Article outline

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Design of an Educational Intervention in Portuguese Community Pharmacists to Improve Antibiotics Use

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Improve antibiotics use by an educational intervention in community pharmacists towering their attitudes related to microbial resistances and antibiotic misuse.

Methods

The study included four phases: (1) a focus group study with community pharmacists; (2) questionnaire design and reliability assessment; (3) a cross-sectional study with 1197 pharmacists, and (4) design and implementation of educational intervention, a cluster-randomized controlled trial, with 4 cluster in control group and 4 cluster in intervention group. The study was approved by Portuguese Data Protection Authorities (Comissão Nacional de Proteção de Dados/CNPD) (Permit No. 2886/2013).

Results

Situations explored during focus group sessions, were helpful to construct a questionnaire with 17 statements about attitudes and knowledge of pharmacists to microbial resistance and antibiotics misuse, followed in each case by a continuous visual analogue scale (VAS), and 4 statements identifying situations where pharmacists, recognized that sometimes antibiotics could be dispensed without medical prescription, a measure of propensity to dispense antibiotics without medical prescription. Questionnaire internal consistency and reliability was demonstrated. The rate of response during cross-sectional study was 64,8 %. Propensity to dispense antibiotics without prescription among respondents was 48,6 %. It was identified three major attitudes as influencing propensity to dispense antibiotics without medical prescription: complacency with patients, responsibility of others (patients and health-care systems) and fear/precaution. Attending this attitudes, educational outreach visits were made with: (1)interactive educational meeting by PowerPoint presentation (IEM); (2)printed educational materials (pharmacists reminders and a poster to display in pharmacy facilities); (3)selected articles referenced during IEM. A participation pharmacist in the educational interventions was around 55% within the cluster intervention group.

Conclusions

Interventions were well accepted by pharmacists and, all of them demonstrated motivation to promote rational use of antibiotics of their patients.

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