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Data Article

Data on microbial and physiochemical characteristics of inlet and outlet water from household water treatment devices in Rasht, Iran

Dariush Naghipour [a], Seyed Davoud Ashrafi [a,b], Ali Mojtahedi [c], Masoud Vatandoost [a], Loghman Hosseinzadeh [a], Esmail Roohbakhsh [a,d,*]

[a] School of Health, Guilan University of Medical Sciences, Rasht, Iran
[b] Research Center of Health and Environment, Guilan University of Medical Sciences, Rasht, Iran
[c] Department of Microbiology, Faculty of Medicine, Guilan University of Medical Sciences, Rasht, Iran
[d] Department of Biology, Science and Research Branch, Islamic Azad University, Tehran, Iran

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ABSTRACT

In this research, we measured various parameters related to drinking water quality include turbidity, temperature, pH, EC, TDS, Alkalinity, fecal and total coliform, heterotrophic plate count (HPC), free chlorine, Mn, Ca, Mg, Fe, Na, Cl^-, F^-, HCO_3, in the inlet and outlet of household water treatment devices according to the standard methods for the examination of water and wastewater (W.E. Federation and Association and A.P.H., 2005) [1]. Sixty four inlet and outlet water samples were taken from thirty two household water treatment devices from eight different residential blocks in Golsar town of Rasht, Iran. The data obtained from experiments were analyzed using the software Special Package for Social Sciences (SPSS 24) and MS-Excel.

* Correspondence to: School of Health, Guilan University of Medical Sciences, Rasht, Iran.
E-mail address: esmaeil5115@yahoo.com (E. Roohbakhsh).

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Specifications table

Subject area	Environmental Engineering
More specific subject area	Drinking water quality
Type of data	Figure and table
How data was acquired	Total dissolved solid (TDS) were measured by scaling method using oven and digital scale. Anions and Cations were measured by using UV–vis spectrophotometer and flame photometer. Total and fecal coliform were determined by multiple-tube fermentation technique. Heterotrophic plate count (HPC) was done using membrane filtration method. Free chlorine was measured using DPD method.
Data format	Raw, analyzed.
Experimental factors	Samples were collected randomly from eight blocks in Golsar town of Rasht. The glasses bottles (250 ml and 2000 ml) were used to samples collection. The samples were taken transferred to the laboratory under acidic condition and 4 °C for analyzing of anions and cations. Although, for analyzing of microbial parameters the samples were transferred under 6 h and the temperature of 4 °C.
Experimental features	Physicochemical and microbial parameters of drinking water include; K^+, NO_3^-, Mn^{2+}, Mg^{2+}, Ca^{2+}, Na^+, Cl^-, Fe^{2+}, Mg^{2+}, F^-, HCO_3, TDS, Ec, pH, turbidity, total hardness, alkalinity, free chlorine, temperature, total and fecal coliform and HPC.
Data source location	Golsar town of Rasht, Guilan Province, Iran.
Data accessibility	All data are available within this article.

Value of the data

- These data describe performance of household water treatment device and will be useful for who use this devices for water purification.
- The data will be valuable for the experts of healthcare center.
- The data will be useful for the engineers related to household water treatment device maintenance.

1. Data

The data in this paper express the quality of urban drinking water and household water in the inlet and outlet of household water treatment devices. So, the selected parameters of drinking water quality were some important microbial and physiochemical parameters such as; K^+, NO_3^-, Mn^{2+}, Mg^{2+}, Ca^{2+}, Na^+, Cl^-, Fe^{2+}, F^-, HCO_3, total and fecal coliform, turbidity, temperature, total hardness, TDS, EC, alkalinity, free chlorine and Heterotrophic plate count (HPC) [2–6]. The data from the experiments of inlet water for physicochemical parameters; turbidity, temperature, EC, pH, total hardness and total alkalinity were 0.73 NTU, 23.1 °C, 587 μs/cm, 7.62, 182.5 mg/L $CaCO_3$ and 190.1 mg/L $CaCO_3$, respectively (Table 1). Although, the value of these parameters in outlet were 0.26 NTU, 23.9 °C, 124 μs/cm, 6.95, 56.4 mg/L $CaCO_3$ and 53.7 mg/L $CaCO_3$, respectively (Table 1). Aimed at the microbial quality of inlet water the data from the experiments for parameters; fecal and total coliform, heterotrophic plate count (HPC) and free chlorine were 0 and 0.4 MPN/100 mL, 7 CFU/mL and 0.2 mg/L, respectively (Table 2). While, the value of these parameters in outlet water were 0.2 and