### Title: Users' Performance and Awareness of Home Water Softeners in Qom

**Authors:** Fahiminia, M.1; Bakhtiari, H.2; Khazai, M.5; Ebrahimi, A.3; Omidi Oskouei, A.1; Fahiminia, V.4

1. Faculty member, School of Health, Qom University of Medical Sciences, Qom, Iran.
2. BSc, Qom Water and Wastewater Company, Qom, Iran.
3. MSc student of Occupational Health, Kerman University of Medical Sciences, Kerman, Iran.
4. BSc student of Environmental Health Engineering, Qom University of Medical Sciences, Qom, Iran.
5. MSc Environmental Health Engineering, Qom University of Medical Sciences, Qom, Iran.

**Abstract:**

**Background and Objectives**

Appropriate use of home water softeners plays a key role in the quality of water treated by them. Therefore, the users' awareness of these systems turns into an issue of paramount importance. The main objective of this study was to examine the users' performance and awareness of home water softeners in Qom city. Identifying the points of strength and weakness, providing the necessary strategies to increase the users' awareness of quality of treated water, and using water softeners appropriately are among the other objectives.

**Materials and Methods**

This descriptive- cross sectional study was carried out in the city of Qom in 1388. 120 families with home water softeners were selected as samples based on randomized multi-session method. (30 families from each of four areas in Qom). Data were gathered by means of questionnaires, which were then analyzed by SPSS software program.

**Results**

Regarding methods of using water softeners by home owners, 88% of the users obtained their information from the sellers and installers, which comprised the maximum information source. User guides with only 4% of reference was the minimum source of information. In addition, 52% of the systems lacked mixer taps and water quality control through mixing salty and sweet water, while 96% of users did not use this tap to improve water quality in their systems. Half of the users did not have correct knowledge of water treatment mechanism and use of home water softeners; 62% did not know how and when to clean and replace the filters in the systems, and none of the users was aware of the nutritional value of water and the health risks caused by the consumption of water lacking the necessary nutrients.

**Discussion**

People's awareness of the quality of treated water and the correct use of home water softeners is low and sometimes incorrect. Therefore, it is recommended that users be informed of quality of treated water, nutritional value of drinking water, and the correct use of home water softeners.

**Key words:** awareness, water softener, users, Qom.

**Presentation:** Poster