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OBJECTIVES

Quality management aims to improve the quality in order to satisfy the expressed or not expressed customers needs.

This quality is relative as it is based on customer requirements, as well as on internal and external company stakeholders, while also taking into account risks of any kind.

In hospitals, quality management tools facilitate the health services management. These tools focus on improving the quality of service delivery, reducing customer waiting time, improving logistics and supply management.

However, customer satisfaction is characterized by its complexity and highly subjectivity in hospitals. Indeed, experience has shown that Conventional Customer Satisfaction Indicators (CCSIs) which have proved their relevance in many areas, may not be suitable in hospitals.

In that sense, our study aims to determine the limits of CCSIs in hospitals.

METHODS

This is a descriptive study of customers and their needs in hospitals followed by a critical analysis of CCSIs. As the model presented, we studied direct customers of the pharmacy of Mohammed V Military Teaching Hospital (MVMTH) of Rabat, Morocco.

Data on pharmacy customers, their needs and CCSIs for their evaluation were extracted from our pharmacy procedures booklet and quality manual, as well as from the complaints register and the satisfaction questionnaires completed by the customers concerned.

RESULTS

□ Direct customers of HP are shown in Figure 1.

□ Pharmaceutical needs of our pharmacy customers, CCSIs used and their possible deficiencies are shown in table I, II, III and IV.

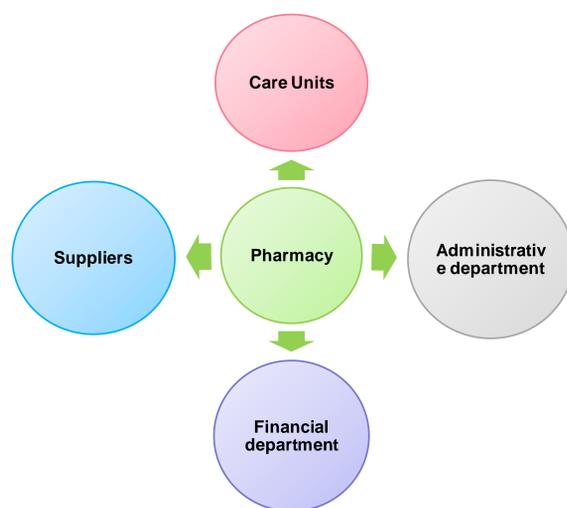


Figure 1. Direct customers of MVMTH pharmacy

Table I. Pharmaceutical needs of Care Units, CCSIs used and their possible deficiencies

Needs HP has to satisfy	CCSI designation	CCSI description	Limits
Availability of pharmaceuticals	Average duration of shortage	Σ time out of stock / Number of items in shortage	-
Concordance between prescribed and dispensed items	Request Satisfaction Rate (RSR)	(Quantity of dispensed drugs / Quantity of requested drugs) x 100	Does not take into account appropriateness of the request
Rapidity of dispensing prescriptions	Prescriptions execution time	Time to dispense prescription lines / total number of prescription lines	-
Pharmaceutical presence in care units	Rate of pharmaceutical presence in care units	(Number of care units benefiting from pharmacist presence / total number of care units) x 100	Pharmaceutical presence is not required at the same level in all care units

Table II. Pharmaceutical needs of Administrative department, CCSIs used and their possible deficiencies

Needs HP has to satisfy	CCSI designation	CCSI description	Limits
Reliability of expressed pharmaceutical needs	Gaps in pharmaceutical needs	(Valued consumption – valued needs) / Valued consumption	Does not take into account the evolution in pharmaceuticals consumption
Monitoring the execution of contracts	Monitoring contract	Cost of pharmaceuticals supplied within a contract at the time "t" / Total cost of pharmaceuticals set out in the same contract	-
Mastery of stocks	Inventory gap ratio	Number of pharmaceuticals with gap Inventory / Total Number of pharmaceuticals	-
Mastery of pharmaceuticals circuit	Nominative dispensation rate	Number of lines dispensed nominatively / Total number of dispensed lines	Does not take into account pharmaceuticals that can not be dispensed nominatively (antiseptics, bandage,...)
Patient Safety	Prescriptions pharmaceutical analysis rate	Number of prescription lines analyzed by the pharmacist / Total number of prescription lines	-
Mastery of pharmaceutical activities traceability	Traceability rate	Number of traced operations / Total number of operations performed over the same period	-

Table III. Pharmaceutical needs of Financial department, CCSIs used and their possible deficiencies

Needs HP has to satisfy	CCSI designation	CCSI description	Limits
Respect of the allocated budget	Budget compliance	Value of purchases of the year / Allocated budget of the year	Does not take into account care units exceptional requests made off-therapeutic booklet
Reducing acquisition prices	Purchasing performance rate	Acquisition prices of all pharmaceuticals / Purchase prices of the same products from the same suppliers in the same year	Do not take into account monopoly pharmaceuticals and exclusive hospital use pharmaceuticals purchased through a wholesaler
Billing efficiency	Billing rate	Number of lines billed at time 't' / Total number of lines to invoice	Does not take into account invoices with nonconformities
Optimization of placing orders cost	Placing orders cost	Σ costs related to placing order lines over a defined period / Total number of placed order lines over the same period	Does not take into account suppliers responsiveness and ordered pharmaceuticals availability

Table IV. Pharmaceutical needs of Suppliers, CCSIs used and their possible deficiencies

Needs HP has to satisfy	CCSI designation	CCSI description	Limits
Ease of receipt of the delivered pharmaceuticals	Receipt time frame	Time between deliveries arrival and the hand over of signed delivery order to the deliveryman, over a defined period / Total number of deliveries over the same period	Does not take into account the possible non-conformities of received deliveries
Minimisation of litigations	Claims / litigations rate	Number of Claims-litigations/ Number of order lines	Does not take into account the relevance of complaints
Rapidity of litigations processing	Litigation processing time frame	Time between arrival of litigations-claims and their processing, over a defined period / Total number of claims-litigations over the same period	Does not take into account whether the resolution of the problem depends only on the pharmacy or not.

DISCUSSION

This study allowed us first to understand the needs of direct customers of the MVMTH pharmacy, and then to evaluate the relevance of CCSIs in hospitals, and specifically in hospital pharmacy.

In fact in some situations, customer needs either can not or should not be completely satisfied. In these cases, it reflects negatively on some CCSIs, not because of a lack of pharmaceutical performance, but often because of the non-adaptation of these indicators to the hospital model.

These findings lead us either to think about new satisfaction indicators which are more appropriate in our context, or to introduce factors of adjustments in order to adapt the non-relevant CCSIs to our studied model.

For example we can imagine introducing an Index for Request Adequacy (IRA) to adjust the conventional RSR :

$$\text{Adjusted RSR} = [\text{Quantity of dispensed drugs} / (\text{Quantity of requested drugs} \times \text{IRA}^*)] \times 100.$$

*0 < IRA ≤ 1 (The IRA must lie between 0 and 1)

CONCLUSION

Some of the major concerns of a successful enterprise, its ability to communicate with its customers, to understand customers expectations and to meet the wishes of its customers. To be able to take the right decisions, managers must have reliable indicators to measure the satisfaction of their customers.

In our context, critical analysis of CCSIs in hospitals allowed us to identify many deficiencies. These findings will be used to develop new indicators that are more adapted to the hospital model.