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Original research

Walking Clinic in ambulatory surgery – A patient based concept A Portuguese pioneer project

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HIGHLIGHTS

- "Walking Clinic" is a concept created for quality improvement in healthcare.
- "Walking Clinic" consists of a preoperative single day work-up.
- "Walking Clinic" patients had better postoperative pain control.
- Results confirmed better patient satisfaction with the "Walking Clinic" concept.

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ABSTRACT

Introduction: *Walking Clinic* is an innovative, efficient and easily reproducible concept adapted to ambulatory surgery. It consists of a preoperative single day work-up, with a surgeon, an anesthetist and a nurse. The aim of this study was to evaluate patient satisfaction and its determinants.
Methods: A survey was applied to 171 patients (101 of the *Walking Clinic* group and 70 not engaged in this new concept). Patient satisfaction was assessed evaluating five major questionnaire items: secretariat (quality of the information and support given), physical space (overall comfort and cleanliness), nurses and medical staff (willingness and expertise), and patients (waiting time until pre-operative consults and exams, waiting time until being scheduled for surgery, surgery day waiting time and postoperative pain control). Furthermore, overall assessment of the received treatment, and probability of patient recommending or returning to our ambulatory unit were also analyzed.
Results: *Walking Clinic* group had overall better results in the five major questionnaire items assessed, with statistical significance, except for the physical space. It also showed better results regarding the sub-items postoperative pain control, waiting time until being scheduled for surgery and surgery day waiting time.
Discussion: The results confirm better patient satisfaction with this new concept.
Conclusion: The *Walking Clinic* concept complements all the tenets of ambulatory surgery, in a more efficient manner.

1. Introduction

Ambulatory Surgery is currently a nearly perfect example of efficiency and quality in the treatment of surgical patients [2]. However, when patients are referred to an ambulatory unit, several steps have to be taken until they can get to the surgical theater, greatly interfering with their lives.

Walking Clinic (W) is an efficient and easily reproducible concept that overcomes this problem, complementing all the tenets of the ambulatory surgery. It has been created and embedded in the ambulatory care unit of Hospital Pedro Hispano since March 2012.

It consists of a pre-surgery clinical appointment with the physical presence of a surgeon, an anesthetist and a nurse, allowing all the pre-operative work-up, medical, social and psychological preparation to be made in a single day. This is a unique opportunity to clarify patient doubts.

The aim of this concept is to augment efficiency, centering all the process in the patient. Patients referred to the ambulatory care

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unit, by their family doctors or from the outpatient general surgery consults, have to go only once more to the hospital and the information is given in a more coherent, unified and detailed manner. In this way, patients feel more secure, protected and more willing to collaborate in all the process. If any further pre-operative evaluation is necessary (e.g. laboratory testing, electrocardiography, chest radiography) it is undertaken and assessed in the same period of time. Once patients get past this circuit they are ready for surgery.

To support this concept, specific conditions were created: the space was organized, consisting of three offices, one for each professional (surgeon, anesthetist and nurse), so that the patient is observed successively by each of them; a logotype was created; an easily applicable form was instituted to include all the relevant information of each patient; and a special flyer, delivered to all patients, where all the information and instructions for surgery were gathered, was created. It is of capital importance to have a group of motivated professionals to carry out this one-stop pre-assessment clinic.

Another advantage of the W is the fact that closely interacts with the primary health care system, allowing the direct referral of patients from the health clinics to the hospital [1].

This study was designed to ascertain if this new concept achieved better satisfaction scores and to establish the determining factors of its success.

2. Material and methods

To understand the determinants of patient's satisfaction with this new concept, the authors developed a survey which was administered telephonically by three doctors (the first three authors), without acknowledging patient's group and regardless of it. Overall, 171 patients submitted to general surgery procedures in the ambulatory care unit, between the period of January 2011 and January 2013, were randomly selected, 101 patients of the W group and 70 patients of the non-Walking Clinic group (non-W group). In the latter group patients and their caretakers had to come at least two times to the hospital for surgical and anaesthetic consultations, and pre-operative tests, without involvement of the nurses.

