvement in visibility, and marginal activities have a greater role [3]. Therefore, pathology of factors affecting children's safety in parks can be an important step in improving safety of these spaces for children [3].

Suggestions can be made to clarify signs used in parks, and also to make general outline of the park more legible so that, children are directly guided toward highly populated areas, without restricting their freedom to visit popular areas and routes. Entrance to the grounds should not be in the vicinity of main roads and highways. Playgrounds should not be exposed to direct sunlight and wind, and adverse effects of such elements should be reduced by planting wind shielding and awning trees. Attention should be paid to proper training of children regarding the use of play things, increased quantity and variety of play equipment, use of safe and standard equipment, and improved safety and ongoing monitoring of existing equipment, age-labeling of equipment, and also main routes in and around parks and between park and main roads, establishing neighborhood playgrounds according to the needs and cultural and social issues, as well as numbers and age of children and adolescents that will use these playgrounds, and taking into account a plan for maintenance of parks, so that certain residents are encouraged to look after the park, and taking into account a method for reducing negative effects due to inappropriate use of park grounds or nearby grounds [3].

References
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