A CONCEPTUAL FRAMEWORK FOR UNDERSTANDING VALUE AND WASTE IN EMERGENCY DEPARTMENT PATIENT FLOW: A QUALITATIVE CASE STUDY

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Background

Reducing waste and maximizing value in ED patient flow is usually limited to reducing delays and accelerating activities. This assumes that all delays are wasteful and all activities valuable.

Value and waste should be determined by the customers of the service. A process that does not include the customer's value may not be effective in providing care.

The goal of this study is to identify value and waste in ED flow, from a patient perspective, with clinical professionals acting as patients' agents.

Methods

Setting: Single ED in Trinidad and Tobago

Design: Multiple qualitative methods

Participants: Patients from all triage categories;
Clinicians from all levels of seniority

In this setting, only doctors were classified as clinicians

Observational process mapping (155 hours): Direct observations of patient journeys used to inform conversations on value and waste

Informal conversational interviews (90): Real time conversations with patients and clinicians

Thematic analysis used to create a framework of value and waste in ED patient flow

Findings

Data were collected from 43 clinicians and 47 patients. Clinicians identified more steps compared to patients.

Value: 1) Direct improvement in patient's health or experience 2) Exchange of knowledge or information

Waste: 1) Delayed patient progression 2) No direct ED clinical involvement 3) Perceived inappropriate use of ED resources

Table 1. Framework of value and waste in ED patient flow

Step/aspect of process	Key aspects of care identified
VALUE	
Direct improvement in patient's health or experience	
Medical treatment of patient	Symptom relief or definitive treatment; allows patient progression[a]
Access and availability of resources	Available support staff and resources enables quick accomplishment of tasks[a]
Use of trolleys	Provide comfort if feeling unwell/long ED stay; contribute to patient management[a,b]
Referral to inpatient teams	Provides continuity or definitive care[a]
Provision of information	
Information gained from triage stage	Vital signs: provide information on patient stability; contribute to patient prioritisation[a] Front loading of investigations: provide information early; eliminate steps in main ED process[a]
Clinician's assessment	Direct future steps; produce what patients value[a] Aids clinical decision making, provide expertise and credibility[a]
Being seen by the doctor and knowing what was wrong	Provides: reassurance, information on what is wrong or not wrong, definitive care or follow up[b]
Useful waiting	Use waiting periods to create value to the patient: as observation periods to avoid unnecessary investigations[a]
Communication and information transfer	Support clinical decision making; enhance patient journey[a,b]
WASTE	
Nothing happening to or for patient progression	
Wasteful waiting	Expected part of process; no activity to patient[a,b]
No direct ED clinical involvement with patient	
Unnecessary ED process	Duplication of steps; ED clinicians add no value to process; use of ED may delay other patients[a]
Inappropriate use of ED resources	
Inappropriate use of clinician's skills	Clinician's skill could be used for other value adding steps[a]
Inappropriate use of ED	Individual patient steps useful but may be provided in another setting; clinicians' time could be directed to other patients[a]
Searching for resources	Clinicians' time could be used for other value adding steps[a]

a –identified by clinicians; b-identified by patients

Discussion and implications

The framework is useful for several reasons:

- Practical approach for improving flow by identifying and reducing wasteful aspects and optimising valuable aspects
- Collaborative clinician-patient approach provides an integrated perspective into the components of value and where value and waste exist in the ED process.
- May be used to address concerns in individual patient journeys or specific patient groups
- Contributes to future research in ED flow by incorporating value in the process into the choice of intervention to address flow issues.

Differences in responses between clinicians and patients suggests that varying knowledge levels between the groups led to the clinician perspective dominating. A collaborative approach with active patient involvement may produce a process that is valuable to all.

Conclusion

Although the framework should be validated in other settings, it may be used to improve flow in a way that maximises value to patients.

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