

## STAFF SATISFACTION AFTER THE IMPLEMENTATION OF A ROBOTIC DISPENSING SYSTEM IN AN OUTPATIENT PHARMACY

Rodríguez-González CG, Herranz-Alonso A, Giménez-Manzorro A, Escudero-Vilaplana V, Ais-Larisoigoitia MA, Revuelta-Herrero JL, Sanjurjo-Sáez M.

Pharmacy Department. Hospital General Universitario Gregorio Marañón  
Instituto de Investigación Sanitaria Gregorio Marañón (IISGM)  
Madrid, España

### BACKGROUND / OBJECTIVES

Robotic dispensing has demonstrated to improve patient safety and workflow. However, no data exists about staff satisfaction with its implementation.

**Objective:** Quantitative evaluation of staff satisfaction after the implementation of a robotic dispensing system in an Outpatient Pharmacy (OP).

### METHODS

• **Setting:** OP of a 1,300-bed tertiary teaching hospital in Madrid (Spain). The pharmacists' role consists of continuous centralized order validation and patient counselling and education. Dispensing and inventory management is entirely performed by nursing assistants, using a robotic dispensing system (Rowa® Vmax) with a conveyor belt system.

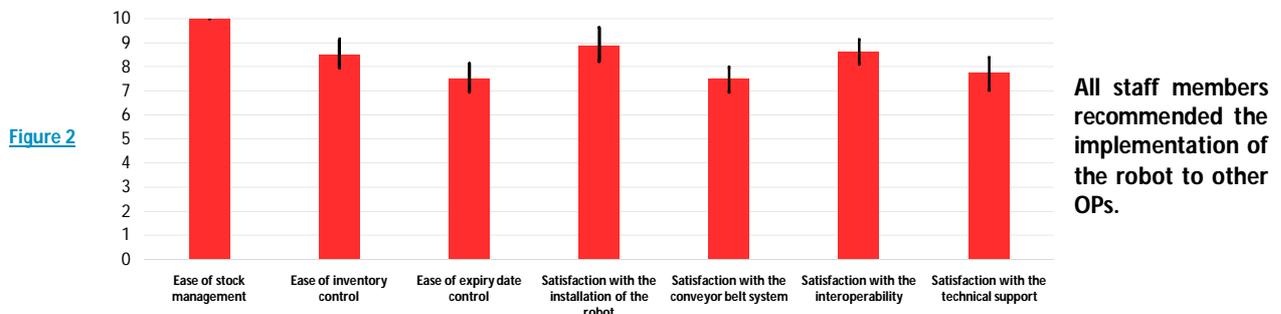
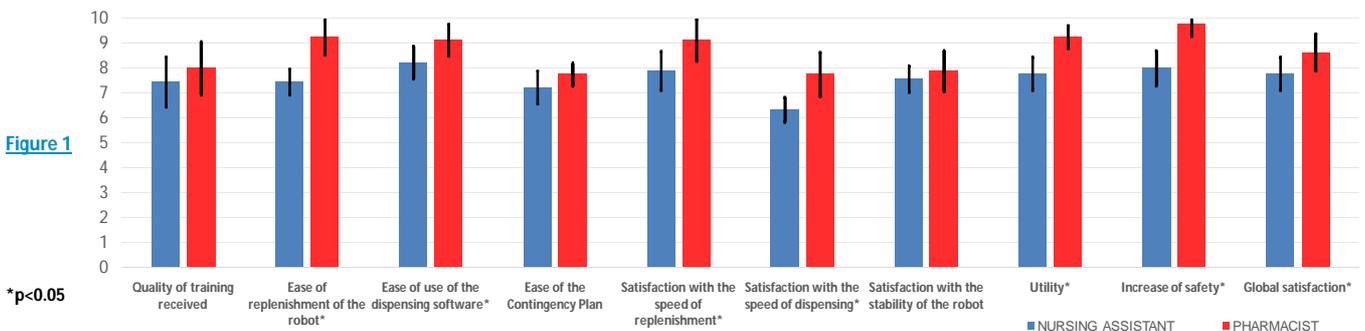
• **Design:** This was a cross-sectional study involving 8 pharmacists and 9 nursing assistants.

Overall satisfaction index and specific aspects such as the contribution of the robotic dispensing system on safety, ease of use and stability were evaluated. In addition, the quality of the inventory control, the quality of the integration with other information systems of the OP, and installation and technical support was evaluated by the pharmacy staff.

• The results (0-10 points) were expressed in mean  $\pm$  standard deviation. Comparison between staff category was made using Mann-Whitney U test.

### RESULTS

- Overall satisfaction index was  $8.63 \pm 0.744$  for pharmacists and  $7.78 \pm 0.667$  for nursing assistants ( $P=0.046$ ).
- Comparative results for each item between pharmacists and nursing assistants is shown in **Figure 1**.
- Satisfaction with additional aspects that were exclusively evaluated by pharmacist staff is shown in **Figure 2**.



### CONCLUSIONS

The results of pharmacists and nursing assistants' satisfaction surveys have been useful information to evaluate the quality of the robotic dispensing system implementation. Staff satisfaction was high, although in most of the issues the satisfaction was slightly better in pharmacists than nursing assistants. The unique aspect in need of improvement is the dispensing speed of the system of conveyor belts.

