

## Educational strategies in cardiovascular risk patients from the perspective of the community pharmacy

### Estrategias educativas en pacientes de riesgo cardiovascular desde la perspectiva de la farmacia comunitaria

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#### 1. Background information

Cardiovascular disease (CVD) is the main cause of mortality in the western countries. Patients with CV risk factors (CVRF) are often not aware of their disease and the dangers of not living a heart-healthy lifestyle or not adhering to treatment guidelines.

#### 2. Aims

To actively contribute to identifying the educational and psycho-educational needs of CVRF patients and teach them how to manage their disease and its pharmacotherapy in order to improve their CV health.

#### 3. Methods

An observational study was designed with randomised patients from four community pharmacies in Seville and Badajoz (Spain) who were divided into two groups, control (CG, n=48) and intervention (IG, n=48). Therapeutic education (TE) protocols designed for this purpose were periodically applied to the IG for 6 months to detect patients' educational and psycho-pedagogical needs in relation to CVD and its treatments. To avoid bias, the intervention was carried out by the same researcher who visited the four pharmacies.

#### 4. Results

100 % of the patients had to be taught basic knowledge about CVR and CVRF. A total of 26.8 % had low self-efficacy or lack of knowledge about how to manage their disease. 66.7 % needed information on heart-healthy diet and 27.1 % did not know that smoking was a CVRF. Motivational interviewing was necessary to help 52.1 % of patients to initiate and maintain long-term physical exercise, and to explain to 60.4 % the frequency, duration and intensity required to obtain the desired benefits. Self-monitoring was explained to 41.7 % and the usefulness of doing it periodically to be able to assess whether the medication was being effective, and 54.2 % were taught how to evaluate their parameters. With regard to the negative results of medication, 54.2 % of patients did not use their medication properly due to the complexity of the treatments, 29.2 % were taking medication that did not produce the desired response, and 25 % were found to have a new pathology that had not been treated. Also, 27.1 % had to be trained on the importance of adherence to treatment.

After the 6-month follow-up, the level of knowledge of CVD and how to manage it improved significantly ( $p < 0.001$ ), adherence to treatment ( $p < 0.05$ ), the number of sedentary patients changed from 54.5 % to 15.9 %

( $p < 0.001$ ) and the CVR of the sample decreased significantly [(initial time =  $2.56 \pm 2.18$  and final time =  $1.91 \pm 1.42$  ( $p < 0.01$ )].

## **5. Conclusions**

The individually adapted ET protocols were highly effective in implementing specific interventions, helping patients to improve their lifestyle habits, increase their knowledge of CVR and CVRF and improve adherence to treatment.

# EDUCATIONAL STRATEGIES IN CARDIOVASCULAR RISK PATIENTS FROM THE PERSPECTIVE OF THE COMMUNITY PHARMACY



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## INTRODUCTION

Cardiovascular disease (CVD) is the main cause of mortality in the western countries. Patients with CV risk factors (CVRF) are often not aware of their disease and the dangers of not living a heart-healthy lifestyle or not adhering to treatment guidelines.

## AIM

To actively contribute to identifying the psycho-educational needs of CVRF patients and teach them how to manage their disease and its pharmacotherapy in order to improve their CV health.

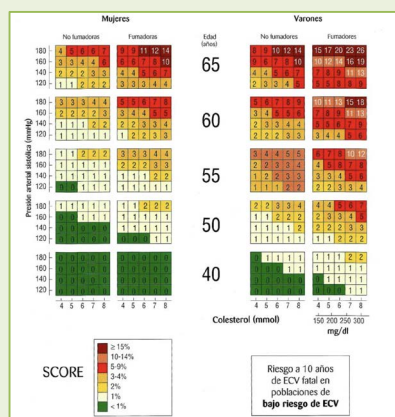
## METHODS

An observational study was designed with randomised patients from four community pharmacies in Seville and Badajoz (Spain) who were divided into two groups, control (CG, n=48) and intervention (IG, n=48). Therapeutic education (TE) protocols designed for this purpose were periodically applied to the IG for 6 months to detect patients' educational and psycho-pedagogical needs in relation to CVD and its treatments. To avoid bias, the intervention was carried out by the same researcher who visited the four pharmacies.



## RESULTS

The analysis of the initial mean values ( $t_0$ ) of the sample in both groups, CG and IG, showed that there were no statistically significant differences, which confirms the adequate randomization in the distribution of the participants.



### Educational needs of patients

### Medication management

	CG (N=48)	IG (N=48) N/(%)		CG (N=48)	IG (N=48) N/(%)
Basic knowledge about CVR and CVRF		48/(100%)	Unnecessary medication		2/(4,1%)
Importance of physical activity		21/(43,8%)	Need for pharmacotherapy		12/(25,0%)
Need for a heart-healthy diet		32/(66,6%)	Ineffectiveness of the treatment		14/(29,2%)
Effects of tobacco consumption		12/(25,0%)	Side effects		4/(10,4%)
Skills to manage their disease		26/(54,2%)	Importance of adherence to treatment		13/(27,1%)
Knowledge about their pathologies		27/(56,2%)			
Expectations about the results		21/(43,7%)			

CG: Control Group IC: Intervention Group

## After the 6-month follow-up:

- The level of knowledge of CVD and how to manage it improved significantly ( $p < 0.001$ )
- Adherence to treatment ( $p < 0.05$ ), the number of sedentary patients changed from 54.5% to 15.9% ( $p < 0.001$ )
- The CVR of the sample decreased significantly: initial time ( $t_0$ ) =  $2.56 \pm 2.18$  and final time ( $t_6$ ) =  $1.91 \pm 1.42$  ( $p < 0.01$ ).

## CONCLUSIONS

The individually adapted ET protocols were highly effective in implementing specific interventions, helping patients to improve their lifestyle habits, increase their knowledge of CVR and CVRF and improve adherence to treatment.

## References

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