A Comparison of the “Clinical Environment” for the Paramedic Intern and the Practicing Paramedic

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Introduction

One of the purposes of the paramedic internship is to prepare paramedic students to practice prehospital medicine “in the field.” No studies have been done to compare the field experience of the paramedic internship with that of actual EMS practice. This study compared the frequencies of patient primary impressions in the field and practiced hospital. The researchers also investigated whether the paramedic internship provides a comparable experience to that of actual EMS practice.

Methods

- Institutional Review Board approval was received through their Hills Community College in their Health Care Systems Program.
- Data were collected from 111 paramedic students from three colleges who participated in the study in the 2019 academic year.
- Data were obtained from electronic data that were abstracted and entered by the paramedic interns during their field experience.
- The data were collected from electronic data that were abstracted and entered by the paramedic interns at the completion of each shift and validated by their preceptors.
- The datasets were reviewed to identify fields that had comparable definitions. Several common fields were identified in the following categories: sex, patient demographics, and primary impressions (the paramedic’s version of the patient’s presentation including chief complaint). Fields that were chosen for comparison included:
  - Race
  - Age
  - Reason for transport
  - chief impression
  - Transport diagnosis
  - Duration of transport
  - Final location

Results

Data were collected from a total of 1,112,587 patient encounters (91,568 “practicing paramedics” and 315,924 “paramedic interns”). Across all skills, demographics, and complaints to the two datasets had a correlation coefficient of 0.86. The results are displayed in the table below.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical history</td>
<td>0.75</td>
</tr>
<tr>
<td>Age</td>
<td>0.80</td>
</tr>
<tr>
<td>Age group</td>
<td>0.73</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>0.82</td>
</tr>
<tr>
<td>Age group</td>
<td>0.78</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>0.82</td>
</tr>
<tr>
<td>Age</td>
<td>0.79</td>
</tr>
<tr>
<td>Age group</td>
<td>0.78</td>
</tr>
</tbody>
</table>

Discussion

Within this large national sample the “clinical environments” of paramedic interns and practicing paramedics appear very similar. There appears to be very little variability in the frequency of the skills that were compared. The greatest differences between the two environments appear to be the relative frequency of specific patient presentations; the exact cause of this difference is unknown, but may be influenced by variability in emergent, urgent, and non-emergent call volumes in the two datasets. Further study is required.

However, these data reaffirm the infrequency of performing several ALS skills and experiences for both interns and practicing paramedics, especially endotracheal intubation, ventilation, O2, and pediatrics respiratory. Paramedic educators should seek clinical opportunities to increase training in these areas in the hospital setting to supplement students’ field internship. Individuals responsible for ongoing education of practicing paramedics should also investigate strategies to augment these infrequent field experiences.

Acknowledgements

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