Education on Total Body Skin Examination in Dermatology Residency

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Introduction

- Total body skin examination (TBSE) is a crucial examination skill for physicians
- Gaps in TBSE skills among medical students
  - 58% had not observed TBSE
  - 84% had not performed a TBSE
- Given this gap, dermatology programs may be training residents who had not received prior TBSE training
- Little is known about methods used to teach TBSE techniques to dermatology residents
- Study objective: to assess TBSE education and practice in residency training

Methods

- Surveyed dermatology program directors and residents using REDCap
- Distributed via Association of Professors of Dermatology and Medical Dermatology Society
- 7-point Likert scale
- Survey questions assessed:
  - Formal TBSE education during medical school, residency, fellowship, after training
  - TBSE educational resources
  - Importance of consistency in TBSE
  - Confidence in performing TBSE
  - Anatomic locations assessed in TBSE
- 129 survey responses were collected from 38 program directors and 91 residents (PGY2-PGY4). Response rate: 33.6% of residency programs, 7.6% of residents

Results

- 61.7% (79/128) formally instructed on TBSE technique, 38.3% (49/128) self-taught
- 43.2% (16/37) of program directors and 69.2% (63/91) of residents received formal education
- 66.7% (86/129) felt it was extremely important to perform TBSE consistently
- Resident confidence performing a TBSE rated extremely confident (23.1%) somewhat confident (70.4%), and not confident (6.6%)

Table 1: Educational resources used in the development of TBSE technique.

<table>
<thead>
<tr>
<th>Educational resources used to learn TBSE technique</th>
<th>Number of participants who considered resource “extremely important” in development of TBSE technique</th>
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<tbody>
<tr>
<td>Observing others</td>
<td>88 (n=128, 68.8%)</td>
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<tr>
<td>Education during residency</td>
<td>86 (n=129, 66.7%)</td>
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<tr>
<td>Education during medical school</td>
<td>22 (n=128, 17.2%)</td>
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<tr>
<td>Self-taught</td>
<td>37 (n=127, 29.1%)</td>
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Figure 1: Anatomic locations examined (in addition to the skin of the face, neck, trunk, and extremities) by study participants when performing TBSE (n=128).

- Scalp: 96.9%
- Eyes: 72.7%
- Mouth: 53.1%
- Axilla: 88.3%
- Palms: 100%
- Finger/toenails: 96.9%
- Genitals: 40.6%
- Buttocks: 94.5%
- Soles: 99.2%

Discussion/Conclusions

- Results indicate that there is opportunity for improvement in TBSE education and practice
  - Many residents have not received TBSE training
  - Majority of residents only somewhat confident
- Education through observation during residency is frequently used in TBSE technique development
- Situated learning theory in resident education
  - Instructional approach; active participation in environment in which skill will be performed
  - Observation and practice improves the acquisition of physical examination skills
- Locations examined in TBSE
  - Mouth, eyes, and genitals often unexamined
  - Teaching TBSE should emphasize completeness
- Limitations
  - Online recruitment; response rate
  - Not stratified by postgraduate year
- Future studies: develop an efficient and ergonomic standardized TBSE technique to be implemented in resident education

References

3. Martineau, B., et al., To observe or not to observe peers when learning physical examination skills; that is the question. BMC Med Educ, 2013. 13: p. 55.