The surgical procedures were performed by similar teams, in both groups (W and non-W), although the professionals responsible for the pre-operative assessment weren't the same. The secretariat, in the first line welcoming the patients and dealing with the necessary paperwork, is part of the ambulatory care unit and was the same for both groups (W and non-W), except for the outpatient consults that have a specific secretariat.

The questionnaire included 24 items and the patients were asked to rate them using a *Likert* scale (1 = bad, 5 = very good) [10]. The items studied were: quality of the information and support given by the secretariat (on the pre-operative consultations and on the actual day of surgery); overall comfort of the physical space (on the pre-operative consults, on the day of surgery and regarding the post-anaesthesia care unit) and overall assessment of cleanness; willingness of the nurse staff (on the W appointment (for the W group) and on the day of surgery (before and after the procedure)) and patient's trust in nursing expertise; willingness and expertise of the medical staff (regarding the first appointment with a surgeon, the pre-anaesthetic consultation (for the non-W group), the W appointment (concerning the surgeon and the anesthetist evaluation, for the W group)), information given by the surgeon after the procedure and patient's trust in doctor's expertise; waiting time until pre-operative consults and exams, waiting time until being scheduled for surgery (between the last pre-assessment appointment and the surgery), surgery day waiting time (in the actual day of surgery) and postoperative pain control. In addition, the overall assessment of the received treatment, comparing it to other similar experiences, probability of the patient recommending or returning to our ambulatory unit, were also measured.

All the included patients were informed about the aims and the nature of the survey. Patients were also informed that its participation was voluntary and that they could withdraw at any time.

Statistical analysis of this sample was carried out using the SPSS STATISTICS® VERSION 21. Statistical data are presented as mean and standard deviations, or relative and absolute frequencies and the tests performed were the Mann–Whitney *U* test and the chi-square test. The significance level was set at 0.05.

3. Results

The 171 patients included in this study had an average age of 48 years (min 15; max 84). Demographic information, comparing the two groups (W/non-W) is presented in Table 1.

Patient satisfaction was assessed by evaluating average rates in the five major questionnaire items: secretariat (quality of the information and support given), physical space (overall comfort and cleanliness), nurses (willingness and expertise), medical staff (willingness and expertise) and patients (waiting time until pre-operative consults and exams, waiting time until being scheduled for surgery, surgery day waiting time and postoperative pain control). Table 2 presents the comparative results between both groups. Statistical significance was achieved in all the analyzed items, except for the physical space.

Due to the particular relevance of some points (postoperative pain control, waiting time until being scheduled for surgery and surgery day waiting time) they were analyzed individually. Given the low frequencies in the lower rates of the assessment scale we aggregated data in three levels (reasonable or less, good and very good) to ensure the validation of the statistical methods. The W group had overall better assessments (chi-square test p-value of 0.04%, 0.08% and 5.38%, respectively) and there is statistical association between the W group and the higher score (very good). Considering that a score of "good" or "very good" meant satisfaction, these items have satisfaction rates of, respectively, 94%, 88% and 97% (Figs. 1–3).

Concerning the major items (secretariat, physic space, nurses, doctors, patients) satisfaction rates were, respectively, 98%, 99%, 96% and 89% in the latter two (Table 3).

A global satisfaction of 99% was achieved; 96% patients would return to our ambulatory unit in case of need and 98% would recommend it to a friend in a similar situation (Fig. 4).

Table 1
Baseline characteristics.

	W	Non-W
Age (average (range))	45 (15–84)	52 (17–84)
Gender (F:M) (%)	41:59	31:69
ASA (I:II:III) (%)	34:58:8	33:54:13

Table 2
Average rates in major items.

	W	Non-W	p-value
Secretariat	4.6	4.2	<0.001[a]
Physical Space	4.6	4.5	0.139
Nurses	4.7	3.5	<0.001[a]
Medical Staff	4.4	2.7	<0.001[a]
Patients	4.4	3.9	<0.001[a]

[a] Significant Mann–Whitney *U* test at a level of 5%.