



The Survey of Viewpoint Waste Management for Developing Methods of Education

*** Mohammadjavad GHANADZADEH¹, Nader AKHAVAN MALAYERI², Atena BOLLHASANI³, Babak ESHRATI⁴, Mohsen SHAMSI⁴**

1. Dept. of Preventive Medicine, Faculty of Medicine, Arak University of Medical Sciences, Arak, Iran
2. Administrative Assistant Municipal, Arak, Iran
3. Environmental Engineering, Director Research of the Waste Management, Arak, Iran
4. Dept. of Public Health, Arak University of Medical Sciences, Arak, Iran

***Corresponding Author:** Email: dr.ghanadzadeh@arakmu.ac.ir

(Received 12 Sep 2014; accepted 10 Oct 2014)

Dear Editor-in-Chief

There is warning about ignoring the environment, in particular solid waste and the problem recently has been taken into consideration by the world (1). Since the generation process has a principal role in waste management, the generators place should not be ignored (2). Fast population growth, industrial development, technological advance, and human desire to increase material consumption and following more waste production have led to a massive social and economic crisis in human societies (3).

Given waste management importance and considering that Arak, central Iran has become one of the industrial hubs in the country due to the primary industrials and that is the 15th most populous city of the country (4). Hence, the present study is to assess the citizen's attitude toward the waste management to develop the appropriate educational methods

The present study method is cross-sectional-analytical and its community consists of 1215 households, 1739 school students, 149 teachers, 667 office staffs, 275 business people, and the cluster sampling was conducted across the city of Arak in 1391. To assess the community knowledge, attitude, performance and effective resources of in-

formation on proper waste management according to them, questionnaires were prepared. At the end, data were analyzed using statistical tests.

Finding showed that the mothers' mean score for knowledge is 5.8 ± 2.3 (out of 8) and has been evaluated higher than average. Their attitude mean scores are 26.1 ± 7.8 (out of 25) which indicates a positive attitude. Illiterate mother's means and standard deviations for knowledge is 3.8 ± 1.1 , elementary educational level 3.7 ± 1.2 , junior high school 4.5 ± 2.3 , high school 5.6 ± 2.1 and tertiary education 7.4 ± 2.7 that there is a significant difference between them ($P = 0.045$). In this study 70 percent of all three municipal districts believe re-using waste and 89.9% of them are in favor of collecting the segregated and sorted waste that their difference is significant ($P=0.01$). The students mean score for knowledge and attitudes are 4.1 ± 1.9 and 20.63 ± 5.9 respectively. The majority of students (487 students, 32%) state the impact of online education on them very low. The business people and office staffs mean scores for knowledge about the waste management are 4.5 ± 2.1 , 6.7 ± 1.9 and the difference between them is significant ($P = 0.041$) and their mean score for

attitude are 18 ± 5.6 and 26.12 ± 7.1 that their difference is significant ($P = 0.025$).

Waste is a serious environmental problem for both developed and developing countries. In recent years most developed countries has already set out to improve waste management operations (5). As the individual knowledge about the subject is good, the reasons of their low performance should be taken in to consideration. Due To the large amount of waste generated in schools, offices and businesses, providing in- person education through neighborhood health centers and their staff along with education through mass media is necessary.

Acknowledgements

The authors declare that there is no conflict of interests.

References

1. Patil GV, Pokhrel K (2005). Biomedical solid waste management in an Indian hospital: a case study. *Waste Management*, 25:592-99.
2. Marinkovic N, Vitale K, Holcer NJ, Dakula A, Pavic T (2008). Management of hazardous medical waste in Croatia. *Waste Management*, 28:1049-56.
3. Oweis R, Widyan M, Limoon O (2005). Medical waste management in Jordan: A study at the King Hussein Medical Center. *Waste Management*, 25:622-25.
4. Zazouli MA, Mohseni Bandpei A, Eslami A, Sadeghi A(2009). Survey on Paper Recycling Potential in the Head Offices of Mazandaran Province. *Iran J Health Environ*, 1(2): 99-104.
5. Dehghani M.H, Fazelinia F, Omrani Gh.A, Nabizadeh R, Azam K (2011). Investigation of Management Status on Medical Wastes in Public Hospitals of Arak City. *Iran J Health Environ*, 4(1):98-103.