

## AN ASSESSMENT OF PRESCHOOLERS KNOWLEDGE ON EARTHQUAKES AND A REVIEW ON EXISTING EDUCATIONAL METHODS

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Experience has shown that lack of enough awareness and preparedness in confronting earthquakes usually results in human casualties and loss of properties. Therefore, education and preparedness among various groups of people is of high importance and should be started from the preschool level.

It is also presumed that children would transfer their knowledge on disasters to their families and to a wider society (Kaul, 1998; Wisner, 2006; Izadkhaah and Heshmati, 2011).

It has been more than one decade that teaching children on “Earthquake and Safety” has been started in Iran, the materials for which has been produced and assigned to kindergartens. In this paper, various educational methods were used which included puppet gloves, singing songs, role playing, story-telling as well as practical drills. A pilot study with 144 children (70 girls and 74 boys) was undertaken from nine kindergartens in four areas of Tehran (south, north, east and west). The visits were arranged with the Welfare Organization and the children parents to consider the ethical issues. In this study, a survey was used and the data was gathered in eight days in the assigned kindergarten. In preschool level, the children are usually taught about the definition of earthquake and what to do in earthquakes. In this regard, only two open questions were asked from the children comprising these two mentioned concepts. Also, interviews were made with teachers and parents of the children. Then, the findings were analyzed.

It was concluded that since the mentioned methods are based on “play”, children have shown interest and enthusiasm in all these methods (Izadkhaah and Heshmati, 2011). The children seemed to have learned the main message which is correct sheltering during an earthquake and have transferred it to their families and friends. Also, the study showed that using a mixture of these educational methods can work appropriately and drew children’s attention to learn and cooperate properly and effectively in this process. In discussions with parents and instructors, the results revealed that there were no signs of anxiety or fear in children. The results also revealed that using a combination of educational methods is very useful and can stimulate the interest of children for learning appropriately and quickly.

In regard to educational methods for teaching “earthquake and safety” to children, few suggestions are proposed for increasing the educational and preparedness activities in kindergartens throughout the country. It is hoped that using these suggestions can facilitate and improve the issue of teaching about earthquakes:

- The physical and mental capabilities are different in various age groups and therefore the concept of “earthquake and safety” issue should consider this issue. Since the educational method in preschool level is based on “play”, therefore appropriate types of methods can be used for various age groups in the kindergartens. For example, for age groups 5 and 6, puppet shows and using simulators, which children can be active, are very useful. However, for age groups 3 and 4, songs and story-telling is more appropriate. This difference should be considered in choosing the specific methods for the children.
- Regular practice is one of the important principles in learning. Therefore, it is emphasized that what children learn about the correct sheltering should be practiced continuously so that the materials stay in children’s mind effectively.
- It is presumed that when children learn a subject with various methods, that issue will usually stay in their mind deeper and more sustainable. Therefore, it is suggested that teachers arrange the “earthquake and safety” sessions in a way as

to have different educational method in each session, for example to use songs in one session and the group playing in another one.

- One of the other effective methods is child-to-child education. This method creates an incentive in the child to teach other classmates and provide a friendly atmosphere in the class.
- Since parents can be useful in teaching about “earthquake and safety” issues, it is suggested to arrange a session with the parents’ presence before the class. The kindergarten principle can explain about earthquake preparedness to them. It is better to ask parents to cooperate in creating incentives and learning for the children. The parents can be also asked about the activities and methods which children are more interested.

In this paper, educational methods which kindergarten teachers used for teaching “earthquake and safety” such as puppet gloves, music and songs, puppet show, drawing and role play as well as practical drills have been addressed. The study is undertaken employing and testing some of the existing methods that were proposed by the authors in a previous paper (Izadkhah and Heshmati, 2007). It is recommended that the study can be employed in rural areas in a further study in order to present a more complete picture.

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