Identifying strengths and weaknesses in ED communication processes

Findings of a survey using the Communication Assessment Tool- Team (CAT-T)

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Disclosures

• No Conflicts of Interest to declare.

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Background

• Optimal communication may
  – Reduce Complaints
  – Aid Clinical Decision Making
  – Reduce Adverse Events
  – Increase discharge instruction concordance
We’re a team sport
The Question

How do patients perceive team communication in the ED?
The instrument

- **Communication Assessment Tool** originally developed to measure patient perception of physician communication.

- Modified to measure whole team communication (Mercer, 2008).
  - Further modified to include questions specific to prehospital providers and reception staff.
  - Incorporated global score.
CAT-T

- 17 items total.
- Patient perceptions reported using Likert Scale.
Aims

• Primary
  – Describe the frequency of patient responses for every item on the CAT-T survey.

• Secondary
  – Identify whether patient perception of team based communication differs based on patient and operational characteristics.
<table>
<thead>
<tr>
<th>Operational Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Co-morbidities</td>
</tr>
<tr>
<td>Ethnicity</td>
</tr>
<tr>
<td>Time of arrival</td>
</tr>
<tr>
<td>Length of stay</td>
</tr>
<tr>
<td>Time to Triage</td>
</tr>
<tr>
<td>Time to clinical assessment</td>
</tr>
<tr>
<td>Analgesia (pain relief) at</td>
</tr>
<tr>
<td>triage</td>
</tr>
<tr>
<td>Patient perception of ED</td>
</tr>
<tr>
<td>crowding</td>
</tr>
</tbody>
</table>
Methods
Population and Recruitment

- Four week period (April—May 2015)
- Adults aged >18 presenting to *minors*
- Informed consent obtained prior to triage/ treatment, and paper CAT-T issued.
- Data collected out of hours where possible, based on researcher availability.
Methods
Analysis

• Power calculation = 385 (based on previous evaluation (McCarthy et al, 2013))

• Multivariate analysis to identify associations between patient and operational characteristics.
### Methods

#### Analysis

- ‘Very good’ and ‘Excellent’ responses grouped as ‘potential strengths’
- ‘Poor’ and ‘Fair’ responses grouped as ‘potential weaknesses’.

<table>
<thead>
<tr>
<th>Poor/Fair</th>
<th>Good</th>
<th>Very Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative overall perception</td>
<td></td>
<td>Positive overall perception</td>
<td></td>
</tr>
</tbody>
</table>

“Potential Weakness”

“Potential Strength”
Results

- 407/526 patients responded (77.3%)

<table>
<thead>
<tr>
<th>Key patient characteristics</th>
<th>Key operational characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age 45 years</td>
<td>84.2% surveyed between 0800-1759</td>
</tr>
<tr>
<td>93.9% White British</td>
<td>Median times:</td>
</tr>
<tr>
<td>33.4% reported comorbidities (8.8% multiple)</td>
<td>→ Triage 15min</td>
</tr>
<tr>
<td></td>
<td>→ Assessment 35min</td>
</tr>
<tr>
<td></td>
<td>→ Length of stay 90min</td>
</tr>
<tr>
<td></td>
<td>66.2% offered analgesia</td>
</tr>
<tr>
<td></td>
<td>ED perceived as ‘not busy/ crowded’ on 43.8% of occasions.</td>
</tr>
</tbody>
</table>
Results

Potential Strengths

• Overall impression
  – 84.1% reported a ‘very good’ or ‘excellent’ experience

• Top scoring potential strengths
  – Ambulance staff treated me with respect (86.7%)
  – Staff let me talk without interruptions (85%)
  – Staff paid attention to me (83.7%)
Results

Potential Weaknesses

• Overall impression
  – Only 3.1% reported a ‘poor’ or ‘fair’ experience overall.

• Top scoring potential weaknesses
  – Reception staff [did not] treat me with respect (10.4%)
  – Staff [did not] encourage me to ask questions (10.4%)
  – Staff [did not] greet me in a way that made me feel comfortable (6.8%)
  – Involved me in decisions as much as I wanted (6.5%)
Identifying Vulnerabilities: Negative patient perceptions of communication (fair/poor combined responses), by rank and quartile.

