

## Socio-demographic characteristics and safety practices in pesticide applicators in Zangiabad area, Iran

### ABSTRACT

Iran is the largest producer of pistachios in the world and farmers apply chemicals in pistachio orchards to pest control. A high risk of occupational human exposure to pesticides may occur in applicators if they do not practice adequate protective measures. The present study was designed to determine socio-demographic characteristics, knowledge of safety practices and use of protective measures for applicators to avoid pesticide contamination. Structured face-to-face interviews were conducted and a questionnaire was administered to obtain information on characteristics such as environmental exposure, personal characteristics, lifestyle factors and agricultural work practices. There was a significant difference in educational level between cases and controls ( $\hat{P} < 0.05$ ) and cases had a generally lower educational level than controls. Among the pesticides that were used for pistachio pest control, amitraz was dominant. The most common form of packaging used to pesticides, especially amitraz, in the study area was COEX, Aluminum, and PET. In order to dispose of empty containers, most of the farmers sell empty containers for recycling, but it is not clear who buys them and how they are recycled. Health effects of pesticides underscore the importance of alternative methods for pest management to reduce pesticide exposure.

**Keyword:** Health effects; Safety practices; Amitraz; Iran