Table 3 Positive responses to questions before and after the educational intervention about solid waste management (combining agreed and strongly agreed responses) Beliefs item Positive responses to item Statistics Before After Before vs Before vs control After Intervention vs (control group) (total group) (intervention group) intervention group control group group (n = 306)(n = 150)(n = 146) $\chi^2$ No. No. No. P-value P-value P-value Waste accumulation anywhere away from home does not lead to the spread of diseases 278 90.8 12.0 92.5 271 18 135 < 0.001 0.15 0.69 189 < 0.001 Collection of waste in closed container in the 137 91.3 < 0.001 house prevents diseases 146 47.7 78 53.479.5 < 0.001 1.07 0.30 51.6 Solid waste management is not our concern 86.6 10 6.7 119 81.5 265 0.20 166 < 0.001 265 < 0.001 1.65 Solid waste management will not affect our health 296 96.7 17 11.3 137 93.8 337 < 0.001 1.4 0.23198 < 0.001 Landscape outside the home does not matter; the 286 93.5 12 8.0 129 321 2.7 0.09 188 important thing is to have the house clean 88.4 < 0.001 < 0.001 Solid waste management is important subject in our life 13.1 98.0 23 15.8 297 0.39 0.53 201 40 147 < 0.001 < 0.001 Maintaining the cleanliness of the area is the responsibility of the municipality only 46 30.7 < 0.001 1.54 < 0.001 288 94.1 132 90.4 204 0.21108 Collecting the waste in big container in each street is better for the heath of the people 230 75.2 145 96.7 98 67.1 0.01 0.9 2.8 0.09 108 0.17 Neighbourhood committees share a responsibility to prevent waste accumulating 187 61.1 148 98.7 87 59.6 70.9 < 0.001 0.04 0.48 66.6 < 0.001 The best way to reduce waste is reusing and recycling 124 40.5 137 91.3 67 45.9 104 < 0.001 0.96 0.32 69.2 < 0.001 The inhabitants are involved in producing 34 12.3 hazardous waste 11.1 132 88.0 18 254 < 0.001 0.05 0.82 166 < 0.001 Paying a penalty is the only way of waste 26 8.5 23 4.22 1.74 management 15.3 14 9.6 0.04 0.040.840.18 All family members can participate in reducing 18 5.9 136 7.5 320 201 and reusing solid waste 90.7 11 < 0.001 0.2 0.6 < 0.001 Segregation of solid waste gives additional income 57.2 6.3 to the family 175 112 74.7 88 60.3 12.4 < 0.001 0.2 0.6 0.01 Plastic, metal, bottles glass, old clothes and textiles can be reused 93.8 98.7 79.5 4.3 26.3 287 148 116 0.03 19.6 0.01 < 0.001