

Effect of Education on Knowledge and Attitude Regarding Bioterrorism

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Abstract

Introduction: Bioterrorism, as a major health problem, has received lots of attention in recent years. To date, the effect of education on knowledge and attitude of students regarding bioterrorism has not been evaluated in Iran. Therefore, this study aimed to determine how education affects knowledge and attitude of biological sciences students about bioterrorism. **Methods:** The present interventional before-after study was carried out on the students of different branches of biological sciences. The students' level of knowledge on nature of bioterrorism and its causatives, diagnosing bioterrorism agents, management at the time of biological and bioterrorist attacks, and tendency to participate in relief at these events were evaluated before and after training using a pre-designed checklist. Then the effect of education on the students' knowledge and attitude was evaluated based on their sex. **Results:** 120 students were included (60% female; mean age 21 ± 3.2 years). The knowledge score was not significantly different between female and male students before educational intervention ($p > 0.05$). After education, the knowledge score raised significantly in the 4 areas of bioterrorism nature ($p < 0.0001$), causative factors ($p < 0.0001$), diagnosing bioterrorism agents ($p < 0.0001$), and management at the time of bioterrorist attacks ($p < 0.0001$) in female participants, but not in male students ($p > 0.05$). In addition, after education both male and female participants showed greater tendency to work and do research in the field of bioterrorism ($p < 0.0001$) but the increase was more significant in females ($p < 0.0001$). **Conclusion:** Educational intervention led to an improvement in female participants' knowledge regarding bioterrorism nature, causative factors, diagnosing bioterrorism agents, and management at the time of bioterrorist attacks. Yet, the low level of knowledge and tendency of the students indicates the need for more education in this field.

Key words: Bioterrorism; knowledge; civil defense