% response 'fair' or 'poor'

<table>
<thead>
<tr>
<th>Q1 (poorest performing)</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4 (best performing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception treated me with respect</td>
<td>Encouraged me to ask questions</td>
<td>Greeted me in a way that made me feel...</td>
<td>Involved me in decisions as much as I wanted</td>
</tr>
<tr>
<td>Showed interest in ideas about my health</td>
<td>Gave me as much information as I wanted</td>
<td>Spent the right amount of time with me</td>
<td>Understood my main health concerns</td>
</tr>
<tr>
<td>Staff paid attention to me</td>
<td>Checked to be sure I understood everything</td>
<td>Ambulance staff treated me with respect</td>
<td>Showed care and concern</td>
</tr>
<tr>
<td>Discussed next steps</td>
<td>Treated me with respect</td>
<td>Treated me in terms I could understand</td>
<td>Let me talk without interruptions</td>
</tr>
</tbody>
</table>
## Associations

### Patient & operational characteristics

- Strengths associated with three characteristics (Arrival after 1800h, Analgesia, Time to assessment < 1 hour).

<table>
<thead>
<tr>
<th>CAT-T Item</th>
<th>Operational Characteristic</th>
<th>Arrival time (&gt;1800h)</th>
<th>Analgesia at Triage</th>
<th>Time to assessment &lt;1 hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greeted me in a way that made me feel comfortable</td>
<td></td>
<td>OR6.1 (.04)</td>
<td>-</td>
<td>OR5.4 (0.2)</td>
</tr>
<tr>
<td>Treated me with respect</td>
<td></td>
<td>-</td>
<td>-</td>
<td>OR4.6 (.02)</td>
</tr>
<tr>
<td>Showed interest in ideas about my health</td>
<td></td>
<td>-</td>
<td>-</td>
<td>OR3.8 (.01)</td>
</tr>
<tr>
<td>Understood my main health concerns</td>
<td></td>
<td>OR10.8 (.03)</td>
<td>OR2.5 (.03)</td>
<td>-</td>
</tr>
<tr>
<td>Encouraged me to ask questions</td>
<td></td>
<td>OR3.7 (.04)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Involved me in decisions as much as I wanted</td>
<td></td>
<td>OR6.6 (.03)</td>
<td>OR2.5 (.01)</td>
<td>-</td>
</tr>
<tr>
<td>Discussed next steps including follow up</td>
<td></td>
<td>-</td>
<td>OR3.1 (.01)</td>
<td>-</td>
</tr>
<tr>
<td>Showed Care and Concern</td>
<td></td>
<td>-</td>
<td>-</td>
<td>OR4.8 (.02)</td>
</tr>
<tr>
<td>Spent the right amount of time with me</td>
<td></td>
<td>-</td>
<td>OR2.7 (.02)</td>
<td>OR3.9 (.02)</td>
</tr>
</tbody>
</table>
Discussion

Study Strengths

- More detailed than the FFT.
- High response rate limits sampling bias.
- Real time response minimises recall bias.
- Has identified discrete strengths and vulnerabilities in communication processes, and some significant associations.
- Demonstrates that detailed self administered experience measures are acceptable to patients attending the ED.
Discussion

Study Limitations

- Convenience Sample
- Responses were mainly 'in hours'
- Department was operationally fairly quiet during the study period—winter pressures had receded.
- Conflict with friends and family test/ questionnaire fatigue
- Hawthorne effect.
- CQC visit.
Conclusion

- Overall the results paint a very positive picture of the quality of communication in our ED.
  - We allow patients a say
  - We show respect
  - We’re attentive to patients needs
  - Ambulance crews are very well regarded
Lessons learned

• Junior led research is eminently do-able and rewarding
  – Need to explain and reassure staff
  – Counter any disruptive impact on service provision
• Funding gives credibility in addition to money
• Statistician is invaluable during design as well as analysis
• Formal registration is a must (trust +/- ethics)
• Taking a project from initial idea through to publication
  builds skills, is rewarding and opens future doors.
Questions

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