CHANGES IN FARMERS' ATTITUDE TOWARDS SAFE HANDLING OF PESTICIDES AFTER AN EDUCATIONAL CAMPAIGN.

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Summary

The aim of this study was to investigate the change in farmers' attitude towards pesticide management after an educational campaign. A self-reference questionnaire was distributed and answers related to occupational and environmental health risks were evaluated before and after the intervention. A significant change in attitudes towards use of personal protective equipment ($p=0.008$); safe disposal of pesticides ($p<0.001$) and symptom recognition after exposure ($p<0.001$) was observed after the intervention. The educational campaign also added awareness of environmental risks of pesticides, correct spraying methods and the prospect of organic farming.

Introduction

Plant protection products constitute an indispensable attribute of the agricultural economy, but also pose important occupational and environmental health risks [1]. Knowledge of the risks associated with pesticide management and handling is mandatory, in order to achieve the necessary safety standards and mitigate the impact of both professional or public exposure [2]. Educational campaigns have proven extremely useful in raising awareness among agricultural populations as regards these issues [3-5].

Materials and Methods

A self-administered questionnaire was distributed before and after an educational campaign to 103 farmers (70 males and 33 females). Out of them, 60 worked full-time (professionally) and 43 part-time. Mean age was 46.9±10.7 years. The campaign highlighted aspects of safe pesticide application, use of personal protective equipment, assessment of toxicity risks etc. Chi-square and McNemar tests were used to assess the impact of the educational campaign intervention. All statistical analyses were performed in SPSS (v15), where a p value of <0.05 was considered to be statistically significant.

Results

Reported prevalence of occupational accidents during pesticide application was high (49.5%) and was characterized by the absence of personal protective equipment use (in 77.9% of the accidents), despite the fact that a large proportion (88.3%) of the population was aware of the impact of pesticide toxicity risks. The comparison of the questionnaire answers after the intervention showed significant improvement in many variables. More specifically, a significant improvement was observed in the use of personal protective equipment ($p=0.008$); safe disposal of pesticides ($p<0.001$) and symptom recognition after exposure ($p<0.001$). Farmers also positively responded to the idea of adopting organic agricultural practices ($p<0.001$).

Conclusions

The management and use of pesticides is an issue of concern for both occupational safety and environmental health. Educational seminars from health care providers can be beneficial to farmers. The reported intervention on pesticides use aimed to limit down overuse and achieve a greater compliance to occupational and environment safety guidelines. An increased awareness of the correct application of pesticides and of the benefits of organic farming was also attained.

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